

Regina Kuersten-Hogan
James P. McHale *Editors*

Prenatal Family Dynamics

Couple and Coparenting Relationships
During and Postpregnancy

 Springer

Prenatal Family Dynamics

Regina Kuersten-Hogan • James P. McHale
Editors

Prenatal Family Dynamics

Couple and Coparenting Relationships
During and Postpregnancy

 Springer

Editors

Regina Kuersten-Hogan
Clinical Counseling Psychology
Department
Assumption University
Worcester, MA, USA

James P. McHale
Family Study Center
Department of Psychology
University of South Florida
St. Petersburg campus
St. Petersburg, FL, USA

ISBN 978-3-030-51987-2 ISBN 978-3-030-51988-9 (eBook)
<https://doi.org/10.1007/978-3-030-51988-9>

© Springer Nature Switzerland AG 2021

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

RKH: To my parents, Eveline and Gerhard Kürsten, for providing me with a model of coparenting dynamics to emulate and to my children, Annika, Jonas, and Lukas, for providing me with the opportunity to practice it.

And to James McHale, my mentor, collaborator, and co-editor, who introduced me to the field of coparenting and without whom this field would not be the same.

JMcH: To my wife, Trang, and my children, Hailey and Christopher, who I love forever and without whom I'd never marshal the wisdom and voice I command.

Foreword

We are pleased to have been invited to introduce this outstanding volume to its readers and to see the progress made over six decades to the study of couples in transition to parenthood. Let us first briefly provide a historical context to the emergence of interest shown by social scientists in examining changes in family dynamics as partners become parents.

Since humans first emerged on Earth, women have been having babies. In industrialized countries before the seventeenth century, childbirth was a “natural” event occurring at home, often with the assistance of midwives, as it still is in many societies. Families turned to doctors for help only when the birth process went awry. Over the following centuries, doctors became centrally involved in childbirth, which became medicalized and then hospital-centered for those who could afford it. Psychological stresses were attended to when they escalated into severe postpartum depression, but the idea that there were emotional stresses normatively associated with having a baby did not occupy the attention of social scientists until the 1960s, and the need for interventions to prevent or reduce psychological distress in new parents was not recognized until the early 1980s in the United States and Great Britain. It was only then that “the transition to parenthood” became a field of study and a target for intervention planning.

Several interrelated social forces contributed to the emerging academic interest in the transition to parenthood. In the last half of the twentieth century, there were rapid cultural shifts in the middle and upper classes as the women’s movement forced a rethinking and to some extent a rebalancing of men and women’s family roles. These cultural shifts slowly affected the priorities of family researchers, some of whom began to realize that fathers played an important role in the development of their children—first studied when they were absent, and eventually when they were present. At the same time, a move toward conceptualizing families as systems rather than collections of individuals or dyads suggested that in addition to mother–child relationships and father–child relationships, the quality of the connection *between* the parents also played a central role in how parents and children fare. From a concern with women becoming mothers and men becoming fathers, researchers and practitioners interested in the transition to parenthood—and

eventually those concerned with children's development and well-being—began to place special emphasis on the impact of couple relationship quality on parenting, both of which have a profound effect on the child's development and well-being.

The broad outlines of the story of what happens when partners become parents is easy to tell. And for many years it has been no secret to the general public. In the novel *Heartburn*, Nora Ephron sums up the potential impact of a baby on the marital relationship: "... Now, of course, I realized something else no one tells you; that a child is a grenade. When you have a baby, you set off an explosion in your marriage, and when the dust settles, your marriage is different from what it was. Not better, necessarily; not worse, necessarily; but different" (1983, p. 158). What we know from early systematic research is that if the parents or parent figures are disconnected or at war, they will have fewer resources to be warm and responsive and to set limits with their newborns, infants, and toddlers. But we need to know more than that. The chapters in this volume represent a culmination of six decades of asking questions and providing answers concerning how this family transition works. Why is becoming a parent stressful for a majority of couples? Can we identify couples in pregnancy who are likely to increase their level of distress after the baby is born? What can we do to reduce risks or augment family resources and buffers so that mothers and fathers can collaborate in coping with both the welcomed and unexpected changes in their lives once their baby arrives?

This volume begins with a reminder of Michaels and Goldberg's (1988) book-length summary of the research to date, which concluded with recommendations for transition to parenthood researchers. Among their recommendations were the need to examine parents in the pre-birth period, to include more diverse families, to pay attention to family constellations, and to use multiple assessment techniques including self-reports, interviews, and observations. This volume makes a number of important contributions to the study of partners becoming parents that follow these recommendations. The first is methodological. Research on the transition to parenthood had been relying heavily on self-report data, especially during pregnancy. In this volume, the authors present comprehensive and sophisticated observational data, beginning in pregnancy, although the research goes far beyond a methods manual. Throughout, the authors show how data-gathering methods shape our conclusions about family processes. This is a useful point to remember when we are puzzled about conflicting results from different studies that base their conclusions on different kinds of data obtained from research participants representing different demographic categories.

Second, even though the idea that the family system shapes the development of the child has been with us since the 1960s, family researchers have persisted in gathering data from individuals or from parent-child and partner-partner dyads, after which they try to piece together a picture of the whole family. But how is it possible to assess the family as a whole? The authors in this volume provide cutting edge answers, mostly relying on an innovative research paradigm—the Lausanne Trilogue Play (LTP) procedure (Corboz-Warnery et al. 1993)—in which both parents engage in semi-structured play with their infant. Adapting this procedure to study couples during pregnancy, the authors demonstrate that it is possible to apply

observational methods to triadic interaction even before the infant is present. One variation of the LTP in one chapter had expectant parents interact with a doll baby that never stops crying and is inconsolable, to heighten the stress on the expectant parents in a realistically stressful situation. As a group, the studies presented here offer compelling evidence that during pregnancy the psychological infant actively affects family dynamics, as we see when partners focus on their expectations of what the child will be like, how effective they will be as parents, and how their relationship is going to change. Most of the studies demonstrate clear continuities between family patterns observed in pregnancy and their patterns after the baby arrives. It is possible, therefore, to provide early identification of families who could use some help before their negative or ineffective patterns become entrenched.

A third major contribution of this volume is that all the authors focus on the family in motion. Changes in both structure and process as two become three bring into sharp relief both strengths and weaknesses of the family system so that we can see and make sense of variations in their trajectories more clearly.

Fourth, the authors pay close attention to an emerging fact about family functioning that has been glossed over until recently. While there are similarities in the relationship between parents' relationship as a couple and as coparents as they collaborate (or not) in raising their child, there are also important differences. The authors of each chapter do a fine job of puzzling out the distinctions between couple and coparenting relationships, and exploring the implications of these differences for the well-being of the child. Note that the term "coparenting" has two meanings in current discourse concerning families. An earlier meaning centers on the situation when parents are separated or divorced but still involved as active parents of their child. McHale and others have more recently defined coparenting more broadly as any situation in which parents or parenting figures are involved in rearing their child.

Fifth, many of the authors of chapters in this volume recognize that family-making is a long-term, ongoing historical process in that the partners becoming parents are on an intergenerational pathway in which patterns in their families of origin are transmitted in whole or in part to the quality of relationships in the new family they are forming. That is, each new family is not a *de novo* creation but rather brings influences from relationship patterns and qualities across generations. These intergenerational influences, and whether to continue them or work against them, play a part in the level of challenge faced by each set of new parents.

Many of the chapters are enhanced with vivid vignettes that illustrate the different situations of partners during pregnancy and show what happens to the different groups as the study follows their trajectories from pregnancy into the early months, or in several cases years, of parenthood. These examples provide rich portrayals that add to the more systematic self-report, interview, and observational data.

And finally, the volume goes beyond description of coparenting processes as they unfold over time to present three chapters that explore the implications of current research findings for the development of interventions designed to alter negative trajectories already evident during pregnancy and to promote positive trajectories during the crucial early years of family formation. The focus here is primarily on interventions for populations already at risk where "ordinary" stresses of becoming

parents are occurring in a context of heightened strain resulting from poverty, infertility, or from conceiving babies before the parents themselves are out of their teens.

This volume has its own intergenerational origins. James McHale worked with us at UC Berkeley in the 1980s as we created and evaluated preventive interventions for partners becoming parents (Cowan et al. 1985; Cowan and Cowan 2000). Regina Kuersten-Hogan worked with James McHale, one of the pioneers whose work helped to make family theorists, therapists, and researchers aware of the need to pay attention to coparenting dynamics in the parents as a couple. Both editors are active researchers who are also clinicians attempting to apply what they have learned to developing and evaluating interventions that strengthen young families. The authors they have brought together in this volume include a selection of contributors from across the United States, Canada, Switzerland, France, England, Italy, and Israel. The editors of this volume, then, have given us a sophisticated and highly readable update on the current state of theory, research, and intervention on the topic of the transition to parenthood. Enjoy.

University of California
Berkeley, CA, USA

Philip A. Cowan,
Carolyn Pape Cowan

References

- Corboz-Warnery, A., Fivaz-Depeursinge, E., Bettens, C. G., & Favez, N. (1993). Systemic analysis of father-mother-baby interactions: The Lausanne triadic play. *Infant Mental Health Journal*, *14*(4), 298-316.
- Cowan, C. P., & Cowan, P. A. (2000). *When partners become parents: The big life change for couples*. Mahwah: Lawrence Erlbaum Associates.
- Cowan, C. P., Cowan, P. A., Heming, G., Garrett, E., Coysh, W. S., Curtisboles, H., & Boles, A. J. (1985). Transitions to Parenthood – His, Hers, and Theirs. *Journal of Family Issues*, *6*(4), 451-481. <https://doi.org/10.1177/019251385006004004>
- Ephron, N. (1983). *Heartburn*. New York: Knopf.
- Michaels, G. Y., & Goldberg, W. A. (1988). *The Transition to parenthood: current theory and research*. Cambridge/New York: Cambridge University Press.

Preface

In 1988, Michaels and Goldberg offered family psychologists a compilation of original theoretical and empirical manuscripts entitled “The transition to parenthood: Current theory and research.” In the concluding chapter of their volume, Goldberg and Michaels provided 10 suggestions for future transition to parenthood studies that warrant rekindled scrutiny in the face of new research that has amassed since then. For starters, they suggested that longitudinal studies of the transition to parenthood begin even before conception and continue with multiple touchpoints throughout families’ transition experience. Goldberg and Michaels (1988) argue that psychologically parenthood transitions begin long before conception as factors such as the decision to become parents influence partners’ prenatal and postpartum experiences. Considering this recommendation, it is remarkable that most longitudinal studies to date are still beginning with a first assessment phase only during the middle or later stages of pregnancy.

Another essential recommendation also yet to be satisfied was a call for the study of more diverse families with respect to socioeconomic status, ethnicity, and, above all, various family constellations. To date, progress in tracing what the transition to parenthood looks like beyond the two-parent, white, middle-class family is still painfully inadequate, although the importance of expanding our research focus to more diverse families continues to be given lip service by most researchers.

Other recommendations have received more attention from researchers since the 1980s, such as the adoption of a process orientation that considers the interaction between individuals and their environments and comparisons of changes experienced by parents with those of non-parents. At least with respect to marital functioning, self-esteem, and mental health, the transition to parenthood presents unique challenges to parents that set them apart from non-parents and that cannot simply be explained with the passage of time or individuals’ increasing maturity. The past decades have also seen a greater focus on men’s transition experiences, on the role of siblings, and on changes at the whole family level, each recommended by Goldberg and Michaels, though the transition to second-parenthood has not been studied broadly yet.

Two decades into a new millennium, we remain entrenched in the embryonic stages of developing “reliable, valid, and readily interpreted measures of individual, dyadic, and familial functioning” (Goldberg and Michaels 1988 p. 355) applicable to a broad range of families, and have made insufficient progress including qualitative as well as quantitative data in evaluations of the transition to parenthood. This being said, there is at least one prenatal observation task, the Prenatal Lausanne Trilogue Play situation (PLTP, Carneiro et al. 2006), which has been extensively used by numerous labs and in different countries and allows for comparisons of observational studies, many of which are described in this volume.

However, the single most important recommendation, and in part the impetus for this book, is Goldberg and Michaels’ call for researchers of the transition to parenthood to use multiple assessment techniques and measures that include self-reports, interviews, and *observations*. Observational studies of dynamics during pregnancy and the early postpartum period are still far from the norm in this field, and over-reliance on single measures with a heavy emphasis on parent-reported perceptions of this transition experience is still all too common.

Now, 30 years after Goldberg and Michaels issued their clarion call, this volume might be considered a “report card” of sorts, highlighting both progress our field has made and questions that remain to be addressed. The time seemed ripe for a fresh update and review of the many separate lines of inquiry that have amassed since the 1980s, in particular because recent years have witnessed a renewed interest in prenatal prevention and intervention programs for families struggling with challenges during the transition to parenthood. Honoring Goldberg and Michaels’ endorsement, the research collated for this book privileges observational studies of prenatal coparenting and couple dynamics with the hope that the next 30 years will enhance programming capitalizing on families’ unique sensibilities and latent strengths to afford optimal early family environments for their newest family members following this important life transition.

Worcester, MA, USA
St. Petersburg, FL, USA

Regina Kuersten-Hogan
James P. McHale

Acknowledgments

Regina Kuersten-Hogan thanks Assumption University for supporting the writing of this book through a Faculty Development Grant as well as a Course Load Reduction Grant.

James McHale’s writing and editorial work was funded by the University of South Florida St. Petersburg with work on parts of this book supported by the National Institute of Child Health and Development R01 HD082211

“Randomized Controlled Trial of Prenatal Coparenting Intervention for African American Fragile Families”

About the Book

There are countless reasons to write a book; our motivation was to present a collection of innovative research from laboratories in various countries that were all invested in the time-consuming but wholly valuable endeavor of observing couple interactions during pregnancy. We thank all the generative family researchers who agreed to share their collective efforts and wisdom in this book and help the field of prenatal family dynamics take stock of what we have discovered thus far, and to contemplate the directions research should turn to next in the years to come.

In this book, we examine family interactions and relationships during the transition to parenthood. We offer an integration of different lines of research on prenatal family dynamics based on leading family research in Europe and North America in which observational approaches were employed to study emergent family processes during pregnancy. Contributors address prenatal dynamics in diverse families including adolescent couples, same-sex couples, unmarried couples, couples experiencing infertility, and couples expecting their second child. Whenever possible, case descriptions and examples of pregnant couples and new families are presented to illuminate families' experiences during the transition to parenthood.

Part I of this book contains two introductory chapters; in Chapter 1, we anchor prenatal coparenting and couple dynamics within several relevant theories and provide an overview of challenges and changes couples commonly experience during the transition to parenthood. In Chapter 2, we discuss major methodological challenges that sometimes may complicate the valid observation of prenatal family dynamics. We also introduce subsequent chapters and set a stage for research by contributors who offer unique and unparalleled windows into prenatal family dynamics. *Part II* focuses on observational studies of the coparenting relationship during pregnancy. Since many studies in this part relied on the Prenatal Lausanne Trilogue Play (PLTP) situation developed by Carneiro, Corboz-Warnery, and Fivaz-Depeursinge (2006) or some adaptation of it, Chapter 3 by Elisabeth Fivaz-Depeursinge and her colleagues contains a thorough description of this research paradigm. *Part III* includes contributions that describe observations of couple interactions during pregnancy. Chapters in this part explore questions regarding the continuity of couple interaction patterns from the prenatal to the postpartum period and

their effects on child outcome. *Part IV* explores considerations for prenatal interventions and describes recently developed prenatal intervention programs designed to improve couple and coparenting relationships with an emphasis on strength-based approaches corresponding with the sensibilities of couples' communities. *Part V* concludes this compendium with a discussion of important themes and touchpoints threaded throughout and suggestions for future research on prenatal family dynamics.

Contents

Part I Introduction

- 1 The Transition to Parenthood: A Theoretical and Empirical Overview** 3
Regina Kuersten-Hogan and James P. McHale
- 2 Prenatal Observations of Coparenting and Couple Interactions in the Emerging Family Triad** 23
Regina Kuersten-Hogan and James P. McHale

Part II Coparenting Relationships and Family Alliances During Pregnancy and Beyond

- 3 Is Prenatal Coparental Intersubjective Communication a Harbinger of Triangular Intersubjectivity in Adolescence? An Exploratory Microanalytic Study** 41
Elisabeth Fivaz-Depeursinge, Diane A. Philipp, France Frascarolo, and Antoinette Corboz-Warnery
- 4 The Role of Relationships Past and Present in Prenatal Coparenting Behavior on the Cusp of the Transition to Parenthood** 67
Anna L. Olsavsky, Ismoni S. Walker, and Sarah J. Schoppe-Sullivan
- 5 Maternal and Paternal Coparenting Representations and Interactions During Pregnancy** 85
Massimo Ammaniti and Francesca Menozzi
- 6 Prenatal Coparenting Under High Arousal Predicts Infants' Cognitive Development at 18 Months** 107
Dana Shai and Rotem Bergner

7 Family Alliance Trajectories from Infertility to Parenthood 129
 Joëlle Darwiche, Jean-Philippe Antonietti,
 and Antoinette Corboz-Warnery

8 Attachment Matching and Coparental Interactions in Same-Sex and Different-Sex Couples Planning Parenthood 153
 Marina Miscioscia, Pietro De Carli, Chiara Sacchi, Fiona Tasker,
 and Alessandra Simonelli

9 From Pregnancy to Toddlerhood: Does Gender Matter for the Development of Family Relationships? 181
 Nicolas Favez and Hervé Tissot

10 Coming Together or Falling Apart: Coparenting the First Child While Expecting the Second 203
 Brenda L. Volling, Lin Tan, Richard Gonzalez, and Lauren R. Bader

Part III Couple Relationships During Pregnancy and Beyond

11 The Interrelationship Between the Prenatal Marital and Coparenting Subsystems: Forecasting Postpartum Family Dynamics in First-Time Parents 227
 Regina Kuersten-Hogan, Susan Jarquin, and Linda Charpentier

12 The Prenatal Couple Relationship: Relations with Postnatal Family Dynamics and Child Outcomes 251
 Nancy L. Hazen, Ashleigh I. Aviles, Martin I. Gallegos,
 Helen B. Poulsen, Ziyu Tian, and Deborah B. Jacobvitz

13 The Role of Prenatal Communication in Young Couples' Depression and Relationship Security Across the Transition to Parenthood 269
 Paul Florsheim and Jason Burrow-Sanchez

Part IV Interventions During Pregnancy

14 A Prenatal Intervention to Support Coparenting in Unmarried African American Family Systems 295
 James P. McHale, Carla Stover, and Katherine McKay

15 Continuity in Early Caregiving Experiences and the Transition to Parenthood: Role of Emotion Regulation and Coregulation as Family-Level Processes 321
 Blair Paley and Nastassia J. Hajal

**16 Understanding Teen Parents in a Modern Context:
Prenatal Hopes and Postnatal Realities** 343
Tyler B. Jamison and Richard E. Feistman

Part V Closing Chapter

**17 Growing Points in the Study of Prenatal Coparenting
and Triangular Dynamics** 363
James P. McHale and Regina Kuersten-Hogan

Index 381

About the Editors and Contributors

Editors

Dr. Regina Kuersten-Hogan is a licensed Child Clinical Psychologist and Associate Professor in the Clinical Counseling Psychology Program at Assumption University and an Affiliate Professor of Psychiatry at the University of Massachusetts Medical School in Worcester, Massachusetts. Dr. Kuersten-Hogan's research focuses on coparenting dynamics and family emotion expression during the transition to parenthood in nonclinical and high-risk families. She regularly presents her research at national as well as international conferences and has authored articles and book chapters on coparenting and family dynamics. Dr. Kuersten-Hogan also provides assessments and therapy with children and families in private practice and teaches courses in Developmental Psychology, Family Psychology, Cognitive-Behavioral Interventions, and Family Therapy.

Dr. James P. McHale is a Professor of Psychology and directs the USFSP Family Study Center and its Infant-Family Center. He was Founding Chair of USF St. Petersburg's Department of Psychology and past Director of Clinical Training at Clark University in Worcester, MA. He has published over 100 articles, chapters, and books detailing coparenting in diverse family systems, and his research studies of coparenting and child development have been supported since 1996 by the National Institutes of Health. Among his more influential works are the books *Coparenting: A Conceptual and Clinical Examination of Family Systems* (with Kristen Lindahl) and *Charting the Bumpy Road of Coparenthood: Understanding the Challenges of Family Life*. Dr. McHale also developed the intervention "Focused Coparenting Consultation" (FCC) to support coparenting in married, unmarried, divorced, and multigenerational families.

Contributors

Massimo Ammaniti Sapienza University of Rome, Rome, Italy

Jean-Philippe Antonietti Family Development Research Center, Institute of Psychology, University of Lausanne, Lausanne, Switzerland

Ashleigh I. Aviles Department of Human Development and Family Sciences, The University of Texas at Austin, Austin, TX, USA

Lauren R. Bader Institute for Advanced Study in Toulouse, Toulouse, France

Rotem Bergner SEED Center, The Academic College Tel-Aviv-Yaffo, Tel-Aviv, Israel

Jason Burrow-Sanchez Department of Educational Psychology, University of Utah, Salt Lake City, UT, USA

Linda Charpentier Crosswalk Behavioral Health, Inc., Westminster, MA, USA

Antoinette Corboz-Warnery Center for Family Studies, CHUV, Lausanne, Switzerland

Philip A. Cowan University of California, Berkeley, CA, USA

Joëlle Darwiche Family Development Research Center, Institute of Psychology, University of Lausanne, Lausanne, Switzerland

Pietro De Carli Department of Developmental and Social Psychology, University of Padua, Padua, Italy

Nicolas Favez Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

Center for Family Studies, IUP, Department of Psychiatry, University Hospital Center and University of Lausanne, Lausanne, Switzerland

Richard E. Feistman Teach Plus, Boston, MA, USA

Elisabeth Fivaz-Depeursinge Department of Biology and Medicine, Center for Family Studies, University of Lausanne, Lausanne, Switzerland

Paul Florsheim Joseph Zilber School of Public Health, University of Wisconsin Milwaukee, Milwaukee, WI, USA

France Frascarolo Research Unit of the Centre for Family Study, CHUV, Lausanne, Switzerland

Martin I. Gallegos Department of Psychology, The University of Texas at San Antonio, San Antonio, TX, USA

Richard Gonzalez Department of Psychology, University of Michigan, Ann Arbor, MI, USA

Nastassia J. Hajal Division of Population Behavioral Health, Department of Psychiatry and Biobehavioral Sciences, Jane and Terry Semel Institute for Neuroscience and Human Behavior, University of California, Los Angeles, CA, USA

Nancy L. Hazen Department of Human Development and Family Sciences, The University of Texas at Austin, Austin, TX, USA

Deborah B. Jacobvitz Department of Human Development and Family Sciences, The University of Texas at Austin, Austin, TX, USA

Tyler B. Jamison Department of Human Development and Family Studies, University of New Hampshire, Durham, NH, USA

Susan Jarquin Division of Pain Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Regina Kuersten-Hogan Clinical Counseling Psychology Department, Assumption University, Worcester, MA, USA

James P. McHale Family Study Center, Department of Psychology, University of South Florida, St. Petersburg campus, St. Petersburg, FL, USA

Katherine McKay Private Practice, Saint Petersburg, FL, USA

Francesca Menozzi Sapienza University of Rome, Rome, Italy

Marina Miscioscia Department of Women's and Children's Health, University of Padua, Padua, Italy

Department of Developmental and Social Psychology, University of Padua, Padua, Italy

Anna L. Olsavsky Nationwide Children's Hospital, Columbus, OH, USA

Blair Paley Division of Population Behavioral Health, Department of Psychiatry and Biobehavioral Sciences, Jane and Terry Semel Institute for Neuroscience and Human Behavior, University of California, Los Angeles, CA, USA

Carolyn Pape Cowan University of California, Berkeley, CA, USA

Diane A. Philipp SickKids Center for Community Mental Health, University of Toronto Medical School, Toronto, ON, Canada

Helen B. Poulsen Department of Research and Evaluation, Austin Independent School District, Austin, TX, USA

Chiara Sacchi Department of Developmental and Social Psychology, University of Padua, Padua, Italy

Sarah J. Schoppe-Sullivan Department of Psychology, The Ohio State University, Columbus, OH, USA

Dana Shai SEED Center, The Academic College Tel-Aviv-Yaffo, Tel-Aviv, Israel

Alessandra Simonelli Department of Developmental and Social Psychology, University of Padua, Padua, Italy

Carla Stover Child Study Center, Yale University School of Medicine, New Haven, CT, USA

Lin Tan Department of Psychology, University of Michigan, Ann Arbor, MI, USA

Fiona Tasker Department of Psychological Sciences, Birkbeck University of London, London, UK

Ziyu Tian Department of Human Development and Family Sciences, The University of Texas at Austin, Austin, TX, USA

Hervé Tissot Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

Center for Family Studies, IUP, Department of Psychiatry, University Hospital Center and University of Lausanne, Lausanne, Switzerland

Brenda L. Volling Department of Psychology, University of Michigan, Ann Arbor, MI, USA

Ismoni S. Walker Department of Psychology, The Ohio State University, Columbus, OH, USA

Part I
Introduction

Chapter 1

The Transition to Parenthood: A Theoretical and Empirical Overview



Regina Kuersten-Hogan and James P. McHale

Over 100 guidebooks on pregnancy and childbirth are currently available in the United States alone that have been published over the past 5 years. Their main target audience is expectant mothers, though the scope has certainly widened in recent years to also consider preparations for fathers, grandparents, siblings, and even the family dog for new family roles after a baby's arrival. Couples are educated on the development of their fetus, physical and emotional changes over the course of pregnancy, prenatal nutrition, and medical complications during pregnancy and birth. Mothers-to-be are encouraged to keep journals about their experiences, photograph their pregnancies, and use prenatal coloring books, yoga, and meditation, while fathers-to-be are helped to better understand their partners' experiences and to assume a supportive role as pregnancy and birth coaches. Strikingly absent from commercial bookshelves are books specifically focused on helping couples prepare for the impact of this major life transition on their relationship. Pape Cowan and Cowan's *When Partners become Parents* (1992) and McHale's *Charting the Bumpy Road of Coparenthood* (2007) constitute notable exceptions, though neither book is marketed to the general public as guides to foster couples' understanding of their prenatal romantic or coparental relationships. Among the overabundance of resources on pregnancy commercially available, hardly any emphasize the central role of partners' family-of-origin experiences in shaping their prenatal and future family dynamics after birth, or of the emerging family triad that will require couples to reorganize and shift their roles. Until the penultimate bestseller detailing what to expect in the couple and coparenting relationship during transitions to parenthood is

R. Kuersten-Hogan (✉)

Clinical Counseling Psychology Department, Assumption University, Worcester, MA, USA
e-mail: kuersten@assumption.edu

J. P. McHale

Family Study Center, Department of Psychology, University of South Florida, St. Petersburg campus, St. Petersburg, FL, USA
e-mail: jmchale@usf.edu

written (perhaps as a companion piece to Murkoff and Mazel's 2016 extremely successful American pregnancy guide *What to expect when you are expecting, 5th Edition*), couples have little incentive or encouragement to focus on these dynamics as they transition to parenthood and as a result are unlikely to spend needed time discussing them with one another.

These trends are unreservedly consistent with information the two of us uncovered in completing hundreds of interviews with pregnant couples over the past 25 years. Over the course of listening to couples in several different studies describe their prenatal experiences, we learned about discussions regarding name choices for the baby, relative caregiving and other childcare options after birth, and even timing of ear piercings and social playdates – but puzzled over the comparative lack of discussions about forthcoming changes to romantic relationships or planning for future parenting and coparenting. These unexpressed expectations of their own and their partners' new roles as parents, guided in part by long-dormant ideas about parenthood developed during their own childhoods, juxtapose with media-driven hype about this exciting new family life transition to create an emotion-laden and often overwhelming context into which many new parents welcome their first child. Many of the discoveries by family researchers focused on the transition to parenthood have simply not yet translated into educating the public on these important developments during pregnancy, although several universal and preventive prenatal intervention programs have surfaced over the past three decades.

As a field, family scholars have not comprehensively explored family dynamics during pregnancy yet either. To date, a rather limited number of observational studies have explored prenatal coparenting and couple interactions, at least in comparison to the groundswell of studies that have used parental self-reports to identify prenatal predictors of postpartum functioning such as partners' personality traits, mental health problems, family-of-origin experiences, and couple relationship satisfaction. While self-reported data estimating prenatal risk factors in couples are of vital importance, observations of prenatal dynamics between caregivers vis-à-vis their unborn child are worthy of study as well. Observations of prenatal family dynamics are also useful for improving prenatal intervention programs with couples that focus on the emerging coparenting relationship and the changing romantic relationship.

This volume presents a compendium of leading-edge research conducted in Europe and North America by researchers who have relied principally on observational methods to evaluate prenatal family functioning. Chapters presented here represent a cross-section of the most recent research studies in which observations of prenatal family dynamics have been completed in two-parent families. This said, the samples studied by contributors to this volume are not remotely comprehensive or even reflective of most families in Europe, North America, or the handful of other countries around the world where research has set out to study how family systems welcome new babies. For despite the concrete, specific focus of this book on prenatal dynamics as observed in pregnant couples, there remains a decidedly culturally narrow perspective on family systems during pregnancy. Most studies to date have failed to reckon with how families across disparate cultural, ethnic, and economic

groups experience the transition to parenthood. For example, expectant partners who are not romantically involved or living together may experience prenatal family dynamics that differ in important respects from those most researchers have commonly documented.

Further, even among observational studies of prenatal dynamics of romantically involved, co-residential, two-parent families, studies have ignored the dynamics occurring cross-generationally between the expectant couple and extended family and/or between the expectant parents and other potential coparenting partners who will be involved in caring for the child after birth. Aside from a few descriptive studies, we know virtually nothing about what these kinds of prenatal interactions look like or how they are experienced, though they most likely exert their own important influences on families' postpartum functioning. It is even plausible that in cultures and subcultural groups where the extended family offers extensive support to parents with young children, the couple relationship may be less important than relationships with other kin in promoting adjustment following the transition to parenthood. In this regard, the very measures developed for use in studying nuclear families may not be valid with different family constellations (Goldberg and Michaels 1988).

These things said, we certainly do recognize it makes sense to start an investigation of prenatal coparenting and family dynamics somewhere – hence, this book. If anything, collating that which we have learned so far sounds a clarion call for family scholars to focus greater attention on understanding prenatal experiences in all manner of family systems. Developing an adequate appreciation for the efforts and sensibilities of traditionally understudied families is an extremely important mission for family scholars, one harkened over 30 years ago by Goldberg and Michaels (1988). Such work remains a priority if we ever hope to adequately support all infants following their families' transitions to new parenthood.

In this first introductory chapter, we will set a stage for the observational studies of prenatal family dynamics to follow by providing an overview of research on the changes and challenges couples commonly experience during pregnancy. We do so within the context of existing family theories that have attended to the transition to parenthood. This section presents a selected review of several influential theoretical formulations offered to help contextualize the transition to new parenthood across the half-century plus such work has been afoot. Reviewers interested in learning more about the zeitgeist instigating the explosion in this field of work during the 1980s are referred to Goldberg and Michaels (1988)'s compendium of review and empirical chapters written by major family scholars of the time, including Philip and Carolyn Cowan and numerous others. Readers are also referred to the exceptional and in-depth treatment afforded this topic in Jerry Lewis' (1989) "The Birth of the Family: An Empirical Inquiry." In a second introductory chapter, we will tackle methodological considerations that arise in the observation of prenatal couple and coparenting interactions, including the theoretical question of dyadic versus triadic prenatal dynamics, with particular emphasis placed on the benefits of directly observing dynamics during pregnancy.

Conceptual Frameworks for Prenatal Family Dynamics

Most researchers of the transition to parenthood couch their investigations within family systems and structural family theories. Since Ludwig von Bertalanffy's (1968) initial conceptualization of the family as a system comprised of members who represent interrelated parts and form subsystems that interact with one another, systemic thinking has influenced how researchers frame a family's transition from a dyadic to a triadic system. During the transition to parenthood, new components are added to an existing family system, resulting in very different dynamics and properties for the family as a whole subsequent to this transition. "Nuclear" pre-pregnancy families in Europe and the USA have traditionally been drawn as two members who form a couple or marital subsystem. During the transition to new parenthood, a third member is added to this system, the couple's first child, and parent-child and coparental subsystems are newly formed. In addition, the couple or marital subsystem is likely to experience some reorganization, as the introduction of a new member and new subsystems will influence all other members, subsystems, and the family as a whole (von Bertalanffy 1968). Of course, even nuclear family systems pre-pregnancy frequently contain more than just two members and include non-romantic ex-partners, egg donors, caregivers, extended family members, and many combinations of these parties. As a result, the addition of a new family member to these systems evokes even more extensive changes and shifts within existing subsystems that quickly become too complex to simply conceptualize.

Any family's homeostatic balance is disrupted during times of transition as couples prepare for the arrival of a first child. The family system's natural drive to preserve a steady state (von Bertalanffy 1968) directly conflicts with forces from within and outside of the family unit that begin the process of changing the family system during pregnancy. Open family systems are freely able to exchange information with the external environment in order to adapt to the necessary changes required during the transition to parenthood; their steady states are dynamic rather than static, and positive feedback loops allow their systems to change to accommodate new members and roles (Fiese et al. 2019). Family systems that are more open and flexible would typically be expected to adapt better and resettle on a steady state sooner following the transition to parenthood than family systems that are rigid and closed off to information from the outside. The goal of each transition is to achieve a new equilibrium in which the family is able to flexibly adapt to the ever-changing demands of a developing child who contributes to postpartum family dynamics.

A second theory commonly used to conceptualize the transition to parenthood is Salvador Minuchin's structural theory (1974), which he developed from his work with postpartum families. Drawing on Salvador Minuchin's approach, each family's coparental subsystem has been viewed as assuming an executive role over the child or sibling subsystems. During the transition to parenthood, the family undergoes major structural changes with the emergence of this new executive subsystem. As the family shifts from a dyadic to a triadic structure, opportunities for triangles and alignments are introduced into the new family structure that could result, for

example, in the child's triangulation in the parental relationship in order to stabilize it or divert interparental conflict (Minuchin 1974). In a structurally adaptive family system, power and control are shared by coparenting partners who facilitate rather than exclude one another from relating to their child. Ideally, boundaries around individual members, subsystems, and the family as a whole should be neither too rigid nor too permeable and allow for a balanced sharing of information and affect between all members (Minuchin 1974). During pregnancy, boundaries around each partner and around couples' dyadic relationship may change as they make room for the new family member. The prenatal Lausanne Trilogue Play situation developed by Fivaz-Depeursinge and colleagues (Carneiro et al. 2006) and described in detail in Chap. 3 was developed as one potential means for glimpsing a prenatal triangular family structure. Though expectant partners are coaxed to engage in symbolic play enactments with their as-yet unborn child (symbolized by a life-sized doll), the enactment nonetheless appears to tap into a realm of experience that holds emotional significance for the adults. Work to date indicates that pregnant couples who are building strong prenatal family alliances are more likely to flexibly and smoothly negotiate turn-taking in playing with their "baby," neither excluding their partner nor showing evidence of enmeshment, alignments, or boundary violations during their prenatal interactions.

Beyond viewing transitions to parenthood through these systemic and structural lenses, there are numerous other theoretical standpoints that can be brought to bear to understand parenthood transitions; a few of these other perspectives have historically received some consideration in conceptualizing the transition to parenthood, though most are less frequently invoked as outlooks on prenatal family dynamics. Our discussion here is not intended to be comprehensive nor will we attempt to bring in every scheme that could lend itself to understanding prenatal dynamics. Rather, we will concentrate on discussing a few major notions that have direct application to transitions to parenthood and that might offer useful new avenues for exploring prenatal family dynamics.

First, family researchers have often neglected to fully conceptualize expectant couples' experiences during pregnancy within the larger societal and cultural contexts in which their families are embedded. Michaels and Goldberg (1988) were among the first to point out that students of the family should not expect the transitions to parenthood we describe from research on predominantly white North American families to have applicability to diverse families in most other cultures. In this regard, ecological, transactional, and sociocultural theories addressing postpartum family development can contribute to a fuller understanding of transitions to parenthood.

One venerable theory emphasizing roles of environments in development is Bronfenbrenner's bioecological systems theory (Bronfenbrenner and Evans 2000; see Jamison and Feistman, Chap. 16 in this volume, for an application of Bronfenbrenner's theory to a teen intervention program). Bronfenbrenner frames development as a result of four interacting factors: proximal processes, contexts, developmental time, and child-specific characteristics. Within this frame, expectant parents constitute part of a child's emerging microsystem, or the ecological context

within Bronfenbrenner's model involving face-to-face transactions between child and environment. During pregnancy, expectant parents can be hypothesized as preparing for and practicing new parental roles, thereby creating a microsystem which will come to involve the child as active participant after birth. The emerging coparental subunit might represent the child's mesosystem, which comprises bidirectional influences between child and couple/coparental family subsystems. Expectant parents' exosystems such as their neighborhoods, places of worship, other important life spaces, and (if they are employed) places of work also influence transitions to parenthood. For example, for the employed expectant parent, policies determining parental leave and work conditions have notable impacts on transitions to parenthood as they influence the care and resources parents are able to provide for their child and family.

A final context to consider in the transition to parenthood based on Bronfenbrenner's bioecological systems theory is the macrosystem, or the cultural and societal norms, beliefs, and practices that influence the growing individual. The impact of the macrosystem on prenatal family dynamics is the least well understood, as most studies of the transition to parenthood have focused on a rather limited set of cultural, ethnic, and socioeconomic backgrounds of families transitioning to becoming parents. The developmental niche model by Super and Harkness (1986) is well-positioned to illuminate some macrosystem influences on expectant couples. Super and Harkness describe three interlocking subsystems comprised by the physical and social setting, the caregivers' ethnotheories defined as their beliefs and values about parenting and child development, and the culturally determined socialization of children and childrearing customs. Though the developmental niche was originally conceived to describe postpartum dynamics that link sociocultural values and beliefs (i.e., the macrosystem) with transactions between parents and children (the microsystem), Super and Harkness' model can be applied to understanding prenatal dynamics as well. Ethnotheories held by expectant mothers and fathers around the world about their new roles as parents and about their coparental relationship are likely to impact their prenatal as well as the postpartum dynamics and translate into culture-specific practices during pregnancy as parents prepare for the arrival of their child.

In this regard, family studies have much to gain from evidence about cultural meanings of pregnancy detailed by anthropologists. For example, an ethnographic study comparing the meaning of pregnancy in Japan and Israel found that Japanese societal norms emphasize pregnancy as a special bonding time for mothers and children and as an early stage of parenting and caring for children (Ivry 2010). By contrast, much of Israeli culture conceptualizes pregnancy as an "in limbo" state, emphasizing the separateness of mother and fetus with pregnant women simply carrying the fetus (Ivry 2010). Traditional Korean beliefs about prenatal care called *Tae-Kyo* or the "education for the fetus" signal the importance and social responsibility for expectant mothers as well as their families and larger community to prepare for a healthy baby (Kim 2015). The abundance of resources directed at educating expectant couples in Europe and North America attests to similar sentiments about pregnancy in these cultures. The American custom to present expectant

couples with gifts for the baby prior to birth in “baby showers” as well as the Southern Indian tradition of *Seemantham* which showers expectant mothers with words of support from close family members and their priest (Goyal 2016) contrasts with other parts of the world where pregnant women hide their pregnancy out of fear of harm from spirits and witchcraft. For example, in their ethnographic study of cultural beliefs about pregnancy and childbirth in Liberia, Lori and Boyle (2011) uncovered a tradition of secrecy around pregnancy and childbirth that is steeped in religious beliefs and passed down from previous generations. This secrecy is associated with Liberian women’s awareness of maternal health risks and their experiences of lack of control, power, and trust in the healthcare system.

To our knowledge, the transition to parenthood literature has never explored how any of these cross-cultural macrosystems impact family dynamics observed during pregnancy. However, more recently researchers have begun to diversify their observations of families during the transition to parenthood beyond married, white, and middle-class families to gather information about practices and beliefs among different cultural and socioeconomic subgroups within the USA (some beginning details of non-white families’ transitions can be found in Florsheim and Burrow-Sanchez’ Chap. 13 and in McHale and colleagues’ Chap. 14 in this volume). Stirring findings of transitions among lower socioeconomic and largely non-co-residential families have also emerged from interviews described by Edin and Nelson (2013) with expectant and unwed fathers from two inner city neighborhoods in the USA.

An additional element of Bronfenbrenner’s theory especially pertinent in understanding processes involved during the transition to parenthood is the role of history in development. With respect to the influence of couples’ own pasts, there is evidence that expectant mothers’ and fathers’ descriptions of negative histories of coparenting experienced within their own families of origin foretell less positive expectations of their future coparenting (Curran et al. 2009; McHale and Rotman 2007). Mothers of toddlers and preschoolers (Stright and Bales 2003) and fathers of infants (Van Egeren 2003) who described coparenting in their families of origin as having been more supportive said they experienced greater support in their own coparenting relationships. Though retrospective reports and history are not the same thing, these examples are consistent with the argument that there is an important role for history during the transition to parenthood – specifically, that expectant couples’ pasts impact their current and future family dynamics.

Based on a family life course perspective (Aldous 1990), the period of history in which couples experience pregnancy and becoming parents is also relevant as it colors the meaning couples attribute to their experiences (Perry-Jenkins and Schoppe-Sullivan 2019). Philip Cowan (1991) notes that the historical context in which transitions such as the process of becoming a parent occur “shape the potential meaning of these life transitions to the individuals and families who experience them and to the researchers who study them” (p. 24). Expectations of motherhood and fatherhood have clearly evolved over time with most expectant couples today holding more egalitarian views of proper coparental roles compared to those held during the early twentieth century.

Other significant theories that illuminate continuity between expectant partners' family-of-origin experiences and future coparenting behaviors during pregnancy and after the baby's birth are Bowlby's attachment theory and Bandura's social-learning theory (1977). Bowlby (1969, 1988) maintained that the emotional bonds infants establish with caregivers over the course of their first year guide the development of working models of attachment relationships. These mental representations of attachment relationships serve to guide them in understanding and navigating their future intimate relationships, first with peers and teachers and eventually as adults with their partners and their own children. Mirroring these processes involved in representations derived from attachment relationships are mental representations that children (McHale and Neugebauer 1999) and adolescents form about the couple and coparenting relationships that guide them, representations likely to once again become relevant as they navigate the transition to parenthood (e.g., Kuersten-Hogan 2017; McHale and Dickstein 2019; McHale et al. 1996). As McHale et al. (1996) noted, "premeditated models for how the family should work can be expected to have an important influence on emerging family dynamics, just as attachment models drawn from their own experience come to shape how parents interpret and respond to their infant's behavior" (p. 22). These ideas are also discussed in McHale and Dickstein (2019).

Patricia Minuchin (1985), as well, made note of the child's learning as a driving force in intergenerational continuity, writing "It is evident...that the child is a constant observer of adult relationships and negotiation" (p. 297). It is within the context of their ongoing observations of exchanges in their families of origin (Bandura 1977) that children gather information which helps to shape their ideas about the coparenting and couple relationships. During prenatal enactments within the newly emerging family triad, the representations of coparenting relationships each partner developed during childhood may be triggered and influence negotiations between partners as they try to accommodate their potentially diverging expectations of family dynamics. This may explain why during pregnancy, partners' coparenting representations are not yet aligned with their prenatal coparenting behaviors, as expectant couples have not yet had sufficient opportunities to practice their roles during triadic interactions (Kuersten-Hogan 2017).

Two final models that help to conceptualize transitions to parenthood are the family life cycle and family stress perspectives. Goldberg (1988) mused that "from a theoretical standpoint, the study of the transition to parenthood is important because of the unique position it holds at the interface of individual models and systems models of behavior" (p. 2). From an individual's developmental perspective, the transition to parenthood represents a "developmental task" that, akin to a *critical period*, requires mastery at a particular moment in the person's life which needs to be achieved in order to successfully complete future developmental tasks (Goldberg 1988).

Lewis (1989) shares a similar view regarding developmental tasks during the transition to parenthood; periods of stability in the family life cycle are interspersed with transitional times during which the family structure undergoes change. He contends that the nature or direction of change during the transition to parenthood – or

any other transition in the family life cycle – can best be predicted based on families' structural organization during the time period just prior to the transition. Hence, highly competent families with flexible and effective coping skills are best equipped to maintain their structural integrity or to create new, more adaptive structures, after the transition to parenthood. The Duvall-Hill family development perspective (Mattessich and Hill 1987) has traditionally framed the birth of a couples' first child as a stage in the family life cycle which requires changes in family structure, roles, and routines and may at least temporarily increase stress experienced by family members as they adjust to these changes. Developmental changes in the family system frame the individual changes parents are likely to experience during this critical period (Goldberg 1988).

Though the proposal of family life cycle stages has been critiqued since the inception of this perspective, this theory outlines specific patterns of experiences that some though certainly not all families share on route to becoming parents. According to this model, transitions in family life that are unanticipated or “off-time” are usually experienced as more stressful with more negative impacts on family life compared to those transitions that are expected. We should be cautious, though, to assume that the transition to parenthood is always a normative or expected life transition for all couples, because “what is usual and expectable in the culture at large does not always hold in each of the subcultures” (Cowan 1991, p. 12). In other words, the transition to parenthood may hold different meanings for different subcultures and may not be experienced as a normative life transition by all couples. This has some relevance for couples who did not intend to become pregnant or who experience significant stressors either related or unrelated to the pregnancy.

According to Hill's family stress or ABC-X model (1949), the outcome of the stressor would be the degree of adjustment to parenthood (the X factor), which is a function of the interrelationship between the stressor (either the pregnancy or the birth of the baby, factor A), the resources available to cope with the stressor (social-emotional and economic resources available to the expectant parents, factor B), and expectant parents' perception of or meaning attributed to their prenatal and postpartum experiences (factor C). The experience of stress in first-time parents has sparked considerable research attention after LeMasters (1957) labeled first-time parenthood as a period of “crisis” for most couples. LeMasters conceptualized the transition to parenthood within a family crisis framework that involves several sequential stages: The event, or “point of impact” that the family faces, which interacts with the family's level of organization at that time and is followed by the family's response to the event with initial disorganization and eventual recovery and reorganization.

Decades of family researchers since LeMasters' claim more than 60 years ago have refuted that the transition to parenthood constitutes a crisis, instead describing the transition as stressful for most couples. As Cowan and colleagues point out, some researchers have even shifted to the opposite extreme of minimizing the impact of the distress couples experience during the transition (Pape Cowan et al. 1991). Rather than viewing transitions as crises, Cowan (1991) conceptualizes family transitions as “processes that unfold over time” (p. 11). During the processes

involved in the transition to parenthood, Cowan and Cowan (1987) note that the couple relationship is propelled into a state of disequilibrium while partners experience numerous and increasingly divergent changes at the individual, couple, and intergenerational levels. Furthermore, they emphasize that the stress of becoming parents merely amplifies preexisting intra- and interpersonal problems.

Hill's ABC-X model does not seem to fit well with the experiences many couples report during the transition to parenthood, as stressors involved in the transition do not ordinarily threaten or harm family members' well-being unless there is already evidence of maladaptation or conflict evident prior to or during pregnancy. Because Hill's theory was developed at a time when most conceptualizations portrayed life experiences of middle-class families, its applicability for other populations challenged by the inequitable distribution of the social determinants of health as well as families contending with physical or mental illnesses may be worthy of renewed study and critique. A family stress model may or may not have utility for such families, but it is an empirical question worth asking. In addition, Hill's contention that expectant parents' attribution of meaning factors into their adjustment to parenthood is well-taken and an avenue that transition to parenthood researchers have already begun to explore. For example, Cowan and colleagues' research demonstrates that partners' *interpretation* of the changes they experienced during the transition to parenthood influenced their marital satisfaction and stability – partners who did not interpret the changes negatively reported less marital dissatisfaction (Cowan 1991; Cowan and Pape Cowan 1988).

Taken together, these theories of family functioning help frame many processes at work during transitions to parenthood. While none of the theories were expressly developed to explain prenatal family dynamics, they can be expanded to allow for predictions about and interpretations of prenatal interactions in different family systems. However, the heart of all theoretical conceptions of the transition to parenthood still centers on a systemic view of families, which considers how the family as a whole, including its various subsystems, transitions to welcoming its new member (von Bertalanffy 1968).

Changes and Challenges During the Transition to Parenthood

Before introducing the observational studies of prenatal family dynamics described in the chapters to follow, we provide a brief overview of major changes and challenges that characterize transitions to parenthood. This transition is a life-altering process, accompanied by dramatic transformations that encompass physiological, intrapsychic, emotional, and behavioral reorganizations as well as shifts in the existing dyadic couple relationship. While some changes may only be temporary, others are more enduring, though all clearly affect the dynamics of partners' interactions with one another and their child and shape their experiences during the transition to parenthood.

Physiological and Psychological Changes in Expectant Parents During pregnancy, each parent experiences marked changes, both to their biological/physiological and their psychological systems. On a physiological level, expectant mothers undergo numerous hormonal changes over the course of their pregnancy into the postpartum period, which ensure that the fetus has an adequate environment for development and that mothers are prepared for birth and subsequent caretaking. Shortly after conception, women experience a rapid increase in human chorionic gonadotropin (HCG) (Schaffir 2016). Later hormonal changes involve gradual increases in the major pregnancy hormone, progesterone, as well as estrogen, prolactin, oxytocin, and total levels of cortisol (Schaffir 2016). Some of these hormone levels rapidly decline once the mother has given birth; others show slow declines after birth and then remain relatively stable or increase again if the mother breast-feeds her baby. Many pregnant women experience physiological symptoms as a result of these hormonal changes, including nausea, vomiting, and fatigue, plus various other physical symptoms that emerge in the last trimester of pregnancy as birth draws closer (Schaffir 2016).

While changes in the maternal condition have been documented for over a century, it has only been more recently that studies have documented hormonal and physiological changes in expectant fathers, changes hypothesized to help prepare them for their fathering role (Storey et al. 2000). Among fathers expecting a first child, decreases in testosterone and estradiol can sometimes occur during pregnancy, and such decreases are larger among fathers who later help more in their infants' care in the postpartum period (Edelstein et al. 2017). A subset of expectant fathers also experiences somatic symptoms and behavioral changes during their partners' pregnancy, a condition referred to as *couvade syndrome*, also thought to have a hormonal basis (Mason and Elwood 1995).

Some evidence indicates that partners' hormonal changes during pregnancy may be interrelated. Increases in the stress biomarker cortisol found in pregnant women between their second to third trimester of pregnancy and decreases in their cortisol levels from the third trimester to early postpartum were mirrored by parallel (though less dramatic) changes in cortisol levels by their partners (Conde and Figueiredo 2017). In an intriguing new line of research, hormonal changes in both expectant partners were found to correlate with their self-reported and partner-reported parenting support at 3 months postpartum (Edelstein et al. 2017). Specifically, greater declines of testosterone and estradiol in expectant fathers during pregnancy were associated with more paternal participation in infant care and more support and help in household tasks reported by their partners after birth. In contrast, pregnant women who showed increases in these same hormones reported less support from their partners after birth.

These fascinating findings suggest that postpartum coparental behaviors may have biological roots in couples' physiological changes during pregnancy. It is not clear if hormonal changes during pregnancy can also be tied to prenatal coparental behavior, though this may prove to be the case. Storey and colleagues report evidence that expectant couples' perceptions of baby-related stimuli sparked some

hormonal changes during and after pregnancy (Storey et al. 2000). The researchers exposed pregnant couples to sensory cues of newborns (auditory, visual, and olfactory) and found that this exposure resulted in expectant fathers' increased levels of prolactin and cortisol prior to birth and decreased levels of testosterone and estradiol after birth, hormonal changes which were similar to those found in expectant mothers exposed to newborn cues (Storey et al. 2000). Interestingly, expectant fathers with more pronounced prenatal *couvade* symptoms and those who were more reactive to the exposure to sensory cues of newborns had higher prolactin levels during their partners' pregnancy and experienced greater decreases in their testosterone levels in the postpartum period.

Beyond hormonal changes, transitions to parenthood are also marked by many psychological and behavioral changes for both partners, though the nature of these changes and their timing differs for expectant mothers versus expectant fathers. In their landmark longitudinal *Becoming a Family* study focused on the transition to parenthood, Pape Cowan and Cowan (1992) found that partners' sense of identity, self-esteem, and well-being is transformed by the experience of having a child, with shifts influenced by parental gender and age. Expectant mothers in the Cowans' sample already identified with a parental role during pregnancy, assigning about 10% of their identity to being a mother. By contrast, expectant fathers assigned only about 5% of their identity to being a parent. In the first 6 months after birth, both parents' parental identities increased significantly, but women attributed a greater proportion of their identities to motherhood at the expense of other aspects of their identity, in contrast to men's identities as fathers. For men, this parenthood shift occurred more gradually, involved a smaller proportion of their identity, and did not as substantially weaken other aspects of their identities (Pape Cowan and Cowan 1992).

The Cowans also drew attention to discrepancies in psychological experiences between men and women, prompting them to speak of "His" and "Her" transition to parenthood (Pape Cowan et al. 1985) and noting that these interparental differences in psychological changes frequently fueled problems within couples' relationships after they became parents. This theme is discussed further in the next section. Age also played a significant role; couples younger than 30 years of age during their first-time pregnancies experienced greater declines in self-esteem. For mothers, this decline occurred during the first 6 postpartum months, while for fathers, it occurred during their child's second year of life just as their partners' self-esteem started to improve again. It is again important to observe that these findings described largely white middle-class couples making the transition; age norms for pregnancies in other sociocultural groups may have some bearing on findings related to self-esteem.

Transitions to parenthood also trigger both positive and negative emotions that affect parental mood (Nelson et al. 2014). Studies of Postpartum Depression have focused principally on mothers, though there is evidence that prenatal depression poses a significant risk factor for both mothers and fathers (Matthey et al. 2000). Postpartum Depression can have roots during pregnancy, though findings regarding changes in depressive symptoms across the transition to parenthood have been mixed. Some studies report improvements in women who already experienced

prenatal depression (Mitchell et al. 2019) including reports of fewer depressive symptoms (Banti et al. 2011) and decreased suicidality (Mauri et al. 2012) in the postpartum period compared to pregnancy. However, Postpartum Depression also surfaces after birth among women who never experienced depression prenatally (Iliadis et al. 2016). For these women, new parenthood introduces newly emerging depressive symptoms. In some studies, new fathers have also reported more elevated depressive symptoms in the postpartum than during the prenatal period (Underwood et al. 2017). Besides these changes in depressive symptoms, changes in anxiety and other mental health issues can occur during the transition to parenthood. Despite a general trend for symptoms of depression, anxiety, PTSD, and stress symptoms to decline over the transition to motherhood, considerable variability across different women has been observed with symptoms of PTSD for some actually spiking within weeks after birth (Onoye et al. 2013). From a psychodynamic perspective, the presence of a new baby as a trigger for past traumas would be an expectable outcome, though limited research on this phenomenon exists (Madigan et al. 2014).

Lastly, the transition to parenthood also changes partners' attachment and gender role attitudes. For example, in one study wives who perceived their husbands as more rejecting and less supportive of them adopted an increasingly ambivalent attachment stance across the transition to parenthood, while husbands who perceived themselves as providing more support to their wives during pregnancy decreased in their avoidant attachment style (Simpson et al. 2003). In addition, partners' gender role attitudes and behaviors tend to become more traditional after the first child (Pape Cowan and Cowan 1988), a change seemingly more pronounced for mothers than for fathers (Katz-Wise et al. 2010; Kluwer et al. 2002). An important contributing factor underlying gender differences in psychological strain across the transition to parenthood may be mothers' greater childcare burden, linked to numerous psychological challenges for expectant and new mothers such as reduced well-being (Pape Cowan and Cowan 1992) and poorer mental health (Deutsch 1999) as well as relationship dissatisfaction (Adamsons 2013; Moller et al. 2008). These challenges are magnified among those mothers who transition back to paid employment after only brief maternity leaves (Feldman et al. 2004). Role overload also affects fathers during their transitions to parenthood (Lachance-Grzela and Bouchard 2009).

Changes in Relationship Satisfaction Focusing on the dyadic couple relationship, the transition to parenthood reorganizes romantic relationships, which commonly (though not always) precede pregnancy. Studies predominantly trace changes couples experience as they transition from pregnancy to the postpartum period, rather than considering couples' initial transition from pre-conception to pregnancy, although the transition to becoming pregnant – including whether or not partners knowingly choose to become parents – plays an important role for their prenatal and postpartum adjustment (Michaels and Goldberg 1988). Researchers' arbitrary demarcation of the transition to parenthood as occurring sometime between conception and the early postpartum period may also not match couples' experience of this

transition (Cowan 1991). In addition, using prenatal assessments as baseline for comparisons with postpartum functioning may obscure findings (Nelson et al. 2014), because it is likely that changes in relationship satisfaction from pre-pregnancy to pregnancy occur as well.

Nevertheless, almost all studies have relied on assessments of the couple relationship during and post-pregnancy, and these comparisons generally suggest that this transition amplifies conflicts in the couples' romantic relationship across the transition to parenthood. This has a disproportionate impact on couples with high levels of prenatal disharmony, placing them at risk for postpartum adjustment difficulties (Cowan and Cowan 1987; Florsheim and Smith 2005; Kluwer and Johnson 2007) and commonly leading to declines in marital satisfaction (Lawrence et al. 2007). Declines in relationship satisfaction from pregnancy to the postpartum period appear to be normative and cannot simply be explained by declines as a function of time couples have been together (Cowan and Cowan 1987; Lawrence et al. 2007). The extent of decline in couples' romantic relationships across the transition to parenthood is determined by a complex set of interrelated factors, with parental gender identified as one of its key determinants. Wives' decline in marital satisfaction has been attributed to decreases in the quality of time they spend with their husbands and to wives' greater sense of unfairness in shouldering household chores (Dew and Wilcox 2011). Pape Cowan and Cowan (1992) also reported gender-based differences in the timing of decreases in marital satisfaction across the transition to parenthood, with women experiencing declines more commonly in the early postpartum period up to 6 months after birth and men experiencing these declines in the second year after birth. Gender differences in declining marital satisfaction were also reported in a sample of Chinese married couples during the transition to parenthood, though findings in this study also indicated that wives solicited greater social supports directed at them compared to their husbands (Lu 2006).

An anxious or avoidant adult attachment orientation also predicts declines in marital satisfaction across the transition to parenthood especially if the partner is experienced as less supportive or the respondent's independence is threatened (Kohn et al. 2012). Specifically, women with highly anxious attachment attitudes who did not feel supported by their partners and husbands of these women experienced greater declines in marital satisfaction after birth (Simpson and Rholes 2019). For partners with avoidant attachments, perceptions of greater childcare responsibilities or feeling that the child interfered with personal or work pursuits were most predictive of sharp declines in marital satisfaction. Other factors explaining decreases in relationship satisfaction across the transition to parenthood involved the extent to which partners held traditional views of their roles in the family, the level of stress they experienced, the degree of violation of their expectations, as well as their levels of sleep deprivation (Medina et al. 2009). Furthermore, declines in marital satisfaction were greater for couples who did not plan to become pregnant (Cox et al. 1999), though others have reported different findings possibly due to variations in the way in which pregnancy intentions have been measured across studies (Perry-Jenkins and Schoppe-Sullivan 2019).

Despite the reorganization of roles and relationships within the family and its subsystems that may explain normative, temporary declines in marital satisfaction after birth, there is also evidence suggesting continuity and even improvements in marital quality, at least for a subset of couples across the transition to parenthood (Holmes et al. 2013). In one of the early observational studies exploring marital functioning across the transition to parenthood, Lewis (1989) reports that the majority of couples in his study who evidenced high prenatal marital competence remained relatively consistent from pregnancy into the early postpartum period. Lewis found that it was the couples who he classified as “competent but pained” who were most likely to experience declines in marital competence between pregnancy and post-birth assessments. Pape Cowan et al.’s (1991) findings concur that marital satisfaction and quality remain relatively consistent across the transition to parenthood (couples higher in marital satisfaction than other couples before the baby still being higher after birth), despite overall group declines in marital satisfaction after the birth of their first child. The researchers emphasize that the stress introduced by the arrival of the couple’s first child merely amplified challenges in the marital relationship that couples had already experienced prior to birth.

In a more recent study, wives who had reported family-of-origin experiences with disharmonious parental marriages and who thereby anticipated postpartum problems in their own marriages tended to show greater emotional attunement with their husbands after birth (Curran et al. 2006) suggesting that for some couples, improvements in marital functioning after birth may also be possible. We note here that methodological issues in how the romantic relationship is assessed (self-reported satisfaction vs. observed relationship quality) can frequently account for differences in findings across studies, with observational studies often estimating considerable continuity in aspects of romantic relationship quality across the transition to parenthood.

In sum, among couples who do not experience heightened risks or stressors related to their mental health status, age, family structure, or socioeconomic or marginalized status in society, many initial challenges encountered at the time of new parenthood are transient in nature. Despite transformations of the existing family system, many to most families eventually return to a dynamic steady state following a period of initial disequilibrium. For a subgroup of couples, however, especially when stressors experienced during the transition to parenthood combine with other risk factors that predated or accompanied pregnancy, turbulence introduced by family changes can persist long after their child’s birth. This subset of families experiences more severe and chronic postpartum adjustment problems that often require acceptable interventions. Both groups of families will be considered in this book.

As a field, research on prenatal family dynamics is still lagging behind postpartum research when it comes to the understanding of family risk factors and family-based interventions. Expanding our theoretical conceptions of the complex dynamics and interrelated factors that exert their influences before and during pregnancy may be key to thrusting this research into new directions, beyond longitudinal comparisons of relationships and interactions patterns before and after birth. The compilation of cutting-edge research in this volume on prenatal observations of coparenting

and couple dynamics may help to build the momentum for a more comprehensive and culturally sensitive exploration of families transitioning to parenthood. It is our hope that prenatal family dynamics will some day move more into public focus and encourage wider-spread prevention programs that educate all kinds of different family systems on the coparenting relationship emerging during pregnancy.

References

- Adamsons, K. (2013). Predictors of relationship quality during the transition to parenthood. *Journal of Reproductive and Infant Psychology, 31*(2), 160–171. <https://doi.org/10.1080/02646838.2013.791919>.
- Aldous, J. (1990). Family development and life course: Two perspectives on family change. *Journal of Marriage and Family, 52*(3), 571–583. <https://www.jstor.org/stable/352924>.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs: Prentice-Hall.
- Banti, S., Mauri, M., Oppo, A., Borri, C., Rambelli, C., Ramacciotti, D., Montagnani, M., Camilleri, V., Cortopassi, S., Rucci, P., & Cassano, G. (2011). From the third month of pregnancy to 1 year postpartum. Prevalence, incidence, recurrence, and new onset of depression. Results from the perinatal depression-research & screening unit study. *Comprehensive Psychiatry, 52*(4), 343–351. <https://doi.org/10.1016/j.comppsy.2010.08.003>.
- Bowlby, J. (1969). *Attachment and loss*. New York: Basic Books.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York: Basic Books.
- Bronfenbrenner, U., & Evans, G. (2000). Developmental science in the 21st century: Emerging theoretical models, research designs, and empirical findings. *Social Development, 9*, 115–125. <https://doi.org/10.1111/1467-9507.00114>.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Conde, A., & Figueiredo, B. (2017). 24-h urinary free cortisol from mid-pregnancy to 3-months postpartum: Gender and parity differences and effects. *Psychoneuroendocrinology, 50*, 264–273. <https://doi.org/10.1016/j.psyneuen.2014.08.013>.
- Cowan, P. (1991). Individual and family life transitions: A proposal for a new definition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 3–30). Hillsdale: Lawrence Erlbaum Associates.
- Cowan, C., & Cowan, P. (1987). Men's involvement in parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Hillsdale: Lawrence Erlbaum Associates.
- Cowan, P., & Pape Cowan, C. (1988). Changes in marriage during the transition to parenthood: Must we blame the baby? In G. Y. Michaels & W. A. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 114–154). Cambridge: Cambridge University Press.
- Cox, M., Paley, B., Burchinal, M., & Payne, C. (1999). Marital perceptions and interactions across the transition to parenthood. *Journal of Marriage and Family, 61*(3), 611–625. <https://www.jstor.org/stable/353564>.
- Curran, M., Hazen, N., Jacobvitz, D., & Sasaki, T. (2006). How representations of the parental marriage predict marital emotional attunement during the transition to parenthood. *Journal of Family Psychology, 20*(3), 477–484. <https://doi.org/10.1037/0893-3200.20.3.477>.
- Curran, M., Hazen, N., & Mann, T. (2009). Representations of marriage and expectations of parenthood: Predictors of supportive coparenting for first-time parents. *Parenting Science & Practice, 9*, 101–122. <https://doi.org/10.1080/15295190802656794>.

- Deutsch, F. M. (1999). *Halving it all: How equally shared parenting works*. Cambridge, MA: Harvard University Press.
- Dew, J., & Wilcox, W. B. (2011). If momma ain't happy: Explaining declines in marital satisfaction among new mothers. *Journal of Marriage and Family*, 73, 1–12. <https://doi.org/10.1111/j.1747-3737.2010.00782.x>.
- Edelstein, R., Chopik, W., Saxbe, D., Wardecker, B., Moors, A., & LaBelle, O. (2017). Prospective and dyadic associations between expectant parents' prenatal hormone changes and postpartum parenting outcomes. *Developmental Psychobiology*, 59, 77–90. <https://doi.org/10.1002/dev.21469>.
- Edin, K., & Nelson, T. (2013). *Doing the best I can: Fatherhood in the inner city*. Berkeley/Los Angeles: University of California Press.
- Feldman, R., Sussman, A., & Zigler, E. (2004). Parental leave and work adaption at the transition to parenthood: Individual, marital, and social correlates. *Journal of Applied Developmental Psychology*, 25(4), 459–479. <https://doi.org/10.1016/j.appdev.2004.06.004>.
- Fiese, B., Jones, B., & Saltsmann, J. (2019). Systems unify family psychology. In B. Fiese (Ed.), *APA handbook of contemporary family psychology, Volume 1: Foundations methods, and contemporary issues across the lifespan*. Washington, DC: American Psychological Association.
- Florsheim, P., & Smith, A. (2005). Expectant adolescent couples' relations and subsequent parenting behavior. *Infant Mental Health Journal*, 26(6), 533–548. <https://doi.org/10.1002/imhj.20076>.
- Goldberg, W. (1988). Introduction: Perspectives on the transition to parenthood. In G. Michaels & W. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 342–360). New York: Cambridge University Press.
- Goldberg, W., & Michaels, G. (1988). Conclusion: The transition to parenthood: Synthesis and future directions. In G. Michaels & W. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 342–360). New York: Cambridge University Press.
- Goyal, D. (2016). Perinatal practices & traditions among Asian Indian women. *The American Journal of Maternal/Child Nursing*, 41(2), 90–96. <https://doi.org/10.1097/NMC.0000000000000222>.
- Hill, R. (1949). *Family under stress*. New York: Harper.
- Holmes, E., Sasaki, T., & Hazen, N. (2013). Smooth versus rocky transitions to parenthood: Family systems in developmental contexts. *Family Relations*, 62, 824–837. <https://doi.org/10.1037/t02942-000>.
- Iliadis, S., Sylven, S., Hellgren, C., Olivier, J., Schijven, D., Comasco, E., Chrousos, G., Promaa, I., & Skalkidou, A. (2016). Mid-pregnancy corticotropin-releasing hormone levels in associations with postpartum depressive symptoms. *Depression and Anxiety*, 33, 1023–1030. <https://doi.org/10.1002/da.22529>.
- Ivry, T. (2010). *Embodying culture: Pregnancy in Japan and Israel*. New Brunswick: Rutgers University Press.
- Katz-Wise, S., Priess, H., & Hyde, J. (2010). Gender-role attitudes and behavior across the transition to parenthood. *Developmental Psychology*, 47(10), 18–28. <https://doi.org/10.1037/a0017820>.
- Kim, Y. (2015). Conceptualizing prenatal care: Research and the application of Tae-Kyo, Korean traditional beliefs, and practices. *Health Care for Women International*, 36, 26–40. <https://doi.org/10.1080/07399332.2014.888719>.
- Kluwer, E., & Johnson, M. (2007). Conflict frequency and relationship quality across the transition to parenthood. *Journal of Marriage and Family*, 69, 1089–1106. <http://www.jstor.org/stable/4622514>.
- Kluwer, E., Heesink, J., & Van De Vliert, E. (2002). The division of labor across the transition to parenthood: A justice perspective. *Journal of Marriage and Family*, 64, 930–943.
- Kohn, J., Rholes, S., Simpson, J., Martin, M., Tran, S., & Wilcox, C. (2012). Changes in marital satisfaction across the transition to parenthood: The role of adult attachment orientation. *Personality and Social Psychology Bulletin*, 38(11), 1506–1522. <https://doi.org/10.1177/0146167212454548>.

- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, 8, 475. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Lachance-Grzela, M., & Bouchard, G. (2009). Marital status, pregnancy planning, and role overload: A mediated-moderation model of parenting satisfaction. *Journal of Family Psychology*, 23(5), 739–748. <https://doi.org/10.1037/a0016378>.
- Lawrence, E., Nylen, K., & Cobb, R. (2007). Prenatal expectation and marital satisfaction over the transition to parenthood. *Journal of Family Psychology*, 21(2), 155–164. <https://doi.org/10.1037/0893-3200.21.2.155>.
- LeMasters, E. E. (1957). Parenthood as crisis. *Marriage and Family Living*, 19(4), 352–355. <https://www.jstor.org/stable/347802>.
- Lewis, J. (1989). *The birth of the family: An empirical inquiry*. New York: Brunner/Mazel.
- Lori, J., & Boyle, J. (2011). Cultural childbirth practices, beliefs, and traditions in postconflict Liberia. *Health Care for Women International*, 32, 454–473. <https://doi.org/10.1080/07399332.2011.555831>.
- Lu, L. (2006). The transition to parenthood: Stress, resources, and gender differences in a Chinese society. *Journal of Community Psychology*, 34(4), 471–488. <https://doi.org/10.1002/jcop.20110>.
- Madigan, S., Wade, M., Plamondon, A., Vaillancourt, K., Jenkins, J. M., Shouldice, M., & Benoit, D. (2014). Course of depression and anxiety symptoms during the transition to parenthood for female adolescents with histories of victimization. *Child Abuse & Neglect*, 38(7), 1160–1170.
- Mason, C., & Elwood, R. (1995). Is there a physiological basis for couvade and onset of paternal care? *International Journal of Nursing Studies*, 32(2), 137–148.
- Mattessich, P., & Hill, R. (1987). Life cycle development. In M. B. Sussman & S. K. Steinmetz (Eds.), *Handbook of marriage and the family* (pp. 437–469). New York: Plenum Press.
- Matthey, S., Barnett, B., Ungerer, J., & Waters, B. (2000). Paternal and maternal depressed mood during the transition to parenthood. *Journal of Affective Disorders*, 60, 75–85.
- Mauri, M., Oppo, A., Borri, C., & Banti, S. (2012). Suicidality in the perinatal period: Comparison of two self-report instruments. Results from PND-ReScU. *Archives of Women's Mental Health*, 15, 39–47. <https://doi.org/10.1007/s00737-011-0246-y>.
- McHale, J. (2007). *Charting the bumpy road of coparenthood: Understanding the challenges of family life*. Washington, DC: Zero To Three.
- McHale, J., & Dickstein, S. (2019). The interpersonal context of early childhood development: A systemic approach to infant-family assessment. In A. Carter & R. DelCarmen Wiggins (Eds.), *Oxford handbook of infant, toddler, and preschool mental health assessment* (2nd ed., pp. 79–96). New York: Oxford University Press.
- McHale, J. P., & Neugebauer, A. (1999). Preschoolers' characterizations of multiple family relationships during family doll play. *Journal of Clinical Child Psychology*, 28(2), 256–268.
- McHale, J., & Rotman, T. (2007). Is seeing believing? Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior & Development*, 30, 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J., Kuersten-Hogan, R., & Lauretti, A. (1996). New directions in the study of family-level dynamics during infancy and early childhood. In J. McHale & P. Cowan (Eds.), *Understanding how family level dynamics affect children's development: Studies in two-parent families. New Directions for Child Development*, 74, 5–27.
- Medina, A., Lederhos, C., & Lillis, T. (2009). Sleep disruption and decline in marital satisfaction across the transition to parenthood. *Family, Systems, and Health*, 27(2), 153–160. <https://doi.org/10.1037/a0015762>.
- Michaels, G., & Goldberg, W. (1988). *The transition to parenthood: Current theory and research*. New York: Cambridge University Press.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, 56, 289–302. <https://doi.org/10.2307/1129720>.

- Mitchell, E., Nuttall, A., & Wittenborn, A. (2019). Maternal depressive symptoms and warm responsiveness across the transition to parenthood. *Journal of Child and Family Studies, 28*, 1604–1612. <https://doi.org/10.1007/s10826-019-01392-x>.
- Moller, K., Hwang, P., & Wickberg, B. (2008). Couple relationship and transition to parenthood: Does workload at home matter? *Journal of Reproductive and Infant Psychology, 26*(1), 57–68. <https://doi.org/10.1080/02646830701355782>.
- Murkoff, H., & Mazel, S. (2016). *What to expect when you are expecting* (5th ed.). New York: Workman Publishing.
- Nelson, S. K., Kushlev, K., & Lyubomirsky, S. (2014). The pains and pleasures of parenting: When why, and how is parenthood associated with more or less well-being? *Psychological Bulletin, 140*, 119–149. <https://doi.org/10.1037/a0035444>.
- Onoye, J., Shafer, L., Goebert, D., Morland, L., Matsu, C., & Hamagami, F. (2013). Changes in PTSD symptomatology and mental health during pregnancy and postpartum. *Archives of Women's Mental Health, 16*(6), 453–463. <https://doi.org/10.1007/s00737-013-0365-8>.
- Pape Cowan, C., & Cowan, P. (1988). Who does what when partners become parents: Implications for men, women and marriage. *Marriage & Family Review, 13*, 105–131.
- Pape Cowan, C., & Cowan, P. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Pape Cowan, C., Cowan, P., Heming, G., Garrett, E., Coysh, W., Curtis-Boles, H., & Boles, A., III. (1985). Transitions to parenthood: His, hers, and theirs. *Journal of Family Issues, 6*(4), 451–481.
- Pape Cowan, C., Cowan, P., Heming, G., & Miller, N. (1991). Becoming a family: Marriage, parenting, and child development. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 79–109). Hillsdale: Lawrence Erlbaum Associates.
- Perry-Jenkins, M., & Schoppe-Sullivan, S. (2019). The transition to parenthood in social context. In B. Fiese (Ed.), *APA handbook of contemporary family psychology, Volume 1: Foundations methods, and contemporary issues across the lifespan*. Washington, DC: American Psychological Association.
- Schaffir, J. (2016). Biological changes during pregnancy and the postpartum period. In A. Wenzel (Ed.), *The Oxford handbook of perinatal psychology*. New York: Oxford University Press.
- Simpson, J., & Rholes, W. S. (2019). Adult attachment orientation and well-being during the transition to parenthood. *Current Opinion in Psychology, 25*, 47–52. <https://doi.org/10.1016/j.copsy.2018.02.019>.
- Simpson, J., Rholes, W. S., Campbell, L., & Wilson, C. (2003). Changes in attachment orientations across the transitions to parenthood. *Journal of Experimental Social Psychology, 39*(4), 317–331.
- Storey, A., Walsh, C., Quinton, R., & Wynne-Edwards, K. (2000). Hormonal correlates of paternal responsiveness in new and expectant fathers. *Evolution and Human Behavior, 21*, 79–95.
- Stright, A., & Bales, S. (2003). Coparenting quality: Contributions of child and parent characteristics. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 52*(3), 232–240. <https://doi.org/10.1111/j.1741-3729.2003.00232.x>.
- Super, C., & Harkness, S. (1986). The developmental niche: A conceptualization at the interface of child and culture. *International Journal of Behavioral Development, 9*, 545–569.
- Underwood, L., Waldie, K., Peterson, E., D'Souza, E., Verbiest, M., McDaid, F., & Morton, S. (2017). Paternal depression symptoms during pregnancy and after childbirth among participants in the Growing Up in New Zealand study. *JAMA Psychiatry, 74*(4), 360–369. <https://doi.org/10.1001/jamapsychiatry.2016.4234>.
- Van Egeren, L. (2003). Prebirth predictors of coparenting experiences in early infancy. *Infant Mental Health Journal, 24*(3), 278–295. <https://doi.org/10.1002/imhj.10056>.
- Von Bertalanffy, L. (1968). *General systems theory*. New York: Braziller.

Chapter 2

Prenatal Observations of Coparenting and Couple Interactions in the Emerging Family Triad



Regina Kuersten-Hogan and James P. McHale

The evaluation of mutuality and conflict in couples' prenatal marital interactions dates back to the 1980s and the pioneering studies of Philip Cowan and Carolyn Pape Cowan, Jay Belsky, Jerry Lewis, Martha Cox, Christophe Heinecke, and a handful of others who collectively pioneered research on the transition to new parenthood. Though the practice of observing couples in dyadic interactions together during pregnancies has a venerable history, the notion that coparenting and triangular processes can likewise be estimated via observational means during the pregnancy has a much shorter tradition in family research. Yet the relevance of “thinking 3” early on is not really new – in fact, it was presaged by findings from some of Lewis' earlier family research conducted and published during the 1970s and early 1980s (Lewis 1988a, b; Lewis et al. 1976; Looney and Lewis 1983). As McHale (2007) outlined in some historical detail in his volume on the transition to coparenthood, Lewis' investigations had identified a subgroup of families in which the frequently seen connection between marital and coparenting functioning had not emerged. Despite experiencing appreciable levels of marital distress, such couples' coparenting was not characterized by the signs of risk that are now known to portend negative child outcomes. Lewis had termed these families “competent but pained.”

His profiling of such families revealed that there were problems that could be observed with marital intimacy and closeness along with detachment, unresolved anger, and sometimes unequal marital power. Yet in their coparental alliance both

R. Kuersten-Hogan (✉)

Clinical Counseling Psychology Department, Assumption University, Worcester, MA, USA
e-mail: kuersten@assumption.edu

J. P. McHale (✉)

Family Study Center, Department of Psychology, University of South Florida,
St. Petersburg campus, St. Petersburg, FL, USA
e-mail: jmchale@usf.edu

partners nonetheless managed to remain comparably engaged with their children and to cooperate efficiently when called for. They refrained from competitive interactions and did not show hostility in front of their children. And though showing less overall warmth and *joie de vivre* than Lewis' "highly competent" families, coparents were polite, attentive to one another, and generally clear in their communications. Most importantly, the teen sons and daughters of the competent but pained families benefited from their parents' coparental solidarity and exhibited psychological health. Though less emotionally open than teens in highly competent families, they were free of major adjustment problems that often beset adolescents from family environments rated dysfunctional in Lewis' research samples.

Lewis' observations set the stage for subsequent research clarifying distinctions between dyadic marital or couple dynamics and relationships and triangular and family-level coparenting processes. They also suggested that perhaps certain individual-level psychological strengths on the part of parents could in fact attenuate the relationship between marital quality and coparenting quality and thus limit the damage done to coparenting by distressed marital functioning (McHale 2007). In one such analysis, Talbot and McHale (2004) demonstrated that in some families with infants, protective factors such as flexibility and ego resilience do operate to mitigate negative effects of marital problems on partners' ability to function as a coparenting team. Lewis had commented that competent but pained partners, unlike adults in more distressed families, emphasized a willingness to make personal sacrifices, maintained cohesive family relationships, and suppressed their resentment against their spouses to promote whole-family functioning in their children's best interests. This level of analysis is spot-on in pursuing research questions such as those outlined by the contributors to this volume.

Unfortunately, much existing family research since the time of those seminal papers has failed to embrace the richness of these kinds of analyses of coparental and family functioning. Most studies of parenthood transitions have continued to rely extensively, and sometimes exclusively, on parental self-reports via questionnaires and interviews. While self-report measures unquestionably provide key insights into expectant couples' thoughts and feelings, and when used well can even provide glimpses into partners' mental representations of their couple and coparenting relationships, they provide few insights into the systemic changes and unpredictability of triadic family dynamics assessed during pre- and postnatal interactions. As chapters in this volume attest, while individual perceptions are valid and valuable, they cannot substitute for direct observations of whole family dynamics during pregnancy and beyond.

In this second chapter of Part I, we discuss conceptual issues related to observing couples during prenatal coparenting interactions. Our brief review of observational studies during the transition to parenthood sets a stage for chapters in this volume that will focus largely on couple and coparenting dynamics as observed during pregnancy.

Observational Studies of Dyadic and Triadic Interactions During Pregnancy

Conceptually, agreeing on what precisely determines whether a two-person interaction during pregnancy constitutes a triadic or coparenting exchange (versus simply a transaction of the dyadic couple subsystem) is particularly enigmatic since there are always just the two adult partners to observe actively participating in the exchange itself. Though coparenting is defined as the shared responsibility for and coordination of care for children between two (or more) caregivers, coparenting itself is a triangular construct for coparental dynamics are specific to each individual child (McHale 2007). Coparental behavior itself can be cooperative, supportive, and warm; disconnected; antagonistic, competitive, and unsupportive; or a mixture of all these elements (McHale 1995; McHale and Lindahl 2011). In general, observational studies of prenatal coparenting behaviors have not ventured far afield from a safe reliance on the same sets of constructs founded in direct observational studies of postpartum coparenting, even though the child of course has not yet become an active participant in prenatal exchanges.

Commensurate with coparenting theory as it has progressed over the past 25 years (McHale 1995, 1997; McHale and Fivaz-Depeursinge 1999; McHale et al. 1996, 2019; McHale and Lindahl 2011) and consistent with observational research on prenatal family alliances originally inspired by the work of Carneiro et al. (2006), this volume operates from a core premise that prenatal coparenting systems are *not* just dyadic by nature, because the system of interest by definition includes two or more caregivers plus the unborn child. Though implicit in the writings of several authors, the genesis of this clearly triangular line of thinking ceding influence and family substance to the unborn fetus can be traced to Krampe and Fairweather's (1993) description of the "psychic parental coalition," a triangular system which they argued exists from the very moment of conception. Parents ascribe psychic attributes to the unborn child, sometimes relying on communications or signals from the fetus who develops rhythms of his or her own, such as kicking excessively or laying quietly for extended periods, which may cause concerns related to medical complications.

Given the bond of the child connecting parents-to-be, couples who are transitioning to first-time parenthood together maintain both their dyadic bond with one another and a triadic or triangular association with the baby they share – conceptually, coparenting (McHale et al. 2019). Along with several contributors to this volume, we maintain that there is value in seeking to capture elements of this nascent three-person system even during the pregnancy. Of course, if the fetus is to be a second-born, matters are even more complex. Volling and colleagues in Chap. 10 on coparenting dynamics in families expecting their second child describe a case of coparenting that illustrates a tetradic construct.

While there is merit to viewing a coparental system with multiple caregivers and multiple children as *n*-adic, this does not replace the fact that each individual child will come to experience his or her own unique position within the family's coparenting alliance or that each child will be coparented in a distinctively different way

from his or her siblings by the shared coparents (see, e.g., McHale 2007). In this regard, every child occupies a “primary triangular” space (Fivaz-Depeursinge and Corboz-Warnery 1999) with his or her biological mother and father that will endure throughout life; this will remain so even if the child never meets the father, though other relevant systems involving other coparents that later take shape during the pregnancy and postpartum will undoubtedly come to hold greater sway and gravity. Nevertheless, whether mentally represented or physically present, whether actively partaking in or reflexively experiencing child-centered exchanges between parents, the child’s very existence connotes a triadic context within which estimations of coparenting can be attempted (Carneiro et al. 2006; McHale et al. 2019).

Couples’ triadic prenatal interactions with their kicking fetus, with a dynamic ultrasound image, and even with a life-sized baby doll when they are prompted to fantasize about play with their as-yet unborn child can all be emotionally powerful experiences that differ from couples’ dyadic interactions centered on their spousal or committed conjugal relationship. During prenatal coparenting interactions, the couple’s communication is invigorated by their emerging emotional relationship as coparenting partners and on their relationships with their shared child. Unlike prenatal dyadic couple interactions, partners’ prenatal coparenting for the first time invites them to take account of their partner’s perspective in relationship to their shared child. By contrast, during their couple or marital interactions, intimacy versus distance, closeness or lack thereof as romantic partners, decision-making style, and distribution of power regarding child-unrelated issues do continue as well, rooted in their history as a twosome (and no doubt also colored by family-of-origin experiences as well).

In sum, the contention and frame of the work described in this volume is that in determining whether prenatal interactions are dyadic or triadic, it is insufficient to simply count the number of physically present participants. It is the focus of the interaction that determines the aspect of family dynamics invoked. This is certainly not a novel idea; indeed, postpartum coparenting dynamics as well often also involve just two rather than three physically present interaction partners, as is the case, for example, when a parent invokes their absent coparenting partner in a discussion with their child (McHale 1997). Just like postpartum family interactions, prenatal interactions within the family can also be considered either dyadic (couple) or triadic (coparenting) in nature; it is the partners’ triadic focus on their future roles as coparents and their engagement with their mentally represented child that designates their prenatal behaviors as coparental in nature.

The Emergence of the Prenatal Coparenting Relationship

Over the years, different ideas about the timing of the emergence of the coparenting relationship have been proposed. Most notions presume a postnatal transformation of couples’ existing romantic or marital relationships. As a postpartum phenomenon, the coparenting relationship is sometimes viewed as an expansion or extension

of the marital partnership (Christopher et al. 2015; Weissman and Cohen 1985) with the marital relationship viewed as a template for formation of family alliances (Favez et al. 2006). The couple union sometimes is also portrayed as the “principal support system” for the coparenting alliance (Belsky 1984). Some authors (e.g., Van Egeren 2004) explicitly take a position that coparenting alliances do not actually emerge or become differentiated from marital relationships until after the child has been born. Most family researchers, however, have not wrestled with the notion of whether a prenatal coparenting relationship can be said to exist, and so few have sought to provide observational evidence consistent with a presumption of coparenting during the pregnancy. In this regard, the work of many contributors to this volume is genuinely pioneering.

We note here that while couple interactions can be evaluated at any point from the time of dating forward, and while hypothesized coparenting-related interactions can reasonably be sampled during pregnancy, neither glimpses of marital nor of coparenting behaviors provide practical answers about the point at which a coparenting relationship can be said to originate. At the level of the individual parent, coparenting instincts and predilections can be said to exist long before conception of the couple’s first child and hence not be tied to the actual child. Evidence presented by McHale et al. (1996) suggests that coparenting ideas and impulses may even predate the very formation of a romantic relationship itself. In this tradition, Rasmussen et al. (2018) documented coparenting-relevant behaviors in couples prior to conception as they interacted with an infant simulator doll programmed to cry a lot. The fact that individuals harbor coparenting instincts before they are even in couple relationships and that couples can simulate coparenting-related behavior without even being pregnant raises cautionary flags about what it means to brand relational exchanges as being symbolic of a coparenting alliance. If coparenting is a triangular concept, a child, or at minimum a conceived child, necessarily must exist before the construct holds currency. Some of these considerations are taken up in Chap. 11 in this volume.

Part II of our volume presents research focused on observations of the prenatal coparenting relationship and family alliance. Most of the chapters in this section trace linkages between prenatal and postpartum triadic interactions. Chapters in Part III describe findings from observational studies of dyadic interactions during pregnancy and provide evidence of the interrelationship between the prenatal couple and coparenting relationships. Part IV presents prenatal intervention programs focused on improving the prenatal and postnatal coparenting relationship, and Part V concludes our volume with a summary of the major themes in this book and recommendations for future studies. Below, we provide a more detailed overview of the chapters in this volume.

Observations of Prenatal Coparenting Dynamics

Observing prenatal coparenting dynamics represents a unique methodological quandary. While expectant couples certainly do have conversations with a coparental focus on their unborn child, bond when viewing ultrasounds together, and often

interact together in feeling their baby kick (even imparting meaning to the child's "messages"), such naturalistic observations are difficult to capture as they occur in real time. As a result, structured paradigms are needed if the aim is to observe prenatal coparenting behavior. Such structured observations of prenatal family dynamics were facilitated by the introduction of the Prenatal Lausanne Trilogue Play situation (PLTP, Carneiro et al.) in 2006. The PLTP is an observational task that asks expectant couples to engage in enactments of their first meeting with their baby, represented by a life-sized baby doll. It provides standardized instructions including specifications for the physical set-up (seating positions, recording procedures), characteristics of the doll, and pretask interview questions designed to invoke representations of the baby and family triad (Carneiro et al. 2006; for further details, also see Chap. 3 by Fivaz-Depeursinge and colleagues).

Usually the PLTP involves a doll modeled after the original to symbolize the baby as described in Carneiro et al.' 2006 study. However, ultrasound videos of partners' unborn children (see Ammaniti and Menozzi's Chap. 5) and a simulator doll programmed to react like an inconsolable baby (see Shai and Bergner's Chap. 6) have also been used. The investigators in each of these lines of research have uniformly contended that pregnant couples' enactments of play interactions in their paradigm provide meaningful glimpses into their prenatal family interactions which in turn forecast their postpartum interactions with their infants. The fact that parallel procedures are used in the prenatal and postnatal LTP tasks has also allowed some studies to carry out more direct comparisons between families' prenatal and postnatal coparenting behaviors.

As one example, observational studies of prenatal family dynamics spearheaded by Elisabeth Fivaz-Depeursinge, France Frascarolo, and Nicolas Favez in Switzerland (see Chaps. 3 and 9) uncovered remarkable continuity in family alliances observed across the transition to parenthood. Closely related to and overlapping with coparenting dynamics, the Swiss researchers' well-articulated concept of family alliances involves parents' ability to organize their roles during their family interaction and to share a joint focus that includes all family members (c.f. Fivaz-Depeursinge and Corboz-Warnery 1999). Studies by their team demonstrate that prenatal family alliances correlate with family alliances not just at 3 months postpartum (Carneiro et al. 2006) but into the preschool years (Favez et al. 2006, 2011) and, remarkably, even into adolescence (Frascarolo et al. 2018). Continuity between the quality of prenatal and postnatal coparenting was also found in a sample of families living in Israel at 6 months postpartum (Shai 2018) as well as in samples of American families at 9 (Altenburger et al. 2014) and 12 months postpartum (Kuersten-Hogan 2017). These findings of continuity in prenatal and postnatal observations of coparenting support previous findings reported by Cowan et al. of continuity in couples' adaptation from pregnancy well into the postpartum period (Cowan 1991; Cowan and Cowan 1987; Pape Cowan et al. 1991).

One aspect of prenatal observations of family dynamics that deserves commentary involves the special coding systems needed to capture these dynamics. Most studies use global macrocodes of coparenting and family alliances. Observations of prenatal family alliances have commonly been coded for coparental playfulness,

structure of play, intuitive parenting, couple's cooperation, and family warmth (Carneiro et al. 2006). Coding of prenatal coparenting observations used adapted global scales from the Coparenting and Family Rating System (CFRS, McHale et al. 2001; Kuersten-Hogan and McHale 2013) to rate coparental competition, cooperation, verbal sparring, parental investment in the interaction, and parental warmth expressed toward the doll and the partner. In a departure from most prenatal observations of family dynamics, Chap. 3 by Fivaz-Depeursinge, Philipp, Frascarolo, and Corboz-Warnery presents a microcoding system of prenatal family dynamics used to compare two family cases from their longitudinal study. Their microanalyses of family members' gaze and affect sharing during triadic interactions combined with their macroanalyses provide glimpses of the triangular intersubjectivity already observable during pregnancy when couples imagine interacting with their child. Fivaz-Depeursinge and colleagues illustrate how family patterns progress from prenatal observations all the way to adolescence and how they differ between a family with a functional alliance and a family with a dysfunctional alliance. This work underscores the remarkable continuity of specific micro- and macropatterns in families' interactions from pregnancy well into the second decade after birth.

Observations of prenatal coparenting and family alliances not only foreshadow postpartum family dynamics, but they are also embedded within expectant couples' past experiences with coparenting dynamics in their families of origin, a connection explored in Chap. 4 by Olsavsky, Walker, and Schoppe-Sullivan. Olsavsky and colleagues' research uncovered associations between expectant couples' recollections of coparenting in their families of origin and their own family dynamics observed during pregnancy. Somewhat surprisingly, though, they found this evidence for continuity only among mothers who had experienced poor couple relationship quality during their pregnancies. This work extends prior research, which demonstrated that family-of-origin experiences with coparenting and marital relationships impact couples' postpartum coparenting relationship, and illustrates the intergenerational links between family relationships.

Though prenatal observation tasks for coparenting dynamics are still scarce, a few adaptations of the PLTP and a novel observation task for pregnant couples have recently been developed. Most adaptations of the PLTP have been minor, using a different type of doll (e.g., see Chap. 11) or observing expectant couples at home rather than in a lab setting (e.g., see Chap. 4). One major adaptation of the original prenatal LTP by Ammaniti and Menozzi in Chap. 5 examined pregnant couples' dialogues with respect to nonverbal behaviors and baby talk as the couples viewed 4D ultrasound images of their fetus. In contrast to the standard PLTP, which uses a doll to stand in for the baby and requires expectant parents to imagine the physical and behavioral qualities of their child, the PLTP with 4D ultrasound images requires less elaborate mental representations of expectant parents because their need to imagine their child is vastly reduced. Still, the use of video images of 4D ultrasounds nonetheless preserves the innovative representational nature of this task in that the fetus does not play an active role in the prenatal interaction or provide expectant parents with online feedback regarding their coparental behaviors. In Chap. 5 of this volume, Ammaniti and Menozzi report that expectant parents

engaged in many behaviors vis-à-vis the ultrasound images of their fetus that parallel behaviors observed among parents' interactions with their infants after birth; expectant parents showed greater affective engagement with their fetus compared to their partner, imitated fetal behaviors, and used parentese in speaking to their fetus, all of which suggest that this novel task is another evocative assessment tool for estimating prenatal family dynamics.

In contrast to the PLTP, a playful context for prenatal coparenting observations, Shai's (2018) Inconsolable Doll Task (IDT) introduced in Chap. 6 places pregnant couples into a stressful simulated caretaking situation. The "inconsolable baby" is a doll simulator programmed to respond like an actual infant who continues to cry despite caregivers' efforts to feed, change, or otherwise care for the "baby." The prolonged tension induced during this task reflects many postpartum caretaking situations that new parents are likely to encounter. In Chap. 6, Shai and Bergner report that partners' interactional synchrony – perhaps a precursor to coparental cooperation – as observed during the stressful context of the IDT was positively correlated with both prenatal family alliances observed during the low-arousal conditions of the PLTP and with later postnatal family alliances observed during an LTP at 6 months. Despite the relative continuity in coparental behaviors across these different prenatal tasks, this work is inventive in invoking multiple observation tasks to estimate the complexity of prenatal family dynamics.

While most observations of prenatal coparenting dynamics echo the historic transition to new parenthood literature in focusing principally on married two-parent families who conceive unassisted and experience limited risk factors in their lives, there has been movement toward including families with more diverse experiences in observational studies of transitions to coparenthood. For example, in Chap. 7, Darwiche, Antonietti, and Corboz-Warnery explore family alliance trajectories of couples who conceived using Artificial Reproductive Technology (ART) after having experienced infertility problems. Darwiche and colleagues explore three different trajectories observed in families in their study: stable, increasing, or decreasing family alliance qualities from pregnancy to 9 months postpartum. Their findings indicate that only a subset of couples showed a continuous family alliance trajectory from pregnancy to the postpartum period. Couples' marital satisfaction prior to conception and their level of stress resulting from their infertility did not help to predict whether their family alliance trajectory from pregnancy to the postpartum period would be continuous or not. Darwiche and colleagues' research suggests that the unique prenatal experiences of these couples who conceived using ART did not necessarily translate into problematic family alliances during pregnancy or the postpartum period.

Another potential source of increased stress on the emerging family triad prior to birth was explored by Miscioscia, De Carli, Sacchi, Tasker, and Simonelli in Chap. 8, which compares associations between partners' attachment styles and pre-conception coparenting interactions in a sample of same-sex and opposite-sex couples from Belgium and Italy planning pregnancy. Despite greater stressors experienced by many same-sex families due to hostility and bigotry in society at large, patterns of relational dynamics within families led by same-sex parents echo those of families led by opposite-sex parents where parents are not subjected to such

prejudices. Likewise, Miscioscia and colleagues report that in their study, couples' family composition did not play a role in patterns of associations they found between adults' attachment orientation their pre-conception intuitive coparenting behaviors. This research is a reminder of how much has yet to be learned regarding prenatal family dynamics as they operate in diverse family structures.

In Chap. 9, Favez and Tissot describe the influence of parents' prenatal gender-role attitudes on family alliances in a sample of Swiss two-parent families. There has been evidence that parents report more traditional gender-role attitudes after birth, but exactly how these ideas about gender influence their actual coparental behavior had seldom been explored. Favez and Tissot observed prenatal family alliances in the PLTP and had expectant partners report on their gender-role orientations. Favez and Tissot's findings suggest that family alliance trajectories from pregnancy to 18 months postpartum may differ as a function of mothers' (but not fathers') gender -role orientation; child gender did not play a role in this relationship between parental gender-role attitudes and quality of family alliance. These findings are consistent with previous reports of gender differences in psychological changes between expectant mothers and fathers across the transition to parenthood (Pape Cowan and Cowan 1992).

Nearly all studies, possibly for simplicity, clarity, and perhaps also convenience, have focused on the transition to first-time parenthood. Of course, more than half of all families with one child go on to experience further transitions as they welcome their second and subsequent children into their families, and these subsequent transitions differ in important respects from first transitions to parenthood. Goldberg and Michaels (1988) explain researchers' emphasis on first-time parenthood with their motivation to obtain the "cleanest investigation" that "provides the greatest contrast" (p. 345). Despite these apparent advantages to studying transitions to parenthood by first-time parents, Goldberg and Michaels recommend that the field should focus more on subsequent transitions to parenthood, advice which still has not been implemented in many studies to date.

Chapter 10 by Volling, Tan, Gonzalez, and Bader represents one of the exceptions as it delves into coparenting dynamics in families expecting their second child. This is an understudied but fascinating transition as it involves the emergence of yet another new family subunit – the sibling subsystem – and requires adjustments in the parent-child relationship as well as in the coparenting relationship that has already been fully formed around coparenting the first child. In contrast to the other studies presented in this volume, Volling and colleagues did not have to rely upon pregnant couples' representations of their baby-to-be, as they were able to observe expectant parents' coparenting with their first child. Volling et al.'s goal in these observations was to determine the effects of various individual and dyadic predictors including mothers' and fathers' depression and parenting stress and their marital conflict on coparenting during their pregnancy with a second child. Though none of these predictors were associated with observations of coparenting dynamics during pregnancy, parental self-reports told a different story. Parent-reported undermining coparenting was predicted by dyadic level parental depression and self-efficacy, and parent-reported cooperative coparenting was predicted by dyadic-level parental efficacy.

As Volling and colleagues' work suggests, each transition the family experiences has the potential for reorganization of the whole system and requires an adjustment in the family's various subsystems. The first sibling clearly takes an active role in the coparenting interactions together with parents expecting their second child, though the second child's imminent arrival, especially in the third trimester of pregnancy, most likely also exerts an influence on family interactions that might be worth exploring. A second transition to parenthood may also prolong the period of instability often observed during the postpartum period after couples had their first child, as consecutive transitions are layered over one another especially when births of siblings are spaced close together (Goldberg and Michaels 1988).

As our compilation of studies detailing prenatal observations of coparenting reveals, emerging coparenting relationships are shaped by a variety of factors including partners' experiences with coparenting in their families of origin, gender attitudes, and representations of their future relationships with their child. The individual, familial, and environmental factors thought to influence postpartum coparenting (Belsky et al. 1995; Feinberg 2003) are also likely candidates for helping to form the prenatal coparenting relationship. This said, additional and as of yet unexplored influences unique to the prenatal coparenting relationship may also be operating and influential.

Observations of Prenatal Couple/Marital Interactions

Though dozens of studies have concerned themselves with marital change across the transition to new parenthood, not all of them made use of observational assessments both pre- and postpartum (e.g., Belsky et al. 1983; Cox et al. 1999; Jessee et al. 2018; McHale et al. 2004, 2015; Perren et al. 2005; Volling et al. 2015). Several chapters in this volume are devoted to describing prenatal observations of dyadic interactions, in married and cohabitating couples as well as in young, unwed couples and in couples who are no longer romantically involved but expect to share coparental responsibilities after birth of their child.

It is still unclear at what point a prenatal coparenting relationship emerges and when it becomes differentiated from romantic or marital relationships. Kuersten-Hogan, Jarquin, and Charpentier (Chap. 11) explore links between prenatal marital and coparenting relationships. Using an adapted version of the PLTP and a prenatal marital discussion task with a sample of married couples from the USA, the authors present evidence that the coparenting relationship may already represent a family subsystem at least partially distinct from the marital system during pregnancy. Their data indicate that the two family subsystems predict different and unique aspects of families' postpartum dynamics. Based in part on these data, the authors develop a model depicting the interrelationship between the marital and coparental relationships across the transition to parenthood. They detail specific characteristics of each relationship that may be shared and result in spillover between the couple and coparenting subsystems.

Spillover between family subsystems was also observed by Hazen, Aviles, Gallegos, Poulsen, Tian and Jacobvitz (Chap. 12), who explore aspects of expectant couples' interactions that predict family dynamics during the first two postpartum years and child functioning at 2 and 7 years of age. Observing expectant couples during a marital discussion task focused on areas of disagreement between partners, Hazen and colleagues established that negative affect observed in couples during pregnancy predicts mothers' and fathers' emotional withdrawal from their infants at 8 months of age and their coparental sparring at 24 months postpartum. They propose spillover from negative/hostile prenatal marital interactions into the parent-child interaction and hypothesize that adversity in the prenatal marital relationship may deplete parents' emotional resources and thereby decrease later sensitivity and increase disengagement with their children.

While the vast majority of observational studies in this volume focuses on married adult couples, Florsheim and Burrow-Sanchez in Chap. 13 explored relationship quality and security across the transition to parenthood in young, unwed couples. There is evidence that parental age affects partners' experiences during the transition to parenthood (Goldberg and Michaels 1988). The motivation to become a parent may also vary depending on the age of the parent and the place in their life span development. Young parents experience the advantage of having more energy for child rearing than older couples, and children are less likely to disrupt young couples' routines, because they are less set in their ways. However, parenting in the late teens or early 20s disrupts parents' educational and career goals, and teen parents lack the maturity required for parenthood thus requiring dependency on others for support (Goldberg and Michaels 1988).

Also of relevance is the question of task effects on prenatal couple dynamics, which has received scant attention from transition to parenthood researchers; the nature of the observational task (e.g., discussion of areas of couple conflict vs. discussion focused on partners' lives together) may differentially evoke warmth and support versus confrontation and negative affect (Melby et al. 1995). In Chap. 13, Florsheim and Burrow-Sanchez describe their observations of expectant couples during two different tasks: a conflict-resolution task and a positive sharing task designed to elicit both constructive disagreements and positive feelings during couples' communications. Florsheim and Burrow-Sanchez' study focused on prenatal risk and protective factors that predict young unwed expectant couples' later postpartum depression and relationship security, asking whether any such effects are moderated by couple communication patterns. The authors describe prenatal risk factors including hostile communication patterns between partners during pregnancy combined with greater prenatal depression and also report that higher prenatal warmth between partners lowered the risk for postpartum depression and relationship insecurity at 6 months postpartum.

In sum, studies detailed in Chaps. 3 through 13 of this volume, utilizing prenatal observations of coparenting and couple interactions in families from Switzerland, Italy, Belgium, Israel, and the United States, establish the relevance and utility of observational methods to capture these core family processes. Their relevance was demonstrated for families varying with respect to cultural backgrounds, parental

age, family composition, marital status, sexual orientation, and method of conception. A few of these studies sampled clinical families and/or reported on prenatal risk factors that affected family functioning, but most utilized convenience samples of middle-class families. However, Pape Cowan et al. (1991) caution us to assume that just because families may not evidence commonly identified risk factors such as lack of economic, educational, or social resources or histories of mental health or addiction problems, they are invulnerable to the stressors inherent in the transition to parenthood. These seemingly “ordinary” couples may still be in need of services to help them adjust to the numerous changes couples ordinarily experience before and after they welcome their first child.

A smaller number of studies in this volume have concerned themselves with understudied, marginalized, or higher-risk families and examined effects of intervention programs designed to support such families across the transition to new parenthood. Part VI of this volume describes contributions from prenatal intervention programs developed in the United States to support understudied couples as they approach new parenthood.

Prenatal Prevention and Intervention Programs

In the tradition of Pape Cowan and Cowan’s classic study examining the impact of a couples group intervention on family functioning across the transition to new parenthood (Pape Cowan and Cowan 1997), a small number of researchers (e.g., Doss et al. 2014; Feinberg and Kan 2008) devised prevention programs with interventions specifically intended to focus on and support coparenting post-birth. Each prevention program showed encouraging results for samples of two-parent families from middle-class, educated backgrounds. For the most part, however, coparenting intervention studies focused on the transition to new parenthood have neglected lower socioeconomic families and unmarried families. One important exception has been a prenatal program called “Figuring It Out for the Child” (FIOC; see McHale, Stover and McKay in Chap. 14 of this volume). Developed to support the promotion of coparenting alliances in unmarried African American families, the intervention draws upon principles of Focused Coparenting Consultation (McHale and Irace 2010). In Chap. 14, the authors outline the potential of this prenatal coparenting intervention. FIOC builds communication and problem-solving skills within a triangular framework to help couples think and talk together about their prenatal coparenting relationship, toward preparing for expectable challenges in the postpartum period. Chapter 14 also offers guidance in considering interventions to reach these understudied, vibrant, and inspiring families.

In Chap. 15, Paley and Hajal propose a prenatal intervention program that is based on emotion regulation and co-regulation at the family level. Paley and Hajal describe how emotion regulation and co-regulation are important processes that link partners’ early attachment experiences with their prenatal and postnatal interactions, concentrating on multiple family subsystems. The authors emphasize the

pivotal role that family-of-origin experiences play in situating couples to embark on their own transition to parenthood, one theme of the FIOC intervention work as well. Such considerations, thoughtfully underscored by the Cowans as one of the major domains of influence and impact in their 5-domain model (Pape Cowan and Cowan 1992), can point newer intervention programs in fruitful directions.

In Chap. 16, Jamison and Feistman describe a prenatal intervention program for teens embedded within a coordinated network of social services. The federally funded “Education, Employment, and Engagement (E³) Teen Parenting Program” helps teen parents to adjust to parenthood by providing them with a variety of support services including help in accessing existing programs in their communities – also a core feature of the FIOC intervention. Within an ecological framework, Jamison and Feistman share their insights into teen parents’ experiences during their transition to parenthood and provide useful suggestions for prenatal interventions with this at-risk population.

Concluding Remarks

In this chapter, we have sought to make a case for the untapped potential of studying prenatal family processes through direct observations of coparents-in-the-making. This field is in its infancy and clearly needs to expand both its scope and its methodologies. Harkening back a quarter century, to the immediate aftermath of two landmark 1995 observational studies of coparenting dynamics (Belsky et al. 1995; McHale 1995), Margolin et al. asserted benefits to using observations to understand family dynamics (Margolin et al. 1998). They highlighted the power of observational studies for tracking behavioral sequences and changes across time and situational contexts and stressed that observations are far superior to self-report measures in pinpointing ongoing relational processes within family interactions. In addition, they took note that “questions ideally suited to collecting observational data are those addressing interactional patterns and structures that are not necessarily accessible to the participants themselves, and thus could not be accurately assessed through self-report” (Margolin et al. 1998, p. 196). This insight seems particularly pertinent in considering assessments of prenatal coparenting relationships, as expectant parents are likely to be even less aware of and unable to report on coparental behavior, compared to parents who have had direct experiences with their babies during the postpartum period.

Though task effects have not yet been studied with respect to prenatal family interactions and observational contexts in most studies are still very limited, those efforts underway to expand observational contexts during pregnancy are detailed in the pages that follow. In working to establish validity for newer assessments, researchers might consider how naturalistic observations could supplement existing structured observations of prenatal couple and coparenting dynamics, though such work is laborious and not always of great yield (Margolin et al. 1998). There are also important reasons for augmenting observations of prenatal family dynamics

with parent-reported information. No matter how varied observational contexts are, researchers simply cannot sample every possible circumstance within which pregnant couples meaningfully interact. Researchers will always need to ask couples to self-report on aspects of their prenatal coparenting and couple relationships during everyday life and on their mental representations of relationships experienced in their families of origin. Regardless, the value of observations of family dynamics during pregnancy is illustrated by the chapters in this volume, which make an important contribution by placing the emerging family triad front and center in studies of the transition to parenthood.

References

- Altenburger, L., Schoppe-Sullivan, S., Lang, S., Bower, D., & Kamp Dush, C. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology, 28*(4), 495–504. <https://doi.org/10.1037/fam0000012>.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83–96.
- Belsky, J., Spanier, G., & Rovine, M. (1983). Stability and change in marriage across the transition to parenthood. *Journal of Marriage and Family, 45*(3), 567–577. <https://www.jstor.org/stable/351661>.
- Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting in families with toddler boys: Spousal differences and daily hassles. *Child Development, 66*, 629–642. <https://doi.org/10.2307/1131939>.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Triogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Christopher, C., Umemura, T., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Marital quality over the transition to parenthood as predictor of coparenting. *Journal of Child and Family Studies, 24*, 3636–3651. <https://doi.org/10.1007/s10826-015-0172-0>.
- Cowan, P. (1991). Individual and family life transitions: A proposal for a new definition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 3–30). Hillsdale: Lawrence Erlbaum Associates.
- Cowan, C., & Cowan, P. (1987). Men's involvement in parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Hillsdale: Lawrence Erlbaum Associates.
- Cox, M., Paley, B., Burchinal, M., & Payne, C. (1999). Marital perceptions and interactions across the transition to parenthood. *Journal of Marriage and Family, 61*(3), 611–625. <https://www.jstor.org/stable/353564>.
- Doss, B., Cicila, L., Hsueh, A., Morrison, K., & Carhart, K. (2014). A randomized controlled trial of brief coparenting and relationship interventions during the transition to parenthood. *Journal of Family Psychology, 28*(4), 483–494. <https://doi.org/10.1037/a0037311>.
- Favez, N., Frascarolo, F., & Fivaz-Depeursinge, E. (2006). Family alliance stability and change from pregnancy to toddlerhood and marital correlates. *Swiss Journal of Psychology, 65*(4), 213–220. <https://doi.org/10.1024/1421-0185.65.4.213>.
- Favez, N., Lopez, F., & Frascarolo, F. (2011). The development of family alliance from pregnancy to age 5 and child outcomes: A longitudinal study. In R. Kuersten-Hogan (Chair). *Catching glimpses of future family functioning: Different applications of the Lausanne Triogue Play Situation*. Symposium presented at the meeting of the Society for Research in Child Development, Montreal, Canada.

- Feinberg, M. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting Science and Practice*, 3(2), 95–131.
- Feinberg, M., & Kan, M. (2008). Establishing family foundations: Intervention effects on coparenting, parent/infant well-being, and parent-child relations. *Journal of Family Psychology*, 22(2), 253–263. <https://doi.org/10.1037/0893-3200.33.3.253>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers, and infants*. New York: Basic Books.
- Frascarolo, F., Fivaz-Depeursinge, E., & Philipp, D. (2018). The child and the couple: From zero to fifteen. *Journal of Child and Family Studies*, 27, 3073–3084. <https://doi.org/10.1007/s10826-018-1090-8>.
- Goldberg, W., & Michaels, G. (1988). Conclusion: The transition to parenthood: Synthesis and future directions. In G. Michaels & W. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 342–360). New York: Cambridge University Press.
- Jessee, A., Manglesdorf, S., Wong, M., Schoppe-Sullivan, S., Shigeto, A., & Brown, G. (2018). The role of reflective functioning in predicting marital and coparenting quality. *Journal of Child and Family Psychology*, 27, 187–197. <https://doi.org/10.1007/s10826-017-0874-6>.
- Krampe, E., & Fairweather, P. (1993). Father presence and family formation: A theoretical reformulation. *Journal of Family Issues*, 14(4), 572–591. <https://doi.org/10.1177/019251393014004006>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, 8(475), 1–17. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Kuersten-Hogan, R., & McHale, J. P. (2013). L'observation du coparentage dans les familles biparentales: influence du contexte et de l'âge de l'enfant (Coparenting Observations in Two-Parent Families Across Contexts and Time). In N. Favez, F. Frascarolo, & H. Tissot (Eds.), *Le bébé au sein de la triade: le développement de l'alliance familiale (The baby within the triad: The development of family alliance)*. Bruxelles: De Boeck.
- Lewis, J. M. (1988a). The transition to parenthood: I. The rating of prenatal marital competence. *Family Process*, 27(2), 149–165. <https://doi.org/10.1111/j.1545-5300.1988.00149.x>.
- Lewis, J. M. (1988b). The transition to parenthood: II. Stability and change in marital structure. *Family Process*, 27(3), 273–283. <https://doi.org/10.1111/j.1545-5300.1988.00273.x>.
- Lewis, J. M., Beavers, W. R., Gossett, J. T., & Phillips, V. A. (1976). *No single thread: Psychological health in family systems*. Oxford: Brunner/Mazel.
- Looney, J. G., & Lewis, J. M. (1983). Competent adolescent from different socioeconomic and ethnic contexts. *Adolescent Psychiatry*, 11, 64–74.
- Margolin, G., Oliver, P., Gordis, E., O'Hearn, H., Medina, A., Ghosh, C., & Morland, L. (1998). The nuts and bolts of behavioral observation of marital and family interactions. *Clinical Child and Family Psychology*, 1(4), 195–213.
- McHale, J. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology*, 31, 985–996. <https://doi.org/10.1037/0012-1649.31.6.985>.
- McHale, J. (1997). Overt and covert coparenting processes in the family. *Family Process*, 36, 183–201.
- McHale, J. (2007). *Charting the bumpy road of coparenthood: Understanding the challenges of family life*. Washington, DC: Zero To Three.
- McHale, J., & Fivaz-Depeursinge, E. (1999). Understanding triadic and family group interactions during infancy and toddlerhood. *Clinical Child and Family Psychology Review*, 2, 107–127. <https://doi.org/10.1023/A:1021847714749>.
- McHale, J., & Irace, K. (2010). Focused coparenting consultation: Helping parents coordinate to support children. *Independent Practitioner*, 30, 164–170.
- McHale, J., & Irace, K. (2011). In J. McHale & K. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems*. Washington, DC: American Psychological Association.
- McHale, J., & Lindahl, K. (2011). *Coparenting: A conceptual and clinical examination of family systems*. Washington, DC: American Psychological Association.

- McHale, J., Kuersten-Hogan, R., & Lauretti, A. (1996). New directions in the study of family-level dynamics during infancy and early childhood. In J. McHale & P. Cowan (Eds.), *Understanding how family level dynamics affect children's development: Studies in two-parent families. New Directions for Child Development*, 74, 5–27.
- McHale, J., Kuersten-Hogan, R., & Lauretti, A. (2001). Evaluating coparenting and family-level dynamics during infancy and early childhood: The Coparenting and Family Rating System. In P. Kerig & K. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research* (pp. 151–170). Mahwah: Erlbaum.
- McHale, J., Kazali, C., Rotman, T., & Talbot, J. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, 16(3), 711–733.
- McHale, J., Salman, S., & Coovert, M. (2015). Improvements in unmarried African American parents' rapport, communication, and problem-solving following a prenatal coparenting intervention. *Family Process*, 54(4), 619–629. <https://doi.org/10.1111/famp.12147>.
- McHale, J., Negri, L., & Sirotkin, Y. (2019). Coparenting. In B. Fiese (Ed.), *APA handbook of contemporary family psychology, Volume 1: Foundations methods, and contemporary issues across the lifespan*. Washington, DC: American Psychological Association.
- Melby, J., Ge, X., Conger, R., & Warner, T. (1995). The importance of task in evaluating positive marital interactions. *Journal of Marriage and the Family*, 57, 981–994. <http://www.jstor.org/stable/353417>.
- Pape Cowan, C., & Cowan, P. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Pape Cowan, C., & Cowan, P. (1997). Working with couples during stressful transitions. In S. Dreman (Ed.), *The family on the threshold of the 21st century: Trends and implications* (pp. 17–47). Hillsdale: Lawrence Erlbaum Associates.
- Pape Cowan, C., Cowan, P., Heming, G., & Miller, N. (1991). Becoming a family: Marriage, parenting, and child development. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 79–109). Hillsdale: Lawrence Erlbaum Associates.
- Perren, S., Von Wyl, A., Bürgin, D., Simoni, H., & Von Klitzing, K. (2005). Intergenerational transmission of marital quality across the transition to parenthood. *Family Process*, 44(4), 441–459.
- Rasmussen, H., Corner, G., & Margolin, G. (2018). Young adult couples' behavioral and physiological responses to the infant simulator: A preliminary illustration of coparenting. *Infant Behavior and Development*. <https://doi.org/10.1016/j.infbeh.2018.04.004>.
- Shai, D. (2018). The inconsolable doll task: Prenatal coparenting behavioral dynamics under stress predicting child cognitive development at 18 months. *Infant Behavior and Development*. <https://doi.org/10.1016/j.infbeh.2018.04.003>.
- Talbot, J., & McHale, J. (2004). Individual parental personality traits moderate the relationship between marital and coparenting quality. *Journal of Adult Development*, 11, 191–205. <https://doi.org/10.1023/B:JADE.0000035627.26870.f8>.
- Van Egeren, L. (2004). The development of the coparenting relationship over the transition to parenthood. *Infant Mental Health Journal*, 25(5), 453–477. <https://doi.org/10.1002/imhj.20019>.
- Volling, B., Oh, W., Gonzalez, R., Kuo, P., & Yu, T. (2015). Patterns of marital relationship change across the transition from one child to two. *Couple and Family Psychology: Research and Practice*, 4(3), 177–197. <https://doi.org/10.1037/cfp0000046>.
- Weissman, S., & Cohen, R. (1985). The parenting alliance and adolescence. *Adolescent Psychiatry*, 12, 24–45.

Part II
Coparenting Relationships and Family
Alliances During Pregnancy and Beyond

Chapter 3

Is Prenatal Coparental Intersubjective Communication a Harbinger of Triangular Intersubjectivity in Adolescence?

An Exploratory Microanalytic Study



Elisabeth Fivaz-Depeursinge, Diane A. Philipp, France Frascarolo,
and Antoinette Corboz-Warnery

Collective intersubjectivity is the *sharing of mind states and affects between two or more partners*. It is based on a motivational system that has favored our adaptation as a social species. “Human beings don’t survive without groups, family, team, tribe, etc. Thus, it is necessary to have a system which can hold the group together. Attachment is such a system, but intersubjectivity is also one. In a group of hunters or in a basketball team, cooperation and cohesion require us to know what is in the mind of others at any given time” (Stern 2005, p. 37). Collective intersubjectivity cannot be observed directly. It is inferred from the observation of interactions. For the purposes of this chapter, we are most interested in collective intersubjectivity in the context of the family, where we propose this capacity first develops. By watching a father, mother, and child at play or in discussion, we can see if the conditions for collective intersubjectivity are being met: Do all three partners have triangular capacity? In other words, do all three partners have the ability to communicate in a three-way interaction? Can the coparenting couple, and even their very young infant, share the same focus of attention, a necessary condition for the sharing of

E. Fivaz-Depeursinge (✉)
Department of Biology and Medicine, Center for Family Studies, University of Lausanne,
Lausanne, Switzerland
e-mail: Elisa.Fivaz@bluewin.ch

D. A. Philipp
SickKids Center for Community Mental Health, University of Toronto Medical School,
Toronto, ON, Canada
e-mail: dphilipp@sickkidscmh.ca

F. Frascarolo
Research Unit of the Centre for Family Study, CHUV, Lausanne, Switzerland
e-mail: France.Frascarolo@chuv.ch

A. Corboz-Warnery
Center for Family Studies, CHUV, Lausanne, Switzerland
e-mail: corboz-warnery@bluewin.ch

mind states (perceptions, cognitions, thoughts)? Finally, can the family then experience shared positive affect on all levels, allowing them to be available to one another? The Lausanne Trilogue Play (LTP, Corboz-Warnery et al. 1993) is a task that has allowed us to systematically observe triangular communication. In this semistructured activity, a family is asked to interact in all 4 conceivable configurations of a mother, father, baby triad. First, one parent plays with the child, while the other is “simply present.” The parents then switch roles for part 2, and they all interact as a group in part 3. Finally, in part 4, the parents talk with one another, while the child is in the third-party position. In addition to observing three-way interaction, the LTP has allowed us to research the development of the family alliance, as well as the dynamics between coparents and their child, from as early as the prenatal period (PLTP, or LTP; Fivaz-Depeursinge et al. 2010), continuing on into infancy and early childhood (Fivaz-Depeursinge and Corboz-Warnery 1999) and now adolescence (Frascarolo et al. 2018). It has been a window into trajectories of both functional as well as problematic family interactions (Fivaz-Depeursinge and Philipp 2014).

While clinicians may have an intuitive sense of family functioning, we have been able to operationally define and code in real time what some of these micropatterns look like through microanalysis, the slow and systematic review of interactions. For example, through microanalysis of gaze and affect in infants as young as 3 months during LTPs with their parents, we documented infant participation in triangular communication in the form of a “triangular bid” (Bradley and Smithson 2017; Fivaz-Depeursinge et al. 2005; McHale et al. 2008; Tremblay and Rovira 2007). In triangular bids, infants rapidly look back and forth between their two parents, at an interval of 3–5 s, signaling the same affect to both (positive, uncertain, or negative). The parents’ responses to these bids – validating, ignoring, or dismissing – are a hallmark of success or failure in three-way communication. In our longitudinal study of a community sample of families, we found that in families with “good-enough” family alliances, the three partners participated in this form of three-way communication, marking the beginnings of a collective intersubjectivity. In families with problematic alliances, conflict between the parents led to a variety of scenarios where the infants were either less likely to engage in triangular bids and/or the bids were not validated by their parents, thus impeding the emergence of collective intersubjectivity (Fivaz-Depeursinge and Philipp 2014). Microanalysis of these interaction patterns has helped us to formally distinguish between good-enough and problematic family alliances (see for example Fivaz-Depeursinge et al. 2012).

In keeping with Systems Theory (Fivaz 1989; Fivaz et al. 1982) in “good-enough” interactions, behavior patterns are *adapted* to the task. There is a clear *structure* to the group that makes the interaction feel predictable, but there is also a *flexibility*, which allows for in the moment adjustments. The interactions have a *hierarchy* (Frascarolo et al. 2004), where subepisodes within main episodes have further differentiated functions, such as three-way gaze and affect contact in triangular bids. Finally, these “good-enough” interactions are associated with *positive affect dominance*, namely, more positive than negative affect is seen in the interaction (Gottman et al. 2003). Positive affect dominance increases the likelihood

that all three partners are available to one another. Here, when we refer to *positive affect*, we include moments where, for example, a group is sharing their sadness. The sadness is not positive, but the experience of sharing it with others can be. In contrast to “good-enough” patterns, in *maladaptive* interactions, the family fails to accomplish the task. These disorganized interactions are characterized by poor structure, an absence of any recognizable hierarchy, and are unpredictable, at times to the point of chaos. Alternatively, problematic interactions can be rigid, stereotyped, and without flexibility or any discernable hierarchy. In both instances, negative affects prevail, preventing true affective contact between the family members.

The Prenatal Lausanne Trilogue Play (PLTP) was developed to study precursors of the family alliance, while the couple is expecting their first child. The coparents are asked to role-play their first moments with their future child (Carneiro et al. 2006; Fivaz-Depeursinge et al. 2010). The PLTP has the same structure as other LTPs, with the same four parts, only the couple is given a rag doll to represent the “baby.” Follow-up research on our longitudinal sample found strong correlations with outcomes when the children were 5 years old. The *cooperation* between coparents, faced with this unexpected and unusual role-play, their *expressions of warmth* toward each other, as well as towards the “baby,” and their *parenting behaviors*, were all correlated with triangular communication at 18 months, as well as the post-natal family alliance at 5 years. Cooperation, warmth, and intuitive parenting behaviors were the most highly correlated with rich triangular interactions and positive affect in the families once the babies came in for their LTPs at 3, 9, and 18 months as well as at 5 years. Moreover, the children growing up with “good-enough” coparenting performed better on theory of mind and social development tasks at age 5, than those raised in the context of problematic coparenting (Favez et al. 2012).

A follow-up at 15 years is now underway. An initial report of two contrasting cases at 18 months and 15 years used coding of the family alliances at 18 months and micropattern analyses at 15 years. There was clear continuity in both cases, with collective intersubjectivity prevailing in the one, and challenges in the other (Frascarolo et al. 2018). In this case study, we further develop the microanalytic method, applying it to the PLTP to document coparental intersubjectivity, the building block for later collective intersubjectivity. Certain adaptations were necessary. In the PLTP, the doll is not able to contribute to three-way communication. Nonetheless, it constitutes a third pole in the interaction and its presence needs to be considered. As well, in the adolescent LTP, discussion replaces play, where rapid transitions in gaze can either be for sharing of affect, or can be about managing turn taking in conversation (Duncan and Farley 1990). As a result, we opted to use another indicator of triangular communication, Mutual Smiles Episodes (MSEs), which has been used to study affect regulation in patient-therapist interactions in individual psychotherapy research (de Roten et al. 2002) as well as with triads in the case of couple counselling (Darwiche et al. 2008). There are 4 MSEs, which correspond with different social functions in a two- or three-person discussion: *supporting mutual binding*, *repairing*, *sharing miseries*, and *confronting*. In the case of *binding* and *repairing*, affects are positive, whereas in *sharing miseries* and *confronting*, they are negative. In this system, positive MSEs mark two- or three-person

affect sharing, and thus collective intersubjectivity. In contrast, negative MSEs divide the dyad or triad, affects are not shared, and there is no intersubjective communication. In addition to this new method of coding MSEs to capture three-way communication, we further developed the microanalytic method of coding gaze and affect, used in our previous infancy studies, to the context of discussion, in both the prenatal and adolescent LTPs (see methods).

In this chapter, we explore two more contrasting families from our longitudinal sample. We compare interaction micropatterns of the coparenting couple during their prenatal and adolescent LTPs, in addition to analyzing the micropatterns of the adolescent at this later stage. Our goal is to show that the collective intersubjectivity of the coparents with their imagined baby, presumably handed down to them from their own families of origin, predicts the trajectory of three-way intersubjective communication in adolescence, both with respect to strengths as well as areas of difficulties.

Method

Participants

The families of Lucas and Arnold were part of a longitudinal, nonclinical, volunteer community sample ($N = 50$). They were seen at the Center for Family Studies at the 7th month of pregnancy, at 3, 4, 9, and 18 months after birth, and in the child's 5th and 15th year. The families are contrasting in terms of the quality of their three-person communication: "good-enough" in the case of Lucas, growing up in the context of a functional coparenting alliance, and "atypical" in the case of Arnold, growing up in the context of an extremely problematic coparenting coalition (McHale and Fivaz-Depeursinge 1999). The two cases were medically healthy (as were all the infants in the study), from families in the middle to high socioeconomic bracket, and were also matched for gender and parents' professions. Lucas' family has a cooperative alliance, while Arnold's is one of five families in the sample with a detouring coalition, where unexpressed conflict between the parents is deflected onto the child, who then becomes a scapegoat, victim, or parent to their parents (Minuchin 1974).

Procedures

Family interactions were video recorded during the PLTP, and the LTPs at 3, 9, and 18 months, as well as during the two adaptations of the LTP at 5 and 15 years. Parents completed written questionnaires after each LTP, and also received

video-feedback sessions about their family interactions. While the LTPs were recorded in a laboratory situation, the ecological validity of the LTP, or its generalizability to real life settings, has been demonstrated in a previous paper (see Favez et al. 2017).

Semistandardized Observational Situations As noted above, the PLTP along with the adolescent LTP are both derived from the standard LTP. As such, they also include the same 4 configurations.

PLTP The session begins with an interview with the parents about how they imagine their trio will be once the baby arrives, including their plans for “who does what” in caring for the baby. Next, they are asked to do a role-play of their first moments with the baby. The consultant then leaves the room to go get “the baby,” a faceless rag doll about the same size and weight of a newborn. Upon returning to the room with the doll, the consultant uses caretaker speech and introduces the “baby” to the parents. The parents are then given the following instructions:

It’s the first time you’re alone together and I’d like you to play out this beautiful moment for us. I’m going to ask you to play in the following four parts. First, one of you plays with the baby, in other words, meets the baby. Next, you switch roles for part two. Then in part three both of you play with the baby together. Finally, in the fourth part you’ll let the baby sleep, and discuss what you just experienced. You can pick the baby up if you wish. The whole thing usually takes 4 or 5 minutes. Please signal me when you’re done.

After answering any questions from the parents, the consultant leaves the room.

Adolescent-LTP All 50 families from the original sample, including any siblings, were invited to return for a follow-up at 15 years. They were given tasks to play out as a family, but the original participants, now adolescents, also had individual interviews and completed a three-person LTP with their two parents. At this stage, the LTP task is for the family to discuss some of the changes in their relationships as a result of the child becoming an adolescent. They are seated around a small round table. Below are the instructions that the youth and parents are given:

I’d like you to discuss the changes you’ve noticed with the transition to adolescence. What’s changed, or is in the process of changing for X? How have those changes affected your parent-child relationships and your family in general? Please discuss this theme in 4 parts: First one of you parents will chat with X, while the other remains “simply present”. After a while, you two parents switch roles for part 2. In part 3, all three of you will discuss these changes together. Finally, in part 4 we ask you, the parents, to continue discussing, while X is now “simply present”. The whole thing should take about 10-15 minutes. Please signal me when you’re done.

Microcoding

In this study, we opted to code the first two minutes of the three-together interaction. This phase of the LTP is the most complex, as it requires the parents to actively coordinate their efforts vis-à-vis their child, and by corollary, the child must manage two partners at the same time. Moreover, based on our experience, both in our research as well as clinical work, this part of the LTP can be particularly revealing of family dynamics (Fivaz-Depeursinge and Philipp 2014).

We began by identifying Mutual Smiling Episodes (MSEs) as one indicator of triangularity. We then used half-second intervals to code gaze orientation and affective valence of each partner to determine if there was a common focus and affective communion among the partners.

Coding of MSEs First, it is important to note that the verbal context must be considered in determining the beginning and end of a Mutual Smiling Episode, and so, we identified the briefest verbal interchange that gives meaning to the mutual smiles. As noted above, there are 4 types of MSEs, or moments where the two parents (PLTP) or all three partners (adolescent LTP) smile at one another. These MSEs correspond with different social functions: *supporting mutual binding*, *repairing*, *sharing miseries*, and *confronting*. In the case of *binding* and *repairing*, the affects are positive, whereas in *confronting* and *sharing miseries*, they are negative. In addition, smiles are defined as *genuine*, *social*, *miserable*, or *false* (Ekman and Friesen 1982) and their verbal and nonverbal contexts are also categorized. For instance, in the case of *mutual binding*, the smiles are *genuine* or *social* and occur in positive verbal and nonverbal contexts. We refer the reader to Darwiche et al. (2008) for more details.

Coding of Gaze and Affect Coding is done at half-second intervals. Focal attention is assessed by coding 4 possible gaze orientations (to one partner, to the other partner, pause or cognitive planning, and elsewhere). Affective communion is assessed using 4 affect valences (from positive to negative). Once each coparent has been coded, their scores are combined. These combined codes then form 4 categories of coparenting that an infant or adolescent can perceive (see Figs. 3.1 and 3.2).

Visual Inspection of Data By presenting microanalytic data in graph format, we can visually inspect the interaction patterns. We thus see how the various gaze and affect states are organized across time, and see patterns of adaptation, structure, hierarchy, and flexibility.

Reliability The first author completed the microcoding of MSEs, and of gaze and affect. With only two cases in this report, interrater reliability could not practically be assessed. However, the coder has previously regularly demonstrated good-to-excellent interrater reliability as both a FACS and a Gestalt coder for interactions between infants and their parents, as well as between therapists and couples (see Darwiche et al. 2008; Fivaz-Depeursinge and Corboz-Warnery 1999).

Observations of Parents During the PLTP

Since we are focusing mainly on part III, we will only briefly describe what happened in the first two and the last parts of the PLTPs of our two case examples.

Lucas' Parents

The PLTP begins with an initial discussion about how the parents imagine their trio after the birth. The parents talk about their hopes and fears as well as who will do what in caring for their child. The consultant next describes the role-play and how it will be about their first moments as a family of three. Lucas' parents seem surprised and perhaps a bit tense. One of them clarifies, "You actually want us to act this out?" and the consultant confirms that is what we want. They listen attentively to the instructions, and the two graciously embark on the task, despite their initial reticence.

Part I The mother begins, alternating between asking the baby questions, "Did you sleep well?" or making side comments to the father, "This isn't easy!" The father follows along attentively, helping to arrange the blanket around the doll. He asks the mother with concern, "Aren't you too tired?" She reassures him, "No, I'm ok, do you want to hold the baby now?" At first, he declines, but then he agrees to hold "baby."

Part II The parents discuss which side the father should hold the "baby" on, and he cradles it in a way that it can face the mother. She helps him get into the role-play, "Oh, he looked at you but now he's shut his eyes." Later the father gently says, "That's my little one!" The mother warmly replies, "See, it's not so hard."

Parts III-IV The father ends up keeping the baby in his arms right up to the end of the role-play, and so the exact moment of transition to part III is unclear. During their subsequent video-feedback session, the parents indicated when it felt like they had transitioned to part III, and we used the subsequent 90 second sequence for microanalysis. In part IV, they speak primarily about caring for the baby, and do not signal when or if they have finished, so the consultant returns at some point. The parents report to her that they had run out of things to do, and the mother comments, "It's so hard to imagine without a face on the doll."

Comments As the parents chat, they show interest and often look affectionately at one another. They cooperate as they play, and gradually appear to relax during the exercise. The mother pauses often, seemingly embarrassed. The father helps her out by asking her questions about childcare or about how she feels post "delivery." They both do very little exploration of the "baby's" body, except its feet, and to comment on its length. They alternate between stretches where both look at the doll, and

moments where they talk and look at one another, often smiling. As listeners, they often nod, say “Mhm,” or provide other backchannel or nonverbal feedback to one another. Their interactions with the doll, while not particularly varied, appear natural, and caretaker-like. The mother uses baby-talk, gently caresses the doll’s body, and worries about how it is doing. The father seems at ease holding the “baby” affectionately and calling it “my little one.” Their coparenting scores yield a moderate alliance. Their strength is in their cooperation, while their intuitive parenting behaviors are coded as intermediate, as is their family warmth (elevated warmth between the couple but only moderate warmth with the “baby”).

MSE Analysis There were 3 “repair” MSEs, taking up one-third of the 90-second sequence of part III. In search of inspiration, the mother turns to the father to comment (MSE1, “Ok, he’s sleeping. It’s not that hard...”) or he asks a question (MSE2, “When does he eat?”). In both instances, the other parent responds, at which point, there is an intensification of them looking and smiling at each other, to the point of laughter. At first, the smiles and laughs seem forced, but they progressively lead to playful and affectionate visual contact, ending with a shared laugh.

General Comments on Lucas’ Parents’ PLTP Altogether, there are sufficient signs of a coparental alliance that we expect will lay the foundation for a “good-enough” three-person intersubjective communication when the baby comes. Throughout the task, the couple remains warm with one another, sharing joint focus on their baby, creating a potential triangular space for him.

Arnold’s Parents

The session begins with the same questions about their future life as a family. As the consultant next describes the PLTP task to the parents, they seem to not react at all. When the consultant goes to get the “baby,” they call her back to ask, “Are we supposed to start right away?” She clarifies that she has to get the “baby” first. When she returns, the couple listens attentively to the instructions and they start the role-play, without asking any other questions.

Part I The mother is the first to play with the doll. She makes the occasional comment to the father but also talks directly to the “baby.” Apart from holding the doll in her arms, she does not really touch it. The father’s expression is flat throughout this part, but he does remark, “It makes me happy to see you happy.” After a while, the mother says to the “baby,” “Do you want to meet your Daddy?” and then turns to the father, “Here, you take him now.” The father hesitates, but then takes the doll.

Part II The father rocks the doll mechanically in his arms, as if it were an object, stating, “I don’t know what to do.” The mother appears tense, her arms lying stiffly in her lap. She warns him, “Careful not to swing him too high” and suggests that the

“baby” is going to open his eyes. The whole part is quite short. The father comments, “I don’t really know what to do,” and puts the doll back in the bassinet.

Part III This part is even shorter. Both parents lean slightly forward, oriented toward the “baby” at dialogue distance. The mother occasionally glances at the father; he almost never looks at her and his face appears frozen as he stares at the “baby.” The mother looks awkward and tense. She smiles sadly as she looks at the doll. She looks even less at ease now than during part I. The father still appears flat, smiling only occasionally. He actually is more active than he was in part II, but his behavior is odd. For example, at one point, he covers the doll’s eyes, commenting, “I want to see if he’ll react...I want to show him something.” He then pulls out a pocketknife “to show the baby”. When the father comments that the “baby” reminds him of, “Gottlieb, when he saw the extra-terrestrial landing” (note: we did not understand this reference), the mother turns to the baby and says, “Poor baby, do you hear what your dad is telling you?!” Then she suddenly changes her tone, exclaiming, “Oh your hands are so pretty!” and she turns to the father to share in this moment. He responds with a small smile but no eye contact. She looks thoughtfully at the doll, not saying anything, and then suggests, “Let’s let him sleep now.”

Part IV The couple sits back, but they remain oriented toward the doll, not turning to face each other. The mother immediately asks the father if he had to wait long (he had previously said that he would not be attending the birth). He replies, “No, it wasn’t that hard after all.” “I didn’t bother you too much, or...?” she asks. “No,” he answers. The mother responds, “It was good that it didn’t take too long” and the father adds, “I think that in the future, I will try to hold him closer to me...I think we’ve done all four parts” and the mother agrees, “Yeah, we didn’t talk much, but...”

Comments Based on the scores of this interaction, this alliance was one of the most problematic in our sample. Their greatest strength is the partners’ adherence to the structure of the 4 parts of the PLTP. Their challenges are cooperation, family warmth, and intuitive parenting. With respect to cooperation, the mother provides some support to the father, but it is not reciprocated by him. In terms of family warmth, the mother shows some tenderness to the “baby,” but at the same time, she seems preoccupied by wanting to keep the father engaged, making comments to keep him engaged, even when it is her turn to play and he is supposed to be simply present. The father shows no affection to either the mother or the “baby.” Finally, coding for intuitive parenting behaviors is “low” for the mother, and “bizarre” for the father (see Schoppe-Sullivan et al. 2014 for more details on coding intuitive parenting behaviors). Despite how challenging this task is for the parents, they are willing to try. During his part, the father makes one attempt at playing, but then acknowledges how challenging it is for him and gives up. During the 3-together play, other elements emerge. The father’s distant and bizarre way of interacting with both his wife and the doll is reminiscent of what Gottman has described, in the context of couple’s discussions, as “stonewalling” (Gottman et al. 2003). His decision to use an object, the penknife, is perhaps an odd sort of intermediary between him

and the “baby.” After the extraterrestrial comment, the mother’s tone changes. Rather than redirecting or challenging her partner about his behavior, she addresses the “baby” in a sad and tender tone, “Poor baby, do you hear what your dad is saying about you?!” In this way, she manages to disqualify the father, and places the “baby” in a problematic triangulation.

MSE Analysis Consistent with the observations above, there were no MSEs noted in this interaction. This failure in triangularity is immediately observable in the parents’ near-constant gaze fixation on the “baby,” with no shared emotion between them. There is only one-half second sequence during which the father’s gaze meets the mother’s. He smiles rarely, and on only two occasions do these smiles correspond with him glancing at the mother (and these are not reciprocated by her); the rest of his smiles are directed at the “baby.” They do not fulfill the criteria of positivity, as they are too brief and very low in intensity. In contrast to the father, the mother’s smiles are more often directed to the father than to the “baby.” And while she smiles more frequently, these smiles are coded as miserable, blended with sadness.

General Comments on Arnold’s Parents’ PLTP The elements we observed in Arnold’s parents PLTP speak to a notable failure in the intersubjective communication of this expectant couple. Their focus is far from shared, there is no affective communion, and the parents do not really communicate about or to their “baby,” who has almost no role in the interaction. Their relative strengths cannot make up for these divisive elements. Instead the signs are there that this baby will be welcomed into a detouring coalition, where conflict between the parents will be detoured onto the child by making him into a scape goat, victim, or “parent” for the couple (Fivaz-Depeursinge et al. 2009; Minuchin 1974).

Observations of Parents and Adolescents During the LTP

Lucas is now 15 years old, and his younger brother is 13. Arnold is also 15, and now has a younger brother, 13, and two younger sisters, aged 11 and 9 years. We again start with a description of interactions between Lucas and his family.

Lucas and His Parents

Throughout this LTP, the parents appear engaged, smiling, and playful. There is affection and humor between them as well as toward Lucas. The complementarity in their interaction prenatally has now been replaced by a more egalitarian style. In his gentle way, the father is in fact more of the driver of the interaction now. The mother participates enthusiastically. Lucas is calm and a bit reserved, but

affectionate and playful as well. He sticks to his main message – he wants more independence.

Part I The father starts with Lucas, while the mother looks on attentively. “What do you think has changed since you became an adolescent?” Lucas responds, “My grades, and my voice. What do you think has changed?” His father adds, “You’re more reserved and you’ve pulled back a little from us. I feel like you share more with grandpa than with me. You’re growing up, right...” All three smile at one another. The father continues, “and you... towards me or the family, do you think we get on your nerves a bit; like you don’t feel like doing things.” Lucas replies, “I wish you guys would just let me do what I want.” The parents share a knowing look. They continue in this vein, with many moments of affect sharing between father and son, and the mother resonating, plus moments where the parents share a knowing look.

Part II With the father now looking on attentively and resonating, the mother reformulates the question, “What’s changed in our lives since you entered adolescence?” The central issue for Lucas continues to be that he would like more freedom. The mother points out that she has more experience than he and that, “we have different expectations as parents than you have...” Again, there are many moments of shared affect between mother and son, and moments where the parents glance at one another knowingly.

Part III The three-way discussion begins with a moment of humor. The father suggests they make a list of what Lucas can do on his own. Lucas jokingly replies, “That’ll take forever!” Playing along, the mother adds, “Yeah! That’s what we should do.” Shortly after, they become serious again, with the mother noting, “The only time we spend together is at meals. Does that bug you that you don’t spend much time with us?” Lucas shrugs, and the mother turns to her husband to ask him what he thinks. The father once again takes a humorous tone, “Luckily we still have to feed him!” and then adds to Lucas, “Because otherwise you wouldn’t eat at all!” All three laugh, sharing affectionately in the moment. Smiling a bit, Lucas says, “I would so!” And grinning, the father asks, “What, you’d cook for yourself?” The mother, also smiling says, “Yeah, what would you make?” Lucas replies, “I’d get frozen pizzas at the supermarket...” and all three once again laugh together. The mother suggests, “Or maybe MacDonald’s; it’s a bit more expensive but...” The father then adds, “and that’s why we don’t let you do everything!” Soon after, Lucas gently reminds them that they have strayed from the assigned topic, and the mother raises the issue of Lucas not wanting as much time with them anymore, “We wish we could spend more time with you.” The father adds, “You’re more like a grown up now...” Lucas agrees, “Yeah, I’d like to be more independent; do stuff on my own.” The father replies, “You’ll have your independence one day...” and the parents both laugh gently. They go on to talk some more about the physical changes that have happened to Lucas. Then Lucas suggests that the parents should now have their own discussion. The parents exchange several looks and mutual smiles as they transition.

Part IV During the dialogue between the parents, Lucas withdraws, giving the impression he is disinterested. The father starts, “I can see giving him a bit more independence.” And the mother reminds him, “I think we should come back to the theme of changes.” The father responds, “Lucas is definitely becoming an adult. We talk about more serious stuff now.” They go on to talk about their respective roles in setting limits and how the mother imagines Lucas will eventually be interested in participating in family again, “That’s how it was for me, I’m not sure if that’s how it is for boys?” The father responds, “No, it was the same for me.” They both agree to end the activity, and exchange more mutual gazes and smiles.

MSEs Analysis There are two “mutual binding” MSEs, that take up close to 15% of the sequence, and during which everything converges: genuine or social smiles, positive and coherent verbal as well as nonverbal interchanges.

The first *binding* smile occurs at the beginning of the 3-together interaction, just after the father says, he will make a list of what Lucas can do alone or with them. Both the mother and Lucas add their quips and the parents laugh as Lucas smiles. The mother then clarifies, “We’re supposed to be talking all together now?” and redirects them to the assigned topic about changes in adolescence. It is here that they talk more seriously about how the only time they spend together is at mealtimes. The earlier smiles and laughter are replaced by more serious expressions. The humorous MSE unites the family, preparing them for the more challenging discussion about Lucas’ wish for more independence and the parents’ wish for more time together.

The second *binding* mutual smile happens when the father says to the mother, “Luckily we still have to feed him!” and they joke about what Lucas would eat. This time it is Lucas who brings the family back to the assigned topic. Once again, there is an episode of humor that unites the three, allowing them to broach the more challenging topic of Lucas not wanting to spend as much time with the family.

General Comments on Lucas’ Family’s LTP In these two MSEs, we see fairly optimal family dynamics, with cooperative and warm coparenting, and clearly marked intergenerational boundaries. Lucas participates well, marking some distance between himself and his parents, but remaining somewhat affectionate and clearly playful. He also sticks to his message of wanting more autonomy. All three share the same focus of attention and are connected emotionally. Communication flows between the three, with flexible turn-taking. In short, the criteria for triangular intersubjectivity, namely, focus sharing, affective communion, and triangularity, are amply fulfilled. Let us now turn to the LTP with Arnold and his family.

Arnold and His Parents

On the surface, the mood is cheerful. The parents present a united front, with one exception we discuss below. The father is very animated, and the mother frequently smiles, although it appears strained. Arnold is not very expressive, claiming he does

not know what changes have come with adolescence. He appears submissive, agreeing with everything his parents say.

Part I The mother states from the beginning that the theme of changes with adolescence is not relevant in their family, since Arnold does not do any of the typical teen behaviors. Arnold adds, “You just focus on school work, and don’t do dumb stuff...I guess the phone has changed things though.” His mother explains (presumably to the research team filming) that she made Arnold get a cell phone.

Part II The father suddenly jumps in and this part lasts longer, “You’ve grown, but don’t worry, I didn’t do the whole adolescent rebellion thing either...you’re doing great. I have total confidence in you... only thing to worry about is that things turn out good.” Later, at the end of this part, he adds, “Mom says you don’t like loud noises, but she doesn’t either. You should tell her it’s not OK to say, ‘you need to put up with it till it doesn’t bother you anymore’.” The father is referring to an incident at home where Arnold got a headache from some noises his siblings were making, and the mother had dismissed it, telling him it would all be fine. It is at this moment that the mother suggests they transition to the three-together part.

Part III The father continues on the same topic, now addressing the mother directly, “It’s kind of ironic for someone like you, who’s also sensitive to noise, to basically say to him ‘don’t worry about it.’ If I said that to you, you would not be happy...” The mother answers, “He’s only sensitive when it’s his siblings.” As she and Arnold continue to discuss the same recent incident with the siblings, the father states with sarcasm, “I wasn’t there for that delightful experience...If I had been there, it would not have gone that way...” The three exchange smiles that fail to mask the confrontation between them. The mother tries to refocus their discussion, “Let’s get back to what we’re supposed to be talking about.” The father then launches into a discourse on the importance of things turning out well, “...but if you do have a problem, mom and I have a great idea: no need to go to a shrink, just talk to a person you trust.” The mother adds, “Yeah, you could send them an email.” Arnold suggests his friends, but his father replies, “No, that’s too risky.” The mother again asks if Arnold has noticed any changes and Arnold answers, “Maybe I’m a bit more tired.” The father next whines about how Arnold is getting taller than him. Arnold quips, “So now I can boss people around...” The mother responds tensely, “Yeah, you can try...” Her tone then becomes more conciliatory, and with a miserable smile she says, “That kind of thing can work at scouts.” The father mumbles something about his own time in scouts, and then adds, “...but Arnold is so Zen.”

Part IV The parents remain facing Arnold and address him just as they did when they were in part III, instead of turning to face one another to discuss. They continue to talk about how everything is going well. Arnold appears to be listening.

MSEs Analysis There are two negative MSEs, both *confronting*, that occupy less than 5% of the sequence. The smiles cover nearly the full range of possible

styles: from (deliberately) genuine (Gunnery et al. 2012) to social, tense, miserable, and masked. They occur in ambiguous verbal and nonverbal contexts, mixing positive and negative.

The first MSE begins when the father criticizes the mother about how she dealt with Arnold's noise sensitivity, "I missed that delightful experience." She replies, "Let's get back to what we're supposed to be talking about." When the father is talking, Arnold looks at him with a smile that is (deliberately) genuine, and then gives his mother the same smile. At the same time, the father has a large, social smile for the mother, and then for Arnold, who immediately looks down. All three have successively looked at and smiled at one another. Regardless of whether they are social or genuine, their smiles do not mask what appears to be a clear *confrontation*.

The second MSE is a blend of *confronting* with a bit of *sharing miseries*. It is just before the end of part III. The father is lamenting how Arnold is outgrowing him, and he looks at the mother with a miserable smile. She in turn smiles at Arnold, who responds with a tense smile as he talks of bossing people around. Behind the multiple smiles is the father's sense of loss at seeing Arnold grow up, as well as the mother's jab about Arnold becoming more independent. The mutual smiles serve to cover what we suspect is considerable conflict between the parents and potentially with the adolescent, suggestive of problematic triangular communication.

General Comments on Arnold's Family's LTP There are contradictory and confusing elements to this interaction. Some of what they discuss is quite uncomfortable – the mother's reaction to Arnold's distress about the noise, and the father's attack on her about it. Yet all three are smiling, creating a veneer of apparent happiness. The culminating moment is when the parents suggest that even though everything is going so well, if Arnold ever were to have a problem he could not discuss with them, he could email someone for help. It is here that the paradoxical nature of this family's communication style becomes apparent: Clearly, there is conflict, yet on the surface, things appear happy, with smiles all around, in what Wynne et al. (1958) referred to as "pseudomutuality." On balance, we cannot consider this interaction as true three-person intersubjectivity or triangular in nature. The focus and affects only appear shared; the partners presumably each harbor alternate meanings and feelings underneath. These interactions once again point toward a detouring coalition, with the child in a parentified role.

Are the Foci and Affects Shared by All Three?

In addition to coding the MSEs, we coded gaze and affect for the family members in the same first 120 seconds of part III to determine whether the focus and affect were shared by all three family members. Figure 3.1 shows graphs of this coding for each boy's focus and affect during the adolescent's discussion with his parents.

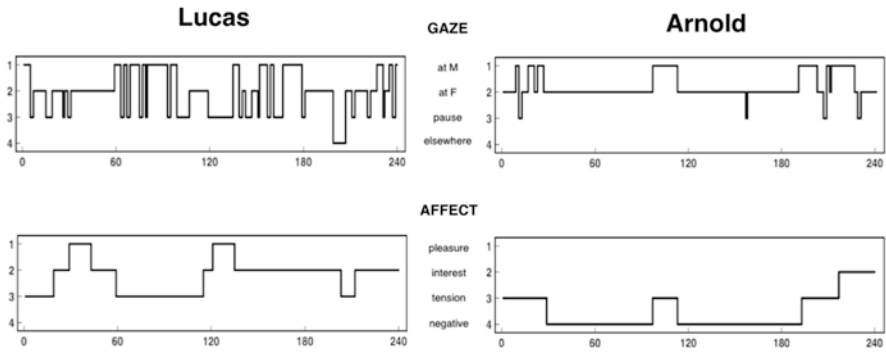


Fig. 3.1 Teens' Gaze and Affect Graphs ($N = 240$)
 Gaze: 1 = Teen looks at Mother; 2 = Teen looks at Father; 3 = Teen pauses (cognitive planning); 4 = Teen looks elsewhere
 Affect: 1 = Positive (pleasure, enthusiasm, humor, affection); 2 = Moderately positive (interest, attention, empathy); 3 = Moderately negative (tension); 4 = Negative (sadness, hostility, contempt, stonewalling, inauthentic signal)

Lucas' Individual Gaze and Affect During the Adolescent LTP

Lucas' interaction patterns are adaptive. His gaze is distributed in 5 main episodes (structure) with subepisodes embedded in them (hierarchy). In the first two episodes, he orients to his father and then to his mother. For the third, Lucas looks toward the couple, rapidly alternating his gaze (triangular bids). The fourth episode is back to his father and he ends with the couple again. In total, Lucas looks at his father half of the time, and at his mother a quarter of the time. There are several pauses of varying duration in the first two episodes. The pauses signify cognitive planning in discussions (flexibility). The rapid alternating gazes represent subepisodes and are examples of triangularity. The affect during most of this typical trilogue interaction is positive (positive affect dominance), punctuated by three briefer episodes of tension, the longest during orientation toward mother. In brief, the interaction is one of a typical trilogue, the patterns seen here fulfill the criteria of the task.

Arnold's Individual Gaze and Affect During the Adolescent LTP

In contrast to the complexity of Lucas' interaction, Arnold's style is maladaptively rigid. At the beginning and end of the sequence, he gazes briefly back and forth between his two parents, showing some evidence of triangularity; however, his gaze remains fixed on his father three quarters of the time. He looks at his father for two long episodes during which he only glances a few times at his mother. He looks at his mother during three brief episodes, during which he glances a few times at his

father. Negative affects predominate the interaction, covering two-thirds of the time, with briefer moments of tension, and ending with one solitary episode of positive interest. In other words, these patterns show major flaws in managing the task.

Figure 3.2 shows the coparenting patterns of each family in the prenatal and adolescent periods, illustrating the continuity of both the adaptive and maladaptive patterns across development.

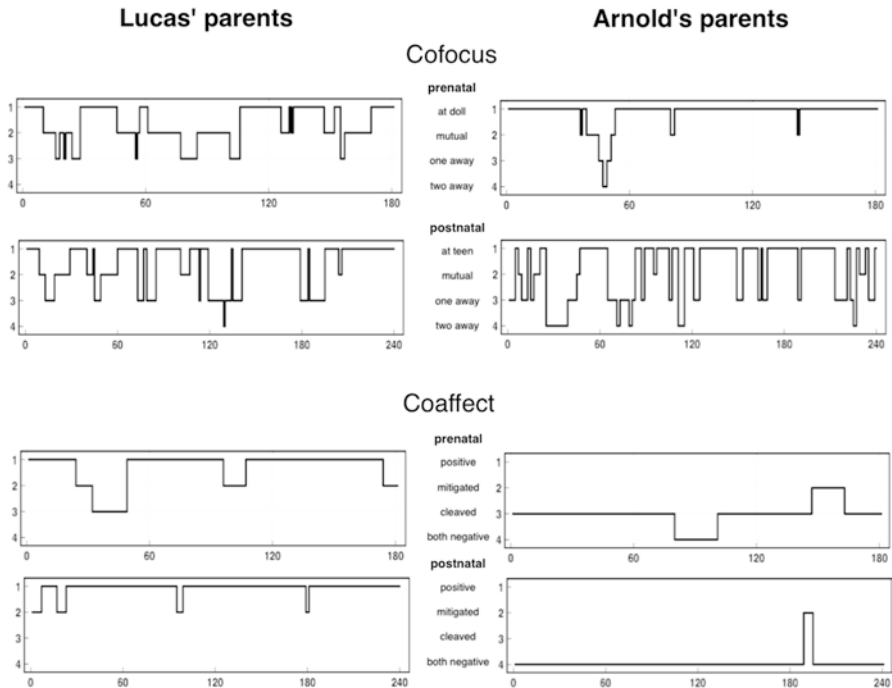


Fig. 3.2 Couples' Cofocus and Coaffect Graphs During Pregnancy ($N = 180$) and Adolescence ($N = 240$)

Cofocus: 1 = Both parents look at doll/teen; 2 = Both parents look at each other; 3 = One parent looks at doll/teen or partner, other parent looks elsewhere; 4 = Both parents look elsewhere

Coaffect: 1 = Both parents positive or moderately positive; 2 = One parent positive, other parent moderately negative; 3 = Cleaved (one parent positive or moderately positive, other parent moderately negative or negative); 4 = Both parents negative

Coparental Focus and Affect During Lucas' PLTP

The parents regularly alternate between stretches of shared joint focus on the “baby,” or focus on one another (predictable and adapted structure). Positive affects predominate, with each partner showing availability to the other (positive affect dominance). We anticipate that the infant of these parents will feel this availability and mutuality between his parents when he is born.

Coparental Focus and Affect During Arnold's PLTP

The focus of Arnold's parents, on the other hand, is rigid (structure) and maladaptive. They almost exclusively both look at the "baby," with only a few exceptions, where they are still unavailable to one another (negative affective dominance). We expect that the infant of these parents will carry a heavy load, with his parents both focused on him, yet expressing confusing, inauthentic affects presumably functioning to cover up their conflict.

Coparental Focus and Affect During Lucas' Adolescent LTP

The parents' joint focus has the same predictable and adaptive structure we saw prenatally, with them alternating regularly between looking at one another and looking at Lucas. The only difference is that there are longer pauses, where they look away for cognitive planning aligned with Lucas' active participation. The affective context is even more positive than it was prenatally and when brief breaks in the positive affect sharing do occur, the parents remain present in the interaction with one another through their voices or verbal content (flexibility).

Coparental Focus and Affect During Arnold's Adolescent LTP

The parents have nearly exclusive cofocus on Arnold, placing him at the center of their interaction, particularly when one considers how little attention they give to one another. This family only has very brief pauses, yielding an interaction that is rigid and maladaptive. The subcontext is that while the interaction appears superficially positive, it is underpinned by negativity and inauthenticity. The continuity is notable. What we saw as a potential problem in the PLTP is now an actuality in adolescence, with Arnold placed in a role-reversed position vis-a-vis his parents.

Discussion

In this section, we discuss the question of continuity of interaction patterns from pregnancy into adolescence, as well as how normative interactions differ from problematic patterns across this same period. We integrate some of our work from earlier phases of our study on infancy and early childhood as well as that of others.

In Lucas' family, we concluded that the prenatal coparental alliance, characterized by warmth, shared focus, and a potential for triangular communication, would lay a foundation for good-enough three-person intersubjective communication once

the baby arrived. During infancy and early childhood, the coparental alliance did indeed continue along these same lines. There was warmth, cooperation, and a complementarity, with the mother leading and the father engaging and participating in his own gentle manner. Lucas was a calm, alert, and well-regulated infant. From the outset, he was able to interact with his two parents at the same time, using triangular bids. As previously described in detail (Fivaz-Depeursinge and Philipp 2014), Lucas' triangular bids and his parents' validations developed along the lines of primary, secondary, symbolic-moral, and narrative collective intersubjectivity, preparing him and his parents for the more mature form of collective intersubjective communication that we observed in adolescence. Indeed, as a teen, while Lucas persistently marked some distance between himself and his parents, he remained affectionate and playful. Positive affect dominated even as he kept to his message of wanting more autonomy. Despite this tension around autonomy, the coparenting alliance was reinforced, with the father now in the leading role. In short, the criteria for collective intersubjectivity, namely, focus sharing, affective communion and triangularity, were fulfilled.

These results were clearly confirmed by visual inspection of the graphs of interactive patterns: The coparenting couple's interaction patterns were adaptive, from the perspective of structure, hierarchy, flexibility, and triangularity in a context of positive affect dominance. So were the individual interaction patterns of Lucas.

In contrast, in Arnold's family, we saw a notable failure in intersubjective communication from the outset. The expectant couple struggled with sharing focus, affective communion, and potential triangularity. There were signs of a detouring coalition to come, where the baby would become a scapegoat, victim, or "parent" for the couple (Fivaz-Depeursinge et al. 2009; Philipp et al. 2009). This hypothesis was confirmed during infancy, early childhood, and into adolescence. From the start, although the parents were very invested in their roles, they were frankly overwhelmed, appearing anxious and controlling. As an infant, Arnold looked anxious, alternating between freezing and screaming. He got no response to his bids when looking back and forth between his parents in triangular bids or later, during social referencing. By toddlerhood, things had radically shifted from Arnold appearing distressed, to now looking compulsive-compliant. This shift has been described by attachment theorists (Crittendon and DiLalla 1988) in the context of disorganized attachment as well as in the family therapy literature. Arnold's overly compliant or compulsive behaviors served to bring the parents' focus onto him, and away from their unspoken conflict, again a pattern of detouring and parentification of the child. This pattern continued into early childhood. Finally, by adolescence, while things looked perfectly happy on the surface, there was clear conflict in the family, covered up by pseudo-mutuality. Once again, we saw a detouring coalition, with the teen in a parentified role.

Again, these observations are supported by visual inspection of the graphs of gaze and affect patterns. In Lucas' family, the interactive patterns were complex and flexible. In contrast, in Arnold's family, the interactive patterns were maladaptively rigid, from the perspective of structure, hierarchy, flexibility, triangularity, and affect dominance. Most representative was how the coparents' gaze was fixed on the

doll during the PLTP, and on Arnold in the adolescent LTP. Similarly, as an adolescent, Arnold's gaze was fixed (for the most part on his father). Negative affect predominated and triangular patterns were quasiabsent at both observation times.

Thus, there is good evidence for continuity between the prenatal and adolescent LTPs, reinforced by what we saw in infancy and early childhood in both cases. The results point toward continuous progress toward typical development of collective intersubjectivity in Lucas' family. The interactive patterns are adapted to the task. Their structure is complex, with a hierarchy of levels that remain flexible, and positive affects predominate. In contrast, in Arnold's family, the interactive patterns are maladapted, their structure is poor, without hierarchy, and extremely rigid, and negative, paradoxical affects predominate. In both cases, triangular interaction patterns 15 years after birth were predicted by patterns observed when parents simply imagined interacting with their child during pregnancy. These findings illustrate Cowan's (1991) notion that "The transition amplifies processes already in motion before the transition begins." (p. 20). Despite the plethora of changes Lucas' and Arnold's families experienced from pregnancy through 15 years of their children's development, their capacity for collective intersubjectivity or lack thereof hinted at during their prenatal interactions continued to progress on predictable paths into adolescence.

Limitations and Future Research

The methods used in our first two case studies should be replicated with other families from the entire sample collected at 15 years of age. Ideally, this would be with a new team of coders, naïve to the sample we have been following, as one serious limitation is that of interrater reliability. In this way, we would also get a more complete picture of normal developmental trajectories, and validate the techniques described here.

New Coding Methods of the PLTP It would be interesting to use two additional new coding methods developed by our colleagues. F. Suardi developed a coding system for the *prenatal baby's imaginary responses* to her parents' coparenting (unpublished manuscript, 2016). This new step in coding allows the observer to identify more closely with the imaginary baby's position.

Another new coding method, developed by J. Darwiche, looks at the couple's intuitive coparenting behaviors, in addition to looking at each parent's individual intuitive parenting behaviors. This system considers the coparenting unit and codes the degree of coordination between the individual parents' intuitive behaviors (Darwiche et al. 2016). The advantage of this dyadic coding is that it defines intuitive parenting behaviors at the same system level as the other coding categories.

Triangular Negative Intersubjectivity In 2016, J. Gaensbauer (2016) proposed extending Lou Sander and Daniel Stern's conceptual framework of "moments of

meeting” from the normative population to problematic patterns of interaction between infant and caretaker. They showed that positive shared states bring about strong feelings of connection between partners (Sander 2002) and are experienced as highly desirable, becoming with repetition “intersubjective goals” (Stern et al. 1998, p. 908). Supported by this premise, J. Gaensbauer provided various examples of negative scripts played out between child and caretaker, such as aggressive acts, mutual fear, shared sadness, in which infants seem motivated to re-create “affectively privileged negative moments of meeting with caretakers” (p. 182). He cited Tronick (1998), stating that “infants are likely to be responsive to whatever forms of meaningful affective engagement, positive or negative, that the caregiver is able to provide and that the infant can reliably anticipate.” (p. 297). In previous papers, we applied the moment of meeting model to triangular interactions, showing that shared positive moments of meeting are also observable in three-way interactions (Fivaz-Depeursinge 2017; Stern 2004, 2005). Returning to the definition presented here of collective intersubjectivity, that is, the triangular sharing of focus and positive affect, we feel that it would be beneficial to explore the possibility of enlarging our model to include the triangular sharing of problematic patterns, like those observed in Arnold’s family, as well as in our previous paper (Frascarolo et al. 2018).

Predictive Power of Prenatal Coparenting and of PLTP The stability of observed prenatal coparenting interactions and family and coparenting alliances not only extends to infancy (Favez et al. 2013; Kuersten-Hogan 2017; Simonelli et al. 2012), but also to early childhood (Altenburger et al. 2014; Favez et al. 2006; McHale et al. 2004; McHale and Rotman 2007) and now adolescence (Hedenbro and Rydelius 2018). The prenatal representations of coparents are also highly correlated with postnatal interactions (Favez et al. 2013; Feinberg 2002; Von Klitzing et al. 1999). However, when we try to reconcile observed interactions of coparents with their representations, the study of the development of the coparenting relationship becomes more complex. In a multimethod longitudinal investigation, Kuersten-Hogan (2017) demonstrated continuity in both coparenting interactions, as well as representations over the transition to coparenthood. However, there was no evidence of any systematic associations between these two trajectories. Perhaps a supplementary measure is needed? David Reiss (1981) described a distinction between what he called the “practicing” and the “represented” family. He and others used a two-level method for the study of the represented family, starting with individual measures of representations. Then, rather than averaging the individual scores, they devised dyadic or family level measures of “collective representations,” based on tasks or interviews of the whole family, thus obtaining measures at the same system level as the interactive ones (for a summary see Simon et al. 1985). In one study following this prescription of looking at the parents’ individual and couple’s representations, the authors only found an association between the father’s prenatal representations and the family’s postnatal interactions (for a discussion, see Favez et al. 2013). This issue warrants further exploration. Moreover, the question of the origin of the coparenting relationship may find its roots before conception, with the formation of the marital bond, as suggested by Gottman’s longitudinal studies of couples,

where early conflict negotiation was associated with later physiology and emotion regulation of the 4-month-old during an LTP (see Fearnley Shapiro et al. 1997). Reaching even further back, Keren (2018) has interviewed parents about their own parents as a coparenting team, which may prove informative to their current relationship as they navigate their own coparenting (see Chap. 4 in this book for some further discussion of the family-of-origin impact on coparenting).

Diversity The current sample is limited to predominantly middle to high SES white, European, cisgender, heterosexual couples. While some have explored the family alliance in lower SES families in Chili (Olhaberry et al. 2017), mother-grandmother triads in low and high SES families in Turkey (Salman-Engin et al. 2018), same-sex couples (see Miscioscia et al. in Chap. 8 of this book), as well as in a high-risk population of non-cohabitating lower SES African-American couples (McHale 2009; McHale et al. 2013 and Chap. 14 of this book), more is needed to clarify what adjustments need to be made in our understanding of normative behaviors within a more diverse sample. For example, in the high-risk African-American sample, McHale and Coates (2014; Coates and McHale 2018) have now documented sequential responses of fathers to their infants' bids and of the mothers' validations of these infant-father privileged microsequences.

Conclusion

In the present study, we used both macro- and microanalyses for our longitudinal observations of families from pregnancy through adolescences. This allowed for a two-way (cross) validation of the data, and bridged the clinical (macro) and research (micro) perspectives. Moreover, meeting and following families from pregnancy to adolescence was a unique experience for us. Sharing their experiences of the LTP was invaluable as they moved through successive developmental stages. It was essential to take the time to discuss these experiences with them through video-feedback sessions after each LTP (Fivaz-Depeursinge et al. 2004; Fivaz-Depeursinge and Philipp 2014). Through these sessions, we learned from their subjective experiences, sometimes to the point of sharing collective intersubjective moments with them. We feel that it was a unique opportunity for us to get to know the families and for them to get to know their own family from an outsider's perspective in the context of a long-term research alliance. This was but one way among several others presented in this book to accompany families during their transition to parenthood. Our observations of families' intersubjective communication during pregnancy not only provided insights into normative development, but also allowed us to consider opportunities for prevention and intervention with diverse sets of families.

Acknowledgments We thank Graziella Bezzan and Nilo Puglisi for their participation in coding the 18-month LTPs, Francesca Suardi for her help in coding Lucas' and Arnold's imaginary babies' responses to their coparents, and Roland Fivaz for his help in designing the data graphs.

This study was funded by the Swiss National Science Foundation (Grant 32-52508.97).

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards and the « Commission cantonale (VD) d'éthique de la recherche sur l'être humain » gave its agreement.

Informed Consent Informed consent was obtained from all individual participants included in the study. The families have agreed to the use of their data with the understanding that we change identifying information to protect their anonymity. Every effort has been made to retain elements necessary to relay key teaching points.

References

- Altenburger, S. J., Schoppe-Sullivan, S. N., Lang, S. N., Bower, D. J., & Kamp Dush, C. M. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology, 28*(4), 495–504.
- Bradley, B. S., & Smithson, M. (2017). Groupness in preverbal infants: Proof of concept. *Frontiers in Psychology, 8*, 385. <https://doi.org/10.3389/fpsyg.2017.00385>.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*, 207–228. <https://doi.org/10.1002/imhj.20089>.
- Coates, E. E., & McHale, J. P. (2018). Triangular interactions of unmarried African American mothers and fathers with their 3-month-old infants. *Journal of Child and Family Studies, 27*, 3096–3106. <https://doi.org/10.1007/s10826-018-1082-8>.
- Corboz-Warnery, A., Fivaz-Depeursinge, E., Gertsch-Bettens, C., & Favez, N. (1993). Systemic analysis of father-mother-baby interaction: The Lausanne Triadic Play. *Infant Mental Health Journal, 14*(4), 298–316. [https://doi.org/10.1002/1097-0355\(199324\)14:4<298::AID-IMHJ280140405>3.0.CO;2-#](https://doi.org/10.1002/1097-0355(199324)14:4<298::AID-IMHJ280140405>3.0.CO;2-#).
- Cowan, P. (1991). Individual and family life transitions: A proposal for a new definition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 3–30). Mahwah: Lawrence Erlbaum Associates.
- Crittendon, P. M., & DiLalla, D. L. (1988). Compulsive compliance: The development of an inhibitory coping strategy in infancy. *Journal of Abnormal Child Psychology, 16*, 585–599.
- Darwiche, J., de Roten, Y., Stern, D. J., Crettaz de Roten, F., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2008). Mutual smiling episodes and therapeutic alliance in a therapist-couple discussion task. *Swiss Journal of Psychology, 67*(4).
- Darwiche, J., Fivaz-Depeursinge, E., & Corboz-Warnery, A. (2016). Prenatal coparenting behaviors. *Frontiers in Psychology, 7*, 1662. <https://doi.org/10.3389/fpsyg.2016.01662>.
- de Roten, Y., Gilliéron, E., Despland, J.-N., & Stigler, M. (2002). Functions of mutual smiling and alliance building in early therapeutic interaction. *Psychotherapy Research, 12*(2), 193–212.
- Duncan, S., & Farley, A. M. (1990). Achieving parent-child coordination through convention: Fixed- and variable-sequence conventions. *Child Development, 61*, 742–753.
- Ekman, P., & Friesen, W. (1982). Felt, false, and miserable smiles. *Journal of Non-verbal Behavior, 6*(4).

- Favez, N., Frascarolo, F., Carneiro, C., Montfort, V., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The development of the family alliance from pregnancy to toddlerhood and children outcomes at 18 months. *Infant and Child Development, 15*, 59–73.
- Favez, N., Lopes, F., Bernard, M., Frascarolo, F., Lavanchy Scaiola, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2012). The development of family alliance from pregnancy to toddlerhood and child outcomes at 5 years. *Family Process, 51*(4), 542–556. <https://doi.org/10.1111/j.1545-5300.2012.01419.x>.
- Favez, N., Frascarolo, F., Lavanchy Scaiola, C., & Corboz-Warnery, A. (2013). Prenatal representations of family in parents and coparental interactions as predictors of triadic interactions during infancy. *IMHJ, 34*, 1), 25–1). 36. <https://doi.org/10.1002/imhj.21372>.
- Favez, N., Tissot, H., & Frascarolo, F. (2017). Is it typical? The ecological validity of the observation of mother-father-infant interactions in the Lausanne Trilogue Play. *European Journal of Developmental Psychology. https://doi.org/10.1080/17405629.2017.1326907*.
- Fearnley Shapiro, A., Gottman, J., Lubkin, S., Swanson, C., Burgess, P., & Murray, J. (1997). *The transfer of marital conflict to the developing infant: Examining dynamics within the father-mother-baby triad and the roots of emotion regulation*. Paper presented at the conference on affects and systems. The affective foundations of therapy and counseling, Zürich.
- Feinberg, M. (2002). Coparenting and the transition to parenthood: A framework for prevention. *Clinical Child and Family Psychology Review, 5*(3), 173–195.
- Fivaz, R. (1989). *L'ordre et la volupté*. Lausanne: Presses Polytechniques Romandes.
- Fivaz, E., Fivaz, R., & Kaufmann, L. (1982). Encadrement du développement, le point de vue systémique. Fonctions pédagogique, parentale, thérapeutique [Framing development: The systemic point of view. Pedagogical, parental and therapeutic functions]. *Cahiers Critiques de Thérapie Familiale et de Pratiques de Réseaux, 4*, 63–5, 74.
- Fivaz-Depeursinge, E. (2017). The present moment in the primary triangle. *Psychoanalytic Inquiry, 37*(4), 242–250. <https://doi.org/10.1080/07351690.2017.1299499>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers, and infants*. New York: Basic Books.
- Fivaz-Depeursinge, E., & Philipp, D. A. (2014). *The baby and the couple: Understanding and treating young families*. Hove: Routledge Press.
- Fivaz-Depeursinge, E., Corboz-Warnery, A., & Keren, M. (2004). The primary triangle. Treating infants in their families. In A. J. Sameroff, S. C. McDonough, & K. L. Rosenblum (Eds.), *Treating parent-infant problems. Strategies for intervention*. New York: Guilford Press.
- Fivaz-Depeursinge, E., Favez, N., Lavanchy, C., de Noni, S., & Frascarolo, F. (2005). Four-month-olds make triangular bids to father and mother during Trilogue Play with still-face. *Social Development, 14*(2), 361–378.
- Fivaz-Depeursinge, E., Lopes, F., Python, M., & Favez, N. (2009). Coparenting and toddler's interactive styles in family coalitions. *Family Process, 48*(4), 500–516. <https://doi.org/10.1111/j.1545-5300.2009.01298.x>.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (2010). Observational tool: The prenatal Lausanne Trilogue Play. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health: A bridge between infant and adult psychiatry*. Wiley-Blackwell.
- Fivaz-Depeursinge, E., Cairo, S., Lavanchy Scaiola, C., & Favez, N. (2012). Nine-month-olds triangular interactive strategies with their parents' couple in low coordination families. A descriptive study. *Infant Mental Health Journal, 33*(1), 10–21. <https://doi.org/10.1002/imhj.20314>.
- Frascarolo, F., Favez, N., Carneiro, C., & Fivaz-Depeursinge, E. (2004). Hierarchy of interactive functions in father-mother-baby three-way games. *Infant and Child Development, 13*, 301–322. <https://doi.org/10.1002/icd.361>.
- Frascarolo, F., Fivaz-Depeursinge, E., & Philipp, D. (2018). The child and the couple: From zero to fifteen. *Journal of Child and Family Studies, 27*. <https://doi.org/10.1007/s10826-018-1090-8>.
- Gaensbauer, T. (2016). Moments of meeting: The relevance of Lou Sander's and Dan Stern's conceptual framework for understanding the development of pathological social relatedness. *Infant Mental Health Journal, 37*(2), 172–188.

- Gottman, J. M., Murray, J., Swanson, C., Tyson, R., & Swanson, K. (2003). *The mathematics of marriage: Nonlinear dynamic models*. Cambridge, MA: MIT Press.
- Gunnery, S., Hall, J., & Ruben, M. (2012). The deliberate duchenne smile: Individual differences in expressive control. *Journal of Nonverbal Behavior*. <https://doi.org/10.1007/s10919-012-0139-4>.
- Hedenbro, M., & Rydelius, P. A. (2018). Children's abilities to communicate with both parents in infancy were related to their social competence at the age of 15. *Acta Paediatrica*, *108*, 118–123.
- Keren, M. (2018). *Plenary interface Pl2-fathers and sons* (H. Fitzgerald & M. Keren). Presented at WAIMH, Rome, May 29, 2018.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, *8*(475), 1–17. <https://doi.org/10.3389/fpsyg.2017.00475>.
- McHale, J. P. (2009). Shared child-rearing in nuclear, fragile and kinship family systems. Evolution, dilemmas, and promise of a coparenting framework. In M. Schultz, M. Pruett, P. Kerig, & R. Parke (Eds.), *Strengthening couple relationships for optimal child development. Lessons from research and interventions* (pp. 77–94). Washington, DC: American Psychological Association.
- McHale, J. P., & Coates, E. E. (2014). Observed coparenting and triadic dynamics in African American fragile families at 3 months' postpartum. *Infant Mental Health Journal*, *35*(5), 435–481.
- McHale, J. P., & Fivaz-Depeursinge, E. (1999). Understanding triadic and family group interactions during infancy and toddlerhood. *Clinical Child and Family Psychology Review*, *2*(2), 107–127. <https://doi.org/10.1023/a:1021847714749>.
- McHale, J. P., & Rotman, T. (2007). Is seeing believing? Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior and Development*, *30*, 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to co-parenthood: Parents' pre-birth expectations and early coparental adjustment at three months post-partum. *Development and Psychopathology*, *16*, 711–733. <https://doi.org/10.1017/S0954579404004742>.
- McHale, J. P., Fivaz-Depeursinge, E., Dickstein, S., Robertson, J., & Daley, M. (2008). New evidence for the social embeddedness of infants' early triangular capacities. *Family Process*, *47*, 445–463. <https://doi.org/10.1111/j.1545-5300.2008.00265.x>.
- McHale, J., Gaskin-Butler, V., McKay, K., & Gallardo, G. (2013). Figuring it out for the child initiative: Fostering coparenting among unmarried African American parents. *Zero to Three Journal*, *33*, 17–22.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Olhaver, M., Leon, M. J., Escobar, M., Ibarren, D., Morales-Reyes, I., & Alvarez, K. (2017). Video-feedback intervention to improve parental sensitivity and the quality of interactions in mother-father-infant triads. *Mental Health in Family Medicine*, *13*, 532–543.
- Philipp, D., Fivaz-Depeursinge, E., Favez, N., & Corboz-Warnery, A. (2009). Young infants' triangular communication with their parents in the context of maternal post-partum psychosis: Four case studies. *Infant Mental Health Journal*, *30*(4), 341–365. <https://doi.org/10.1002/imhj.20218>.
- Reiss, D. (1981). *The family's construction of reality*. Cambridge: Harvard University Press.
- Salman-Engin, S., Sümer, N., Sağel, E., & McHale, J. (2018). Coparenting in the context of mother-father-infant versus mother-grandmother-infant triangular interactions in Turkey. *Journal of Child and Family Studies*, *27*(10), 3085–3095. <https://doi.org/10.1007/s10826-018-1094-4>.
- Sander, L. W. (2002). Thinking differently: Principles of process in living systems and the specificity of being known. *Psychoanalytic Dialogues*, *12*, 11–42.
- Schoppe-Sullivan, S. J., Altenburger, L. E., Settle, T. A., Kamp Dush, C. M., Sullivan, J. M., & Bower, D. J. (2014). Expectant fathers' intuitive parenting: Associations with parent characteristics and post-partum positive engagement. *Infant Mental Health Journal*, *35*(5), 409–421.

- Simon, F. B., Stierlin, H., & Wynne, L. C. (1985). *The language of family therapy: A systemic vocabulary and sourcebook*. New York: Family Process Press.
- Simonelli, A., Bighin, M., & de Palo, F. (2012). Coparenting interactions observed by the prenatal Lausanne Trilogue Play: An Italian replication study. *Infant Mental Health Journal*, 1–11. <https://doi.org/10.1002/imh>.
- Stern, D. N. (2004). *The present moment in psychotherapy and everyday life*. New York: Norton.
- Stern, D. N. (2005). Le désir d'intersubjectivité. Pourquoi? Comment? [The desire for intersubjectivity: Why? How?]. *Cahiers Critiques de Thérapie Familiale et de Pratiques de Réseaux*, 35(2), 29–42. <https://doi.org/10.3917/ctf.035.0029>.
- Stern, D. N., Sander, L. W., Nahum, J. P., Harrison, A. M., Lyons-Ruth, K., Morgan, A. C., et al. (1998). Non-interpretive mechanisms in psychoanalytic therapy: The “something more” than interpretation. *International Journal of Psychoanalysis*, 79, 903–921.
- Suardi, F. (2016). *La transition à la parentalité chez les couples multiculturels*. Thèse de doctorat, University of Geneva. (*The transition to parenthood in multicultural couples*. Doctoral thesis, University of Geneva).
- Tremblay, H., & Rovira, K. (2007). Joint visual attention and social triangular engagement at 3 and 6 months. *Infant Behavior and Development*, 30, 366–379. <https://doi.org/10.1016/j.infbeh.2006.10.004>.
- Tronick, E. Z. (1998). Dyadically expanded states of consciousness and the process of therapeutic change. *Infant Mental Health Journal*, 19, 290–299.
- Von Klitzing, K., Simoni, H., & Bürgin, D. (1999). Child development and early triadic relationships. *International Journal of Psycho-Analysis*, 80, 71–89.
- Wynne, L. S., Ryckoff, I. M., Day, J., & Hirsch, S. I. (1958). Pseudo-mutuality in the family relationships of schizophrenics. *Psychiatry*, 21(2), 205–222.

Chapter 4

The Role of Relationships Past and Present in Prenatal Coparenting Behavior on the Cusp of the Transition to Parenthood



Anna L. Olsavsky, Ismoni S. Walker, and Sarah J. Schoppe-Sullivan

One particularly important family system that forms across the transition to parenthood is the coparenting relationship. “Coparenting” refers to a parenting dynamic between parents or guardians who share responsibility for rearing particular children (Feinberg 2003; McHale 2007). There is an expectation that coparents will cooperate with one another and coordinate their parenting responsibilities smoothly; however, not all coparents are successful in doing so (Feinberg 2003). Instead, some coparents undermine each other’s parenting efforts, devalue each other’s role in the life of the child, or withdraw from the family.

The coparenting relationship is closely linked to the quality of the couple relationship for coparents who are romantically involved (McHale 2007), but these family subsystems are simultaneously distinct (Schoppe-Sullivan et al. 2004). The coparenting relationship does not include the emotional, sexual, companionate, financial, or legal components of a marital/cohabiting relationship (Feinberg 2003). In other words, romantically involved couples who coparent together have a relationship that is specific to how they interact as parents that is separate, yet still influenced by, their relationship as romantic partners (see Chap. 11 in this book for further discussion of this interrelationship).

Coparenting relationships have been an increasing focus of research because the quality of these relationships from early infancy onward affects the social-emotional development of children (Teubert and Pinquart 2010), the quality of individual parent–child relationships (Pedro et al. 2012), and the future quality of couples’ romantic relationships (Schoppe-Sullivan et al. 2004). Therefore, scholars have attempted to better trace the development of the coparenting relationship across the transition to parenthood (e.g., Van Egeren 2003 2004), as well as to identify precursors of

A. L. Olsavsky (✉)
Nationwide Children’s Hospital, Columbus, OH, USA
e-mail: Anna.Olsavsky@nationwidechildrens.org

I. S. Walker · S. J. Schoppe-Sullivan
Department of Psychology, The Ohio State University, Columbus, OH, USA

early coparenting dynamics (McHale et al. 2004; Schoppe-Sullivan and Mangelsdorf 2013). Understanding why some coparents develop supportive coparenting relationships and others do not is important for informing prevention and intervention efforts to help couples achieve successful coparenting (e.g., Feinberg and Kan 2008; Pruett et al. 2009). The purpose of our study presented in this chapter was to examine the roles of expectant parents' past and current relationship experiences in their ability to develop high-quality coparenting relationships of their own. In particular, we examined expectant parents' coparenting experiences in their families of origin and the quality of their current romantic relationship as predictors of the quality of their prenatal coparenting relationship.

Coparenting Develops Prenatally

Using methods like the Prenatal Lausanne Trilogue Play procedure (PLTP), researchers have been able to support the notion that coparenting begins before the birth of a couple's first child (Altenburger et al. 2014; Carneiro et al. 2006; Kuersten-Hogan 2017). The PLTP is a structured observational assessment that is administered prenatally. Expectant parents play with a gender-neutral expressionless doll and are instructed to complete four tasks: one parent interacts with the doll, then the other parent interacts with the doll, then both parents interact with the doll, and finally the expectant parents have a conversation after pretending to put the doll to bed. Coders then look for behaviors that demonstrate warmth, playfulness, cooperation, structure, and intuitive parenting (for further details on the PLTP, see Chap. 3 in this book). One of the goals of this assessment is to capture what the expectant parents project onto the doll, as well as how they interact with each other (Altenburger et al. 2014).

Asking expectant parents to role play with a doll may seem odd; however, the idea is that playing with the doll will represent how the parents will interact with each other with their own child. The PLTP shines a light on the presence or absence of both parents' cooperation with and mutual support for their partner (Carnerio et al. 2006). By observing soon-to-be parents through the lens of the PLTP, researchers are able to make predictions about family interactions postnatally (Altenburger et al. 2014; Carnerio et al. 2006; Favez et al. 2012, 2013; Kuersten-Hogan 2017). Even though the doll in the PLTP is not an active participant in the interaction, as the child will be after birth, the doll is a placeholder for the mentally represented child, and therefore the task is still triadic in nature and coding of behaviors during the PLTP focuses on aspects of coparenting and parenting (Altenburger et al. 2014).

Family of Origin and Coparenting

One factor that may affect the development of early family processes involves the experiences expectant parents had in their families of origin during childhood. Belsky (1984) discussed parents' developmental histories as important influences on parenting, and a number of scholars have expanded this notion to consider experiences in one's family of origin as a potentially important influence on coparenting. Talbot et al. (2009) reported better coparenting cohesion among couples in which fathers had secure working models of attachment relationships and greater coparenting conflict among couples in which mothers had insecure working models of attachment relationships (with working models believed to form based on childhood experiences). Schoppe-Sullivan and Mangelsdorf (2013) found that parents who reported more acceptance from their mothers during childhood were in coparenting relationships characterized by less undermining behavior after the birth of their first child. This apparent benefit of positive family of origin relationships, however, was only observed when fathers and mothers were part of higher-quality couple relationships prior to the birth of their child.

Fewer of these studies have explicitly considered the role of coparenting experiences in the family of origin on coparenting relationships in the next generation. Using a version of the Perceptions of Parent Conflict Scale (Frank 1988) adapted to focus on experiences in the family of origin, Van Egeren (2003) discovered that new fathers who reported better coparenting relationships in their families of origin also reported better coparenting experiences at the transition to parenthood. Stright and Bales (2003) created their own questionnaire to assess coparenting in the family of origin and found that the quality of coparenting mothers had experienced in their families of origin mattered for current coparenting – especially for mothers with lower levels of education (i.e., a high school degree). Mothers who experienced more supportive coparenting interactions in their families of origin were more likely to be part of couples that currently displayed more supportive coparenting interactions.

Couple Relationship and Coparenting

The preexisting quality of the couple relationship constitutes a clearly established influence on the developing coparenting relationship. Consistent with conceptual models (Belsky 1984; Feinberg 2003), couples who have higher-quality relationships prior to parenthood show warmer and more cooperative and cohesive coparenting behavior (e.g., Christopher et al. 2015; McHale et al. 2004; Schoppe-Sullivan and Mangelsdorf 2013; Talbot et al. 2009). Moreover, in a sample of expectant parents, Altenburger et al. (2014) reported significant, positive associations between several aspects of observed marital behavior (i.e., cohesiveness, problem solving, global interaction quality) and prenatal coparenting behavior observed during the PLTP.

Scholars have also considered the preexisting quality of a couple's relationship as an important moderator of relations between other factors and the nascent coparenting relationship. In addition to the interactions between experiences in the family of origin and the quality of the couple relationship described above, Schoppe-Sullivan and Mangelsdorf (2013) further reported that mothers' greater progressive beliefs about the roles of fathers were only associated with more supportive coparenting behavior after the child's birth when couples had poorer-quality couple relationships prior to the child's birth. In another analysis of the same sample, when faced with a challenging infant, couples with higher-quality relationships displayed higher-quality coparenting behavior, whereas couples with poorer-quality relationships displayed less optimal coparenting behavior (Schoppe-Sullivan et al. 2007).

The Current Study

The current study utilized observational and survey data from 182, expectant, different-sex couples to (a) examine expectant parents' coparenting experiences in their families of origin as predictors of the quality of their prenatal coparenting relationship, assessed using the PLTP, and to (b) test whether the quality of couples' current romantic relationships moderated relations between expectant parents' coparenting experiences in their families of origin and the quality of their prenatal coparenting relationship. Consistent with theory (Belsky 1984) and prior research (Stright and Bales 2003; Van Egeren 2003), we hypothesized that expectant mothers and fathers who recalled more supportive and less undermining coparenting relationships in their families of origin would demonstrate more positive prenatal coparenting relationships (i.e., more cooperation, playfulness, and warmth during the PLTP).

We further anticipated that the quality of the couple's preexisting relationship would moderate the associations between expectant parents' experiences with coparenting in their families of origin and prenatal coparenting relationship quality. Prior research on the development of coparenting has uncovered moderating effects of couple relationship quality with differing patterns and interpretations (e.g., Schoppe-Sullivan and Mangelsdorf 2013; Schoppe-Sullivan et al. 2007). Because the PLTP coding system focuses on positive aspects of the developing coparenting relationship and does not focus on undermining or conflictual behaviors, we expected, consistent with the findings of Schoppe-Sullivan and Mangelsdorf (2013) and Schoppe-Sullivan et al. (2007) in relation to predicting supportive coparenting behavior, that better coparenting in the family of origin would be more strongly associated with positive prenatal coparenting when the preexisting couple relationship was poorer in quality. In other words, we expected that positive family of origin coparenting experiences would buffer couples with poorer-quality current relationships against the early development of poorer-quality coparenting relationships.

Method

Participants and Procedure

This study used data from the New Parents Project (NPP), a longitudinal study of 182 different-sex dual-earner US couples who were recruited during the female partner's pregnancy with their first child in 2008–2009. For further details regarding the NPP sample, eligibility, and recruitment, please see Zvara et al. (2013). The NPP focused on dual-earner couples in particular because the larger study's goals were to understand the development of coparenting and parent–child relationships for couples in which both mothers and fathers need to balance work and family. Consistent with procedures approved by our University's Institutional Review Board, informed consent for participation was obtained from both partners, and families received small gifts and cash incentives for participation.

Eight-six percent of participating couples were married and 14% cohabiting. The median level of education for both expectant mothers and fathers was a bachelor's degree, and median family income was \$79,500. The average age of expectant mothers was 28.24 years ($SD = 4.02$ years), and the average age of expectant fathers was 30.20 years ($SD = 4.81$). Regarding race/ethnicity, the majority of participants identified as white (85% of expectant mothers and 85% of expectant fathers). Because of the volunteer nature of the sample and the inclusion criteria, participants in the New Parents Project (NPP) were socioeconomically advantaged compared to typical expectant parents in the USA, although NPP couples were similar demographically to dual-earner married couples with children in the Midwestern US geographic region in which our study was conducted.

For the purposes of this study, we focused on observational and survey data collected from expectant parents in the third trimester of the female partner's pregnancy. Expectant parents completed surveys individually online approximately 1–2 weeks prior to a scheduled home visit. At the visit, couples participated in two observational assessments: one to assess the quality of their couple relationship and one to assess the quality of their prenatal coparenting relationship. The order of these observational assessments was randomly determined for each couple.

Measures

Coparenting in the Family of Origin Prior to the home visit, expectant mothers and fathers each completed the 12-item survey created by Stright and Bales (2003) to assess the quality of coparenting that they experienced and observed in their families of origin. Half of the items reflected supportive coparenting in the family of origin (e.g., “My parents worked well together raising me”), and the other half reflected undermining coparenting in the family of origin (e.g., “My parents criticized each other's parenting”). Each item was rated on a 5-point scale (1 = *never*;

5 = *always*). In computing a summary score, undermining items were reversed, so higher scores reflected more supportive coparenting in the family of origin. Cronbach's alpha was 0.95 for expectant mothers and 0.94 for expectant fathers.

Couple Relationship Quality Expectant couples participated together in the Marital Agendas Protocol (Notarius and Vanzetti 1983), in which each partner first completed a survey regarding relationship problems, partners shared their responses, and together chose one of their more significant problems to discuss for 10 minutes with the goal of reaching a solution. These episodes were video recorded and rated for aspects of couple relationship quality using the System for Coding Interactions among New Parents (Hunt et al. 2010) – a modified version of the System for Coding Interactions in Dyads (Malik and Lindahl 2004). For further details on the coding system, please see Altenburger et al. (2014). For the purposes of the present study, we focused on the 7-point *global interaction quality* scale, which reflected the overall observed quality of the couple's relationship. Interrater reliability on this scale was excellent: ICC = 0.89.

Prenatal Coparenting Relationship Quality Expectant couples also completed the Prenatal Lausanne Trilogue Play Procedure (PLTP; Carneiro et al. 2006), in which expectant parents are asked to imagine that it is the first time they are meeting their baby after the birth and to “play” (both individually and together) with a gender-neutral, faceless doll that represents the infant (please see Chap. 3 in this book for details on the PLTP procedures). Our PLTP assessments followed the standard set-up and procedures with a few exceptions. Instead of being conducted in a laboratory setting during the second trimester of pregnancy, we conducted the PLTP at expectant parents' homes during the third trimester of pregnancy. To standardize the procedure, two folding chairs and a small table were brought to each couple's home and aligned using a mat marked with the appropriate distances. The “baby” doll consisted of a footed infant sleeper sewn shut with approximately 7–8 lbs. of rice inside. The doll's head was made of green fabric with polka dots (gender neutral and appropriate for families of all racial/ethnic backgrounds), filled with stuffing, and sewn onto the footed sleeper. The PLTP episodes were recorded using a single, tripod-mounted camera that captured both parents' faces and upper bodies.

A team of trained research assistants (different from the team that rated couple relationship quality) rated the quality of prenatal coparenting behavior from the videotaped PLTP episodes using an adapted version of Carneiro et al.'s (2006) coding system (available from S. J. Schoppe-Sullivan). The behaviors we assessed were identical to those in Carneiro et al.'s (2006) system, except that we expanded the scales from three points to five points to better capture observed variability in expectant parents' coparenting behavior. In the current study, we used the following three scales that focused on the quality of the prenatal coparenting relationship: a) *couple cooperation*, or the extent to which partners actively supported each other's involvement in the role play; b) *coparent playfulness*, or the extent to

which the partners were able to engage successfully in the role play together without taking it too seriously (e.g., becoming extremely emotional) or not seriously enough (e.g., persistent laughter that interfered with task completion); and c) *family warmth*, or affection and humor shared by the partners with each other and toward the “baby.” The coders overlapped on 33% of the episodes (randomly selected) to assess interrater reliability. Intraclass correlations were 0.88 for couple cooperation, 0.89 for coparent playfulness, and 0.87 for family warmth, reflecting excellent reliability.

Results

Analysis Plan

Preliminary analyses included examining correlations and descriptive statistics for key study variables. Next, two structural equation models were computed to test hypotheses. The first included three exogenous variables – mothers’ and fathers’ reports on their family of origin coparenting experiences as well as the couple relationship quality variable – predicting one latent prenatal coparenting relationship quality variable (with couple cooperation, coparent playfulness, and family warmth as indicators). The second model added two exogenous variables as predictors of coparenting relationship quality: the interactions between mothers’ coparenting in the family of origin and couple relationship quality and between fathers’ coparenting in the family of origin and couple relationship quality. Consistent with Hu and Bentler (1999), good-fitting models were those with a nonsignificant chi-square (χ^2) test ($p > 0.05$), a root-mean-square-error of approximation (RMSEA) below 0.06, and a comparative fit index (CFI) above 0.95. Hayes’ (2013) PROCESS macro was used to probe significant interactions.

Preliminary Analyses

As shown in Table 4.1, significant, strong correlations between the three prenatal coparenting relationship quality variables (r s ranged from 0.60 to 0.66) supported the creation of a latent variable reflecting prenatal coparenting relationship quality. Mothers’ coparenting in the family of origin was positively associated with both couple relationship quality ($r = 0.18$, $p < 0.05$) and family warmth ($r = 0.16$, $p < 0.05$). In addition, couple relationship quality was positively associated with family warmth ($r = 0.22$, $p < 0.01$). Descriptive statistics reflected relatively high levels of family functioning, consistent with a low-risk community sample.

Table 4.1 Descriptive Statistics and Correlations for Mothers’ and Fathers’ Coparenting in the Family of Origin, Couple Relationship Quality, Couple Cooperation, Coparent Playfulness, and Family Warmth

Variable	<i>M</i>	<i>SD</i>	Range	1.	2.	3.	4.	5.
1. Mother CFO	3.78	0.92	1.00–5.00					
2. Father CFO	3.94	0.81	1.67–5.00	−0.01				
3. Couple relationship quality	5.04	1.36	1.00–7.00	0.14	0.07			
4. Cooperation	4.20	1.06	1.00–5.00	0.18*	−0.06	0.13		
5. Playfulness	3.99	1.17	1.00–5.00	0.14	−0.14	0.14	0.66**	
6. Family warmth	4.23	0.96	1.00–5.00	0.16*	−0.11	0.22**	0.64**	0.60**

Note. Mother CFO = Mother’s Coparenting in the Family of Origin, Father CFO = Father’s Coparenting in the Family of Origin

* $p < 0.05$, ** $p < 0.01$

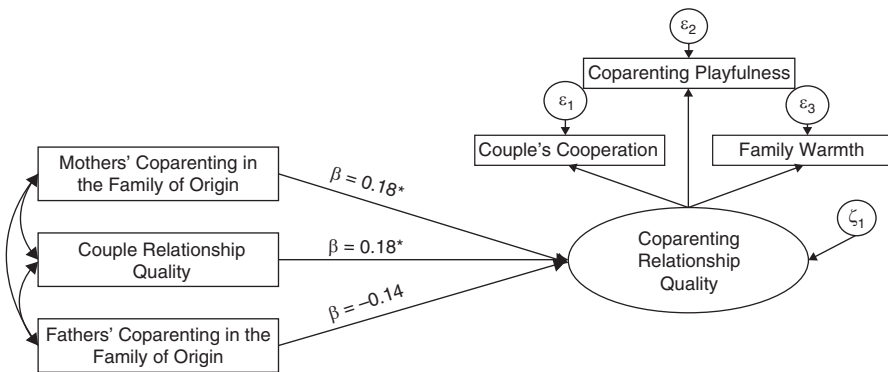


Fig. 4.1 Structural equation model results

Note. Model fit: $\chi^2 = 4.25$, $df = 6$, $p = 0.64$, CFI = 1.00, RMSEA = 0.00.

* $p < 0.05$

Hypothesis Testing

The baseline structural equation model without interactions showed good fit: $\chi^2 = 4.25$, $df = 6$, $p = 0.64$, an RMSEA value of 0.00 with a 90% confidence interval of 0.00 to 0.08, and a CFI value of 1.00. There were also two significant paths: mothers’ coparenting in the family of origin to prenatal coparenting relationship quality ($\beta = 0.18$, $p = 0.03$) and couple relationship quality to prenatal coparenting relationship quality ($\beta = 0.18$, $p = 0.03$). See Fig. 4.1. The second model that added the two interaction terms also had good fit: a nonsignificant chi-square: $\chi^2 = 6.22$, $df = 10$, $p = 0.80$, an RMSEA value of 0.00 with a 90% confidence interval of 0.00 to 0.05, and a CFI value of 1.00. Additionally, the interaction term of mothers’ coparenting in the family of origin with couple relationship quality was significantly associated with prenatal coparenting relationship quality ($\beta = -1.29$, $p = 0.01$).

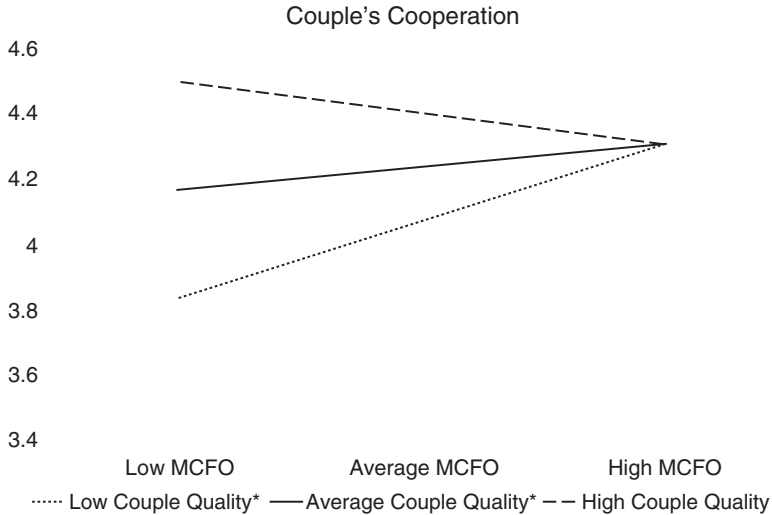


Fig. 4.2 The interaction of couple relationship quality and mothers' coparenting in the family of origin (MCFO) on couple cooperation
 Note. * $p < 0.05$

In order to understand the nature of the interaction between mothers' coparenting in the family of origin and couple relationship quality on prenatal coparenting relationship quality, this interaction was probed in relation to each of the three prenatal coparenting relationship quality variables (i.e., couple cooperation, coparent playfulness, family warmth). For couple cooperation, higher ratings of mothers' coparenting in the family of origin were associated with significantly greater levels of couple cooperation when couple relationship quality was at low (3.71) and average (5.04) levels, $ps < 0.01$. However, at high levels of couple relationship quality (6.37), the association between mothers' coparenting in the family of origin and couple cooperation became nonsignificant ($p = 0.99$). Additional analyses using the Johnson-Neyman technique revealed that higher ratings of mothers' coparenting in the family of origin were associated with significantly higher scores on couple cooperation up to a couple relationship quality score of 5.06 on a 7-point scale. See Fig. 4.2.

For coparent playfulness, higher ratings of mothers' coparenting in the family of origin were associated with significantly greater levels of coparent playfulness when couple relationship quality was at a low (3.71) level, $p < 0.01$. However, at average (5.04) and high (6.37) levels of couple relationship quality, the association between mothers' coparenting in the family of origin and coparent playfulness became nonsignificant ($ps > 0.05$). Johnson-Neyman results revealed that higher

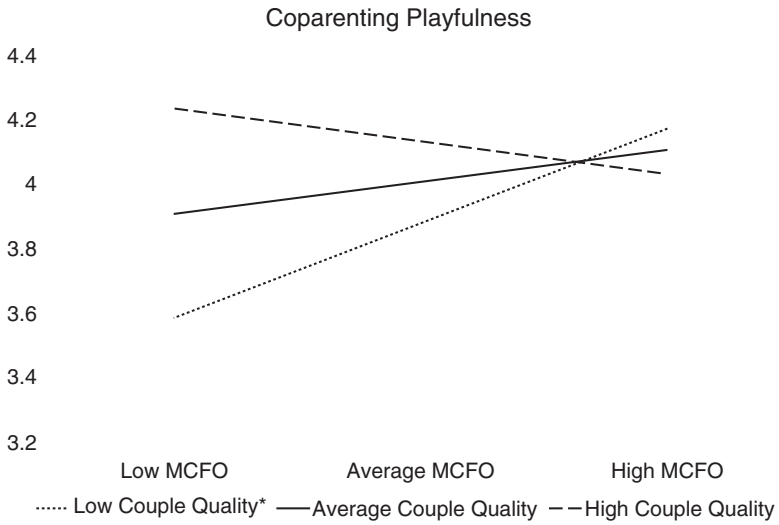


Fig. 4.3 The interaction of couple relationship quality and mothers' coparenting in the family of origin (MCFO) on coparent playfulness
Note. * $p < 0.05$

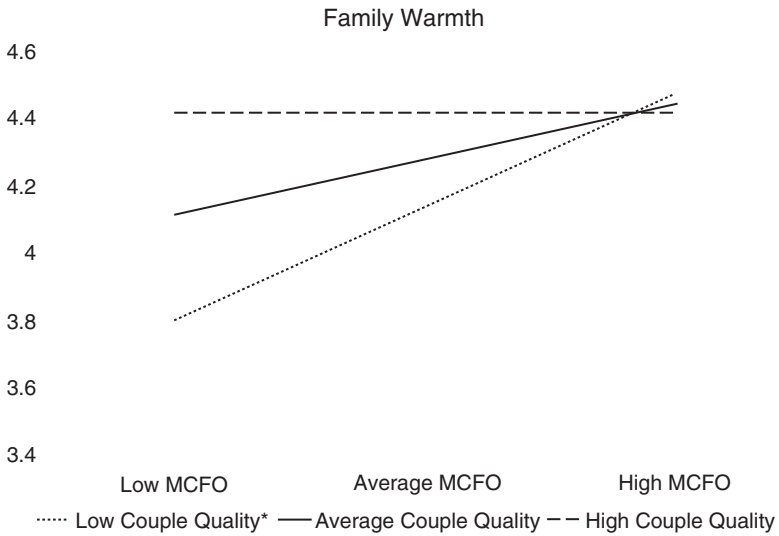


Fig. 4.4 The interaction of couple relationship quality and mothers' coparenting in the family of origin (MCFO) on family warmth
Note. * $p < 0.05$

ratings of mothers' coparenting in the family of origin were associated with significantly higher scores on coparent playfulness up to a couple relationship quality score of 4.58 on a 7-point scale. See Fig. 4.3. For family warmth, higher ratings of mothers' coparenting in the family of origin were associated with significantly greater levels of family warmth when couple relationship quality was at a low (3.71) level, $p < 0.01$. However, at average (5.04) and high (6.37) levels of couple relationship quality, the association between mothers' coparenting in the family of origin and family warmth became nonsignificant ($ps > 0.05$). Johnson-Neyman results revealed that higher ratings of mothers' coparenting in the family of origin were associated with significantly higher scores on family warmth up to a couple relationship quality score of 4.96 on a 7-point scale. See Fig. 4.4.

Case Example

The following description is of a family in our study that illustrates our findings that mothers' positive experiences of coparenting in the family of origin may protect prenatal coparenting behavior in the face of low couple relationship quality. In this family, the expectant mother rated her experience of coparenting in the family of origin above the mean, reflecting her perception that her parents frequently supported and infrequently undermined each other's parenting. However, when she and her partner were observed interacting together during the couple discussion in the third-trimester home visit, she and her partner were given one of the lowest scores for their global relationship quality. During their discussion, the couple engaged in a tense argument about the expectant father's relationship with an ex-girlfriend characterized by defensiveness by the expectant father and distress on the part of the expectant mother (e.g., crying). The expectant mother asked about the frequency of his communication with the ex-girlfriend, the content of their communications, and the appropriateness of specific texts and images exchanged. The expectant father told his partner that his relationship with the ex-girlfriend was over 6 years ago and that she should "get over it."

In stark contrast to their couple conversation, this couple's PLTP interaction was quite positive. Their prenatal coparenting behavior was rated as highly playful, warm, and cooperative. In this interaction, the pair was frequently seen exchanging glances and looking for affirmation for their behaviors with the "baby". The expectant mother seemed to guide the task and frequently asked her partner questions about what they should do next or if he would like to change the "baby." The expectant father appeared happy to play along and seemed very caring and gentle with the "baby." In this example, it appears that these expectant parents may be able to better manage boundaries between their couple and coparenting relationships than other expectant couples with romantic relationship discord. It is notable that the mother appeared to take the lead during the PLTP, which may reflect her ability to craft a supportive relationship with her partner based on skills or scripts gained from her own positive experiences with her parents' coparenting relationship in her family of origin.

Discussion

This investigation found that expectant mothers' recollections of their own parents' coparenting may play a role in the development of the coparenting relationship, in conjunction with the quality of the couple's relationship – a well-established predictor of the developing coparenting relationship (McHale et al. 2004; Schoppe-Sullivan and Mangelsdorf 2013; Van Egeren 2004). When couples had low relationship quality, the presence of more positive coparenting in the family of origin for mothers appeared to buffer the detrimental impact of the couple's low-quality current relationship on their prenatal coparenting relationship.

Our study was not the first to establish a role for parents' or expectant parents' experiences in their families of origin in the development of coparenting (e.g., McHale 1995; Schoppe-Sullivan and Mangelsdorf 2013; Talbot et al. 2009). However, ours is one of few studies (Stright and Bales 2003; Van Egeren 2003) that have focused specifically on the role of *coparenting* experiences in the family of origin in the developing coparenting relationship. As anticipated, we found that mothers' family of origin coparenting experiences mattered for positive coparenting behavior when couple relationship quality was low (or, in the case of couple cooperation, low or average). In particular, when an expectant mother had more positive recollections of her parents' coparenting relationship (i.e., she recalled observing and experiencing more supportive and less undermining behaviors between her parents during childhood), the expectant mother and her partner were observed to engage in more positive prenatal coparenting behaviors.

The findings of our study are consistent with Stright and Bales (2003), who found that better maternal experiences of coparenting in the family of origin were associated with greater observed supportive coparenting among families of preschool-aged children. Our lack of findings for fathers' coparenting experiences in childhood is also consistent with Stright and Bales (2003), but contrasts with Van Egeren (2003), who reported that new fathers, but not mothers, with more positive recollections of their parents' coparenting reported more positive perceptions of their own coparenting relationship. These differences could be due to methodology; Van Egeren (2003) used parents' reports of coparenting, whereas Stright and Bales (2003) and the current study used observations of coparenting. Some have argued that mothers tend to compartmentalize family relationships more than fathers (Cummings et al. 2004), and if a lack of differentiation between family relationships is more characteristic of fathers, that may be especially apparent when data are gathered via self-report.

Another potential explanation could be that mothers are often the gatekeepers for fathers' involvement with children (Schoppe-Sullivan and Altenburger 2019). More than 30 years ago, Cowan and colleagues reported evidence that mothers play an important role in either encouraging or discouraging their husbands' involvement in their babies' care (Cowan and Cowan 1987). Based on this maternal gatekeeping notion, we propose that when mothers grow up witnessing supportive coparenting, they may be socialized to skillfully include fathers in parenting, which may help

support positive coparenting relationships. Demonstrating a pattern similar to findings of the current study, Schoppe-Sullivan and Mangelsdorf (2013) found that expectant mothers' greater progressive beliefs about fathers' roles were only associated with greater observed supportive coparenting among new parents when those parents had preexisting couple relationships that were low or average in quality. They speculated that this interaction was only true for low or average quality couple relationships because higher-quality couple relationships fostered higher-quality coparenting relationships regardless of mothers' beliefs about fathers' roles. Similarly, we found a direct, positive association between couple relationship quality and prenatal coparenting relationship quality, such that those higher in couple relationship quality tended to have higher prenatal coparenting relationship quality. For those not so fortunate to have high couple relationship quality, however, mothers' more positive experiences of coparenting in the family of origin seemed to protect prenatal coparenting. Perhaps mothers who experienced positive coparenting relationships between their own parents value and support fathers' involvement in parenting – even when their current romantic relationship with their child's father is low in quality.

Our findings contrasted with others reported by Schoppe-Sullivan and Mangelsdorf (2013), however. They found that mothers' feelings of acceptance by their own mothers in childhood were associated with lower undermining coparenting behavior in the context of a high-quality (but not low- or average-quality) marital relationship. Key differences between the current investigation and Schoppe-Sullivan and Mangelsdorf (2013) are that we focused on *coparenting* experiences in the family of origin and predicted *positive* prenatal coparenting behaviors only. Perhaps observing a high-quality coparenting relationship in the family of origin is more important and proximal than a strong mother-child relationship in the formation of one's own coparenting relationship as an adult, especially for couples with preexisting liabilities.

This investigation had many strengths worth noting. First, not only was prenatal coparenting behavior directly observed, but couple relationship quality was directly observed as well. Additionally, the sample size of 182 couples is relatively large for a study that includes rich observational data. The sample also included fathers, which is still not always the case in developmental and family research and is important for truly understanding family system processes. Finally, the sample was composed of US dual-earner families in which all parents were working prior to the birth of the child with plans to return to work after the birth, which is a typical scenario for expectant and new parents in the USA.

Despite these strengths, there are also some limitations that should be considered. First, the sample for this investigation was primarily white and of middle to high socioeconomic status. Therefore, results may not generalize to other populations of new parents within or outside of the USA. Additionally, the observational measures were relatively brief, and more robust results may have been obtained with longer samples of interactions or samples taken on multiple occasions. Still, the PLTP has shown predictive validity for family processes after the birth of the child across a number of studies (Altenburger et al. 2014; Carneiro et al. 2006;

Favez et al. 2012, 2013). Finally, the measure of coparenting in the family of origin involved retrospective reports, so it is possible that later relationship experiences – perhaps even the current romantic relationship – may have colored the expectant parents' reports. There is some evidence that the very experience of becoming parents may change expectant couples' relationships with their own parents, either increasing a sense of closeness with their own parents or increasing tensions and conflicts (Pape Cowan et al. 1991), which may also factor into couples' recollections of their family of origin coparenting experiences.

Given these strengths and limitations, we recommend a few directions for future research. One area that could use further investigation is unpacking which aspects of the family of origin experiences are most important to the formation of the early coparenting relationship. Our measure focused on the coparenting relationship experienced in the family of origin, but it is possible that this measure may tap into other aspects of the family of origin experience, including parent–child attachment relationships and working models of attachment. The aspects of the family of origin that influence the development of the coparenting relationship may be best explored through the use of a narrative assessment of previous experiences that might focus on the parents' coparenting relationship, such as the Prenatal Coparenting Interview (Kuersten-Hogan 2017; McHale et al. 2004), in conjunction with existing attachment interview measures such as the Adult Attachment Interview (George et al. 1985; Hesse 2016) or the Attachment Script Assessment (Waters and Waters 2006). These types of assessments may be able to elucidate underlying patterns and tendencies formed from both parent–child and coparenting relationships during childhood, rather than a general recollected disposition toward the family of origin.

Additionally, future research should continue to focus on the development of coparenting in more diverse samples, including adolescent parents, unmarried or cohabiting parents, parents from minority groups, parents of lower SES, and parents that identify in the LGBTQ community (e.g., Farr and Patterson 2013; Carlson et al. 2008). For instance, Varga and Gee (2017) focused on coparenting relationships among adolescent parents in black and Latinx communities and found that these adolescents appeared to make little distinction between romantic and coparenting relationships, perhaps because their romantic relationships are not likely to last as the infant progresses into childhood. Thus, results can vary significantly when studying populations that are not made up of white, two-parent, households (Varga and Gee, 2017; also see Chaps. 14 and 16 in this book). Another population of couples that may have unique experiences developing coparenting relationships are those who use Assistive Reproductive Technology (ART) to conceive. A study comparing behavior during the PLTP for couples who conceived via ART and those who conceived naturally found that the ART couples tended to be less playful in their interactions with the doll (Darwiche et al. 2015; also see Chap. 7 in this book). These couples often have more anxiety surrounding the pregnancy and that can create psychological stress, which may impact the developing coparenting relationship (Darwiche et al. 2015).

In conclusion, our results offer some hope to couples who have children in the context of a less ideal couple relationship: if the mother has positive recollections of

her parents' coparenting relationship, then the negative impact of a low-quality couple relationship on the developing coparenting relationship may be reduced. This is good news for the new family system given the importance of the coparenting relationship for numerous aspects of the family, not the least of which is the child's adaptive development. These findings may even have implications for what predicts a positive coparenting relationship after the dissolution of a couple relationship, but that question should be further explored in future studies.

Acknowledgments This research was funded by the National Science Foundation (Grant CAREER 0746548, awarded to Sarah J. Schoppe-Sullivan), with additional support from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (Grant 1 K-1HD056238, awarded to Claire M. Kamp Dush) and The Ohio State University's Institute for Population Research (National Institute of Child Health and Human Development, Grant R24HD058484) and program in Human Development and Family Science. We also acknowledge Claire M. Kamp Dush's invaluable contributions to the design and execution of the New Parents Project.

References

- Altenburger, L. E., Schoppe-Sullivan, S. J., Lang, S. N., Bower, D. J., & Kamp Dush, C. M. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology*, 28(4), 495–504. <https://doi.org/10.1037/fam0000012>.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55(1), 83–96.
- Carlson, M. J., McLanahan, S. S., & Brooks-Gunn, J. (2008). Coparenting and nonresident fathers' involvement with young children after a nonmarital birth. *Demography*, 45(2), 461–488. <https://doi.org/10.1353/dem.0.0007>.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal*, 27(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Christopher, C., Umemura, T., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Marital quality over the transition to parenthood as a predictor of coparenting. *Journal of Child and Family Studies*, 24(12), 3636–3651. <https://doi.org/10.1007/s10826-015-0172-0>.
- Cowan, C., & Cowan, P. (1987). Men's Involvement in Parenthood. In P.W. Berman, & F.A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Lawrence Erlbaum Associates, Publishers.
- Cummings, E. M., Goeke-Morey, M., & Raymond, J. (2004). Fathers in family context: Effects of marital quality and marital conflict. In M. E. Lamb (Ed.), *The role of the father in child development* (4th ed., pp. 196–221). New York: Wiley.
- Darwiche, J., Favez, N., Simonelli, A., Antonietti, J. P., & Frascarolo, F. (2015). Prenatal coparenting alliance and marital satisfaction when pregnancy occurs after assisted reproductive technologies or spontaneously. *Family Relations*, 64(4), 534–546. <https://doi.org/10.1111/fare.12131>.
- Farr, R. H., & Patterson, C. J. (2013). Coparenting among lesbian, gay, and heterosexual couples: Associations with adopted children's outcomes. *Child Development*, 84(4), 1226–1240. <https://doi.org/10.1111/cdev.12046>.
- Favez, N., Lopes, F., Bernard, M., Frascarolo, F., Lavanchy Scaiola, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2012). The development of family alliance from pregnancy to toddlerhood and child outcomes at 5 years. *Family Process*, 51, 542–556. <https://doi.org/10.1111/j.1545-5300.2012.01419.x>.

- Favez, N., Frascarolo, F., Lavanchy Scaiola, C., & Corboz-Warnery, A. (2013). Prenatal representations of family in parents and coparental interactions as predictors of triadic interactions during infancy. *Infant Mental Health Journal*, *34*(1), 25–36. <https://doi.org/10.1002/imhj.21372>.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice*, *3*(2), 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Feinberg, M. E., & Kan, M. L. (2008). Establishing family foundations: Intervention effects on coparenting, parent/infant well-being, and parent–child relations. *Journal of Family Psychology*, *22*(2), 253–263. <https://doi.org/10.1037/0893-3200.22.2.253>.
- Frank, S. J. (1988). *The family situations checklist*. Unpublished manuscript, Michigan State University, East Lansing.
- George, C., Kaplan, N., & Main, M. (1985). *Adult Attachment Interview protocol* (2nd ed.). Unpublished manuscripts, University of California at Berkeley.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Hesse, E. (2016). The Adult Attachment Interview: Protocol, method of analysis, and empirical studies 1985-2015. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (3rd ed., pp. 553–597).
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*, 1–55. <https://doi.org/10.1080/10705519909540118>.
- Hunt, J., Kamp Dush, C., & Schoppe-Sullivan, S. (2010). *System for coding interactions among new parents: New parents project marital agendas protocol coding manual*. Unpublished Coding Scales, The Ohio State University, Columbus, OH.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, *8*(475), 1–17. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Malik, N. M., & Lindahl, K. M. (2004). System for coding interactions in dyads (SCID). In P. K. Kerig & D. H. Baucom (Eds.), *Couple observational coding systems* (pp. 173–188). Mahwah, NJ: Erlbaum.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology*, *31*(6), 985–996. <https://doi.org/10.1037/0012-1649.31.6.985>.
- McHale, J. P. (2007). When infants grow up in multiperson relationship systems. *Infant Mental Health Journal*, *28*(4), 370–392. <https://doi.org/10.1002/imhj.20142>.
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, *16*(3), 711–733. <https://doi.org/10.1017/S0954579404004742>.
- Notarius, C. I., & Vanzetti, N. (1983). The marital agendas protocol. In *Marriage and family assessment: A sourcebook for family therapy* (Vol. 64, pp. 209–227). Beverly Hills: Sage.
- Pape Cowan, C., Cowan, P., Heming, G., & Miller, N. (1991). Becoming a family: Marriage, parenting, and child development. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 79–109). Lawrence Erlbaum Associates, Publishers.
- Pedro, M. F., Ribeiro, T., & Shelton, K. H. (2012). Marital satisfaction and partners' parenting practices: The mediating role of coparenting behavior. *Journal of Family Psychology*, *26*(4), 509–522. <https://doi.org/10.1037/a0029121>.
- Pruett, M. K., Cowan, C. P., Cowan, P. A., & Pruet, K. (2009). Lessons learned from the Supporting Father Involvement study: A cross-cultural preventive intervention for low-income families with young children. *Journal of Social Service Research*, *35*(2), 163–179. <https://doi.org/10.1080/01488370802678942>.
- Schoppe-Sullivan, S. J., & Altenburger, L. E. (2019). Parental gatekeeping. In M. H. Bornstein (Ed.), *Handbook of parenting, vol 3: Being and becoming a parent* (3rd ed., pp. 167–198). New York: Routledge.

- Schoppe-Sullivan, S. J., & Mangelsdorf, S. C. (2013). Parent characteristics and early coparenting behavior at the transition to parenthood. *Social Development, 22*(2), 363–383. <https://doi.org/10.1111/sode.12014>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Frosch, C. A., & McHale, J. L. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology, 18*(1), 194–207. <https://doi.org/10.1037/0893-3200.18.1.194>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Brown, G. L., & Sokolowski, M. S. (2007). Goodness-of-fit in family context: Infant temperament, marital quality, and early coparenting behavior. *Infant Behavior and Development, 30*(1), 82–96. <https://doi.org/10.1016/j.infbeh.2006.11.008>.
- Stright, A. D., & Bales, S. S. (2003). Coparenting quality: Contributions of child and parent characteristics. *Family Relations, 52*, 232–240. <https://doi.org/10.1111/j.1741-3729.2003.00232.x>.
- Talbot, J. A., Baker, J. K., & McHale, J. P. (2009). Sharing the love: Prebirth adult attachment status and coparenting adjustment during early infancy. *Parenting: Science and Practice, 9*(1–2), 56–77. <https://doi.org/10.1080/15295190802656760>.
- Teubert, D., & Pinquart, M. (2010). The association between coparenting and child adjustment: A meta-analysis. *Parenting: Science and Practice, 10*(4), 286–307. <https://doi.org/10.1080/15295192.2010.492040>.
- Van Egeren, L. A. (2003). Prebirth predictors of coparenting experiences in early infancy. *Infant Mental Health Journal, 24*(3), 278–295. <https://doi.org/10.1002/imhj.10056>.
- Van Egeren, L. A. (2004). The development of the coparenting relationship over the transition to parenthood. *Infant Mental Health Journal, 25*(5), 453–477. <https://doi.org/10.1002/imhj.20019>.
- Varga, C. M., & Gee, C. B. (2017). Co-parenting, relationship quality, and father involvement in African American and Latino adolescents. *Merrill-Palmer Quarterly, 63*(2), 210–236. <https://doi.org/10.13110/merripalmquar1982.63.2.0210>.
- Waters, H. S., & Waters, E. (2006). The attachment working models concept: Among other things, we build script-like representations of secure base experiences. *Attachment & Human Development, 8*, 185–197. <https://doi.org/10.1080/14616730600856016>.
- Zvara, B. J., Schoppe-Sullivan, S. J., & Kamp Dush, C. M. (2013). Fathers' involvement in child health care: Associations with prenatal involvement, parents' beliefs, and maternal gatekeeping. *Family Relations, 62*(4), 649–661. <https://doi.org/10.1111/fare.12023>.

Chapter 5

Maternal and Paternal Coparenting Representations and Interactions During Pregnancy



Massimo Ammaniti and Francesca Menozzi

Background

Many studies have highlighted the importance of prenatal coparenting interactions in order to predict the postnatal family relationship with the baby (Altenburger et al. 2014; Carneiro et al. 2006; Favez et al. 2006; Simonelli et al. 2014). With a systematic use of the observational approach, the main dimensions of coparenting were delineated across different studies: support, undermining, negative affect (Belsky et al. 1995), solidarity, mutual involvement, warmth, cooperation, competitiveness, verbal sparring and active interference (McHale 1995, 2007), participation, organization, focalization, and affect sharing (Fivaz-Depeursinge and Corboz-Warnery 1999). These last four dimensions inform the family alliance model that conceptualizes the different types of family relational dynamics (Favez et al. 2017). The most widely used observational tool to study the coparenting subsystem in formation during pregnancy is the *Prenatal Lausanne Trilogue Play* (PLTP; Carneiro et al. 2006) in which expectant parents are asked to role play their first encounter with their baby-to-be represented by a doll. The PLTP allows for the assessment of the coparenting alliance, specifically parents' coordination, mutual affection, and intuitive parenting behaviors (Papousek and Papousek 1987). Intuitive parental behaviors play an important role after the baby is born, since they promote caregiving and develop intersubjectivity (Ammaniti and Gallese 2014; Fivaz-Depeursinge et al. 2010; Schoppe-Sullivan et al. 2014). Direct observations of couples' interactions are central to studying coparenting and together with other instruments – interviews and self-reports – offer a multilevel perspective into coparenting dynamics (Kerig and Lindhal 2001; Mazzoni and Tafà 2007; Mchale 2007; Mchale et al. 2018).

Several prebirth predictors of coparenting have been identified in the scientific literature, such as parents' experiences in the family of origin, personality

M. Ammaniti (✉) · F. Menozzi
Sapienza University of Rome, Rome, Italy
e-mail: maammani@gmail.com

characteristics, ego development, reactance, and attitudes and beliefs about child rearing as well as differences in child-rearing philosophy between parents (Van Egeren 2003). In a longitudinal study from pregnancy to 16 months postpartum, Galdiolo and Roskam (2016) found that parents' characteristics – personality traits and anxious/avoidant attachment – were indirectly associated with family interactions via perceptions of coparenting as mediator variable. Le et al. (2016) found evidence of associations between couples' relationship quality and their coparenting functioning from pregnancy to 3 years after birth. Kuersten-Hogan (2017) explored the role of prenatal parent-reported coparenting representations in determining prenatal and postnatal coparenting behaviors and reports evidence of continuity between prenatal and postnatal coparenting representations and of discontinuity between representations and behaviors suggesting that they measure different aspects of coparenting during the transition to parenthood. These findings show that prenatal coparenting is a complex construct to capture as a whole, especially when considering both coparenting representations and behaviors.

According to the Lausanne Trilogue Play paradigm, the point of their observational method in the assessment of coparenting during pregnancy is that parents enact their representations instead of talking about them (Fivaz-Depeursinge et al. 2010). In the Prenatal Lausanne Trilogue Play, parents-to-be are able to coordinate and synchronize their behaviors with each other in addressing their child who is represented by a doll. Thus, expectant couples are demonstrating coordination in getting involved with their child during pregnancy, which represents a central dimension of coparenting called *prenatal intuitive coparenting behaviors* (Darwiche et al. 2016).

The transition to parenthood involves many transformations for mothers and fathers, physically and biologically as well as psychologically and emotionally (Mayes et al. 2005; Raphael-Leff 2010). On a psychological level, parents' sense of self changes, and their existing roles and relationships are restructured (Cowan 1991). Furthermore, new relational systems develop: the relationship of each parent with the child, the coparenting relationship, and the relationship of the family as a whole. In addition to maternal and paternal transformations during pregnancy, parents have to renegotiate their roles and develop a coparenting relationship that is defined by their coordination and support for one another (Belsky et al. 1995; McHale and Rasmussen 1998). Before the baby is born, parents-to-be start to develop and share mental representations of their baby and of themselves as parents (Ammaniti et al. 1995, 2006; Cohen and Slade 2000; McHale et al. 2004; Van Egeren and Hawkins 2004; Von Klitzing et al. 1999). On a behavioral level, expectant parents have to work together in setting up the physical environment for their baby and preparing for their baby's healthy development (Carneiro et al. 2006; Fivaz-Depeursinge, et al. 2010; McHale et al. 2004). A central dynamic for the coparental relationship during pregnancy is the couple's triadic capacity, a concept developed by Von Klitzing and collaborators, who define it as "the capacity of fathers and mothers to anticipate their future family relationship without excluding themselves or their partners from the relationship to the infant" (Von Klitzing et al. 1999 p. 226). Triadic capacity develops during pregnancy, is associated with parental

partnership dynamics, and involves an intense relationship with the baby. The main dimensions of triadic capacity are the flexibility of parental representations and the parents' ability to dialogue.

Another central point of the transition to parenthood is the affiliation process by which parents make the fetus into their son or daughter. In order to include their baby in their family, parents have to develop a sense of connection with their baby and at the same time have to recognize him/her as an individual (Ammaniti 2008; Cohen and Slade 2000; Raphael-Leff 2010). Furthermore, the sharing of conscious fantasies concerning the baby, such as his or her physical characteristics and temperament, is a central theme in the development of the coparenting relationship during pregnancy, allowing parents to anticipate their family relationships (Feinberg 2003; Van Egeren 2004). In a meta-analysis of associations between expectant parents' thoughts and feelings about their unborn children and the quality of their postnatal interactions with infants, Foley and Hughes (2018) found modest but significant and consistent associations between prenatal representations and postnatal interaction quality. These findings highlight the importance of assessing coparenting interactions from their onset during pregnancy, when coparenting relationships may be more "fluid and malleable" (Feinberg 2002), in order to design preventive and clinical intervention.

The obstetric ultrasound is a familiar procedure for most expectant couples. Many studies have demonstrated that the ultrasound contributes to the development and consolidation of parent-fetus bonding (Beck Black 1992; Fava Vizziello et al. 2000; Fabbri et al. 2005; Ji et al. 2005; Larsen et al. 2000).

Routine ultrasounds mark the main stages of pregnancy, first ensuring the presence of the embryo through detecting the heartbeat, then checking the fetal physical development and revealing the fetus' sex, and finally monitoring the fetal growth before birth. The ultrasound is also a strong emotional experience for mothers-to-be and fathers-to-be, and the resonance with the observed fetus interweaves with the phantasmatic and imaginary baby, which reflects the individual, marital, and past history of partners (Candelori et al. 1991; Missonnier 2003). The fetal image has an important role in promoting the transition to fatherhood, as the father's connection with the baby is mediated by changes in the mother's body (O'Leary 2015; Walsh et al. 2017). As such, the ultrasound can reduce feelings of unreality and exclusion of fathers, allowing parents to share conscious fantasies about the baby. Indeed, several studies highlight that the obstetric ultrasound sustains parents-to-be in sharing conscious fantasies about the baby and their parental identity, taking part in shaping the coparenting relationship (Ekelin et al. 2004; Fava Vizziello et al. 2000; Missonnier 1999). The four dimension (4D) ultrasound shows fetal movements and the fetus' "babyness." These elements can trigger parental behaviors and allow parents to imagine the mental activity of their baby, what he or she is doing, and how he or she is feeling, thus improving parents' bonding with their fetus (De Jong-Pleij et al. 2013; Piontelli 2007; Stern 2010).

In this chapter, we will present the results of our exploratory study, first with a focus on the coparenting interactions during the presentation of the fetal images in the 4D ultrasounds and subsequently with the presentation of some excerpts from

our interviews with pregnant couples. In order to explore the coparenting relationship in formation, 20 volunteer primiparous couples during the 7th months of pregnancy participated in this study. First, expectant couples underwent an extensive conjoint interview, which explored their representations and experiences during the transition to parenthood. Secondly, expectant couples were observed during a novel observation task adapted from the Prenatal Lausanne Trilogue Play (PLTP, Carneiro et al. 2006), in which they were asked to watch a short video of their last 4D routine ultrasound on a computer screen.

Triadic Interactions During Pregnancy

Since the 4D ultrasound is a common experience for expectant couples, we hypothesized that the observation of parents while they are watching the 4D ultrasound could evidence and stimulate their parental interactions during pregnancy. Furthermore, the 4D obstetric ultrasound could open a window to the early contributions of the fetus in shaping parental representations and interactions, considering also the continuity between prenatal and postnatal development (Tyano and Keren 2010). We hypothesized that when mothers-to-be and fathers-to-be observe their fetus together during the 4D ultrasound, they may begin to share conscious fantasies about their son/daughter and also begin to interact as coparents, expanding their joint focus on their baby (Ammaniti et al. 2010). This exploratory study was guided by the following questions: Do couples show coparental patterns during their interactions with their baby-to-be in the 4D ultrasound? Does the 4D obstetric ultrasound activate intuitive parenting behaviors during pregnancy?

In order to answer these research questions, we designed an observational procedure adapted from the PLTP (Carneiro et al. 2006), the well-known procedure to study the coparental subsystem in formation at the prenatal stage (please see Chap. 3 in this book for details on the PLTP). In our adapted procedure, parents were asked to interact following the four parts of the traditional PLTP while they were watching fetal images in a short video (about 3 to 5 min) taken during their most recent routine 4D ultrasound. Total lengths of the videos varied due to variations in time it took to identify video segments in which the fetus' face and body could be clearly seen in the ultrasound images.

Participants were 20 primiparous volunteer couples from Italy who underwent a routine 4D ultrasound between their 24th and 28th week of pregnancy. All of the fathers were present when the mothers underwent the 4D ultrasound and all fetuses were healthy. There was no evidence of psychopathological symptoms in parents, as assessed by Symptom Checklist-90-Revised (SCL-90-R; Derogatis 1977) and Center for Epidemiologic Studies Depression Scale (CES-D; Radloff 1977; Italian translation by Pierfederici et al. 1982). Average age was 32.2 years for mothers and 33.1 years for fathers.

The observations were performed at the Sapienza University Lab about 1 week after the routine ultrasound. According to the PLTP procedure (Carneiro et al.

2006), parents were seated in a triangular configuration, with a 17" computer screen on a round table instead of the original basket (Carneiro et al. 2006). On the screen, connected to a computer, a clip of their last 4D ultrasound was played; during the observation, parents could control the video and were free to decide whether and when to pause or rewind it (see Fig. 5.1). The interactions lasted an average of 5'15" min (range = 2'43"-9'35").

Parents were asked to "talk to the baby, imagining that he or she could listen to them." We conceptualize the 4D ultrasound to show the image of the "present" baby, instead of the "future" baby represented by the doll in the PLTP procedure, and suggest that it is embedded into the parental experience during pregnancy. We also hypothesized that the instruction to "talk to the baby," instead of "interact with the baby," would fit better with our stimulus of the video. As in the original PLTP procedure, parents were asked to incorporate four different configurations: First, one parent talks to the baby while the other maintains a passive position; then the parents switch roles; in the third part they both talk together to the baby; finally, in the fourth part, they talk to each other (Carneiro et al. 2006). During the instructions, parents were informed that the procedure would last about 5 min and they could control the 4D ultrasound video with the mouse. The procedures were audio- and video-recorded and coded in order to assess the quality of prenatal coparenting interactions, parenting behaviors, and dialogues activated by couples' viewing of their fetus in the video.

Our initial coding aimed at capturing *what parents say*: A content analysis of parental dialogues while talking to the fetus during the viewing of the ultrasound video was done, in order to define some verbal indicators of parental roles and their affiliation processes. Furthermore, the recordings were analyzed to capture *what parents do*, with respect to intuitive parenting behaviors (Papousek and Papousek



Fig. 5.1 An expectant couple interacts with the fetal image depicted in a video of their 4D ultrasound during the procedure adapted from the *Prenatal Lausanne Trilogue Play*

1987) elicited by the fetal images: smiling toward the video image and using “baby talk.” First a microanalysis¹ of the videos was performed in order to assess “smile” behaviors, and then an acoustic analysis² of the audio recording was performed in order to assess the use of “baby talk” by parents.

What Parents Say

Using the content analysis of maternal and paternal dialogue while couples were talking to their fetus in the video, we identified six themes consistent with our research questions: (a) recognition of the fetus in the ultrasound by face, body, or movements, (b) naming oneself as “mom” or “dad,” (c) naming the partner as “mom” or “dad,” (d) finding a likenesses between the fetus and the self, e) finding likenesses between the fetus and the partner, and (f) calling the baby’s name. We had hypothesized that these verbal indicators could express the coparenting subsystem in formation and the inclusion of the baby image in the parental representations.

The content analysis of maternal and paternal dialogues during the ultrasound videos showed that all parents recognized the fetus in the 4D ultrasound, by the face, the arms, the legs, or the movements. Furthermore, in most cases mothers and fathers attributed a behavior to the fetus (i.e., sleeping, sucking a finger). This verbal recognition, in addition to being an indicator of affiliation, is included in the repertoire of intuitive parenting behaviors (Papousek and Papousek 1987) as it demonstrates parents’ exploration of their child for the purpose of ensuring his/her well-being.

Figure 5.2 shows the frequency of the other themes we identified in dialogues that concerned parental and coparental roles of mothers-to-be and fathers-to be.

The findings of this exploratory analysis show evidence that the fetal images in the 4D ultrasound can trigger some indicators of parental identity and of coparenting processes in formation, with the inclusion of the partner in the relationship with the baby. Naming the partner as “mom” or “dad” indicates that she/he is acquiring a new role in the partner’s mind, complementary to his or her own. The inclusion of the partner in the speech to the fetus highlights the building of a triadic representation by the parent, in which in addition to his or her dyadic relationship with the baby, there is the dyadic relationship between the partner and the baby, the relationship of the couple as parents, and the relationship of the whole family. Moreover, the attribution of likenesses to the fetal image could indicate the affiliation process, which allows the fetus to be recognized as a son/daughter by parents. Finally, calling the fetus by his/her name may indicate a representation of the baby’s identity in the mind of parents. These results show that the fetal image in the 4D ultrasound can

¹Videos were coded with software *The Observer for Windows – Version 3.0*.

²Audio was coded with software *PRAAT vers. 5.3.22*.

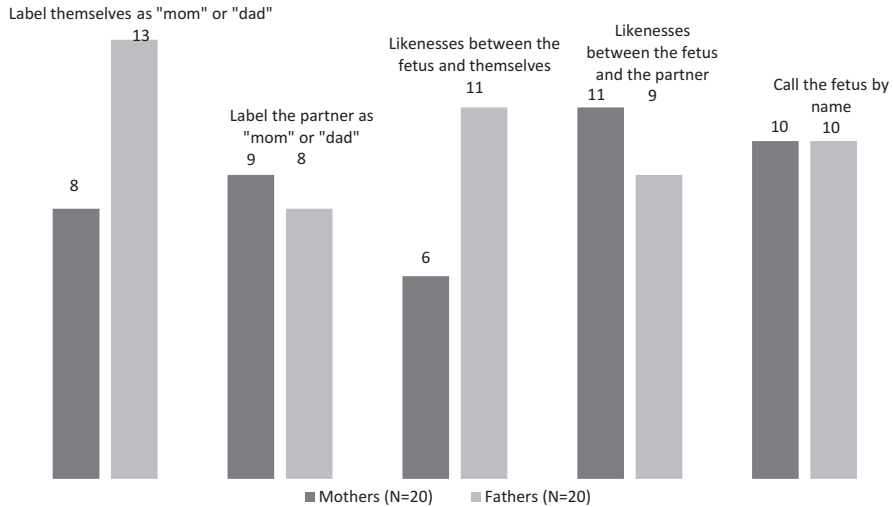


Fig. 5.2 Content analysis of maternal and paternal dialogues during the observational procedure

activate certain processes involved in the transition to parenthood in primiparous mothers-to-be and fathers-to-be, such as their parental identity, coparenting relationship, and recognition of the fetus as a son/daughter with his/her own identity. The interweaving of these indicators – the recognition of the fetus as an individual, the inclusion of the fetus in parents’ system of belonging through his or her likeness, and the attribution of parental roles to the self and partner – highlights the complexity of this triadic system with its subsystems and boundaries that is beginning to form during pregnancy. The prenatal awareness of the partner’s role as a parent, complementary to the parent’s own role, may be a fundamental element in developing that sense of being a “team” which defines the coparental relationship and allows parents to collaborate as coparents after birth.

What Parents Do

In order to explore the intuitive parenting behaviors (Papousek and Papousek 1987) activated by the 4D ultrasound, smiles shown by parents toward the fetal images were coded using a microanalysis. To compare videos of different lengths, the percentage of smiles relative to the total duration of the interaction was used. To assess if parents’ smiles were activated by the fetal images in the 4D ultrasound, the percentages of time relative to the total interaction time that mothers and fathers directed smiles at the fetus in the video versus at their respective partner were compared.

As shown in Table 5.1, we found that parents smiled at the fetal images in the video more than at their partners, confirming that the fetal images can trigger behav-

iors that prepare parents to interact with their baby after birth and promote their transition to parenthood. We also observed that mothers smiled at their fetus more than did fathers ($t(19) = 3.05, p = 0.007$) which may reflect the different ways in which men and women transition to becoming parents (Stern 1995; Tambelli et al. 2010) as well as the greater maternal compared to paternal confidence in interacting with their baby-to-be (Ammaniti 2008). Perhaps, this difference between mothers and fathers in behaviors toward the fetal ultrasound images may also be explained by women’s greater identification with their parental role during pregnancy compared to men (Pape Cowan and Cowan 1992). In sum, our findings are consistent with results from other studies using the traditional PLTP (Carneiro et al. 2006) which showed that both mothers and fathers are able to show intuitive parenting behaviors (Papousek and Papousek 1987) before their babies’ birth.

Additional microanalyses of couples’ behaviors during the observational procedure unexpectedly showed that nine expectant mothers (45%) and five expectant fathers (25%) imitated fetal movements and facial expressions while they watched their fetus on the ultrasound. In particular, these partners imitated the movements their fetus did with arms, hands, mouth, and tongue. We speculate that perhaps parental imitation of fetal movements could play a role in the affiliation process between parents and children, facilitating parental assimilation of their sons/daughters and promoting their inclusion in the family. Parental imitation of fetal movements does not only mirror fetal expressions but also reflects parents’ motivation to infer their unborn child’s feeling states based on overt behaviors (Ammaniti et al. 2014).

Another behavior we observed in parents while they talked to the videotaped images of their fetus was parental use of higher-pitched voices, similar to “baby talk.” These findings are consistent with those of postpartum studies which report that caregivers use a higher than average pitch in their infant-directed speech in comparison with their adult-directed speech (Fernald 1989; Kitamura et al. 2001; Papousek and Papousek 2002; Saint-Georges et al. 2013; Stern 1977). The infant-directed speech, named also “motherese” or “baby-talk,” is one of the first channels of parent-child communication, and it plays an important role for the development of language and for affect regulation. This kind of communication adapts to the perceptive capacities of babies, and its predictable and recurrent patterns constitute the primary information units for preverbal babies (Lam and Kitamura 2006;

Table 5.1 Average percentages of mothers’ and fathers’ smiles at fetal images versus at partners during the prenatal 4D ultrasound LTP

Parent	Behavior	Total duration of smiles % during LTP	<i>t</i>
Mothers (<i>N</i> = 20)	Smile at fetus	<i>M</i> = 25.93, <i>SD</i> = 13.69	<i>t</i> (19) = 6.19, <i>p</i> < 0.01
	Smile at partner	<i>M</i> = 4.55, <i>SD</i> = 4.59	
Fathers (<i>N</i> = 20)	Smile at fetus	<i>M</i> = 19.22, <i>SD</i> = 11.51	<i>t</i> (19) = 5.92, <i>p</i> < 0.01
	Smile at partner	<i>M</i> = 2.45, <i>SD</i> = 2.91	

Trevarthen 2002). Furthermore, the temporal coordination between adult and baby in the preverbal phase, given by the turn-taking and by the length of vocalizations and pauses, promotes interactive regulation and the development of intersubjectivity (Beebe et al. 2000; Miall and Dissanayake 2003). Maternal intonation profiles become significant informative units for the baby in the first 6 months of life and play a central role in involving him/her in social interaction and conveying affective states (Stern et al. 1982). Studies on neonatal psychology have shown that the newborn is able to recognize the maternal voice and the stimuli he/she had heard during pregnancy (Granier-Deferre et al. 2011; Malloch et al. 1997; Trevarthen 2005). A fetal reaction to repeated exposure of sound stimuli has also been observed, mainly consisting of changes in heartbeat (DeCasper et al. 1994; Krueger et al. 2004).

To explore if the babyish features of the fetal image in the 4D ultrasound could activate “baby-talk” in pregnant parents, an acoustic analysis of their tone of voice while they talked to their fetus during the adapted PLTP was performed. As child-directed speech is defined by a higher pitch than adult-directed language, the fundamental frequency (f_0) of dialogues was analyzed. Utterances³ of parental dialogue toward the fetus in the 4D ultrasound were collected and labeled as Infant-Directed Speech (IDS). They were compared to samples of Adult-Directed Speech (ADS) collected in the same setting while parents spoke to their partner.

All language units produced by parents in the two situations (IDS and ADS) were collected and analyzed with software PRAAT⁴ in order to obtain the fundamental frequency (f_0) of each language unit expressed in Hertz. The acoustic analysis generated a corpus of frequencies divided into four groups depending on the parent (mothers and fathers) and the type of language (directed to the infant and directed to the adult).

Our data shows that mothers who participated in our study spoke more to their fetuses than did fathers (229 utterances versus 173 utterances), suggesting that perhaps mothers were already more familiar with engaging in this kind of dialogue based on their internal dialogues with their babies that develop during pregnancy (Ammaniti 2008).

Utterances were analyzed for fundamental frequency (f_0) and average f_0 of IDS and ADS were compared for mothers and fathers (Table 5.2).

Statistical analysis showed that the average f_0 for IDS is higher than the average f_0 for ADS for both mothers ($t(19) = 2.60, p = 0.018$) as well as for fathers ($t(19) = 2.75, p = 0.013$). These findings provide evidence that the babyish features of the fetal images are capable of triggering “baby talk” in parents-to-be despite the fact that they are only depicted in video images of the fetus.

Figure 5.3 shows an example of an IDS utterance compared to an ADS utterance generated by the PRAAT software. On the left part of the figure, a mother said *to* her

³Segment of speech separated by more than 300 ms of non- speech.

⁴The software has been set at a frequency between 70 and 700 Hertz, with a 0.01 s time-step that returns the fundamental frequency of the sound with a frequency of 100 values per second. The audio files were in one-channel WAV format.

Table 5.2 Average fundamental frequencies (f_0) of Infant-Directed Speech (IDS) and Adult-Directed Speech (ADS) during the prenatal 4D ultrasound LTP

Parent	f_0 (Hz)	
	IDS	ADS
Mothers ($N = 20$)	230.48 ($SD = 24.06$)	214.94 ($SD = 28.51$)
Fathers ($N = 20$)	164.67 ($SD = 30.06$)	145.02 ($SD = 27.87$)

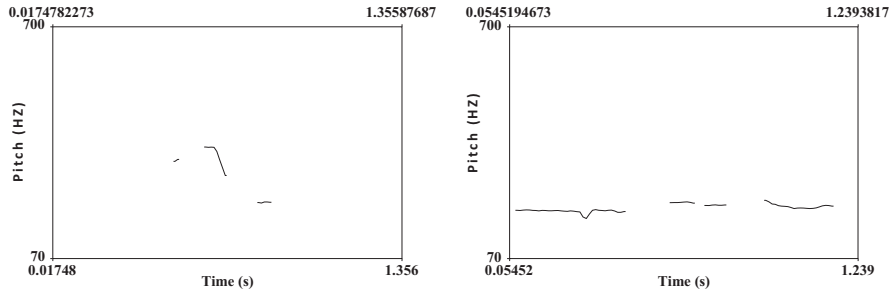


Fig. 5.3 Comparison between a mother’s pitch during an IDS utterance (left) and during her ADS utterance (right). (Source: Menozzi and Ammaniti 2014. Reprinted with permission from the publisher of *Infanzia e Adolescenza*)

fetus in the video: “My Looove!” (in Italian: “Amooore!”); on the right, the same mother commented to her partner *about* the fetal image in the ultrasound: “You could see her face” (in Italian: “Si vedeva il viso”).

Findings from our exploratory study show that during 4D ultrasound images of their fetus during the last trimester of pregnancy, parents-to-be already use the same type of language characterized by a higher pitch during child-directed compared to adult-directed speech as parents do during postpartum communication with their preverbal infants. These results are consistent with research conducted by the Lausanne group (Carneiro et al. 2006), which has shown that interactions of parents-to-be with a doll can activate some intuitive parenting behaviors (Papousek and Papousek 1987) during pregnancy. These behaviors are not enacted consciously by parents and are the precursors of parents’ explicit teaching behaviors with older children, which are intended to help them develop language and social communication and to integrate their skills together. In the repertoire of intuitive parenting behaviors, smiling involves greeting behaviors that reinforce visual contact with the newborn and develop his or her social and emotional skills. Baby-talk, in addition to stimulating social interactions, constitutes a metacommunication understandable by the newborn that allows for the transmission of messages in the absence of the newborn’s verbal skills.

The 4D ultrasound in the last trimester of pregnancy not only reassures parents of the well-being of the fetus but also lets them recognize the features of the fetal face and movements, making the presence of the unborn child more concrete for mothers-to-be and fathers-to-be. Furthermore, the experience of seeing the image of

their son/daughter in the 4D ultrasound video can encourage parents to share their conscious fantasies and expectations for interactive dynamics they anticipate having with their babies after birth as well as shape their mental representations of the baby that develop over the course of pregnancy, as will be discussed in the next section.

Parental Representations During Pregnancy

Pregnancy involves deep changes in the inner world of parents who develop a representation of their baby over time. Lebovici and Stoléru (1983) have identified what they call the “phantasmatic baby,” defined as the expression of the maternal unconscious world, and the imaginary baby, that develops from maternal fantasies, expectations, and wishes. A new psychic organization, the “motherhood constellation” (Stern 1995), takes place in a pregnant woman and is going to develop her new identity as a mother and rework her relationship with her own mother. The expectant mother learns to “think for two” (Ammaniti 2008), creating a mental space for the baby by interpreting the fetal movements as the expression of his/her specific intentionality. The father-to-be is also engaged in developing new representations of himself as a father and of the partner as a mother (Ammaniti et al. 2006; Barriguetta et al. 2002; Cohen and Slade 2000). During pregnancy, mothers and fathers begin to develop their attachments to their baby having to find a balance between the representation of the baby as a part of themselves, which guarantees the process of affiliation, and the representation of the baby in his or her individuality, which guarantees the recognition of the baby’s needs. When these mental representations are shared and co-created with the partner, they promote the process of coparenting as they allow mothers and fathers to have a common vision of their baby.

In order to explore how the coparenting relationship during pregnancy is reflected in couples’ mental representations, our study used a semi-structured conjoint interview with couples (*Interview with Expecting Parents*; Ammaniti, Mazzoni and Menozzi unpublished). The couples were interviewed just before they reviewed the clip of their most recent 4D ultrasound. This interview aims to investigate how couples are experiencing the pregnancy, how it is preparing them for the child’s arrival, and what fantasies and expectations they have about themselves and their partners as parents. The interview consists of five areas which explore the history of the pregnancy, parental representations of the baby, changes in the couple relationship, the relationship with the partner’s family of origin, and representations of future coparenthood. We have found that our conjoint interviews with parents-to-be highlight the different ways in which couples prepare for the transition to parenthood. Below are some excerpts from these interviews which illustrate the dynamics of coparenting in formation we have observed in our participants.

Affiliation

The affiliation process, which can be detected by the parents' recognition of similarities with their child, is explored with the question "In what ways would you like your son/daughter to look like you or be different from you?" Some parents seem to have already integrated the representation of their future child within the family system, and in fact they are not surprised by the question and answer spontaneously not only focusing on the similarities between themselves and the child but also focusing on the similarities between their partner and child. Furthermore, in their answers they use the pronoun "we," thus demonstrating a triadic stance in their mental representations that includes the other parent in the relationship with their child. For example, in response to the question about similarities between them and their child, **Couple A** explained:

Mother: I hope that, physically, he will take after him.

Father: Let's say that we would like his personality to be more like hers and, physically, for him to look more like me since he's a boy; if it had been a girl, I would have wished the other way around.

Mother: Also, I'd like a personality like his father's, he is a cheerful person, always in a good mood. I, not so much (they laugh); but he is more anxious, so hopefully he won't take after him in that.

Father: Instead she is calm, actually we hope that he will inherit this calmness from the mother. Yes, yes, the mom, for personality it would be better if he were a bit more similar to her.

Other parents seem to need more time for the process of their affiliation with the baby to unfold during pregnancy, as for example **Couple B**:

Father: We haven't thought about it, I haven't thought about it. I don't know. I really haven't given it a thought yet.

Interviewer: Would you like to point out some aspect or other....

Mother: Thinking about it now?

Interviewer: Yes.

Mother: ... I would like him to have our same feelings, to love his family, to be a good person... that he be loving towards the people he cares about, and respectful. This is what I would like. And perhaps different from me... I don't know! (Laughs) Well, I am a little fussy.

Father: We were born in the 60s, so our time was all about instinct and fantasy, good feelings, right? So, actually, I think that is what we'll try to pass on to him, but it's not enough. Of course, we would like to pass on the way we are, our experience, then obviously he will decide for himself. I don't think you can influence people up to that point.

Other parents show a greater focus on the identity of their future baby than on her inclusion in the family system, as for example **Couple C**:

Father: She'll be as she'll be... she is another person, so...anyway she'll get the defects for sure (they laugh)... without a doubt... she will have to be a person of her own.

Mother: Yes, she will be free to grow and to do what she wants.

Father: Yes.

Mother: I am an only daughter, but I grew up in the complete freedom to make my own decisions, and I want it to be like that for her as well.

Individual and Couple Changes

Another interview question focused on the transition toward parenthood and the changes it promotes within the parents themselves. We asked "How has each of you changed since you started expecting a child?" **Couple A** was capable of describing the changes which took place within themselves during the pregnancy, on the emotional level as well. Both parents expressed positive feelings and concerns, as is typical in the last months of pregnancy:

Father: I am a little anxious, however, I have learned to be much less worried and anxious about everything. You realize that it's no good to worry or get scared about things that are not worth it. It has... I am not saying it has made me somewhat more mature but close..., in the way I react to things, I have realized that it's time to change course on many issues. Of course, it's not easy because that's your personality, but it helps you understand many things, so it has changed my personality.

Interviewer: And emotionally, what do you feel?

Father: Happiness, a truly boundless happiness. So, so, so much joy, which comes back every time they tell us the baby is fine, every time he moves, every time I imagine how he will be. There always is some worry, because until he is born and you see that he is fine, there always is a bit of that.

Mother: Certainly, my attitude towards work has completely changed, because my job is quite demanding and I was always very involved in it, even when we first started talking about becoming pregnant I already started feeling a bit detached... then when I discovered I was pregnant, work has really taken second place. And emotionally... well! Every day brings a new feeling, always beautiful feelings, beautiful thoughts, the issue of work after the child is born worries me a bit, but we'll deal with that when it comes.

Interviewer: How has your husband changed, since the pregnancy started?

Mother: As he said, he is certainly less anxious about many other things, he has put the baby in front of everything, both the good things and the bad things, the baby... and me.

Interviewer: How has your wife changed?

Father: She worries a lot, even over small things, while before it was the exact opposite, I was more the anxious one, instead now she is often more anxious than me.

Couple B showed more difficulty in recognizing changes in themselves and in their partner during pregnancy:

Mother: The most obvious change in me is that I move slower. Before I was very dynamic, very quick, very active. Apart from this, I don't feel changed. Not in my feelings, nor in my expectations or desires. I would surely like to get back to some of the activities I did before the pregnancy. I know it won't be easy, because of time and organizational issues, but I hope that in time we will find a solution for these situations. I think it will have to be gradual, because there certainly are different priorities, there will be, since there will be a child.

Father: For me nothing has changed, apart from the fact that she stays home now, so we can spend time together... but no. Nothing has changed.

Interviewer: How has your wife changed, since the pregnancy started?

Father: She walks slower (they laugh), perhaps she is a bit more irritable. But beyond this, well she is a bit more sensitive about things, but beyond this no, she hasn't changed.

Interviewer: How has your husband changed?

Mother: I don't think he has changed either, I expected a reaction of great joy on his part, and this is what happened, but he hasn't changed. It's true that he's more affectionate, but more affectionate because now there isn't only affection towards me, there is affection towards a third person. So, the total amount of affection is increased, but not the type of affection, because I still feel I am in his thoughts as before the pregnancy. Just something new has been added, but I don't think that this is a change.

Couple C is trying to build a space, both physically and psychologically, for their daughter around whom their lives revolve:

Father: You kind of put the important things back in their order, you rationalize your life a little, reorganize the priorities of life.

Mother: Yes, it has changed me a lot, now she is my life.

Father: At least, during this period, in which we had to dedicate ourselves to her.

Mother: Yes, but it will also be like this throughout her whole life.

Father: It is important that this person who will be arriving has the best conditions to grow well!

Interviewer: How has your wife changed?

Father: She has changed a lot because she has had to dedicate herself completely to the pregnancy.

Interviewer: How has your husband changed?

Mother: He surprised me, because he has always put the things he likes to do first, even when we got married, he really likes to do some things at home, now he has reduced them a bit, he is a musician, he has stopped playing, even only at home.

Father: Now I have other priorities actually....

Mother: And he did it without effort, that amazed me a bit, let's say that I was amazed at how we both reacted.

Father: Since I work, the time at home isn't much, so if you have things you really need to do, unfortunately there are others you don't have time for, so you temporarily suspend some commitments that you will later get back to, when things have calmed down.

Coparenting Representations

Related to the construction of their coparenting relationship, couples' fantasies and expectations about themselves as parents were explored with the following question: "How do you imagine yourselves as parents, once the baby is born?"

Couple A seems to have activated a more flexible mental representation of their coparenting relationship, which also includes some aspects of the family of origin:

Father: (They laugh) That's a big question mark!

Mother: I am afraid I might be a bit too strict, even though I also think that he will buy me out easily; in many ways I had a strict education and I think I will do the same thing... that is, stricter from my father, and a little freer from my mother, but I think I will follow Dad's style. I don't think I'll be able to help it.

Father: I do not know, I will have to test myself every day, I would like to be able to give him a certain education and to not spoil him too much, not give him too much attention, but I don't think I'll be able to. I certainly want him to have good manners and behavior, and certain principles, and I hope I'll be able to pass these on to him, the rest is all a big question mark.

Interviewer: How do you imagine your wife as a mother?

Father: How she described herself, quite strict, I think she would be even stricter with a daughter. But I also think she wants to dedicate a lot of time to him, to teach him certain specific things, so what I think is that she will devote herself a lot... we will try to do our best but we have no certainties. We both want to give him a certain education, for the rest he will of course have his own personality which will come out, so... what will be, will be.

Interviewer: How do you imagine your husband as a father?

Mother: (Laughs) I imagine him as a father who will play with his son a lot, who will share many things with him, who will give up many things to spend time with his son. Sometimes I imagine him a bit like his father (she laughs). I hope there will always be an exchange of ideas between us, in the sense that if I or he does something wrong with the child, I hope that there will always be discussion, dialogue. About education and behavior, I think it is important that it is clear that parents are on one side and make the rules, and the children are on the other side.

These responses suggest the presence of a supportive coparenting alliance between the parents-to-be by their show of respect for each other's parenting style, absence of criticism, expectation of partner involvement in their child's upbringing, and their anticipation of collaborative resolutions of any disagreements that they may encounter in their coparenting relationship. The mother also expresses a repre-

sentation of the couple as a unit, indicating her expectation of a solid coparental subsystem in her future family. The father uses the plural “we” to talk about the future relationship with the child, an element that indicates that a sharing between the partners has already taken place with respect to some topics concerning the son.

Couple B voices a narrower, more negative, and less elaborate mental representation of their coparenting relationship, which is more focused on themselves than on the child. In couple B’s responses, we can clearly perceive certain expectations each partner has for the other:

Mother: I don’t know, I am quite anxious and I rely on him a lot, situations that might or will make me very concerned, worried, agitated, may perhaps be toned down by his carefree attitude. Then, I don’t know because how can we foresee how we’ll behave? I can say this, that I feel I am a quite apprehensive and anxious person, but I would like to try not being too anxious (laughs).

Father: I am also quite anxious in general, so I hope I’ll be able to mitigate my worries.

Interviewer: How do you imagine your wife as a mother?

Father: As she said, a little apprehensive... and I hope to be able to tone down the situations.

Interviewer: How do you imagine your husband as a father?

Mother: I think he will be very caring; I hope that he will start playing with the child as soon as possible, yes, that’s how I imagine him.

In this couple, a strong coparental alliance does not yet appear as the interview does not reveal a sharing of beliefs or attitudes between the partners toward their child; moreover, the expectation of support seems to be one sided, as a mitigation of maternal anxiety by the partner.

Similarly, **Couple C** emphasizes the mother’s apprehension and the father’s role in mitigating this, but instead of limiting himself to this issue as the father did in Couple B, this father makes reference to his partner’s character, her ways as a future parent, and also his own childhood experiences, revealing a richer and more complex representation:

Mother: I will have to contain myself, because I know that when she’s born, I’m going to fall head over heels with this girl.

Father: I like children, we both like children, and we grew up surrounded by them.

Mother: Yes, I have taken care of many children, I worked as a babysitter and I took care of friends’ children, so I know more or less what it means to take care of a child the whole day long, even a small child, but of course it’s easier with other people’s children, and I am quite strict on education, but it’s easier with someone else’s child, not with your own, I know that I will have to make an effort not to spoil her (she laughs).

Interviewer: And how do you imagine yourself as a father?

Father: Well... this is going to be a new experience (he laughs), we'll see how it goes (they laugh).

Interviewer: How do you imagine your wife as a mother?

Father: She is very gifted, I always tell her she is too apprehensive, I try to tone down things that seem dramatic (they laugh), "Nothing happened," "No, but it could have happened!" "Hey, ok, it could have happened, but come on." So... I try to compensate this thing a bit, because I grew up with my mother who was apprehensive and sometimes I used to have to do things because I knew she was apprehensive. And I used to say to myself: "When I have a child I will have to try and remember this." So... And she is worse than my mother, I think, so (they laugh), I will have to do my part in this.

Interviewer: How do you imagine your husband as a father?

Mother: A playful one (they laugh)... for sure... they will do all sorts of things (they laugh).

These excerpts of our interviews illustrate certain aspects of the complex process of the transition to coparenthood, which involves the reorganization of couples' romantic relationship, as well as the integration of past experiences and future expectations, which propels couples into a temporary state of disequilibrium (Cowan and Cowan 1987). In these excerpts, expectant couples voice the changes they already perceive within themselves and their partners during pregnancy and illustrate what Cowan (1991) has framed as a structural conception of this life transition. Couples' conjoint responses to the interview questions highlight how their representations of themselves as future parents, both the richer and the more restricted ones, appear to be the result of co-constructions that occur in their daily routines during pregnancy. Both partners are engaged in the process of transitioning to parenthood but, as a couple, seem to follow their own unique trajectory in anticipating their coparenting alliance. Furthermore, in parents' descriptions of their representations, we are able to observe how the transition to parenthood is a catalyst that involves all personal relationships, present, past, and future. For example, while parents speak of their couple relationship (as cooperative or competitive), they can send messages to the partner or may reveal shared thoughts on their couple history. Also, there is often a spontaneous reference to their own parents, to their memories of childhood, and to the kind of education they received. Other relationships, such as work relationships, and recreational activities are questioned, highlighting how this particular evolutionary moment requires a mental reorganization. Similar to the responses Pape Cowan and Cowan (1992) obtained in their interviews with couples across the transition to parenthood, some of the couples in this study described the reorganization of their identity with parts of their identity that used to be allotted to being a worker and partner reassigned to their new identity as a parent.

Conclusions

Though exploratory, our study highlights the utility of using 4D ultrasounds during pregnancy in studying the quality of the prenatal coparenting relationship. Using our novel procedure, we observed that the fetal images in the video of 4D routine ultrasounds can trigger parental and coparental behaviors in primiparous couples. The fetal “babyiness” helps parents to develop a sense of the baby as a separate individual and at the same time activates those behaviors – like smiles, imitation, and baby talk – that are central in the development of the intersubjective process after the baby’s birth. During pregnancy, parents-to-be start developing a representation of the self and of the partner in a parental and coparental role. The sharing of conscious fantasies concerning the baby is crucial for the emergent coparenting relationship, allowing partners to anticipate the family relationship and shaping the intersubjective matrix (Stern 2004) in which the infant will develop.

These findings confirm that prenatal coparenting involves complex processes. Some couples are already able to anticipate those dynamics of support, sharing, and alliance that are indicators of a strong future coparenting relationship while other couples do not seem to have fully matured to this step yet.

Future research should identify the peculiarity of prenatal coparenting representations and their connection with prenatal family interactions. Given the profound changes that the transition to parenthood entails, it is necessary to continue research in this field to develop increasingly detailed knowledge that can be used in the effective prevention and promotion of the child’s and the family’s well-being.

References

- Altenburger, L. E., Schoppe-Sullivan, S. J., Lang, S. N., Bower, D. J., & Kamp Dush, C. M. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology*, 28(4), 495–504. <https://doi.org/10.1037/fam0000012>.
- Ammaniti, M. (2008). *Pensare per Due. Nella Mente delle Madri*. Bari: Laterza.
- Ammaniti, M., & Gallese, V. (2014). *The birth of intersubjectivity. Psychodynamics, neurobiology and the self*. New York: Norton.
- Ammaniti, M., Candelori, C., Pola, M., & Tambelli, R. (1995). *Maternità e Gravidanza. Studio delle Rappresentazioni Materne*. Milano: Raffaello Cortina Editore.
- Ammaniti, M., Tambelli, R., & Odorisio, F. (2006). Intervista clinica per lo studio delle rappresentazioni paterne in gravidanza: IRPAG. *Età Evolutiva*, 85, 30–40.
- Ammaniti, M., Mazzoni, S., & Menozzi, F. (2010). Ecografia in gravidanza: studio della co-genitorialità. *Infanzia e adolescenza*, 9(3), 151–157. <https://doi.org/10.1710/535.6404>.
- Ammaniti, M., Trentini, C., Menozzi, F., & Tambelli, R. (2014). Transition to parenthood: Studies of intersubjectivity in mothers and fathers. In R. N. Emde & M. Leuzinger-Bohleber (Eds.), *Early parenting and prevention of disorder: Psychoanalytic research at interdisciplinary frontiers* (pp. 129–164). London: Karnac.
- Barriguette, L. A., Lebovici, S., Salinas, J. L., Moro, M. R., Solis, L., Botbol, M., Maldonado, M., & Cordova, A. (2002). La fonction du père dans la consultation thérapeutique parents-bébé

- et dans le traitement des troubles de l'alimentation chez le bébé. In L. Solis-Ponton (Ed.), *La Parentalité. Défi pour le troisième millénaire* (pp. 73–90). Paris: Presse Universitaires de France.
- Beck Black, R. (1992). Seeing the baby: The impact of ultrasound technology. *Journal of Genetic Counseling, 1*(1), 45–54. <https://doi.org/10.1007/BF00960084>.
- Beebe, B., Jaffe, J., Lachmann, F., Feldstein, S., Crown, C., & Jasnow, M. (2000). Systems models in development and psychoanalysis: The case of vocal rhythm coordination and attachment. *Infant Mental Health Journal, 21*(1–2), 99–122. [https://doi.org/10.1002/\(SICI\)1097-0355\(200001/04\)21:1/2<99::AID-IMHJ11>3.0.CO;2-%23](https://doi.org/10.1002/(SICI)1097-0355(200001/04)21:1/2<99::AID-IMHJ11>3.0.CO;2-%23).
- Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting. *Child Development, 66*(3), 629–642. <https://doi.org/10.1111/j.1467-8624.1995.tb00894.x>.
- Candelori, C., Pola, M., & Tambelli, R. (1991). Considerazioni sul bambino immaginario e bambino ecografico in gravidanza. *Psichiatria dell'infanzia e dell'adolescenza, 58*, 261–271.
- Carneiro, A., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The Prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Cohen, L. J., & Slade, A. (2000). The psychology and psychopathology of pregnancy: Reorganization and transformation. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (2nd ed., pp. 20–36). New York: The Guilford Press.
- Cowan, P. (1991). Individual and family life transitions: A proposal for a new definition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 3–30). Publishers: Lawrence Erlbaum Associates.
- Cowan, C., & Cowan, P. (1987). Men's involvement in parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Publishers: Lawrence Erlbaum Associates.
- Darwiche, J., Fivaz-Depeursinge, E., & Corboz-Warnery, A. (2016). Prenatal intuitive coparenting behaviors. *Frontiers in Psychology, 7*, 1662. <https://doi.org/10.3389/fpsyg.2016.01662>.
- De Jong-Pleij, E. A. P., Ribbert, L. S. M., Pistorius, L. R., Tromp, E., Mulder, E. J. H., & Bilardo, C. M. (2013). Three-dimensional ultrasound and maternal bonding, a third trimester study and a review. *Prenatal Diagnosis, 33*(1), 81–88. <https://doi.org/10.1002/pd.4013>.
- DeCasper, A. J., Lecanuet, J. P., Busnel, M. C., Granier-Deferre, C., & Maugeais, R. (1994). Fetal reactions to recurrent maternal speech. *Infant Behavior and Development, 17*(2), 159–164. [https://doi.org/10.1016/0163-6383\(94\)90051-5](https://doi.org/10.1016/0163-6383(94)90051-5).
- Derogatis, L. R. (1977). *SCL-90-R: Administration, scoring and procedures manual*. Baltimore: Clinical Psychometrics Research.
- Ekelin, M., Crang-Svalenius, E., & Dykes, A. K. (2004). A qualitative study of mothers' and fathers' experiences of routine ultrasound examination in Sweden. *Midwifery, 20*(4), 335–344. <https://doi.org/10.1016/j.midw.2004.02.001>.
- Fabbri, M., Casadei, D., Piermarocchi, P., & Righetti, P. L. (2005). L'ecografia ostetrica e il vissuto genitoriale – descrizione di un'esperienza. In P. L. Righetti & D. Casadei (Eds.), *Sostegno psicologico in gravidanza* (pp. 153–159). Roma: Edizioni Magi.
- Fava Vizziello, G. M., Righetti, P. L., & Cristiani, M. C. (2000). Prima Filii Imago. Tra il Bambino Immaginario e il Bambino Figurato: il vissuto materno della prima ecografia in gravidanza. In P. L. Righetti & L. Sette (Eds.), *Non c'è due senza tre. Le emozioni dell'attesa dalla genitorialità alla prenatalità* (pp. 170–181). Torino: Bollati Boringhieri.
- Favez, N., Frascarolo, F., Carneiro, C., Montfort, V., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The development of the family alliance from pregnancy to toddlerhood and children outcomes at 18 months. *Infant and Child Development, 15*(1), 59–73. <https://doi.org/10.1002/icd.430>.
- Favez, N., Frascarolo, F., & Tissot, H. (2017). The family alliance model: A way to study and characterize early family interactions. *Frontiers in Psychology, 8*, 1441. <https://doi.org/10.3389/fpsyg.2017.01441>.
- Feinberg, M. E. (2002). Coparenting and the transition to parenthood: A framework for prevention. *Clinical Child and Family Psychology Review, 5*(3), 173–195.

- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice*, 3(2), 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Fernald, A. (1989). Intonation and communicative intent in mothers' speech to infants: Is the melody the message? *Child Development*, 1497–1510.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers and infants*. New York: Basic Books. Italian Edition: Fivaz-Depeursinge, E., & Corboz-Warnery, A. (2000). *Il triangolo primario. Le prime interazioni triadiche tra padre, madre e bambino*. Milano: Raffaello Cortina Editore.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (2010). Observational tool: The prenatal Lausanne Trilogue Play. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health* (pp. 121–127). Chichester: Wiley-Blackwell.
- Foley, S., & Hughes, C. (2018). Great expectations? Do mothers' and fathers' prenatal thoughts and feelings about the infant predict parent-infant interaction quality? A meta-analytic review. *Developmental Review*, 48, 40–54. <https://doi.org/10.1016/j.dr.2018.03.007>.
- Galdiolo, S., & Roskam, I. (2016). From me to us: The construction of family alliance. *Infant Mental Health Journal*, 37(1), 29–44. <https://doi.org/10.1002/imhj.21543>.
- Granier-Deferre, C., Bassereau, S., Ribeiro, A., Jacquet, A. Y., & DeCasper, A. J. (2011). A melodic contour repeatedly experienced by human near-term fetuses elicits a profound cardiac reaction one month after birth. *PLoS One*, 6(2), e17304. <https://doi.org/10.1371/journal.pone.0017304>.
- Ji, E. K., Pretorius, D. H., Newton, R., Uyan, K., Hull, A. D., Hollenbach, K., & Nelson, T. R. (2005). Effects of ultrasound on maternal-fetal bonding: A comparison of two- and three-dimensional imaging. *Ultrasound in Obstetrics and Gynecology*, 25(5), 473–477. <https://doi.org/10.1002/uog.1896>.
- Kerig, P. K., & Lindhal, K. M. (2001). *Family observational coding systems. Resources for systemic research*. New Jersey: Lawrence Erlbaum Associates. Italian Edition: P.K. Kerig & K.M. Lindhal (2006). *Sistemi di codifica per l'osservazione delle relazioni familiari*. Milano: Franco Angeli.
- Kitamura, C., Thanavishuth, C., Burnham, D., & Luksaneeyanawin, S. (2001). Universality and specificity in infant-directed speech: Pitch modifications as a function of infant age and sex in a tonal and non-tonal language. *Infant Behavior and Development*, 24(4), 372–392. [https://doi.org/10.1016/S0163-6383\(02\)00086-3](https://doi.org/10.1016/S0163-6383(02)00086-3).
- Krueger, C., Holditch-Davis, D., Quint, S., & DeCasper, A. (2004). Recurring auditory experience in the 28- to 34-week-old fetus. *Infant Behavior and Development*, 27(4), 537–543. <https://doi.org/10.1016/j.infbeh.2004.03.001>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, 8(475), 1–17. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Lam, C., & Kitamura, C. (2006). Developmental trends in infant preferences for affective intent in mothers' speech. In *Proceedings of the Eleventh Australian international conference on speech science & technology* (pp. 100–105). Auckland: ASSTA.
- Larsen, T., Nguyen, T. H., Munk, M., Svendsen, L., & Teisner, L. (2000). Ultrasound screening in the 2nd trimester. The pregnant woman's background knowledge, expectations, experiences and acceptances. *Ultrasound in Obstetrics and Gynecology*, 15(5), 383–386. <https://doi.org/10.1046/j.1469-0705.2000.00112.x>.
- Le, Y., McDaniel, B. T., Leavitt, C. E., & Feinberg, M. E. (2016). Longitudinal associations between relationship quality and coparenting across the transition to parenthood: A dyadic perspective. *Journal of Family Psychology*, 30(8), 918. <https://doi.org/10.1037/fam0000217>.
- Lebovici, S., & Stolérú, S. (1983). *Le nourrisson, la mère et le psychanalyste. Les interactions précoces*. Paris: Le Centurion.
- Malloch, S. N., Sharp, D. B., Campbell, A. M., Campbell, D. M., & Trevarthen, C. (1997). Measuring the human voice: Analyzing pitch, timing, loudness and voice quality in mother/infant communication. *Proceedings of the Institute of Acoustics*, 19(5), 495–500.

- Mayes, L. C., Swain, J. E., & Leckman, J. F. (2005). Parental attachment systems: Neural circuits, genes, and experiential contributions to parental engagement. *Clinical Neuroscience Research*, 4, 301–313. <https://doi.org/10.1016/j.cnr.2005.03.009>.
- Mazzoni, S., & Tafà, M. (2007). Problemi metodologici nello studio delle relazioni familiari. In S. Mazzoni & M. Tafà (Eds.), *L'intersoggettività nella famiglia. Procedure multimetodo per l'osservazione e la valutazione delle relazioni familiari* (pp. 53–66). Franco Angeli: Milano.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology*, 31, 985–996.
- McHale, J. P. (2007). *Charting the bumpy road of coparenthood: Understanding the challenges of family life*. Washington, DC: Zero To Three. Italian Edition: McHale, J. P. (2007). *Le sfide della cogenitorialità*. Milano: Raffaello Cortina.
- McHale, J. P., & Rasmussen, J. L. (1998). Coparental and family group-level dynamics during infancy: Early family precursor of child and family functioning during preschool. *Development and Psychopathology*, 10, 39–59.
- McHale, J., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, 16, 711–733. <https://doi.org/10.1017/S0954579404004742>.
- McHale, J. P., Favez, N., & Fivaz-Depeursinge, E. (2018). The Lausanne Trilogue Play paradigm: Breaking discoveries in family process and therapy. *Journal of Child and Family Studies*, 27(10), 3063–3072. <https://doi.org/10.1007/s10826-018-1209-y>.
- Menzio, F., & Ammaniti, M. (2014). Immagine ecografica fetale e baby-talk genitoriale: uno studio esplorativo. *Infanzia e Adolescenza*, 13(3), 130–137. <https://doi.org/10.1710/1750.19020>.
- Miall, D. S., & Dissanayake, E. (2003). The poetics of babytalk. *Human Nature*, 14(4), 337–364.
- Missonnier, S. (1999). L'échographie obstétricale: un rituel séculier d'initiation à la parentalité? In M. Soulé (Ed.), *Ecoute voir... l'échographie de la grossesse. Les enjeux de la relation* (pp. 133–161). Editions Erès: France.
- Missonnier, S. (2003). *La consultation thérapeutique périnatale. Un psychologue à la maternité*. France: Editions Erès. Italian Edition: S. Missonnier (2005). *La consultazione terapeutica perinatale. Psicologia della genitorialità, della gravidanza e della nascita*. Milano: Raffaello Cortina Editore.
- O'Leary, J. (2015). *Fathers/partners: Psychological adjustment during pregnancy*. Michigan Association for Infant Mental Health. The Infant Crier. <https://infantcrier.mi-aimh.org/father-partners-psychological-adjustment-during-pregnancy/> Accessed 07 Mar 2019
- Pape Cowan, C., & Cowan, P. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Papousek, H., & Papousek, M. (1987). Intuitive parenting: A dialectic counterpart to the infant's integrative competence. In J. D. Osofsky (Ed.), *Handbook of infant development* (pp. 669–720). New York: Wiley.
- Papousek, H., & Papousek, M. (2002). Intuitive parenting. In M. H. Bornstein (Ed.), *Handbook of parenting. Volume 2 Biology and ecology of parenting* (pp. 183–203). Mahwah: Lawrence Erlbaum Associates Publishers.
- Pierfederici, A., Fava, G. A., Munari, F., Rossi, N., Badaro, B., Pasquali Evangelisti, L., Grandi, S., Bernardi, M., & Zecchino, F. (1982). Validazione italiana del CES-D per la misurazione della depressione. In R. Canestrari (Ed.), *Nuovi metodi in psicomatria*. Firenze: Organizzazioni Speciali.
- Piontelli, A. (2007). Sull'inizio del comportamento fetale umano. In M. Mancina (Ed.), *Psicoanalisi e neuroscienze* (pp. 413–442). Milano: Springer.
- Radloff, L. S. (1977). The CES-D Scale. *Applied Psychological Measurements*, 1, 385.
- Raphael-Leff, J. (2010). Mothers' and fathers' orientations: Patterns of pregnancy, parenting and the bonding process. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health: A bridge between infant and adult psychiatry* (pp. 9–22). Chichester/West Sussex: Wiley-Blackwell.

- Saint-Georges, C., Chetouani, M., Cassel, R., Apicella, F., Mahdhaoui, A., Muratori, F., Laznik, M. C., & Cohen, D. (2013). Motherese in interaction: At the cross-road of emotion and cognition? (A systematic review). *PLoS One*, 8(10), e78103. <https://doi.org/10.1371/journal.pone.0078103>.
- Schoppe-Sullivan, S. J., Altenburger, L. E., Settle, T. A., Kamp Dush, C. M., Sullivan, J. M., & Bower, D. J. (2014). Expectant fathers' intuitive parenting: Associations with parent characteristics and postpartum positive engagement. *Infant Mental Health Journal*, 35(5), 409–421. <https://doi.org/10.1002/imhj.21468>.
- Simonelli, A., De Palo, F., & Bighin, M. (2014). From pregnancy to the 9th month: The development of early interactive-relational competencies of the child in the family context. *Interdisciplinary Journal of Family Studies*, 19(1), 110–130.
- Stern, D. N. (1977). *The first relationship: Infant and mother*. Cambridge: Harvard University Press. Italian Edition: Stern, D.N. (1989). *Le prime relazioni sociali: il bambino e la madre*. Roma: Sovera Multimedia.
- Stern, D. N. (1995). *The motherhood constellation: A unified view of parent-infant psychotherapy*. New York: Basic Books. Italian Edition: Stern, D.N. (1995). *La costellazione materna. Il trattamento psicoterapeutico della coppia madre-bambino*. Torino: Bollati Boringhieri.
- Stern, D. N. (2004). *The present moment in psychotherapy and everyday life*. New York: Norton & Co. Italian Edition: Stern, D.N. (2005). *Il momento presente in psicoterapia e nella vita quotidiana*. Milano: Raffaello Cortina Editore.
- Stern, D. N. (2010). *Forms of vitality: Exploring dynamic experience in psychology, the arts, psychotherapy, and development*. Oxford: Oxford University Press. Italian Edition: Stern, D.N. (2011). *Le forme vitali. L'esperienza dinamica in psicologia, nell'arte, in psicoterapia e nello sviluppo*. Milano: Raffaello Cortina Editore.
- Stern, D. N., Spieker, S., & MacKain, K. (1982). Intonation contours as signals in maternal speech to prelinguistic infants. *Developmental Psychology*, 18(5), 727–735. <https://doi.org/10.1037/0012-1649.18.5.727>.
- Tambelli, R., Odorisio, F., & Ammaniti, M. (2010). Nella mente del genitore: un confronto sulle narrazioni materne e paterne in gravidanza. *Infanzia e adolescenza*, 3, 123–134. <https://doi.org/10.1710/535.6402>.
- Trevarthen, C. (2002). Making sense of infants making sense. *Intellectica*, 34, 161–188.
- Trevarthen, C. (2005). First things first: Infants make good use of the sympathetic rhythm of imitation, without reason or language. *Journal of Child Psychotherapy*, 31(1), 91–113. <https://doi.org/10.1080/00754170500079651>.
- Tyano, S., & Keren, M. (2010). The competent fetus. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health* (pp. 23–30). Chichester: Wiley-Blackwell.
- Van Egeren, L. A. (2003). Prebirth predictors of coparenting experiences in early infancy. *Infant Mental Health Journal*, 24(3), 278–295. <https://doi.org/10.1002/imhj.10056>.
- Van Egeren, L. A. (2004). The development of the coparenting relationship over the transition to parenthood. *Infant Mental Health Journal*, 25(5), 453–477. <https://doi.org/10.1002/imhj.20019>.
- Van Egeren, L., & Hawkins, D. P. (2004). Coming to terms with coparenting: Implications of definition and measurement. *Journal of Adult Development*, 11(3), 165–178. <https://doi.org/10.1023/B:JADE.0000035625.74672.0b>.
- Von Klitzing, K., Simoni, H., Amsler, F., & Burgin, D. (1999). The role of the father in early family interactions. *Infant Mental Health Journal*, 20(3), 222–237. [https://doi.org/10.1002/\(SICI\)1097-0355\(199923\)20:3<222::AID-IMHJ2>3.0.CO;2-B](https://doi.org/10.1002/(SICI)1097-0355(199923)20:3<222::AID-IMHJ2>3.0.CO;2-B).
- Walsh, T. B., Tolman, R. M., Singh, V., Davis, M. M., & Davis, R. N. (2017). Expectant fathers' presence at prenatal ultrasounds: An opportunity for engagement. *Social Work Research*, 41(3), 181–185. <https://doi.org/10.1093/swr/svx014>.

Chapter 6

Prenatal Coparenting Under High Arousal Predicts Infants' Cognitive Development at 18 Months



Dana Shai and Rotem Bergner

The main aim of this chapter is to introduce an innovative new approach to the behavioral assessment of prenatal coparenting observations under high-arousal conditions. Specifically, we were interested in observing coparenting dynamics of expectant parents while they interacted with their (imagined) baby during a low-stress play task, the Prenatal Lausanne Trilogue Play (PLTP, Carneiro et al. 2006), and also during our newly developed high-stress caregiving task. Another aim is to assess the long-term implications of these prenatal family dynamics for infants' cognitive development.

Over the last three decades, research has shown that coparenting plays an important role in shaping various aspects of children's development. Studies have also demonstrated that the quality of postpartum coparenting can be predicted, prior to birth based on couples' dynamics during pregnancy. A key aspect in determining the quality of the coparental relationship is parents' ability to communicate and work well together in situations in which they feel stressed. In this sense, the coparental relationship is challenged everyday as parents try to collaborate on caring for, nurturing, and protecting their children. Yet, in most, if not all studies, the prenatal coparenting relationship has been studied under conditions that do not fully challenge parents. Therefore, in this chapter, we wish to demonstrate the ecological importance of studying prenatal coparenting under high-arousal conditions, i.e., while pregnant couples interact with an inconsolable "infant" represented by a computer-programmed doll, in predicting infants' cognitive development at 18 months.

D. Shai (✉) · R. Bergner
SEED Center, The Academic College Tel-Aviv-Yaffo, Tel Aviv, Israel
e-mail: danamc@mta.ac.il

© Springer Nature Switzerland AG 2021
R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,
https://doi.org/10.1007/978-3-030-51988-9_6

107

Defining Coparenting

Throughout history and around the world, one of the essential tasks identified with adulthood is parenting young children, which in most cases takes place within a coparenting system (McHale 1995, 2007; McHale et al. 2004a). According to Salvador Minuchin's (1974) structural family theory, the family system is headed by the "executive subsystem," or coparenting system, which is related to, yet distinct from, the preexisting romantic relationship between the partners (Belsky et al. 1995; McHale 1995, 1997; McHale, and Rasmussen 1998; Schoppe-Sullivan et al. 2004).

The coparenting relationship emerges when at least two individuals have the shared aim (by mutual agreement or societal norms) and commitment to hold conjoint leadership and responsibility for rearing a child and caring for his or her well-being (Burney and Leerkes 2010; McHale 1995; Van Egeren and Hawkins 2004). At its core, coparenting is a triadic structure (McHale and Fivaz-Depeursinge 1999; McHale and Rasmussen 1998; Talbot and McHale 2004) involving the extent to which parents work together in their parental roles (Feinberg 2003; McHale 1995), support or undermine each other's parenting efforts (Belsky et al. 1996; Favez et al. 2013; McHale 1995), and share a focus and desire to rear children the best they can (Burney and Leerkes 2010; Margolin et al. 2001). Coparenting is concerned principally with the degree of collaboration, affirmation, and support between adults raising children for whom they share responsibility for caring, educating, and nurturing (Feinberg 2003; McHale 2007; McHale et al. 2004a).

Why Coparenting?

There is an impressive body of research showing that the quality of the coparenting system accounts for a significant part of the individual variance in children's development, psychopathology, and adjustment at different ages (McHale 2007; McHale et al. 2004a; Teubert and Pinquart 2010). Coparental quality has been linked to preschoolers' academic and social skills (Cabrera et al. 2012; Dopkins Stright and Neitzel 2003), as well as to children's emotion regulation skills and social adjustment (McHale and Rasmussen 1998; Karreman et al. 2008).

In terms of socioemotional difficulties, disrupted coparenting has been associated with greater difficulties with inhibition as early as 18 months (Belsky et al. 1996; Lindsey and Caldera 2005), higher levels of toddlers' externalizing behavior problems (Belsky et al. 1996; Jacobvitz et al. 2004; McHale and Rasmussen 1998; Schoppe et al. 2001; Schoppe-Sullivan et al. 2009), and greater behavioral and peer relationship problems (Katz and Low 2004; McHale and Rasmussen 1998; Schoppe et al. 2001) as well as fewer prosocial behaviors (Scrimgeour et al. 2013). Of note is that the majority of research investigated associations between parents' coparenting quality and children's socioemotional functioning and trajectories. In contrast, far fewer studies have focused on possible links between coparenting quality and child cognitive development.

Prenatal Coparenting

In appreciation of the significance of coparenting dynamics for children's development, researchers have attempted to identify coparenting patterns as early as possible, and examined whether coparenting could be observed reliably as early as during pregnancy (Altenburger et al. 2014; Carneiro et al. 2006; Fivaz-Depeursinge et al. 2010; Kuersten-Hogan 2017; Shai 2018). Indeed, there is empirical support for the continuity between pre- and postnatal coparenting patterns. Expectant parents' representations of their future coparenting relationship have also been associated with their postpartum coparenting relationship (Kuersten-Hogan 2017; McHale and Rotman 2007; McHale et al. 2004a, b). Kuersten-Hogan (2017) proposed that parents' mental representations, including their views, emotions, and internal world regarding family relations (Maysel 2006), form during pregnancy, if not earlier. These parental representations also "involve cognitive facets of the coparenting relationship such as caregivers' perceptions of the overall quality of their coparenting relationship, appraisals and anticipations of their own and their partners' specific coparenting behaviors, perceived differences between partners' parenting attitudes, and partners' violated expectations of childcare responsibilities" (Kuersten-Hogan 2017 p. 3).

In addition to studies demonstrating the predictive power of prenatal coparental *representations* on postnatal coparental behavioral dynamics, studies examining prenatal coparental *behavioral patterns* reveal a similar pattern. In these studies, prenatal behavioral patterns of family alliance and coparenting were assessed using the PLTP (Carneiro et al. 2006; for detailed descriptions see Chap. 3 of this book). The PLTP is a semi-standardized paradigm used to assess prenatal family alliance and coparenting in a playful, low-stress context (Fivaz-Depeursinge et al. 2010). Prior studies have shown that postpartum qualities of mother–father–infant coordination can be detected by observing pregnant couples' enactments of family interactions which remain fairly stable over time (Carneiro et al. 2006; Favez et al. 2013). Prenatal coparenting observations appear to be helpful in providing specific and useful insights into the family's particular dynamics, resources, problems, hierarchies, and roles related to their postpartum coparenting relationship (McHale 2011; McHale and Fivaz-Depeursinge 2010).

When Emotions Run High: Coparenting Relationships Under High Arousal

Noteworthy is that the PLTP (Carneiro et al. 2006; Favez et al. 2006; Fivaz-Depeursinge et al. 2010) enables the examination of coparenting within a positive, playful atmosphere, and by doing so, it reflects families' prenatal coparenting dynamics under low-stress conditions. This task does indeed simulate many daily moments in the lives of families. Nonetheless, the coparenting system of families

with young babies can also, quite often, be activated under stressful conditions. Indeed, McHale et al. (2000) state that keeping a positive and well-functioning coparental dynamics, including balanced participation and accommodation of one another's involvement with the child, could be challenging when confronted with high arousal and distress (Katz and Gottman 1996; McHale 1995).

The stressors that young parents may face are almost endless, and infants' characteristics and behaviors can exert significant influences on levels of parenting stress. From birth, children influence their parents' lives in multiple ways, since they serve as active agents and participants in the parent-child relationship (Cole 2003). Indeed, and in line with the transactional model (Sameroff 1975), the infant is sometimes the source of stress and strain on the coparenting unit. For example, Cook et al. (2009) found that children's negative affect was a significant predictor of undermining coparenting, such that more temperamentally difficult children had parents who undermined each other's parenting more frequently and intensely. These findings underscore the importance of conducting comprehensive assessment of coparenting quality that include stressful situations with an actual (or the symbolized) child. The child's presence – especially when distressed, fussy, or inconsolable – is likely to activate and challenge the coparenting unit in a way that pleasant, playful tasks, simply cannot.

It is for this reason that we contend that comprehensive prenatal assessments of coparenting behaviors should strive to also include enactments and representations of difficult infant behaviors so as to increase the likelihood that the coparental unit is activated. Such an inclusion could further illuminate the multifaceted and complex construct of coparenting during pregnancy, and allow us to examine the extent to which parents work together in their parenting role under conditions of high arousal, in other words, conditions that simulate the messy everyday reality that many young parents face regularly. Surely, the infant is not an active participant during prenatal observations of family interactions, which represents a potential problem in evaluating challenging coparenting dynamics during pregnancy. We argue that an approach to observing prenatal coparenting behavior in a way that simulates real-life interactions – complex and challenging as they may be – would achieve higher ecological validity and further our understanding of the different facets of the coparenting relationship emerging during pregnancy.

It could be argued that the PLTP provides a context for observing coparenting dynamics under mildly stressful conditions. After all, expectant parents are put into an unusual situation in which they are asked to play with a faceless doll and to pretend to have just met their newborn baby. In addition, knowing that they are being watched, videotaped, and somewhat evaluated adds some stress to the PLTP for most couples. The PLTP could further elicit some distress in expectant parents who are vividly envisioning, perhaps for the very first time, what it would feel like to be a parent and to interact with the baby and as a family, especially if they anticipate some coparenting conflict or lack of support from their partner. Therefore, for some parents the PLTP may constitute a somewhat overwhelming, intimidating, or threatening context. Without doubt, these considerations could elicit some distress and raise expectant parents' arousal. Nonetheless, the PLTP is not designed to negatively activate the family dynamics, to challenge the parents, or to examine their functioning

under stress or high arousal. On the contrary, the task was designed to elicit a remarkable and blissful moment of the first time the father, mother, and baby are together as three. Indeed, the instructions for the task are fashioned to elicit positive representations and feelings: "It's the first time you are together and I'm asking you to play this fabulous moment for us" (Favez et al. 2013, p. 27). Even if the procedure inadvertently activates negative feelings in some parents, these are not the result of an empirically designed and standardized attempt at creating a stressful situation for parents.

The only task we could locate that examines coparenting behaviors under stressful conditions and in the presence of the baby is the "Onesie Task" (Schoppe-Sullivan et al. 2007). In the Onesie Task, couples are given a "onesie" (baby bodysuit) and are asked to change the infant into this outfit together. This task is designed to assess coparenting behavior during a joint child-care task, a situation that is considered to be more stressful than triadic free play. This task was typically administered when infants were 3.5 months old. Important in this context is the fact that this task was designed for the assessment of *postnatal* not prenatal coparenting.

Taken together, we found no existing experimental procedures that measure (1) *prenatal coparenting*, (2) at the *behavioral* level while (3) activating the coparental system to work together under *high arousal*, and (4) in the presence of the *represented child*. We argue that a robust measurement of prenatal coparenting dynamics would benefit from including and addressing these four factors, thereby increasing the ecological validity and enhancing our understanding of the different facets of the coparental relationship prior to the infant's birth.

We developed a special prenatal observation task to meet all of these criteria: the Inconsolable Doll Task (IDT; Shai 2018). The IDT includes all four key aspects that we deem important, i.e., it measures prenatal coparenting at the behavioral level, while expectant parents are induced to feel high levels of stress during a caregiving task with their represented baby. Specifically, in the IDT, expectant parents are asked to take care of and sooth a crying baby, which is symbolized by the RealCare Baby® II-Plus infant simulator (Realityworks, Eau Claire, WI, USA). The parents are blind to the experimental manipulation of the computerized doll being programmed to be inconsolable, dooming the expectant couples' efforts to sooth the doll to fail. The doll's cry simulates the realistic cry of a real baby, with natural variations in intensities, pitch, duration, and volume. In this way, we believe that the IDT enables researchers to evaluate coparenting dynamics prenatally in the presence of an imaginary infant and under highly stressful conditions for parents. This prenatal observational context allows us to examine couples' ability to work together as a team and to solve an everyday parenting challenge in light of the stress evoked by the inconsolable simulated baby.

Our Study Aims

The aim of our study was twofold: First, we intended to establish convergent and predictive validity as well as reliability for our newly developed high-arousal IDT (see also Shai 2018) through examining concurrent associations with low-arousal

family alliance dynamics (LTP; Fivaz-Depeursinge et al. 1996) and self-reported coparenting (CRS; Feinberg et al. 2012). Secondly, we sought to determine whether prenatal coparenting behavioral patterns under high arousal would predict 18-month-olds' cognitive development above and beyond the existing observational measures during low-stress situations, thus establishing the procedure's predictive validity. In consideration of the possibility that infants' cognitive development was solely explained by biological or general environmental influences (e.g., Rowe et al. 1999; Van Bakel and Riksen-Walraven 2002) or by the child's contributions (e.g., Cook, et al. 2009; Laxman et al. 2013) rather than by the influence of coparenting, we controlled for parents' educational levels and infants' temperament in analyses that tested the predictive value of prenatal coparenting for infants' cognitive functioning.

Methods

Study Sample

The data used in the current study is that of the RIPPLE longitudinal study, which includes 109 Israeli families of co-habiting heterosexual couples expecting their first child. All mothers were in their third trimester ($M = 29.7$ weeks of gestation, $SD = 2.55$, range = 22.27–37.08 weeks). Families were recruited through Internet advertisements, flyers, and medical centers and were paid 250 Israeli shekels (equivalent to \$72.00 at the time) for their participation in the prenatal phase. All parents were fluent in written and spoken Hebrew and lived in central Israel. The mothers' mean age was 30.82 years ($SD = 3.63$, range = 23–42), and the fathers' mean age was 32.41 years ($SD = 4.01$, range = 23–42). Families' SES (defined in relation to the average salary in Israel at the time) varied from low (27.5% of the sample) to middle (35.7%) and high (37.7%). The average number of years of education was 15.36 years ($SD = 2.41$) for the fathers and 16.3 years ($SD = 2.10$) for the mothers. None of the parents reported at-risk pregnancies or known neurological or psychological disorders. In the fourth phase of the study (18 months), infants were an average of 17.7 months old (range 17.7–15.4 months, $SD = 4.35$), and 55 of them were boys (55.75%).

Measuring Prenatal Coparental Dynamics Under High Arousal

To measure the prenatal coparental dynamics under high-arousal conditions during the IDT, we made use of the Interactional Dimensions Coding System (IDCS; Julien et al. 1989; Kline et al. 2004). The coding system examines an array of both positive and negative verbal and nonverbal dyadic communicative behaviors in stressful and

conflictual contexts, and includes both individual and interactional (dyadic) dimensions. Since the focus of the current study was specifically on the *coparenting quality*, only the *dyadic* variables were considered. Originally, there were four dyadic scales, three negative ones and one positive one (see Shai 2018 for a full description). For the purpose of the current report, we created two global coparental interactional scales: one for measuring positive, and a second for measuring negative dyadic coparenting dynamics.

The **positive dyadic coparental dynamics** subscale measures the interactional synchrony during the IDT. *Interactional synchrony* denotes the extent to which the partners demonstrate harmony and coordination in their interaction. During a highly synchronized coparenting interaction, partners work together to try and console the “baby,” listen to and respond to each other’s suggestions, and think together about possible solutions. For example, during a highly synchronous coparenting interaction, an expectant father might be holding the crying “baby,” slowly swaying from side to side, and the expectant mother might be approaching the father and caressing him from behind to join their rhythmic movement (Shai 2018).

The **negative dyadic coparental dynamics** subscale is a composite of three separate measures: negative escalation, editing, and dominance. (1) *Negative escalation* refers to the extent to which destructive communication and negative affect are reciprocated between partners. For example, one expectant couple demonstrated high negative escalation in our study when the expectant mother entered the room in which the expectant father was with the inconsolable “baby” and exclaimed, “Your child eats a lot!”, to which the mother responded with, “My baby?!? And what, when he is calm, he is your baby?” (2) *Dominance* assesses the asymmetries in spousal control over the interaction. An example of dominance would be an expectant father holding the “baby”, and the expectant mother constantly touching the baby or removing the blanket without consulting the father. In this scenario, even though the father is holding the baby, there is a strong sense of maternal gate-keeping. Physically, the mother does not move away from the father and “baby” and does not allow the father to freely explore his attempt at soothing the inconsolable “baby.” (3) *Editing* refers to asymmetries in the attempts spouses make to prevent negative escalation. The following shows an example of editing from our study:

As soon as the expectant father passes the inconsolable “baby” to the expectant mother, the doll happens to stop crying as programmed a priori. The mother, unaware that “baby’s” silence was coincidental, says, “Oops, I think I killed her; yep, I killed her.” and the expectant father replies, “I think she is all alright. She is fine.” (Shai 2018).

Ratings for each of these four mutually exclusive subscales were made on a 9-point Likert-type scale ranging from very low (1) to very high (9). Each interaction was divided into three equal segments coded separately and averaged into a mean score on each dimension. The interactions were coded by three trained coders blind to all other aspects of the study. The ICCs were 0.89 for negative escalation, 0.93 for dominance, 0.73 for editing, and 0.85 for synchrony. In our subsequent analyses, we used the two global coparental interactional scales measuring positive and negative dyadic coparenting dynamics.

Measuring Prenatal and Postnatal Coparental Dynamics Under Low Arousal

We also used additional observation tasks in our study, the prenatal and postnatal Lausanne Trilogue Play, to measure prenatal (PLTP; Carneiro et al. 2006) and postnatal (LTP, Fivaz-Depeursinge and Corboz-Warnery 1999) family dynamics and alliances under conditions of low arousal (see Chap. 3 in this book for further details on the LTP and PLTP). The *prenatal family alliance* was assessed using the PLTP coding scheme, which includes five subscales: (1) *coparental playfulness* towards the task, referring to the couple's ability to create a playful space and co-construct the game; (2) *structure of the play* – the couple's ability to structure the play in four parts according to the instructions, and to give sufficient time for the play to be established; (3) *intuitive parenting behaviors*, such as baby talk; (4) couples' *cooperation*, pertaining to the degree of cooperation achieved by the couple during the play; and (5) *family warmth*, which includes the positive bond and mood between partners during the play interaction (Carneiro et al. 2006). Each scale utilizes a 5-point Likert-type rating system ranging from 1 (inappropriate) to 5 (appropriate), with higher scores indicating more positive familial interactions. In accordance with previous studies, we computed a global score of prenatal alliance ranging from 5 to 25, with higher scores reflecting more positive family dynamics. The Intraclass Correlation Coefficient (ICC) Interrater Reliability (IRR) using 25% of the sample was 0.87.

The *postnatal family alliance* was assessed using the Family Alliance Assessment Scale (FAAS; Lavanchy Scaiola et al. 2008) to analyze the postnatal LTP (Fivaz-Depeursinge and Corboz-Warnery 1999). The FAAS is a global scale that evaluates the family as a whole. This scale is built on four hierarchically interactive functions, namely, (1) participation, (2) organization, (3) focalization, and (4) affect sharing. Additionally, there is consideration of coparenting and child involvement. Each scale utilizes a 5-point Likert-type rating system ranging from 1 (“inappropriate”) to 5 (“appropriate”). The ratings were summed to create a global score, ranging between 0 and 30, with higher scores reflecting a more positive family alliance. The Intraclass Correlation Coefficient (ICC) Interrater Reliability (IRR) using 25% of the sample was 0.92 (Witte et al. 2019).

Measuring Prenatal and Postnatal Coparenting Representations

To assess *representations of the coparental relationship*, we used the Coparenting Relationship Scale (CRS; Feinberg et al. 2012; see Shai 2018 for a full description). The CRS is a multidomain self-report questionnaire used to capture parental coparental perceptions. We modified the questionnaire to measure couples' *prenatal coparenting representations*. This included asking expectant parents to state

their ideas and perceptions regarding their future coparenting relationship, once the baby was born. The prenatal version included 30 items,¹ divided into six subscales: *coparenting agreement* assessed whether parents' views of how to rear a child are similar (i.e., "My partner and I will have the same goals for our child"); *coparenting closeness* measured the shared celebration of the child's attainment of developmental milestones, the experience of working together as a team, and witnessing one's partner develop as a parent (i.e., "My relationship with my partner will be stronger than before we had a child"); *coparenting support* measured affirming the other parent's competency as a parent, acknowledging and respecting the other's contributions, and upholding the other's parenting decisions and authority (i.e., "My partner will ask my opinion on issues related to parenting"); *coparenting undermining* measured undermining of the other parent by using criticism, disparagement, and blame (i.e., "It will be easier and more fun to play with the child alone than it will be when my partner is present too"); *endorse partner parenting* (i.e., "My partner will be sensitive to our child's feelings and needs"); and *division of labor* assessed the division of childrearing labor between parents (i.e., "My partner will like to play with our child and then leave all the dirty work to me"). Ratings of the CRS subscales were made on 7-point Likert-type scales ranging from "Not true of us" (1) to "Very true of us" (7). High scores on the agreement, closeness, support, endorsement, and division subscales reflect a more positive coparenting relationship, whereas higher scores on the undermining subscale reflect a more negative coparenting relationship. We used the global CRS score, which is the mean of all of the items. Cronbach's alphas for internal consistency for both the fathers' and mothers' global CRS scores, both during pregnancy and at 9 months, were 0.91.

Measuring Infant Cognitive Development

To test our outcome measure, namely, *infant cognitive development* at 18 months, we used the Mullen Scales of Early Learning (MSEL; Mullen 1995; see Shai 2018 for full details). The MSEL assessment captures the child's cognitive, fine motor, and receptive and expressive language developed at 18 months. It consists of four cognitive scales (visual reception, fine motor, receptive language, and expressive language) and one gross motor (not included in the current inquiry). A composite score of the four cognitive scales represents "g" or "general intelligence." The scores of each scale are summed and standardized. The MSEL provides a normative and standardized general score ($M = 100$, $SD = 15$). The MSEL was administered by highly trained graduate students, who were trained by a certified developmental psychologist.

¹The subscale of "Exposure to Conflict" which includes five items was removed due to lack of relevance to the pregnancy period.

Results from Our Coparenting Study

In this section, we provide a summary of our empirical findings, which we then illustrate with two brief case examples in the next section.

Convergent Validity of the IDT First, we found evidence to support the *convergent validity* of our newly developed IDT (see Table 6.1). Our analyses showed significant associations between dyadic behavioral dynamics under high arousal as activated in the IDT task and existing and well-established coparenting measures, namely, the observational PLTP (Carneiro et al. 2006) and the representational CRS (Feinberg et al. 2012). Specifically, comparing prenatal ratings of behavioral dynamics under high and low arousal (the IDT and PLTP, respectively) revealed significant negative associations between the global scores of negative dyadic dynamics observed during the IDT, and family alliance measured during the PLTP. That is, the more negative the dyadic interactions were in the IDT, the less positive the family alliance was during the prenatal LTP. In addition, positive dyadic dynamics observed during the IDT were positively correlated with prenatal family alliances during the PLTP, indicating that greater positive dyadic interactions in times of difficulty and distress as simulated in the IDT were associated with more positive family alliance during prenatal play interactions under low-arousal conditions. Negative dyadic dynamics observed during the IDT did not correlate significantly with family alliance observed during the postnatal LTP, though greater positive dynamics observed during the IDT were associated with greater family alliance observed during the postnatal LTP.

When examining associations between prenatal coparental behaviors observed during the IDT and prenatal coparental representations assessed using the CRS, we found that both positive and negative dyadic dynamics showed significant associations with expectant mothers' representations of prenatal coparenting, though expectant fathers' representations were only marginally correlated with negative dynamics during the IDT (see Table 6.1). Of note was that observed prenatal family alliances were not correlated with parental coparenting representations during pregnancy. In addition, parental education or family SES was unrelated to any aspects of prenatal or postnatal coparenting.

Coparenting Dynamics During the IDT and Infant Cognitive Functioning Another aim in our study was to test the *predictive validity* of our newly developed IDT, which assessed prenatal coparenting under high-arousal conditions. To this end, we examined whether dyadic behavioral coparenting dynamics during the IDT predicted infants' cognitive functioning while taking into account our other pre- and postnatal coparenting measures. The first analysis revealed that greater negative dyadic dynamics observed under high-arousal conditions of the IDT in pregnancy predicted lower cognitive functioning scores in infants at 18 months. This finding remained significant even when controlling for variance explained by *prenatal family alliance* observed during low stress conditions (PLTP) and *prenatal self-reported perceptions* of coparenting (CRS). Other prenatal copar-

Table 6.1 Zero-order correlations between study variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Negative Dynamics IDT		-0.44***	-0.24*	-0.26*	-0.19 [†]	-0.04	-0.04	-0.18	0.03	0.12	0.10	0.06
2. Positive Dynamics IDT			0.44***	0.21*	0.12	0.31**	0.10	0.18	0.00	0.24	0.29	0.13
3. PLTP				0.07	-0.05	0.43***	0.14	0.20	0.17	0.02	0.04	0.13
4. Mom Prenatal CRS					0.45***	0.15	0.60***	0.46***	-0.03	-0.08	-0.07	-0.17 [†]
5. Dad Prenatal CRS						0.05	0.56***	0.56***	-0.02	-0.08	-0.12	-0.08
6. Postnatal LTP							0.24	0.11	0.02	0.04	0.27*	0.09
7. Mom Postnatal CRS								0.52***	0.08	0.04	0.07	-0.09
8. Dad Postnatal CRS									0.07	0.01	0.03	-0.01
9. SES										0.12	0.30**	-0.04
10. Mom education											0.27**	-0.12
11. Dad education												-0.18 [†]
12. Infant temperament												

Note. [†] $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. *IDT* Inconsolable Doll Task, *PLTP* Prenatal Lausanne Trilogue Play, *CRS* Coparenting Relationship Scale, *SES* Socioeconomic Status

Table 6.2 Standardized regression coefficients for infants' cognitive development scores regressed on prenatal dyadic interactive behaviors, prenatal family alliance (PLTP), and prenatal reported coparenting (CRS)

	Step 1			Step 2		
	β	SE	<i>p</i>	β	SE	<i>p</i>
SES	0.00	2.53	0.99	0.02	2.46	0.84
Mom education	-0.00	0.71	0.99	0.05	0.70	0.69
Dad education	0.05	0.75	0.69	0.06	0.72	0.62
Child temperament	0.10	1.99	0.41	0.13	1.95	0.29
Prenatal LTP	0.13	2.53	0.33	0.12	2.45	0.37
Prenatal positive coparental dynamics	-0.03	1.09	0.85	-0.18	1.19	0.24
Mom prenatal CRS	0.23	2.97	0.10	0.19	2.91	0.16
Dad prenatal CRS	-0.00	2.96	0.99	-0.01	2.87	0.93
Prenatal negative coparental dynamics				-0.32*	1.52	0.03

Note. * $p < 0.05$. SES Socioeconomic Status, LTP Lausanne Trilogue Play, CRS Coparenting Relationship Scale

enting assessments and positive dyadic prenatal coparenting under high arousal, namely, synchrony, did not predict individual differences in infants' cognitive functioning at 18 months (See Table 6.2).

In a final analysis, we examined whether prenatal negative dyadic dynamics during high-arousal conditions explain the unique variance of infants' cognitive development at 18 months over and above *postnatal* assessments of family alliance and coparental reports. Results showed that higher ratings on prenatal negative dyadic dynamics during the IDT predicted infants' lower scores on the early learning composite at 18 months when controlling for positive dyadic dynamics during the IDT (high arousal), postnatal coparenting dynamics during low-arousal conditions (LTP), and postnatal self-reported perceptions of coparenting (See Table 6.3). In some, our findings show that negative dyadic dynamics observed during the IDT continued to predict infants' cognitive development even when taking into account parents' prenatal and postnatal coparenting representations, coparenting behaviors under low arousal, and after controlling for child temperament, family SES, and parents' educational levels.

Case Illustrations of Coparental Dynamics Under High (IDT)- and Low (PLTP)-Arousal Conditions

In this section, we provide descriptions of prenatal coparenting dynamics in two families from our study: One family who was rated high on the negative scale of coparental dynamics under high-arousal conditions, (IDT) and a second family who was rated low on this scale. We also include these families' descriptions of coparenting dynamics observed during the low-arousal conditions of the PLTP.

Family 1 During the IDT (Low in Negative Coparental Dynamics)

The “baby” is crying in mother’s arms as father enters the room. Mother turns to father and says, “He doesn’t want to eat.” Father asks, “Do you want to give him to me?” Mother hands the “baby” over to father wrapped up in a blanket. Father asks, “Does he want to rest?” “No,” replies mother. Father asks with a smile, “Maybe you made him angry?” Then, both exchange their thoughts and ideas using a calm voice and tone. “Did he eat? Maybe he’s too hot?” asks father. “No...he doesn’t want to eat. He didn’t poop and he doesn’t want to eat,” says mother. “Maybe he is tired?” asks father. Mother replies, “I tried laying him in bed but suddenly he woke up and cried again. Maybe we should try again?” The father places the “baby” in the crib, mother approaches too. When “baby” calms down in the crib, mother sits on the chair and father approaches her. Mother says, “A few minutes ago he was like this as well but then suddenly he woke up.” Mother smiles at father while seated and he is standing by her. “Baby” makes a relaxed sound and mother looks satisfied at father. Father says, “Why are you looking at him? Let’s do something together.” Mother laughs and talks quietly because the “baby” is sleeping and says with a smile, “Because he is so cute, he really reminds me of you.” Father asks mother if she wants to drink something. Mother replies, “Yes, but he didn’t eat...” The baby starts fussing again and mother sighs. “Oh dear, he’s starting again!” she says in a cute but sad tone while looking at father with a sad smile. After a few bouts of crying, they both approach “baby” and place a hand on his stomach. “Maybe now he wants to eat?” suggests mothers. The “baby” is crying fiercely now, screaming on top of his lungs. Father keeps rocking him in the crib while stroking him. Mother says, “He is really screaming, maybe I should pick him up?” Father replies, “Let’s try, maybe he will calm down on his own in a moment.”

Table 6.3 Standardized regression coefficients for infants’ cognitive development scores regressed on prenatal dyadic interactive behaviors, postnatal family alliance (LTP), and postnatal reported coparenting (CRS)

	Step 1			Step 2		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
SES	0.06	3.33	0.72	0.10	3.16	0.50
Mom education	0.05	0.91	0.78	0.09	0.87	0.55
Dad education	0.02	0.97	0.93	0.01	0.92	0.94
Child temperament	-0.05	2.70	0.74	0.00	2.58	0.95
Postnatal LTP	0.30	0.40	0.08	0.34	0.38	0.03
Prenatal positive coparental dynamics	0.10	1.43	0.51	-0.20	1.75	0.30
Mom postnatal CRS	0.04	3.85	0.85	0.06	3.63	0.74
Dad postnatal CRS	0.08	3.89	0.65	0.04	3.68	0.81
Prenatal negative coparental dynamics				-0.45*	2.07	0.02

Note. * $p < 0.05$. *SES* Socioeconomic Status, *LTP* Lausanne Trilogue Play, *CRS* Coparenting Relationship Scale

In this vignette, we witness coparents during pregnancy who are working as a team to try and cope with a rather challenging situation. They are supporting each other through the stressful and almost constant crying of the “baby”; they are sharing equal power and control over parenting this “baby.” There is no hostility, impatience, criticism, accusation, destructive communication, or negative affect shared between these coparenting partners. They use humor to cope with a difficult situation and thereby avoid potential conflict or escalation. Consistent with the overall pattern we found in our sample, Family 1 who was low in negative dyadic behavioral coparenting dynamics (and high in positive dyadic behavioral coparenting) also scored high on their prenatal family alliance observed during the PLTP.

Family 1 During the PLTP (High Family Alliance)

Family 1 received a rating of 4.1 out of 5 on the PLTP global scale, which is a high rating indicating the prenatal alliance of Family 1 is one of shared joy, excitement, elaboration, and playfulness. Each coparenting partner is able to be with and care for the “baby,” and partners transition smoothly and calmly between their roles as caregivers. They consult with one another, advise, think together, and support each other. And they create several moments of triadic interactions, where all three members of the family are equally included showing high levels of family warmth. During numerous moments of play interaction, both partners are smiling at one another and also at “baby.” They take turns holding and caring for “baby” and ask each other for help. For example, during one moment of the interaction, father searches for “baby’s” hand and removes the glove to hold his hand. Then he approaches mother and asks, “Can you help me put the glove on?” Father turns to mother as she helps him to put the glove on the “baby’s” hand while smiling. Both parents demonstrate intuitive parenting behaviors throughout the PLTP. For example, during a different moment of the interaction, mother asks father if he wants to pass “baby” on to her. Father passes the doll to the mother gently while supporting his head. Mother says softly, “Hi little one...” exchanging smiles between the “baby” and the father. Father walks close to mother and “baby” and smiles. Then, father suggests taking a family picture with “baby”, and they pretend to take a selfie.

Family 2 During the IDT (High in Negative Coparental Dynamics)

At the beginning of this interaction, the “baby” is in mother’s arms; he is not crying, and the parents are laughing together. Then, the “baby” starts to cry. Father says, “Don’t be nervous about it. You check if he has a soiled diaper or something else that might be bothering him.” The “baby” cries a strong, powerful cry. Father asks,

“Do you want to give him to me?” Mother speaks to the “baby” and says, “Stop, stop crying... there, shh...there.” Father says, “It’s not working, it’s not good.” Mother asks, “Why are you saying that?” Father replies, “Because if it was good, he would have been quiet.” Mother continues trying to console “baby”. Father says, “If it were a real baby, he’d be quiet.” Both parents look at each other and laugh. This brief moment of shared positive affect is an isolated instance in an otherwise affectively negative interaction. The “baby” calms down and ceases to cry. Mother continues rocking “baby” in her arms and says, “That’s it, let’s put him in the infant seat to rest.” Mother continues rocking “baby” and does not place “baby” in the infant seat. Father says, “Don’t lay him in the infant seat, it will not be comfortable.” Mother looks at the father and then at the “baby” and says to “baby”, “Don’t be scared” and, while laying him in the infant seat by her feet, continues to tell him, “Don’t be scared...” After a few seconds, “baby” starts crying again, at first gradually. Mother says, “Shh...” with a despaired facial expression. Father says, “Go on, take him out!” Mother waits a few seconds and then father pulls the baby seat towards his feet. He says, “You must not wait too long!” Mother suggests to “Try rocking the infant seat without taking him out.” Father rocks the infant seat with a frustrated and desperate facial expression. Father says, “Oh, my! Should I take him out and do what you did?” Mother sits and looks at the crying “baby”. Father pulls “baby” out of the seat and caresses him. After a few seconds he puts him on his shoulder and presses gently on his belly. The father’s facial expression is serious. Mother looks at father, smiles and says to him “It suits you so well!” Father remains serious. He then stands up and walks around the room. The mother remains seated and looks at them, with a despaired and tired expression. Father mumbles, “No...” and looks frustrated. Mother says, “Put him like that, like you did, he will calm down... it takes time to calm down. Don’t change the pose. He doesn’t like it that way,” (when father puts “baby’s” face up). Father asks, “They don’t like it like this?” Mother shakes her head “no” and sighs impatiently. Mother continues, “If you leave him like that, so at least rock him, come on, do it while rocking, like a vibration.” She remains seated and looks at the father nervously. Her tone of voice is edgy and impatient. Father rocks the “baby”, while the “baby” continues crying. However, he does not change “baby’s” position as mother had suggested. Mother says, “Not like that, put him on your shoulder, honey, and pat his back, good, exactly like that.” Father says, “He’s not calming down, what should I do? I opened the window to let the baby look outside for a bit.” Mother says, “No way, it’s not going to work. He has gas.” The “baby” calms down. The father continues walking around the room and patting “baby’s” back. Father says, “There, he is calming down, he had a reason and cried, but kids also cry for no reason, that’s true. You do like that, and that way he calms down, they can do stuff themselves.” he says with a smile. Mother raises her voice, “No! What do you mean, they can do stuff themselves?” Her tone is angry and serious. Father says, “A baby can’t just like that cry all day for no reason.” Mother replies, “He’s not going to cry all day long.”

This description of our second family during the high-arousal condition of the IDT illustrates a coparental unit who gets trapped in progressively more negative interactions as “baby” continues to cry and does not respond to the parents’ efforts

at soothing him. The parents' unsuccessful struggle to calm "baby" escalates into an angry and controlling exchange between them during which each partner tries to tell the other what to do with "baby." Rather than asking each other questions, or jointly wondering what to do with the crying "baby," there are many instructive and even commanding exchanges in which they bark orders at each other without a sense that they are using each other as a source of support and comfort in this difficult moment. When compliments are offered to the partner, they do not seem to be welcomed or well received. The few times when humor is used, it does not manage to lighten the moment or lift the heaviness of the interactive exchange.

Family 2 During the PLTP (Low Family Alliance)

Consistent with their coparenting dynamics during the IDT, Family 2 is showing signs of medium-low family warmth and escalating conflict even during the low-arousal conditions of the PLTP, indicating that their prenatal family alliance is low. Indeed, they received a score of 3 out of 5 on the PLTP global scale for their overall prenatal family alliance. For example, when mother is getting ready to pick up "baby" from the crib, father says with a stern facial expression and tone, "Hold his head, hold his head!" Mother replies, "I'm holding..." and laughs. Mother then rocks "baby" close to her chest, above her belly while leaning on father's shoulder and laughing. She produces crying sounds mimicking the "baby" and says with a smile, "Just kidding." Father says "Do it seriously!" with a little smile.

A little while later during the PTLTP, their conflict escalates into an angry exchange over fathers' lack of interest in holding their real baby after birth. The conflict starts when mother asks father, "Do you want to burp him?" to which he responds with "No!" Mother then raises her tone and says, "Yes! Take! And feed him!" but father stretches in his seat and replies, "No... you didn't finish yet... hold on." Mother says with a troubled tone and sad facial expression, "Stop it! I am not kidding; I'm really scared of that part." Father responds to this with a smile, "When he grows up, I'll hold him." The conflict escalates when mother angrily says to father, "Stop it already! When he comes, you are not going to hold him?" she asks angrily. "What... the moment he comes out?" father asks in response to mother's question. "Yes! After the delivery!" mother says in an angry tone. Father asks in a panic, "Let's say I won't, does it make me bad?" Mother angrily calls out, "Yes!" and then turns her torso and face away from father. "Okay, I'll hold him" father says quietly and also turns away from mother.

During the low-arousal conditions of the PTLTP, the coparents in family 2 are demonstrating significant difficulties in creating triangular interactions with one another and their imagined baby. They do not cooperate with one another by taking turns in caring for "baby," and they show a noteworthy lack of support for each other's efforts with baby which was also evident during their interactions during the IDT. Even when the mother explicitly asks the father to take part in helping with their "baby" and reveals her anxiety, he remains uninvolved and leaves his partner unsupported. This elicits anger in the mother, and their conflict escalates until they

both withdraw rather than resolve it, which is illustrated poignantly by each moving away from one another.

Discussion

As these two case examples illustrate, our findings provide evidence for the convergent validity of our newly developed observational task for prenatal coparenting under high-arousal conditions. Both positive and negative dyadic dynamics in the IDT were associated with well-established measures assessing both behavioral and representational facets of prenatal coparenting. The additional examination of coparental functioning during the highly stressful situation created by the IDT helped to deepen our understanding of the multifaceted and complex construct of prenatal coparenting. These findings undoubtedly require further replication. Nonetheless, even when treated as preliminary, they do offer initial support for the validity of the IDT as measure of coparenting dynamics during a stressful context, even before couples actually become parents.

In terms of the predictive validity of the IDT, our findings indicate that negative coparental behaviors observed during the IDT explain unique variance in infants' cognitive development at 18 months that was not accounted for by positive dyadic dynamics observed under high-arousal conditions, nor by parental self-reports or coparenting dynamics observed during low-stress play interactions.

This pattern of findings is intriguing and reveals two important aspects of the prenatal coparenting relationship: First, our findings suggest that positive and negative features of prenatal coparental dynamics may be somewhat independent of each other. Our findings have shown that negative coparental dynamics predicted infants' cognitive devolvement, whereas positive coparental synchrony did not. Clearly, poor quality coparenting during pregnancy constitutes a *risk factor* for children during the postpartum period, a finding that is consistent with previous research. However, it appears that considering isolated positive features of the prenatal coparenting relationship does not necessarily represent a protective factor for children's cognitive functioning, though of course, positive prenatal coparenting dynamics are likely to benefit children by virtue of laying the foundation for supportive postpartum coparenting.

A second implication of our findings is that coparental dynamics unveiled in times of high arousal and stress hold unique importance for infants' cognitive development that could not be predicted by considering prenatal coparenting under low-arousal conditions alone. Neither coparenting behaviors during the low-arousal PLTP and LTP nor coparenting representations predicted infants' cognitive functioning in our study. Pregnant couples' lack of conflict during the stressful coparenting simulation was more predictive of infants' cognitive development than were their supportive coparenting behaviors during low-stress conditions either during pregnancy or after birth. Put differently, in order for infants' cognitive functioning to develop optimally, they need parents who can navigate stressful parenting situations without resorting to unsupportive coparenting behaviors that undermine or

criticize their coparenting partner. Our findings suggest that the nature of the highly stressful simulation task we used during pregnancy activated coparenting dynamics and predicted cognitive development more robustly than the low-stress play contexts did in our study. We believe that the same may be true for postpartum coparenting, which has also historically been studied more commonly during low-stress rather than high-stress conditions. This is an important direction to be further explored in future research in this field.

Clinical Implications

It is very hard, and perhaps even impossible, to prepare someone for parenting. The intensities, complexities, and mixed emotions that parenting gives birth to are novel and cannot be grasped or comprehended until experienced first hand. One of the most challenging moments new parents may encounter is trying, and failing miserably, to comfort their own baby while he or she is wailing relentlessly. Such moments are hard for parents, as individuals, and as coparents. These stressful situations challenge parents' ability to regulate their emotions, to work as a team, to support each other, and to give space and room for the other to parent. Precisely for these reasons, these moments, if simulated in a task that evokes similarly challenging feelings in expecting parents, can be so powerful in illuminating if and how a couple might be likely to struggle in their future coparental relationship after birth; such information may be less likely detected when couples are observed during less evocative and emotionally distressing conditions. Though they considered the role of stress more in general during the transition to parenthood rather than stress specifically arising within the coparenting relationship, Pape Cowan et al. emphasize that partners' distress during the transition can help to explain why some couples are at risk for problems in the postpartum period (Pape Cowan et al. 1985).

We believe that our robust prediction of infants' cognitive functioning is due to the nature of the IDT, i.e., the fact that expectant couples were simulating coparenting dynamics during a highly stressful situation with a challenging "infant" much like the real-life coparenting stressors they most likely experience in the postpartum period. In other words, we believe that coparental dynamics uncovered during pregnancy were foretelling of postpartum dynamics, which inevitably involve stressful parenting situations. Ongoing, long-term negative dynamics between the parents that were hinted at during their interactions during the prenatal IDT thus predicted cognitive development at 18 months. Crucially, our findings suggest that there is no need to wait until the baby is born to detect and address problematic coparental dynamics in clinical interventions with families.

Based on our findings, we suggest that prenatal coparenting intervention should focus not only on how to work together as a couple on enactments of parenting the "baby" but also on addressing specifically how expectant parents can navigate the more challenging coparenting situations new parents are likely to encounter after birth. Such programs could help parents to identify more effective communicative

strategies, problem-solving skills, and coping skills to manage everyday crises during infant care. Several prenatal coparenting interventions have already been developed for expectant couples in recent years (see Chaps. 14, 15, and 16 of this book), though to our knowledge, none of the existing interventions have utilized a programmable doll to simulate high-stress situations for expecting parents in order to help them experience and practice coparenting under these conditions. Prenatal interventions could be done using role play in addition to simulations of caregiving interactions with and without the doll simulator, which would elicit a strong real-life experience of challenges that coparents may encounter. These types of prenatal interventions would not only help couples to build and improve their coparenting skills and translate them into practice during their daily lives, (Ferraro et al. 2016) but could also enhance and benefit children's cognitive and emotional development in the first couple of years after birth.

Conclusion

The use of the RealCare Baby® II-Plus infant simulator in our newly developed highly stressful, prenatal observation task proved to be an invaluable tool that allowed for the advancement of prenatal assessments of coparenting dynamics. Our creation of the new IDT constitutes an ethical, yet ecologically valid, prenatal measure of coparenting during a high-stress situation that illuminates the processes and dynamics that parents will inevitably face with their young infants (Shai 2018). It permitted us to simulate a normative and frequently experienced situation in which the infant cries inconsolably and both parents need to work together to determine the reason for the baby's distress and how to help soothe the infant. The authenticity of the doll simulator evoked powerful and genuine responses from expectant parents, which proved to be predictive of infants' cognitive achievements more than a year and a half later (Shai 2018).

Acknowledgments This research was supported by grants from the Israeli Science Foundation (No. 1888/14), and the FP7-PEOPLE-2012-IEF - Marie-Curie Action: Intra-European Fellowships for Career Development (IEF) under grant #300805.

We wish to thank all of the families who participated generously in this study and trusted us to share with them the meaningful path to parenthood.

References

- Altenburger, L., Schoppe-Sullivan, S., Lang, S., Bower, D., & Kamp Dush, C. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology*, 28(4), 495–504. <https://doi.org/10.1037/fam0000012>.
- Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting in families with toddler boys: Spousal differences and daily hassles. *Child Development*, 66, 629–642. <https://doi.org/10.2307/1131939>.

- Belsky, J., Woodworth, S., & Crnic, K. (1996). Trouble in the second year: Three questions about family interaction. *Child Development, 67*, 556–578. <https://doi.org/10.2307/1131832>.
- Burney, R. V., & Leerkes, E. M. (2010). Links between mothers' and fathers' perceptions of infant temperament and coparenting. *Infant Behavior and Development, 33*, 125–135. <https://doi.org/10.1016/j.infbeh.2009.12.002>.
- Cabrera, N. J., Scott, M., Fagan, J., Steward-Streng, N., & Chien, N. (2012). Coparenting and children's school readiness: A mediational model. *Family Process, 51*, 307–324. <https://doi.org/10.1111/j.1545-5300.2012.01408.x>.
- Carreiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting Alliance. *Infant Mental Health Journal, 27*, 207–228. <https://doi.org/10.1002/imhj.20089>.
- Cole, P. M. (2003). The developmental course from child effects to child effectiveness. In A. C. Crouter & A. Booth (Eds.), *Children's influence on family dynamics: The neglected side of family relationships* (pp. 109–118). Mahwah: Lawrence Erlbaum Associates. <https://doi.org/10.4324/9781410607430>.
- Cook, J. C., Schoppe-Sullivan, S. J., Buckley, C. K., & Davis, E. F. (2009). Are some children harder to coparent than others? Children's negative emotionality and coparenting relationship quality. *Journal of Family Psychology, 23*, 606–610. <https://doi.org/10.1037/a0015992>.
- Dopkins Stright, A., & Neitzel, C. (2003). Beyond parenting: Coparenting and children's classroom adjustment. *International Journal of Behavioral Development, 27*(1), 31–39. <https://doi.org/10.1080/01650250143000580>.
- Favez, N., Frascarolo, F., Carneiro, C., Montfort, V., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The development of the family alliance from pregnancy to toddlerhood and children outcomes at 18 months. *Infant and Child Development: An International Journal of Research and Practice, 15*, 59–73. <https://doi.org/10.1002/icd.430>.
- Favez, N., Frascarolo, F., Lavanchy Scaiola, C., & Corboz-Warnery, A. (2013). Prenatal representations of family in parents and coparental interactions as predictors of triadic interactions during infancy. *Infant Mental Health Journal, 34*, 25–36. <https://doi.org/10.1002/imhj.21372>.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice, 3*, 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Feinberg, M. E., Brown, L. D., & Kan, M. L. (2012). A multi-domain self-report measure of coparenting. *Parenting, 12*, 1–21. <https://doi.org/10.1080/15295192.2012.638870>.
- Ferraro, A. J., Malespin, T., Oehme, K., Bruker, M., & Opel, A. (2016). Advancing co-parenting education: Toward a foundation for supporting positive post-divorce adjustment. *Child and Adolescent Social Work Journal, 33*(5), 407–415. <https://doi.org/10.1007/s10560-016-0440-x>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental system view of mothers, fathers, and infants*. New York: Basic Books.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (1996). Assessing the triadic alliance between fathers, mothers, and infants at play. In J. P. McHale & P. A. Cowan (Eds.), *Understanding how family-level dynamics affect children's development: Studies of two-parent families* (pp. 27–44). San Francisco: Jossey-Bass. <https://doi.org/10.1002/cd.23219967404>.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (2010). Observational tool: The prenatal Lausanne Trilogue Play. *Parenthood and Mental Health, 121*–127. <https://doi.org/10.1002/9780470660683.ch12>.
- Jacobvitz, D., Hazen, N., Curran, M., & Hitchens, K. (2004). Observations of early triadic family interactions: Boundary disturbances in the family predict symptoms of depression, anxiety, and attention-deficit/hyperactivity disorder in middle childhood. *Development and Psychopathology, 16*, 577–592. <https://doi.org/10.1017/S0954579404004675>.
- Julien, D., Markman, H. J., & Lindahl, K. M. (1989). A comparison of a global and microanalytic coding system: Implications for future trends in studying interactions. *Behavioral Assessment, 11*, 81–100. <https://doi.org/10.1007/BF00962701>.
- Karreman, A., Van Tuijl, C., Van Aken, M. A., & Deković, M. (2008). Parenting, coparenting, and effortful control in preschoolers. *Journal of Family Psychology, 22*, 30–40. <https://doi.org/10.1037/0893-3200.22.1.30>.

- Katz, L. F., & Gottman, J. M. (1996). Spillover effects of marital conflict: In search of parenting and coparenting mechanisms. In J. P. McHale & P. A. Cowan (Eds.), *Understanding how family-level dynamics affect children's development: Studies of two-parent families* (pp. 57–76). San Francisco: Jossey-Bass. <https://doi.org/10.1002/cd.23219967406>.
- Katz, L. F., & Low, S. M. (2004). Marital violence, co-parenting, and family-level processes in relation to children's adjustment. *Journal of Family Psychology, 18*, 372–382. <https://doi.org/10.1037/0893-3200.18.2.372>.
- Kline, G. H., Julien, D., Baucom, B., Hartman, S., Gilbert, K., Gonzales, T., & Markman, H. J. (2004). The interactional dimensions coding system: A global system for couple interactions. *Couple Observational Coding Systems, 113–126*. <https://doi.org/10.4324/9781410610843>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to Coparenthood: Triadic interactions and Coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology, 8*, 475. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Lavanchy Scaiola, S. C., Favez, N., Tissot, H., & Frascarolo, F. (2008). Family alliance assessment scale (FAAS). *Coding manual. Deutsche Übersetzung: Schwinn L (2008) Institut für Psychosomatische Kooperationsforschung und Familientherapie, Universitätsklinikum Heidelberg, unveröffentlicht*.
- Laxman, D. J., Jessee, A., Mangelsdorf, S. C., Rossmiller-Giesing, W., Brown, G. L., & Schoppe-Sullivan, S. J. (2013). Stability and antecedents of coparenting quality: The role of parent personality and child temperament. *Infant Behavior and Development, 36*, 210–222. <https://doi.org/10.1016/j.infbeh.2013.01.001>.
- Lindsey, E. W., & Caldera, Y. M. (2005). Interparental agreement on the use of control in childrearing and infants' compliance to mother's control strategies. *Infant Behavior and Development, 28*(2), 165–178. <https://doi.org/10.1016/j.infbeh.2005.02.004>.
- Margolin, G., Gordis, E. B., & John, R. S. (2001). Coparenting: A link between marital conflict and parenting in two-parent families. *Journal of Family Psychology, 15*, 3–21. <https://doi.org/10.1037/0893-3200.15.1.3>.
- Maiseless, O. (2006). *Parenting representations*. Cambridge: University Press. <https://doi.org/10.1017/CBO9780511499869>.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology, 31*, 985–996. <https://doi.org/10.1037/0012-1649.31.6.985>.
- McHale, J. P. (1997). Overt and covert coparenting processes in the family. *Family Process, 36*(2), 183–201. <https://doi.org/10.1111/j.1545-5300.1997.00183.x>.
- McHale, J. P. (2007). When infants grow up in multiperson relationship systems. *Infant Mental Health Journal, 28*, 370–392. <https://doi.org/10.1002/imhj.20142>.
- McHale, J. P. (2011). Assessing coparenting. In J. P. McHale & K. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems*. American Psychological Association. <https://doi.org/10.1037/12328-000>.
- McHale, J. P., & Fivaz-Depeursinge, E. (1999). Understanding triadic and family group interactions during infancy and toddlerhood. *Clinical Child and Family Psychology Review, 2*, 107–127. <https://doi.org/10.1023/A:1021847714749>.
- McHale, J., & Fivaz-Depeursinge, E. (2010). Principles of effective coparenting and its assessment in infancy and early childhood. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenting and mental health: A bridge between infant and adult psychiatry* (pp. 383–397). London: Wiley.
- McHale, J. P., & Rasmussen, J. L. (1998). Coparental and family group-level dynamics during infancy: Early family precursors of child and family functioning during preschool. *Development and Psychopathology, 10*, 39–59. <https://doi.org/10.1017/S0954579498001527>.
- McHale, J. P., & Rotman, T. (2007). Is seeing believing? Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior and Development, 30*, 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J. P., Kuersten-Hogan, R., Lauretti, A., & Rasmussen, J. L. (2000). Parental reports of coparenting and observed co-parenting behavior during the toddler period. *Journal of Family Psychology, 14*, 220–236. <https://doi.org/10.1037/0893-3200.14.2.220>.

- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004a). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, *16*(711–733), 711–733. <https://doi.org/10.1017/S0954579404004742>.
- McHale, J. P., Kuersten-Hogan, R., & Rao, N. (2004b). Growing points for coparenting theory and research. *Journal of Adult Development*, *11*, 221–234. <https://doi.org/10.1023/B:JADE.0000035629.29960.e4>.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Mullen, E. M. (1995). *Mullen scales of early learning* (pp. 58–64). Circle Pines, MN: AGS.
- Pape Cowan, C., Cowan, P., Heming, G., Garrett, E., Coysh, W., Curtis-Boles, H., & Boles, A., III. (1985). Transitions to parenthood: His, hers, and theirs. *Journal of Family Issues*, *6*(4), 451–481.
- Rowe, D., Jacobson, K., & Van den Oord, E. (1999). Genetic and environmental influences on vocabulary IQ: Parental education level as moderator. *Child Development*, *70*(2), 1151–1162. <https://doi.org/10.1111/1467-8624.00084>.
- Sameroff, A. (1975). Transactional models in early social relations. *Human Development*, *18*, 65–79. <https://doi.org/10.1159/000271476>.
- Schoppe, S. J., Mangelsdorf, S. C., & Frosch, C. A. (2001). Coparenting, family process, and family structure: Implications for preschoolers' externalizing behavior problems. *Journal of Family Psychology*, *15*, 526–545. <https://doi.org/10.1037/08933200.15.3.526>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Frosch, C. A., & McHale, J. L. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology*, *18*, 194–207. <https://doi.org/10.1037/08933200.18.1.194>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Brown, G. L., & Sokolowski, M. S. (2007). Goodness-of-fit in family context: Infant temperament, marital quality, and early coparenting behavior. *Infant Behavior and Development*, *30*, 82–96. <https://doi.org/10.1016/j.infbeh.2006.11.008>.
- Schoppe-Sullivan, S. J., Weldon, A. H., Claire Cook, J., Davis, E. F., & Buckley, C. K. (2009). Coparenting behavior moderates longitudinal relations between effortful control and preschool children's externalizing behavior. *Journal of Child Psychology and Psychiatry*, *50*, 698–706. <https://doi.org/10.1111/j.1469-7610.2008.02009.x>.
- Scrimgeour, M. B., Blandon, A. Y., Stifter, C. A., & Buss, K. A. (2013). Cooperative coparenting moderates the association between parenting practices and children's prosocial behavior. *Journal of Family Psychology*, *27*, 506–511. <https://doi.org/10.1037/a0032893>.
- Shai, D. (2018). The Inconsolable Doll Task: Prenatal coparenting behavioral dynamics under stress predicting child cognitive development at 18 months. *Infant Behavior and Development*. Advance online publication. <https://doi.org/10.1016/j.infbeh.2018.04.003>.
- Talbot, J. A., & McHale, J. P. (2004). Individual parental adjustment moderates the relationship between marital and coparenting quality. *Journal of Adult Development*, *11*(3), 191–205. <https://doi.org/10.1023/B:JADE.0000035627.26870.f8>.
- Teubert, D., & Pinquart, M. (2010). The association between coparenting and child adjustment: A meta-analysis. *Parenting*, *10*, 286–307. <https://doi.org/10.1080/15295192.2010.492040>.
- Van Bakel, H. J., & Riksen-Walraven, J. M. (2002). Parenting and development of one-year-olds: Links with parental, contextual, and child characteristics. *Child Development*, *73*(1), 256–273. <https://doi.org/10.1111/14678624.00404>.
- Van Egeren, L. A., & Hawkins, D. P. (2004). Coming to terms with coparenting: Implications of definition and measurement. *Journal of Adult Development*, *11*, 165–178. <https://doi.org/10.1023/B:JADE.0000035625.74672.0b>.
- Witte, A. M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Szepeswol, O., & Shai, D. (2019). Predicting infant–father attachment: The role of pre-and postnatal triadic family alliance and paternal testosterone levels. *Attachment & Human Development*, 1–15. <https://doi.org/10.1080/14616734.2019.1680713>.

Chapter 7

Family Alliance Trajectories from Infertility to Parenthood



Joëlle Darwiche, Jean-Philippe Antonietti, and Antoinette Corboz-Warnery

Introduction

In this chapter, we focus on the development of coparenting and family dynamics during the transition from infertility to parenthood. Infertility affects approximately 10–12% of couples in industrialized countries (Datta et al. 2016), and couples frequently turn to assisted reproductive technology (ART) treatments to become parents. Both infertility and ART treatments have been described as stressful experiences that can generate considerable emotional distress in partners. Infertility can be considered a dyadic stressor, as both partners are impacted, irrespective of who has a medical problem leading to infertility (Greil et al. 2018). Couples who are infertile experience a disruption of their life goals and sense of loss of control, self-blame, anxiety, and/or depression (Benyamini et al. 2009; Frederiksen et al. 2015). The infertile couple's journey to parenthood has therefore been described as one that entails high levels of physical, emotional, and financial costs (e.g., Nicoloro-Santa Barbara et al. 2018).

Due to these complications that are involved in the journey toward parenthood, it is relevant to investigate how previously infertile couples experience this transition to parenthood. More specifically, we must consider how the coparenting relationship establishes itself and develops over time. To explore these questions, we

J. Darwiche (✉)

Family Development Research Center, Institute of Psychology, University of Lausanne,
Lausanne, Switzerland

e-mail: joelle.darwiche@unil.ch

J.-P. Antonietti

Family Development Research Center, Institute of Psychology, University of Lausanne,
Lausanne, Switzerland

A. Corboz-Warnery

Center for Family Studies, CHUV, Lausanne, Switzerland

followed a sample of couples from the infertility stage through pregnancy into the ninth month after childbirth. We examined the couples' infertility-related experiences and marital satisfaction before they underwent medical treatment for infertility. We also compared the development of their prenatal coparenting alliance and postnatal family alliance, where alliance refers to the quality of interactive coordination between family members.

The present study is a novel contribution to the literature because it longitudinally explored couples' journeys from infertility to parenthood, using self-report, interview, and observational data. The results of the study were intended to extend our understanding of changes in family dynamics from the prenatal to the postnatal stage within the context of infertility and ART treatments.

Past Empirical Research Findings

Pregnancy and Parenthood After ART Treatment After a period of unsuccessful attempts, pregnancy is likely to be perceived as an achievement by couples with infertility problems. However, exposure to the frequent treatment failures they faced throughout this process can also make couples feel more vulnerable by increasing their fear that a problem may occur during their pregnancy (Hjelmstedt et al. 2003).

Research findings on infertile couples' emotional experiences during pregnancy and after birth are mixed. Some studies have shown that expectant mothers tend to be more anxious about losing their pregnancy and experience high levels of anxiety about the survival of their baby (Hjelmstedt et al. 2003). They also tend to experience elevated levels of depression during late pregnancy and early parenthood (Monti et al. 2008), as well as higher levels of parenting stress (Baor and Soskolne 2010). Other studies have reported the following: (a) similar or lower levels of prenatal depression among women who underwent ART when compared to women who conceived naturally (e.g., Hjelmstedt et al. 2006; Raguz et al. 2014), (b) no difference in the prepartum and postpartum mental health trajectories of fathers with and without a medical history of infertility (Vänskä et al. 2017), and (c) similar or even higher marital satisfaction in mothers and fathers who underwent ART compared to couples who conceived naturally (e.g., Sydsjö et al. 2002). A recent systematic review of studies on psychological stress and adjustment to pregnancy after ART treatments (Gourounti 2016) concluded that the general experiences of pregnancy have a negative impact on pregnancy-specific anxiety, quality of life, self-esteem, and depression and a positive impact on attitudes toward pregnancy and attachment to the baby. Ross and McLean (2006) conducted a systematic review and found that there is little to no increased risk for postpartum depression after ART, except among women with a history of multiple births. The contrasting results about the emotional experiences that accompany the transition to parenthood after ART suggests that it is a highly specific experience that cannot be described as more or less problematic than a natural pregnancy. Instead, research suggests that this

transition entails both vulnerabilities (e.g., higher pregnancy-specific anxiety) and strengths (e.g., more positive attitudes toward pregnancy).

With the exception of our own previous research findings, there is no available data on coparenting either during pregnancy or after birth among couples who have undergone ART treatments. In a previous study, we showed that the prenatal coparenting alliance of couples who conceived as a result of ART did not differ from those who conceived naturally (Darwiche et al. 2015). However, we also found no association between the quality of the prenatal coparenting alliance, i.e., the quality of interactive functioning in the parents-to-be during pregnancy, and their family alliance at 9 months after childbirth, i.e., the quality of the interactive coordination between the father, mother, and their baby (Cairo et al. 2012). The lack of associations we found in couples who conceived after ART contrast with findings reported in other studies which have repeatedly found these associations among families in which the baby was naturally conceived (e.g., Altenburger et al. 2014; Favez et al. 2006). These discrepancies in results support the hypothesis that the transition to parenthood after infertility is a unique experience, which is different from that of couples who did not require ART treatments to become parents.

Research Findings on the Transition from Infertility to Parenthood Research findings on the transition from infertility to parenthood are of interest as we aimed to identify pretreatment predictors of the subsequently developing family alliance. Very few empirical findings on the transition from infertility to parenthood are available. Longitudinal studies have focused either on the path from pregnancy to the postpartum stage (such as the aforementioned studies) or on the psychological outcomes of couples who have experienced treatment failure (Verhaak et al. 2005). One study examined a sample of 83 women and their male partners (54 partners were included in the study) before they underwent in vitro fertilization (IVF) treatment and immediately after they received their pregnancy test results. Their findings showed that there was a decrease in anxiety and depression from the pretreatment to pregnancy phase among women; however, no such change was observed among men (Verhaak et al. 2005). Other qualitative studies have used small samples to examine the journey from infertility to parenthood. Some of these results have shown that there are three types of infertility-related experiences among women: Firstly, their history of infertility may overshadow their experiences of pregnancy and motherhood; secondly, their experience of pregnancy may be dissociated from that of infertility; and thirdly both states may coexist during pregnancy (HaCohen et al. 2018).

Due to the relative lack of research findings in this area, we did not have an empirical base upon which our attempt to examine the pretreatment predictors of the development of coparenting and family dynamics could be founded. However, several studies have shown that infertility-related stress is a key variable that must be assessed among infertile couples because it is associated with frequent problems during ART treatments (e.g., poorer outcomes, higher numbers of treatment cycles) (Boivin and Schmidt 2005). In addition, past findings have shown that infertility-related stress affects marital satisfaction (Gana and Jakubowska 2016); marital

satisfaction may in turn be negatively impacted by the relational challenges that are associated with the transition from partnership to parenthood (Kluwer 2010). Therefore, we aimed to investigate whether both of these aspects have an impact on the development of family alliance.

Present Study

To deepen our knowledge about the development of family dynamics after a history of infertility, we analyzed family alliance trajectories using a specific observational situation, namely, the Lausanne Trilogue Play (Fivaz-Depeursinge and Corboz-Warnery 1999). We assessed the prenatal coparenting alliance and postnatal family alliance. Families in which the child had been naturally conceived have been found to have a family alliance that is stable from the prenatal to postnatal stage (e.g., Favez et al. 2006); however, among families in which the couple had undergone ART treatment, there was no global association between the prenatal coparenting alliance and postnatal family alliance. Thus, we aimed to identify different groups of family alliance trajectories. In addition, we retrospectively explored whether these family alliance trajectory groups differ in three pretreatment variables, namely, couples' narrative quality measured during an infertility diagnosis interview, their self-reported infertility-related stress, and their marital satisfaction. We also examined if these variables predict subsequent family alliance trajectories. Finally, we provide qualitative case illustrations from each group we identified to highlight differences in their trajectories from infertility to parenthood.

Method

Participants

Couples were recruited from two fertility clinics in Switzerland. The inclusion criteria were that couples were not already parents and that they were about to start their first in vitro fertilization (IVF) or intracytoplasmic injection (ICSI) treatment. The study sample consisted of a subset of couples ($n = 29$) who were successful in becoming pregnant within the interval of 1 year after their IVF/ICSI treatment out of a larger sample of $N = 80$ couples we had recruited before they received infertility treatments. Sociodemographic as well as medical data (Table 7.1) indicated that partners in our sample were in their 30s and most of them were married. The most frequent medical infertility treatment they received was ICSI, due to the high rate of male infertility. The rate of delivery complications was also relatively high in our sample families.

Table 7.1 Sociodemographic and medical data of the sample

Type of data	Sample ($N = 29$)
Age of women (M, SD)	32.60, 2.70
Age of men (M, SD)	34.63, 4.25
Married ($N, \%$)	25, 86.2%
Previous pregnancy ($N, \%$)	5, 17.2%
Type of diagnosis ($N, \%$)	
Male factor	16, 55.2%
Female factor	2, 6.9%
Combined male and female factor	8, 27.6%
Unexplained	3, 10.3%
ICSI ($N, \%$)	24, 82.8%
Baby's weight (M, SD)	3061.44, 550.13
Gestational age (weeks)	38.23, 1.62
Breastfeeding >6 months ($N, \%$)	10, 34.5%
Delivery complications ($N, \%$)	14, 48.3%

Procedure

The couples participated in three research sessions: The first session occurred before the IVF/ICSI treatment; the second session occurred during the fifth month of pregnancy; and the third session occurred when their baby was 9 months old. The first research session consisted of a videotaped semi-structured interview with both partners focused on their reactions to the infertility diagnosis (Reaction to Infertility Interview, RII, Darwiche et al. 2013; Marvin and Pianta 1996). Couples also completed self-report questionnaires on their infertility-related stress (Newton et al. 1999) and on their marital satisfaction (Spanier 1976). During pregnancy, the expectant parents were interviewed about how the pregnancy was progressing and then participated in a videotaped role play, the Prenatal Lausanne Trilogue Play (Fivaz-Depeursinge et al. 2010). After birth, they participated in a videotaped father-mother-child play interaction, the Postnatal Lausanne Trilogue Play (Fivaz-Depeursinge and Corboz-Warnery 1999). Approval for this study was granted by the Ethics Committee of the Faculty of Medicine at the University of Lausanne, Switzerland.

Measures

Reaction to Infertility Diagnosis Interview (RII) The RII is a 20–30-min, videotaped, semi-structured interview adapted from the Reaction to Diagnosis Interview (Pianta and Marvin 1993). The RII includes five questions that aim to investigate emotional responses to a medical diagnosis (for details on the procedure and questions, see Darwiche et al. 2013), such as how couples discovered their fertility

problem, each partner's feelings about the infertility diagnosis, and what they thought and felt when they first received the infertility diagnosis.

Coding The Family Narrative Consortium coding system (FNC) (Fiese et al. 1999) was used to code partners' narrative quality. This coding system comprises nine codes scored from 1 (lowest) to 5 (highest), assessing narrative flexibility, congruence of emotions and content, and degree of confirmation/disconfirmation of partner opinion. The interrater reliability was established by independently coding 17 interviews and using two-way random intraclass correlation coefficients (ICC from 0.73 to 0.87 for 7/9 dimensions). Reliability was low for "internal consistency" and "organization"; these dimensions were thus excluded from further statistical analyses. In this study, the average mean of the scales was used to indicate the narrative quality.

Self-reported Infertility-Related Stress Infertility-related stress was assessed using the Fertility Problem Inventory (FPI) (Newton et al. 1999). This 46-item tool results in a global score of perceived infertility-related stress and five subscores: social, sexual, and relationship stress, need for parenthood, and feelings about living a childless life. The global score used in this study ranges from 46 to 276, with higher scores indicating higher fertility-related stress. In our sample, the internal consistency of the questionnaire was good: $\alpha = 0.79$ for women and $\alpha = 0.81$ for men.

Self-reported Marital Satisfaction The Dyadic Adjustment Scale (Spanier 1976) was used to measure marital satisfaction. It consists of 32 items assessing four aspects of dyadic adjustment: (a) consensus, (b) satisfaction, (c) cohesion, and (d) affective expression. The global score used in this study could range from 0 to 151, with higher scores indicating greater marital satisfaction. Couples falling below the score of 107 were judged to be distressed (Crane et al. 1990). In our sample, the internal consistency of the questionnaire was good: $\alpha = 0.77$ for women and $\alpha = 0.80$ for men.

Prenatal Lausanne Trilogue Play The Prenatal Lausanne Trilogue Play is a videotaped observational situation: the parents-to-be are asked to imagine and role play their first encounter with their newborn, represented by a doll. The play is structured in four parts corresponding to the four possible configurations of triadic interactions. The goal is to measure the capacity of the parents-to-be to work together as a team in relation to their (pretend) baby, defined as their prenatal coparenting alliance. The researcher helps the couples by playing the role of the nurse who delivers their baby (for details on the procedure see Fivaz-Depeursinge et al. 2010 and Chap. 3 in this book). The play was recorded by three cameras: one wide-angle camera and one camera for each parent's face.

Coding The prenatal coparenting alliance was assessed using the full version of the Prenatal LTP (five Likert scales, ranging from 1 = *inappropriate* to 5 = *appropriate* (Cairo et al. 2012) instead of three Likert scales (Carneiro et al. 2006). The scores

of the five scales were summed to obtain a global score that ranges from 5 to 25. Higher scores indicate a stronger alliance. The five scales used were (see Carneiro et al. 2006, for a complete description of the scales) (a) *coparental playfulness* toward the task (couple's capacity to create a playful space and to co-construct games), (b) *structure of the play* (couple's capacity to structure the play in four parts according to the instructions), (c) *intuitive parenting behavior* (use of parenting behavior such as baby talk and holding), (d) *couple's cooperation* (degree of active cooperation reached by the couple during the play), and (e) *family warmth* (positive bond and mood between parents during play). The internal consistency of the Prenatal LTP coding was high ($\alpha=0.80$), and the interrater reliability on 25% of the Prenatal LTP sessions was assessed using two-way random intraclass correlation coefficients (ICC =0.89).

Postnatal Lausanne Trilogue Play The Lausanne Trilogue Play (LTP) situation was used to measure the postnatal family alliance (see Fivaz-Depeursinge and Corboz-Warnery 1999, for details on this procedure). Following this task, parents sit in front of or on each side of the child, who sits in a chair facing either one or both parents. The family is asked to play together as they move through the four possible relational configurations of a triad. Two video cameras are used, one recording the parents from the front and the other recording the baby.

Coding The Postnatal LTP was coded using the Family Alliance Assessment Scale (Favez et al. 2011). This tool comprises 11 scales that specifically assess triadic interactions using a three-point scoring system: “appropriate” (2 points), “moderate” (1 point), and “inappropriate” (0 points) (see Favez, et al. 2011 for a description of the scales). These scales can be summed to obtain a global score ranging from 0 to 22. Higher scores indicate more functional postnatal alliances. The internal consistency of the Postnatal LTP coding was high ($\alpha=0.83$), and the interrater reliability based on double-coding 25% of the Postnatal LTP sessions and assessed using two-way random intraclass correlation coefficients was acceptable (ICC =0.82).

Data Analysis

To explore family alliance trajectories, we first examined the positions and dispersions of the measured variables as well as their intercorrelations. Next, we conducted a two-step cluster analysis in a two-dimensional space, which was defined by the indicators of prenatal and postnatal family alliances. In the first step, we conducted a hierarchical analysis based on the standardized scores of the variables using Ward's method and squared Euclidean distances (Ward 1963). The criteria that were used to determine the total number of clusters were the TraceW index (Milligan and Cooper 1985) and Ratkowsky-Lance index (Ratkowsky and Lance 1978), both of which yielded three clusters. In the second step, the cluster centers

that were identified as a result of a hierarchical analysis were used as nonrandom starting points in an iterative k-means clustering procedure.

Subsequently, we retrospectively compared the pretreatment data of the family alliance trajectory groups. To examine group differences, we used two-way mixed ANOVAs. Sex served as the within-couples factor, and family alliance trajectory groups served as the between-couples factor. Finally, we used a multinomial logistic regression analysis to predict membership to the family alliance trajectory groups based on the level of narrative quality of the partners, their infertility-related stress, and marital satisfaction, respectively.

Results

Descriptive Analyses

Descriptive analyses for the couples' narrative quality, infertility-related stress, marital satisfaction, and Prenatal and Postnatal LTP scores are presented in Table 7.2. The mean scores that were computed for narrative quality were relatively high compared to other samples (e.g., adoptive parents, Fiese et al. 1999). Women's and men's scores for infertility-related stress were comparable to those reported by other studies using larger samples of infertile patients (Newton et al. 1999). The mean score for marital satisfaction was higher in our sample than the cutoff score of 107 for both women and men (Crane et al. 1990). This is consistent with other studies showing a similar or even higher marital satisfaction in infertile couples compared to couples who conceived spontaneously (e.g., Fisher et al. 2007), suggesting that the infertility experience may provoke stress but also activate resources within the couple relationship to cope with it. The results showed that the narrative quality, infertility-related stress, and marital satisfaction were significantly correlated between women and men. In addition, women's infertility-related stress was negatively correlated with both self- and partner-reported marital satisfaction. Further, men's infertility-related stress was negatively correlated with their own marital satisfaction. Finally, there was no correlation between family alliances observed during the Prenatal and Postnatal LTPs.

Three Family Alliance Trajectories

A cluster analysis allowed us to identify three groups of family alliance trajectories from pregnancy to 9 months postpartum: Group 1 ($n = 11$) consisted of families whose alliance scores had decreased ("average to low" family alliance trajectory); Group 2 ($n = 11$) consisted of families whose alliance scores remained stable over time ("high and stable" family alliance trajectory pattern); and Group 3 ($n = 7$)

Table 7.2 Means, standard deviations, and correlations between narrative quality, infertility-related stress, and marital satisfaction assessed before infertility medical treatment and family alliance assessed during pregnancy and at postpartum

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
Narrative quality									
Women	3.85	0.45							
Men	3.82	0.54	0.49** [0.16, 0.73]						
Infertility-related stress									
Women	132.93	24.31	-0.14	-0.30					
			[-0.48, 0.24]	[-0.60, 0.07]					
Men	123.76	21.77	-0.23	-0.31	0.54**				
			[-0.55, 0.15]	[-0.60, 0.07]	[0.21, 0.75]				
Marital satisfaction									
Women	124.90	9.93	0.34	0.27	-0.46*	-0.54**			
			[-0.03, 0.63]	[-0.11, 0.58]	[-0.71, -0.11]	[-0.76, -0.21]			
Men	120.67	11.93	0.27	0.29	-0.29	-0.60**	0.69**		
			[-0.11, 0.58]	[-0.09, 0.59]	[-0.60, 0.08]	[-0.79, -0.29]	[0.43, 0.84]		
Family Alliance									
Prenatal Alliance	17.24	3.03	-0.16	0.35	-0.01	-0.24	-0.03	0.21	
			[-0.49, 0.22]	[-0.02, 0.64]	[-0.38, 0.36]	[-0.56, 0.14]	[-0.39, 0.34]	[-0.17, 0.54]	
Postnatal Alliance	11.62	5.20	-0.02	-0.37*	-0.11	-0.14	0.02	-0.13	-0.01
			[-0.38, 0.35]	[-0.65, -0.00]	[-0.46, 0.27]	[-0.48, 0.24]	[-0.34, 0.39]	[-0.47, 0.25]	[-0.37, 0.36]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming 2014). * indicates $p < 0.05$. ** indicates $p < 0.01$

consisted of families whose alliance scores had increased from the prenatal to postnatal stage (“low to high” family alliance trajectory). These results are illustrated using violin plots with dots in Fig. 7.1. The results of an ANOVA (with Tukey multiple comparisons test) revealed that there were statistically significant group differences at the prenatal stage, $F(2, 26) = 20.59, p < 0.001$. Specifically, Group 2 obtained higher scores than did Groups 1 and 3. Similarly, there were significant group differences at the postnatal stage, $F(2, 26) = 30.23, p < 0.001$, whereby Group 1 obtained lower scores than did Groups 2 and 3.

Pretreatment Narrative Quality, Infertility-Related Stress, and Marital Satisfaction

Pretreatment Group Differences Prior to the beginning of their treatment (Table 7.3), the groups did not differ in their narrative quality, $F(2, 26) = 0.55$, $p = 0.583$, infertility-related stress, $F(2, 26) = 0.46$, $p = 0.639$, or marital satisfaction, $F(2, 26) = 0.20$, $p = 0.821$. However, there were gender differences in infertility-related stress, $F(1, 26) = 4.90$, $p = 0.036$, and marital satisfaction, $F(1, 26) = 11.88$, $p = 0.002$. Specifically, women reported higher levels of stress and marital satisfaction prior to beginning infertility treatment. There was also an interaction effect between sex and trajectory group on narrative quality, $F(2, 26) = 3.83$, $p = 0.035$, and marital satisfaction, $F(2, 26) = 4.82$, $p = 0.017$. These interaction effects between sex and trajectory group showed that women who belonged to Group 3, the low-to-high trajectory families, demonstrated better narrative quality and reported greater marital satisfaction than did their partners prior to beginning infertility treatment (Table 7.3). This result was not observed for women from the other two trajectory groups. None of the trajectory groups differed on any of the sociodemographic, diagnosis-related, or pregnancy, and birth-related variables we measured prior to couples' infertility treatments.

Pretreatment Predictors of Family Alliance Trajectories Membership in a family alliance trajectory group was not significantly predicted by narrative quality (McFadden's $R^2 = 0.12$, $\chi^2(4) = 7.79$, $p = 0.100$), infertility-related stress (McFadden's $R^2 = 0.03$, $\chi^2(4) = 1.78$, $p = 0.775$), or marital satisfaction (McFadden's $R^2 = 0.14$, $\chi^2(4) = 8.80$, $p = 0.066$). In other words, none of our pretreatment predictors forecasted which trajectory of family alliances couples who successfully became pregnant after ART followed from pregnancy to 9 months postpartum.

In the following section, we provide an in-depth discussion of three couples in our sample who experienced the transition from infertility to parenthood; each of them illustrates a different family alliance trajectory group we found in our study.

Case Illustrations

Case 1: "The Sky Was Falling Down Upon Us"

This case belongs into Group 1 ("average to low" family alliance trajectory, blue dots in Fig. 7.1). Christie, aged 30 years, and Paul, aged 25 years, had been living together for 2 years and trying to have a child for 1 year. Paul had received a diagnosis of male infertility, and they were advised to undergo an ICSI. The first embryo transfer was successful.

Prior to starting ICSI treatment, Christie and Paul demonstrated high narrative quality during the interview (scores of 4 and 5 out of 5, respectively). Christie

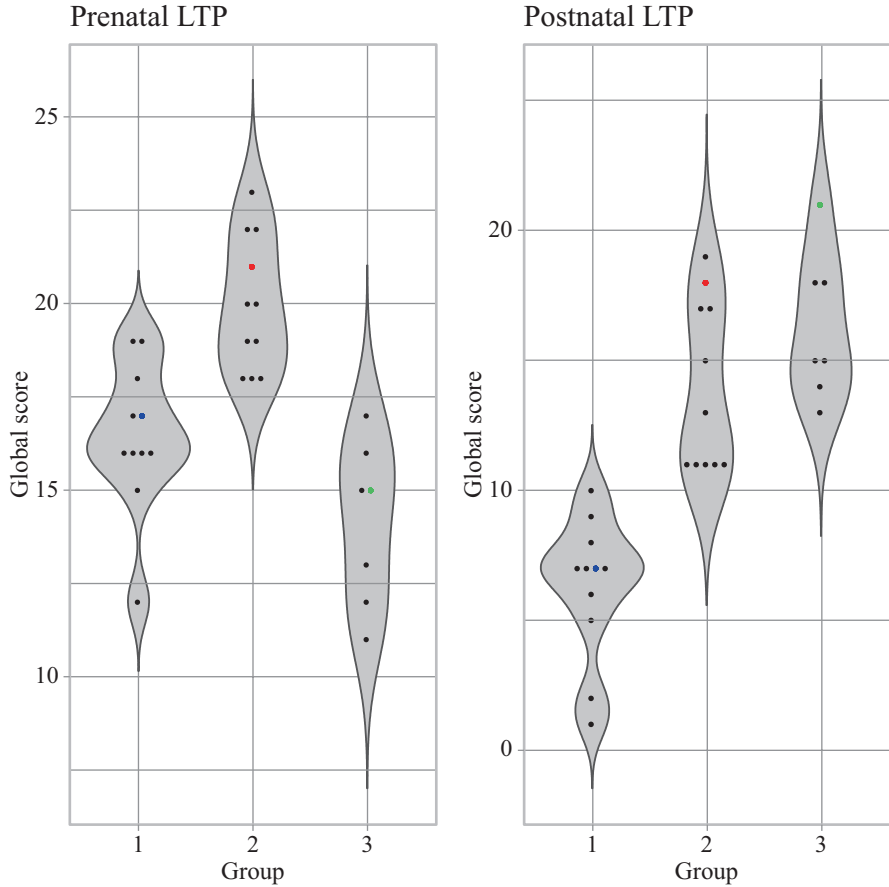


Fig. 7.1 Global scores for family alliances observed during the Prenatal and Postnatal LTP for the three family alliance trajectory groups

Note. Violin plots with dots are used to illustrate the kernel probability density of the data at different values. The colored dots correspond to the three family case illustrations described in the text (blue for case 1, red for case 2 and green for case 3). Group 1 = “Average to low trajectory”; Group 2 = “High and stable trajectory”; Group 3 = “Low to high trajectory”

reported lower levels of infertility-related stress than the other women who belonged to Group 1 (124.0), and Paul’s score was comparable to the scores obtained by the other men in Group 1 (122.0). Both Christie (147.0) and Paul (139.0) reported a very high level of marital satisfaction, and their scores were substantially higher than the cutoff value of 107 and the mean scores that were obtained by Group 1. However, the following verbatim excerpt from their Reaction to Infertility Diagnosis Interview illustrates how Christie and Paul were extremely shocked when Paul had received a diagnosis of male infertility:

Table 7.3 Means and standard deviations for couples' pretreatment narrative quality, infertility-related stress, and marital satisfaction by family alliance trajectory group, with main, simple, and interaction effects

Groups:	Narrative quality		Infertility-related stress		Marital satisfaction	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Group 1 "average to low trajectory"						
Women	3.93	0.53	134.36	23.36	125.55	11.92
Men	3.93	0.48	129.27	25.65	121.64	14.75
<i>Simple effect</i>	$t(26) = 0.00, p = 1.000$		$t(26) = 0.74, p = 0.468$		$t(26) = 1.66, p = 0.109$	
Group 2 "high and stable trajectory"						
Women	3.73	0.31	129.18	21.46	123.27	8.31
Men	3.91	0.56	118.32	15.05	123.41	8.93
<i>Simple effect</i>	$t(26) = -1.31, p = 0.200$		$t(26) = 1.57, p = 0.128$		$t(26) = -0.06, p = 0.954$	
Group 3 "low to high trajectory"						
Women	3.93	0.53	136.57	32.19	126.43	10.01
Men	3.50	0.54	123.64	25.06	114.86	10.65
<i>Simple effect</i>	$t(26) = 2.47, p = 0.020$		$t(26) = 1.49, p = 0.147$		$t(26) = 3.92, p < 0.001$	
<i>Main effects</i>						
Group	$F(2, 26) = 0.55, p = 0.583$		$F(2, 26) = 0.46, p = 0.639$		$F(2, 26) = 0.20, p = 0.821$	
Gender	$F(1, 26) = 0.89, p = 0.354$		$F(1, 26) = 4.90, p = 0.036$		$F(1, 26) = 11.88, p = 0.002$	
<i>Interaction</i>						
Group × Gender	$F(2, 26) = 3.83, p = 0.035$		$F(2, 26) = 0.30, p = 0.744$		$F(2, 26) = 4.82, p = 0.017$	

Note. Narrative quality scores range from 1 (lowest) to 5 (highest); infertility-related stress scores range from 46 to 276; marital satisfaction scores range from 0 to 151; couples below the cut-off of 107 (Crane et al. 1990) are considered to be distressed

Interviewer: What were your husband's/wife's feelings when the two of you first realized that you had a problem having a baby?

Christie: I was alone at the doctor's, and he told me, "The problem doesn't come from you." I looked at him, and I thought, "Oh! My husband is going to feel so bad." (nervous laughter) Just after the appointment, Paul called me and asked, "So? Do you have the results?" ... He understood that something was wrong, and I had to tell him on the phone. And that night... (pause), it wasn't great... he was not feeling good.

Interviewer (to Christie): What was your reaction?

Christie: I sat next to him, and since he was telling me over and over, "I am sure, the problem comes from me," and I was telling him, "No, why would it come from you?," at that moment, I told myself, it would be too hard for him to hear.

Interviewer: And you, Paul, what did you think and feel when she told you the result on the phone?

Paul: Hm... I can't really explain how I felt... hm, it's very hard to explain... so, hm... it was not like physically painful but sort of like everything else didn't

matter anymore... I was... hm... focused on this disappointment and... and I cared about nothing anymore. I was at work actually, and I almost got into my car to go home without telling anyone, just leaving all my responsibilities behind... (clears his throat), not any care left in the world, tears in my eyes... and (silence)....

When we met Paul and Christie during the 5th month of pregnancy, they took part in the Prenatal LTP. Their play received a global score for their prenatal family alliance of 17 (out of 25). They obtained an average score of 3 on all the scales except “intuitive behaviors,” on which they obtained a score of 5. Their Prenatal LTP was characterized by a substantial amount of emotion that was displayed by Christie, who was visibly moved by the experience of engaging in role play with her future baby. Paul gently held the “baby” but remained neutral and distant. It was difficult to understand the partners’ whispers to their baby. It was as if they wanted to preserve their moment of intimacy. Both of them exhibited intuitive parenting behaviors (e.g., they rocked the baby and smiled at the baby), but they demonstrated very few prenatal intuitive coparenting behaviors. This term refers to the intuitive parenting behaviors that are synchronized and coordinated between parents (Darwiche et al. 2016).

At the postnatal stage, we met Paul, Christie, and their 9-month-old daughter, Eva. The parents reported that their baby was in good health. Their family alliance was assigned a low global score of 7 out of 22. Paul began the play (Part 1). Similar to what was observed during the Prenatal LTP, he whispered at a volume that was so low that we could not hear what he was saying to Eva. Eva did not appear to be sufficiently stimulated, and she had difficulty in interactively engaging with her father. The progress of the game alternated between moments of disinterest on the part of Eva and other moments in which she smiled at her father and tended to be more attentive, especially when her dad began to sing a song. It was at this moment that Christie decided to take over (Part 2), but Eva was not happy with this change. She grabbed onto one of her socks and put it in her mouth. Initially, her mother asked her to not do that, but eventually, she allowed her to do it. During Part 3 of the play, both of the parents whispered to Eva, and we observed several moments of disorganization. Specifically, Christie showed Eva the cameras while Paul turned Eva’s seat. Eva was tense. However, during Part 4 of the play, she became calm when her parents gave her her pacifier and teddy. During this part of the play, the parents were facing each other. They did not speak much, except to say that they did not have much to say to each other.

Comment Paul and Christie’s journey from infertility to parenthood highlights the closeness they shared as a married couple before treatment. This may either be despite or because of the shock they had experienced upon receiving the diagnosis of Paul’s infertility. Schmidt et al. (2005) conducted a study using a large sample of 2250 infertile patients and found that approximately 25% of them reported that their experience of infertility had strongly benefitted their marriage. This further suggests that the experience of infertility may be a source of both suffering and strength to married couples. However, the transition to the phases of pregnancy and eventual

parenthood appeared to have distanced Paul and Christie. Their emotional and behavioral responses during prenatal play differed greatly between the partners (Christie was very moved, and Paul was distant), and they did not demonstrate intuitive coparenting behaviors. During their postnatal play, their difficulty in coordinating with each other was more pronounced and characterized by a noteworthy level of disorganization, as well as a fair amount of competition for Eva's attention. Christie interrupted Paul's play with Eva at the moment when Eva seemed to enjoy his singing, and during part 3, Christie tried to get Eva's attention by showing her the cameras and Paul by turning her seat.

Case 2: "Always Together, No Matter What Happens"

This case belongs into Group 2 ("high stable" family alliance trajectory, red dots in Fig. 7.1). Claudia, aged 36 years, and Simon, aged 37 years, had been living together for 15 years and trying to have a child for 5 years. Claudia had received a diagnosis of female infertility, and they were advised to undergo IVF. The first embryo transfer was successful.

Prior to starting IVF, their narrative quality was assigned an average score (i.e., scores between 2 and 4). Claudia's infertility-related stress was substantially lower (105.0) than that of the other women in this group, and Simon's score was comparable to the scores that were obtained by the other men in Group 2. Claudia's (126.0) and Simon's (116.0) marital satisfaction scores were higher than the cutoff value of 107 and comparable to the scores that were obtained by the other members of Group 2. During the Reaction to Infertility Diagnosis Interview, we learnt that Claudia had undergone numerous medical tests. When the couple was asked about their experience of receiving the diagnosis of infertility, Claudia and Simon reported that they experienced mixed emotions. Specifically, they were both relieved to have finally received a diagnosis after years of waiting and experiencing the disappointment that results from unsuccessful ART treatments. The complexity of their experience of receiving this diagnosis is illustrated in the following excerpt of their interview transcript:

Interviewer: What were your husband's/wife's feelings when the two of you first realized that you had a problem having a baby?

Claudia: I got the result straight after the fallopian tube exam... I was alone, and the doctor, as soon as I woke up, she told me, "This is what you have." And then, there was another time where she called us to her office and explained it to us again ... we didn't really share (the experience)... every time she was very reassuring. She told us, "So you have this problem, but it's not dramatic because there are this solution and this solution." Uh... she was very... always optimistic and very reassuring, but we never really had any moment where we shared our feelings (with Simon).

Simon: I don't really remember how I felt... but I think, since we were trying to have a baby, and finally, we knew why we couldn't....

Claudia: Yeah, exactly! It was a shock, at the time, to think, “Well, I am deformed somewhere in a way,” but at the same time... we were like, “Well, finally we know what the problem is, where it comes from.” So, when the doctor mentioned IVF, I was ready to hear it.

Simon: Yeah... Even if they say every time that it’s going to be a big thing, very constraining... But once we read things on the subject, I don’t know if it’s going to be that constraining really. What’s gonna be complicated is if it doesn’t work.

Claudia: Yeah.

Simon: But apart from that... since she’s already had three laparoscopies, you see, compared to other couples, IVF doesn’t seem that taxing.

Claudia: Yeah, they were quite heavy operations. So, now a few shots in the belly for a few days, it’s not the end of the world... But still, it’s very medicalized; there’s no spontaneity. That’s really the problem for me. It becomes really strict you know....

Interviewer: Simon, did you know it was a problem for her- that things became so medicalized?

Simon: No, not really, but it doesn’t surprise me, and she’s the one who’s gonna go through it....

When we met them during the fifth month of pregnancy, Claudia reported that she had to be hospitalized due to a risk of placental abruption, which was eventually eliminated. Their Prenatal LTP was assigned a high score of 21 out of 25. They obtained high scores (4 or 5) on all the subscales except cooperation (score of 3). When the play began, Simon said, “We both start.” In response, Claudia said, “No! I am the one who has to start, and then, it’s your turn, and then, the two of us” (the instructions were, “One of you can start, and the other can continue”). Claudia engaged in role play with the “baby” and said, “Let’s say ‘Hello!’ to you, observe your little feet, your little hands. You are very cute!” Subsequently, she actively included Simon in their interaction: “You see, your daddy is here. He is so proud of you!” In response, Simon said, “I am looking forward to getting to know you!” Simon gently rocked the baby and said, “Oh, I am so happy.” They exhibited prenatal intuitive coparenting behaviors, such as when they adjusted the blanket or softly caressed the “baby” during the third part of the play.

At the postnatal stage, we meet Claudia, Simon, and their daughter, Dalia, who was in good health. Their family alliance score was high (18 out of 22). The context for observing their play interaction was not optimal because Dalia was very tired and in a bad mood, and both of them were quite nervous about playing with their baby. Simon had to start. He did his best and was very empathic. Claudia had a more direct style. Specifically, she proposed a higher number of games in a more active manner, and she succeeded, at least temporarily, at gaining Dalia’s attention. One of the games they played was peek-a-boo, and another involved a spider, which went up and down. Simon was very attentive during this period. When the three of them played the peek-a-boo game together, Dalia was attentive and smiling. During part 4, the parents oriented themselves toward each other and discussed the possible reasons for Dalia’s tiredness. They gave the pacifier to Dalia who appeared to be tired but nevertheless remained quiet.

Comment Claudia and Simon had known that they were infertile for a long time, and Claudia had undergone extensive treatments to help her conceive. Accordingly, they believed that IVF would be “just one more step” toward parenthood. Paradoxically, they appeared to be both ready to face the ART treatment but also somewhat resigned. Despite the multiple surgeries that Claudia had undergone, she did not report high levels of infertility-related stress, and she perceived her marital relationship to be satisfying. Simon exhibited more signs of uneasiness than Claudia. Specifically, during the interview, he was empathetic toward Claudia, but he also appeared to be burdened by the difficulties that they had to encounter as a part of their journey toward parenthood (“My wife must pass by all that”). When Claudia was pregnant with Dalia, the couple appeared to have greatly enjoyed participating in the LTP, and they were very playful as well. Their high prenatal family alliance quality suggests that they were ready to fully embrace, with great relief, their role as future parents, now that the risks of an obstetrical complication were lower. This relief might be specific to pregnancies after ART or to any complicated pregnancy, compared to pregnancies after spontaneous conception. During the postnatal play, although their styles of play were quite different (Claudia was very engaged and active, whereas Simon was calmer and more discreet), they were able to coordinate and co-construct a nice game with Dalia.

Case 3: “We’ll Eventually Get There”

This case belongs into Group 3 (“low to high” family alliance trajectory, green dots in Fig. 7.1). Claire, aged 36 years, and Arthur, aged 32 years, had been living together for 7 years and trying to have a child for 2 years. They received a diagnosis of mixed infertility, and they were advised to undergo an ICSI. The first embryo transfer was successful.

Prior to the commencement of the ICSI treatment, their global narrative quality was considered to be average (scores between 2 and 5). Claire’s (score of 78.0) and Arthur’s (88.0) infertility-related stress was extremely low, particularly when compared to the other couples in Group 3. Claire reported high levels of marital satisfaction (135.0), whereas Arthur’s score was similar to those of others in Group 3 (122.0). During the Reaction to Infertility Diagnosis Interview, we learnt that the couple had already experienced several unsuccessful medical treatments (inseminations). However, they were reassured by the proactive and positive attitude of their doctor. Their pragmatic attitude toward the treatment for infertility is illustrated in the following excerpt of their interview transcript:

Interviewer: What were your husband’s/wife’s feelings when the two of you first realized that you had a problem having a baby?

Claire: We went through a period of doubt. The exams showed nothing at first, and when we had them again, it was clear there was no big problem on Arthur’s side, and then, we found out I had endometriosis... Everything happened really quickly: the exams, and then, the operation. I had the surgery a few months later,

and then, we did 6 inseminations... No, we never really had the time to stop and think about the next step, and the doctor really took care of things. She understood really well that I didn't necessarily want to wait 6 months, a year... No, no, everything went really well, there wasn't any... you know... thinking at the time, one thing came after another really quickly.

Arthur: When the doctor started talking about artificial insemination, it seemed like something relatively simple. It wasn't like a real infertility problem... So, it went very progressively until ICSI, and we're still not talking about infertility... It's still not like a big problem. At least, that's how I feel.

Interviewer: What did you feel at the time when they mentioned ICSI?

Claire: Well, it's harder for Arthur to talk about this because I'm the one who all of this involves really. I'm the one going to the gynecologist. He's always kind of outside of all of this... But I don't find all of this hard to bear. When you want a child, and you have the right doctors with you, and things move along well, the hardest thing is waiting around and things not happening.

Arthur: When the doctor mentioned ICSI, for me, it wasn't a surprise. I was expecting it. There was no shock or really strong emotions.

At the prenatal stage, their LTP received a low family alliance score of 15 out of 25. In particular, they obtained low scores in the domain of coparenting coordination (score of 2). Claire and Arthur were nervous at the beginning of the play. Claire abruptly asked, "I start?" "Yes, it's you first," replied Arthur. Claire carried the "baby" in her arms, cradled her, and began to talk to her softly. It was a tender moment. However, she promptly stopped what she was doing and asked Arthur, "You want to participate?" He held the "baby's" foot but only for a very brief period of time. Both parents smiled at the "baby" but did not look at each other. Claire said to the "baby", "You're very sweet. You'll discover the world. You'll see; it's an extraordinary world. We'll be happy—all three." She then gave the "baby" to Arthur, who carried her in his arms and cradled her. He said to her in a very serious tone, "You're going to listen to dad now. It's really time for me to tell you the truth... you do not talk a lot, huh?" Arthur placed the "baby" back in her basket, and for a brief moment, they both touched the blanket and remarked that the "baby" was going to sleep. Very few prenatal intuitive coparenting behaviors were observed. During Part 4, they participated in lengthy discussions, but their interactions appeared to be somewhat forced.

When we met Claire and Arthur during the postnatal stage, they were the parents of Adrian, who was in good health. Their family alliance during the Postnatal LTP was assigned a very high score (21 out of 22). Arthur began playing with Adrian, who was focused on putting the seat belt in his mouth. He was not looking at his father. Arthur made several efforts to gain his attention and finally succeeded. Adrian raised his head and gave a nice smile to both his parents. Arthur kissed Adrian's hand, and this made him laugh very loudly. Claire affectionately echoed the interaction between Arthur and Adrian. Subsequently, she began playing with Adrian and kissed his feet and head. This made him laugh even more than he had before. During the third part, both the parents sang together. Adrian either

participated in the singing or looked elsewhere intermittently to self-regulate. Indeed, he was very stimulated by his parents. During Part 4, the parents were interacting with each other while Adrian played with a plastic bottle that his parents had given him. He looked at them intermittently.

Comment Prior to starting ICSI treatment, Claire and Arthur reported low levels of infertility-related stress. However, during the interview, we observed that they shared very few emotions about their experiences of infertility with each other. They appeared to have suppressed their negative emotions. This was especially true of Arthur, who wanted to move on with their lives. During the prenatal stage, they appeared to be tense, and it was difficult for them to be playful together. Arthur appeared to be critical of Claire, and he corrected what she had said to the “baby.” Specifically, Claire had said, “We live in an extraordinary world,” but Arthur said to the “baby,” “It’s time for me to tell you the truth.” During the postnatal stage, the atmosphere was significantly different. It was representative of a well-coordinated family, there was a lot of laughter, and they were able to interact with each other with ease.

Discussion and Conclusion

The first aim of our study was to examine the transition from infertility to parenthood by observing prenatal coparenting behaviors and postnatal family alliances of couples who were expecting a child as a result of successful ART treatment. As anticipated, we identified different family alliance trajectories with some parents showing a more functional family alliance in interactions with their 9-month-old and other families showing a less functional postpartum family alliance compared to their prenatal interactions. A third group of families in our sample remained consistently high in their coparenting capacity between interactions with a doll representing their baby and interactions with their actual 9-month-old baby.

Consistent with past findings involving families who conceived using ART (Cairo et al., 2012), the present results suggest that there is a certain level of discontinuity between the prenatal and postnatal stages for a majority of our participants. As studies with families who conceived naturally generally report continuity between the prenatal and postnatal family alliances (e.g., Altenburger et al. 2014; Favez et al. 2006), our findings suggest that the transition to coparenthood may be a different experience for couples who conceived through ART (Darwiche et al. 2015). Couples who faced infertility had to adapt to this unexpected interruption in their life course. Thus, becoming parents may be a more prolonged and qualitatively different process for them compared to couples who conceived spontaneously. The case of Christie and Paul (i.e., “average to low” family alliance trajectory) illustrates a trend whereby some couples may be very focused on their marital relationship because they need to support one another to a great extent during the entire process of infertility diagnosis and treatment. Their relationship may remain strong when

they are an expectant couple. However, they distance themselves from each other when they become parents. This finding concurs with another surprising finding that a decrease in family alliance from pregnancy to the 18th month after birth was predicted by very high levels of perceived marital satisfaction during the 5th month of pregnancy (Favez et al. 2006). Therefore, we hypothesize that a very strong marital relationship before and/or during pregnancy, which fosters a couple-centered dynamic, may eventually render the transition from being a couple to a family more fragile in families who conceived via ART (Favez et al. 2012).

In our case illustration of the “average to high” family alliance by Claire and Arthur, we observed that these expectant parents found it difficult to be spontaneous and playful during Prenatal LTP. However, they appeared to feel safer and more at ease with each other as a family during postnatal play. This pattern may be attributable to the fact that couples who have undergone ART treatment have to face a dual developmental task: from being a couple to a family and from infertility to parenthood (Ulrich et al. 2004). In addition, they experience high levels of pregnancy-related anxieties (Hjelmstedt et al. 2003). Therefore, we speculate that they may need more time to adjust to parenthood due to the more challenging transition they experience. Finally, some couples were able to maintain a positive dynamic at both observation points (e.g., Claudia and Simon, “high stable” family alliance trajectory). This suggests that the experience of infertility does not preclude some couples from experiencing a harmonious transition to parenthood. However, more research is needed to explore the protective factors that enable these couples to overcome the distress that is commonly associated with infertility and to develop positive family relationships.

The second aim of our study was to retroactively explore whether the emotional experiences associated with infertility and its treatment and marital satisfaction prior to conception via ART differ between and predict membership in the family alliance trajectory groups. We found that the three groups of couples did not differ in their pretreatment levels of narrative quality, infertility-related stress, and marital satisfaction. In addition, none of these variables predicted subsequent family alliance trajectories. This finding suggests that there was no systematic continuity in the well-being of couples when they coped with infertility, were expecting a baby, and achieved parenthood. The pursuit of meaning-making in response to a stressful event has been described as an adaptive response to stressful events and conditions such as chronic illnesses (Patterson and Garwick 1994). However, in the present study, the apparent distress in their accounts of their infertility experience and high levels of reported infertility-related stress were not associated with difficulties in the emerging coparenting relationship and subsequent family dynamics. Similarly, low levels of marital satisfaction before the commencement of the treatment also did not seem to adversely impact the coparenting relationship and family dynamics. However, examination of individual cases revealed that, during the infertility interview, some couples either minimized their emotions or were still shocked by the medical procedures that they had undergone. Therefore, our results suggest that couples’ responses to their infertility may be very individualized which might explain why, as a group, we did not find systematic relationships between couples’

pretreatment characteristics and their prenatal and postnatal family alliances. With respect to couples who conceived naturally, P. Cowan (1991) noted that it was partners' negative *interpretations* of the changes they experienced during the transition to parenthood which determined their decrease in marital satisfaction. Likewise, it is possible that in our study partners' unique interpretations of their infertility as well as of their subsequent conception and pregnancy may play a significant role in their adaptation during the transition to parenthood.

The strength of the present study is in its use of a multimethod and longitudinal research design. However, due to the small sample size of our study, the results we presented here must be replicated in other studies before they are generalized to a larger population. In particular, the discontinuity observed between the infertility stage and the pre- and postnatal periods might be due partly to the different methods we used at each assessment point. Indeed, the pretreatment measures assessed characteristics of the individual (i.e., infertility-related stress) or of the couple relationship (i.e., marital satisfaction), while the prenatal and postnatal measures assessed the coparenting alliance, a triadic construct.

Our findings offer a first step in documenting potential trajectories families may take from infertility to parenthood. Future studies should explore different pretreatment measures, perhaps including a triadic interaction task, or controlling for the type of methods used across different assessment points. Future empirical investigations should also use shorter measurement intervals (i.e., at each trimester of pregnancy and at key moments during the months following childbirth) to record finer details of the different trajectories families demonstrate during their transition from infertility to parenthood.

Research findings in this field can be used to refine the monitoring of pregnancies and births that result from ART treatment and inform counseling. In particular, it can help professionals to align themselves with infertile couples' specific expectations. Indeed, the emotional impact of pregnancies that result from ART treatments is often either ignored or couples' reactions to their pregnancy are considered to be similar to those of couples who conceived naturally. Therefore, couples who seek to have a baby through ART treatment may struggle to express their feelings or needs and may not receive the support they need. When a pregnancy occurs as a result of ART treatment, couples typically do not receive either psychological counselling or medical care that is designed to address their specific needs. In this regard, other authors have suggested that practice guidelines should be developed for those who work with couples who have undergone ART, especially because there is an increased risk for obstetric and perinatal complications during the resultant pregnancies (Pandey et al. 2012). Therefore, our findings may bridge the existing gaps in the empirical literature on infertility by delineating the diverse experiences of couples who seek to become parents through medically assisted procreation, to inform not only researchers but also healthcare professionals who work with couples who have undergone ART treatments.

Acknowledgments This work was supported by the Swiss National Science Foundation (Grant N° 32003B-111985).

References

- Altenburger, L. E., Schoppe-Sullivan, S., Lang, S. N., Bower, D. J., & Kamp Dush, C. M. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology, 28*, 495–504. <https://doi.org/10.1037/fam0000012>.
- Baor, L., & Soskolne, V. (2010). Mothers of IVF and spontaneously conceived twins: A comparison of prenatal maternal expectations, coping resources and maternal stress. *Human Reproduction, 25*, 1490–1496. <https://doi.org/10.1093/humrep/deq045>.
- Benyamini, Y., Gozlan, M., & Kokia, E. (2009). Women's and men's perceptions of infertility and their associations with psychological adjustment: A dyadic approach. *British Journal of Health Psychology, 14*, 1–16. <https://doi.org/10.1348/135910708X279288>.
- Boivin, J., & Schmidt, L. (2005). Infertility-related stress in men and women predicts treatment outcome 1 year later. *Fertility and Sterility, 83*, 1745–1752. <https://doi.org/10.1016/j.fertnstert.2004.12.039>.
- Cairo, S., Darwiche, J., Tissot, H., Favez, N., Germond, M., Guex, P., et al. (2012). Family interactions in IVF families: Change over the transition to parenthood. *Journal of Reproductive and Infant Psychology, 30*, 5–20. <https://doi.org/10.1080/02646838.2012.669830>.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The Prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*, 207–228. <https://doi.org/10.1002/imhj.20089>.
- Cumming, G. (2014). The New Statistics: Why and How. *Psychological Science, 25*, 7–29. <https://doi.org/10.1177/0956797613504966>
- Cowan, P. (1991). Individual and family life transitions: A proposal for a new definition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 3–30). Hillsdale: Lawrence Erlbaum Associates, Publishers.
- Crane, D. R., Allgood, S. M., Larson, J. H., & Griffin, W. (1990). Assessing marital quality with distressed and nondistressed couples: A comparison and equivalency table for three frequently used measures. *Journal of Marriage and the Family, 52*, 87–93. <https://doi.org/10.2307/352841>.
- Darwiche, J., Favez, N., Maillard, F., Germond, M., Guex, P., Despland, J.-N., & de Roten, Y. (2013). Couples' resolution of an infertility diagnosis before undergoing in vitro fertilization. *Swiss Journal of Psychology, 72*, 91–102. <https://doi.org/10.1024/1421-0185/a000102>.
- Darwiche, J., Favez, N., Simonelli, A., Antonietti, J. P., & Frascarolo, F. (2015). Prenatal coparenting alliance and marital satisfaction when pregnancy occurs after assisted reproductive technologies or spontaneously. *Family Relations, 64*, 534–546. <https://doi.org/10.1111/fare.12131>.
- Darwiche, J., Fivaz-Depeursinge, E., & Corboz-Warnery, A. (2016). Prenatal intuitive coparenting behaviors. *Frontiers in Psychology, 7*, 1662. <https://doi.org/10.3389/fpsyg.2016.01662>.
- Datta, J., Palmer, M. J., Tanton, C., Gibson, L. J., Jones, K. G., Maccowall, W., et al. (2016). Prevalence of infertility and help seeking among 15 000 women and men. *Human Reproduction, 31*, 2108–2118. <https://doi.org/10.1093/humrep/dew123>.
- Favez, N., Frascarolo, F., & Fivaz-Depeursinge, E. (2006). Family alliance stability and change from pregnancy to toddlerhood and marital correlates. *Swiss Journal of Psychology, 65*, 213–220. <https://doi.org/10.1024/1421-0185.65.4.213>.
- Favez, N., Lavanchy Scaiola, C. L., Tissot, H., Darwiche, J., & Frascarolo, F. (2011). The family alliance assessment scales: Steps toward validity and reliability of an observational assessment tool for early family interactions. *Journal of Child and Family Studies, 20*, 23–37. <https://doi.org/10.1007/s10826-010-9374-7>.
- Favez, N., Lopes, F., Bernard, M., Frascarolo, F., Lavanchy Scaiola, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2012). The development of family alliance from pregnancy to toddlerhood and child outcomes at 5 years. *Family Process, 51*, 542–556. <https://doi.org/10.1111/j.1545-5300.2012.01419.x>.
- Fiese, B. H., Sameroff, A. J., Grotevant, H. D., Wamboldt, F. S., Dickstein, S., & Fravel, D. L. (1999). *The stories that families tell: Narrative coherence, narrative interaction, and*

- relationship beliefs* (Monographs of the Society for Research in Child Development, 64 (serial N° 257)). Malden: Blackwell Publishers.
- Fisher, J. R., Hammarberg, K., & Baker, G. H. (2007). Antenatal mood and fetal attachment after assisted conception. *Fertility & Sterility*, 89, 1103–1112. <https://doi.org/10.1016/j.fertnstert.2007.05.22>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers, and infants*. New York: Basic Books.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (2010). Observational tool: The Pre- natal Lausanne Trilogue Play. In S. Tyano, M. K. Head, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health: A bridge between infant and adult psychiatry* (pp. 121–127). New York: Wiley. <https://doi.org/10.1002/9780470660683>.
- Frederiksen, Y., Farver-Vestergaard, I., Skovgård, N. G., Ingerslev, H. J., & Zachariae, R. (2015). Efficacy of psychosocial interventions for psychological and pregnancy outcomes in infertile women and men: A systematic review and meta-analysis. *BMJ Open*, 5, e006592. <https://doi.org/10.1136/bmjopen-2014-006592>.
- Gana, K., & Jakubowska, S. (2016). Relationship between infertility-related stress and emotional distress and marital satisfaction. *Journal of Health Psychology*, 21, 1043–1054. <https://doi.org/10.1177/1359105314544990>.
- Gourounti, K. (2016). Psychological stress and adjustment in pregnancy following assisted reproductive technology and spontaneous conception: A systematic review. *Women & Health*, 56, 98–118. <https://doi.org/10.1080/03630242.2015.1074642>.
- Greil, A. L., Slauson-Blevins, K., McQuillan, J., Lowry, M. H., Burch, A. R., & Shreffler, K. M. (2018). Relationship satisfaction among infertile couples: Implications of gender and self-identification. *Journal of Family Issues*, 39, 1304–1325. <https://doi.org/10.1177/2F0192513X17699027>.
- HaCohen, N., Amir, D., & Wiseman, H. (2018). Women's narratives of crisis and change: Transitioning from infertility to pregnancy. *Journal of Health Psychology*, 23, 720–730. <https://doi.org/10.1177/1359105316652465>.
- Hjelmstedt, A., Widström, A.-M., Wramsby, H., & Collins, A. (2003). Patterns of emotional responses to pregnancy, experience of pregnancy and attitudes to parenthood among IVF couples: A longitudinal study. *Journal of Psychosomatic Obstetrics and Gynecology*, 24, 153–162. <https://doi.org/10.3109/01674820309030669>.
- Hjelmstedt, A., Widström, A.-M., & Collins, A. (2006). Psychological correlates of pre- natal attachment in women who conceived after in vitro fertilization and women who conceived naturally. *Birth*, 33, 303–310. <https://doi.org/10.1111/j.1523-536X.2006.00123.x>.
- Kluwer, E. S. (2010). From partnership to parenthood: A review of marital change across the transition to parenthood. *Journal of Family Theory & Review*, 2, 105–125. <https://doi.org/10.1111/j.1756-2589.2010.00045.x>.
- Marvin, R. S., & Pianta, R. C. (1996). Mothers' reactions to their child's diagnosis: Relations with security of attachment. *Journal of Clinical Child Psychology*, 25, 436–445. https://doi.org/10.1207/s15374424jccp2504_8.
- Milligan, G. W., & Cooper, M. C. (1985). An examination of procedures for determining the number of clusters in a data set. *Psychometrika*, 50(2), 159–179. <https://doi.org/10.1007/BF02294245>.
- Monti, F., Agostini, F., Fagandini, P., Paterlini, M., La Sala, G. B., & Blickstein, I. (2008). Anxiety symptoms during late pregnancy and early parenthood following assisted reproductive technology. *Journal of Perinatal Medicine*, 36, 425–432. <https://doi.org/10.1515/JPM.2008.0741>.
- Newton, C. R., Sherrard, W., & Glavac, I. (1999). The fertility problem inventory: Measuring perceived infertility-related stress. *Fertility and Sterility*, 72, 54–62. [https://doi.org/10.1016/S0015-0282\(99\)00164-8](https://doi.org/10.1016/S0015-0282(99)00164-8).
- Nicoloro-Santa Barbara, J., Busso, C., Moyer, A., & Lobel, M. (2018). Just relax and you'll get pregnant? Meta-analysis examining women's emotional distress and the outcome of assisted reproductive technology. *Social Science & Medicine*. <https://doi.org/10.1016/j.socscimed.2018.06.033>.

- Pandey, S., Shetty, A., Hamilton, M., Bhattacharya, S., & Maheshwari, A. (2012). Obstetric and perinatal outcomes in singleton pregnancies resulting from IVF/ICSI: A systematic review and meta-analysis. *Human Reproduction Update*, *18*, 485–503. <https://doi.org/10.1093/humupd/dms018>.
- Patterson, J. M., & Garwick, A. W. (1994). The impact of chronic illness on families: A family systems perspective. *Annals of Behavioral Medicine*, *16*, 131–142. <https://doi.org/10.1093/abm/16.2.131>.
- Pianta, R. C., & Marvin, R. S. (1993). *Manual for classification of the reaction to diagnosis interview*. Unpublished material, University of Virginia, Charlottesville.
- Raguz, N., McDonald, S. W., Metcalfe, A., O'Quinn, C., & Tough, S. C. (2014). Mental health outcomes of mothers who conceived using fertility treatment. *Reproductive Health*, *11*, 19. <https://doi.org/10.1186/1742-4755-11-19>.
- Ratkowsky, D. A., & Lance, G. N. (1978). A criterion for determining the number of groups in a classification. *Australian Computer Journal*, *10*(3), 115–117.
- Ross, L. E., & McLean, L. M. (2006). Anxiety disorders during pregnancy and the postpartum period: A systematic review. *The Journal of Clinical Psychiatry*. <https://doi.org/10.4088/JCP.v67n0818>.
- Schmidt, L., Holstein, B., Christensen, U., & Boivin, J. (2005). Does infertility cause marital benefit? An epidemiological study of 2,250 women and men in fertility treatment. *Patient Education and Counseling*, *59*, 244–251. <https://doi.org/10.1016/j.pec.2005.07.015>.
- Spanier, G. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, *38*, 15–28. <https://doi.org/10.2307/350547>.
- Sydsjö, G., Wadsby, M., Kjellberg, S., & Sydsjö, A. (2002). Relationships and parenthood in couples after assisted reproduction and in spontaneous primiparous couples: A prospective long-term follow-up study. *Human Reproduction*, *17*, 3242–3250. <https://doi.org/10.1093/humrep/17.12.3242>.
- Ulrich, D., Gagel, D. E., Hemmerling, A., Pastor, V.-S., & Kentenich, H. (2004). Couples becoming parents: Something special after IVF? *Journal of Psychosomatic Obstetrics and Gynecology*, *25*, 99–113. <https://doi.org/10.1080/17402520400004599>.
- Vänskä, M., Punamäki, R. L., Tolvanen, A., Lindblom, J., Flykt, M., Unkila-Kallio, L., et al. (2017). Paternal mental health trajectory classes and early fathering experiences: Prospective study on a normative and formerly infertile sample. *International Journal of Behavioral Development*, *41*, 570–580. <https://doi.org/10.1177/0165025416654301>.
- Verhaak, C. M., Smeenk, J. M. J., Van Minnen, A., Kremer, J. A. M., & Kraaijmaat, F. W. (2005). A longitudinal, prospective study on emotional adjustment before, during and after consecutive fertility treatment cycles. *Human Reproduction*, *20*, 2253–2260. <https://doi.org/10.1093/humrep/dei015>.
- Ward, J. H. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*, 236–244.

Chapter 8

Attachment Matching and Coparental Interactions in Same-Sex and Different-Sex Couples Planning Parenthood



Marina Miscioscia, Pietro De Carli, Chiara Sacchi, Fiona Tasker,
and Alessandra Simonelli

Introduction

Becoming a parent represents a major life transition that, even when desired and appropriately planned, usually involves complex changes. As Pape Cowan and Cowan (1992) said, “The transition to parenthood constitutes a period of stressful and sometimes maladaptive change for a significant proportion of new parents” (p. 412). The stress future parents may experience refers to “both the expected and unexpected strains involved in the bearing and rearing of children” (Kline et al. 1991 p. 287). The transition to parenthood obliges future parents to make constant adjustments both at the individual (Delmore-Ko et al. 2000) and the dyadic level (i.e., parental unit) (Lawrence et al. 2008; McHale and Irace 2011; Simonelli et al. 2012). The experiences linked to the transition of parenthood vary from couple to couple and from individual to individual (Delmore-Ko et al. 2000). Individuals who are more “cognitively ready” to become parents have been found to experience lower levels of stress and to adapt better in their parenting style (Sommer et al. 1993 p. 389).

More than three decades ago, Jay Belsky (1984) developed a process model called “the determinant of parenting” which describes multiple factors involved in the parenting role. For Belsky, parenting is directly influenced by three general

M. Miscioscia (✉)

Department of Women’s and Children’s Health, University of Padua, Padua, Italy

Department of Developmental and Social Psychology, University of Padua, Padua, Italy

e-mail: marina.miscioscia@unipd.it

P. De Carli · C. Sacchi · A. Simonelli

Department of Developmental and Social Psychology, University of Padua,
Padua, Italy

F. Tasker

Department of Psychological Sciences, Birkbeck University of London, London, UK

sources of influence: characteristics of parents' personality, children's characteristics (e.g., their development), and the broader social context in which parent-child relationships are embedded. Part of this social context involves the marital and coparental relationships but also social networks that can offer support to new parents as well as parents' professional experiences (Belsky and Jaffee 2006). Belsky theorized that parents' psychological status is in part the result of their developmental histories and influences marital relations, social network functioning, and experiences at work. Parental personality shapes parenting indirectly, as well as directly, by first influencing the broader context in which parent-child relations exist. The etiological perspective underscores the importance of parents' own developmental histories, especially their experiences of being parented as children themselves, in conceptualizing why parents parent the way they do (Belsky and Jaffee 2006; De Carli et al. 2017); attachment studies have been profoundly influenced by this kind of thinking, an issue we will turn to in the next section.

Some researchers suggest that possible factors that may affect future parenting and parent-child attachment relationships are parents' intentions and expectations regarding their future parental role (Vertsberger and Knafo-Noam 2019). Before birth, future parents start to imagine and create representations about the positive and negative affect they will show toward their child (i.e., warmth, acceptance, aggressiveness, and neglect) (Abramson et al. 2014).

Couples' expectations are very important in predicting how future parents will adjust to these changes. Studies have suggested that there is an association between individuals' expectations concerning parenthood and how successfully they negotiate the transition; unrealistic expectations on some aspects of parenthood can harm adjustment (Belsky 1985) and vice versa; those having balanced representations in pregnancy ultimately display higher levels of parent-child interactions and child outcomes (Ammaniti et al. 2013; Korja et al. 2010). A recent meta-analysis by Foley and Hughes (2018) revealed that prenatal thoughts and feelings (assessed with both questionnaires and interviews) showed a modest, but significant, association with observed postnatal ratings of parent-child interaction quality. Individuals' personhood, psychodynamics, and belief systems do affect family members' actions within the family group, actions that themselves over time come to be regularized as recurring patterns of interaction (McHale et al. 2004).

Within family subsystems, the coparenting relationship, which refers to "the ways that parents and/or parental figures relate to each other in the role of parent" (Feinberg 2003 p. 96), is commonly assumed to begin to emerge during the transition to parenthood, in the prenatal period (Shapiro et al. 1995). However, in our opinion, it starts even before the couple conceives the child when parents are planning pregnancy; expectant parents imagine themselves and their partners in their relationship with the baby. The assumption is that the family is an already created concept in couples' minds even before a real family is formed (Miscioscia et al. 2017). Parenthood representations are linked to individuals' expectations regarding both their own future role as parent and their partners' parental role.

Many researchers have focused on the coparenting subsystem and related family process (e.g., Frascarolo et al. 2012; Tissot et al. 2019) and their influence on child

adjustment (Favez et al. 2012; Favez et al. 2019; McHale 2007; Schoppe et al. 2001; Teubert and Pinquart 2010). Researchers have generally recognized the importance of studying coparenting from the beginning of its formation, during the prenatal period, or even prior to conception. There is evidence that parents' expectations concerning their future family processes, combined with their prenatal marital quality, set the stage for coparental cohesion observed in the three-person family interaction at 3 months postpartum (McHale et al. 2004). In their longitudinal study with a community sample of families, Schoppe-Sullivan and colleagues (Schoppe-Sullivan et al. 2004) assessed both coparenting and marital behaviors when children were 6 months and 3 years of age, to show that the quality of parenting alliances tends to be stable over the first 3 years of parenthood. In line with other studies (Fivaz-Depeursinge et al. 1996; Gable et al. 1995; Van Egeren 2003), these researchers found evidence for modest to moderate stability in coparenting behaviors across this 2.5-year phase, which spanned developmental periods from infancy to the pre-school years.

All of these studies recognized the role of couples' adjustment quality (or marital quality) within family processes during the transition to parenthood. Prior to the birth of couples' first child, the primary task for couples is to establish themselves as a dyad (Bouchard 2014). The intimate relationship with the partner represents the most critical proximal context, and many studies have shown that parenthood typically lowers couple satisfaction (Huston and Holmes 2004). During the transition to parenthood, partners undergo an intense transformation, differentiating their relationship into two subsystems: the marital or romantic subsystem and the coparenting one (Carneiro et al. 2006; Schoppe-Sullivan et al. 2004; Simonelli et al. 2012). Early psychological studies of marriage focused on identifying patterns of spousal behaviors that might predict marital outcomes (Flanagan et al. 2002). A satisfying marital relationship is crucial to a family's health and marks effective parenting, both directly and indirectly (Kargar Jahromi et al. 2014).

In this chapter, we present a study that focuses on a particularly early step in the transition to parenthood: the moment in which partners start to plan their pregnancies. Specifically, our study aims to contribute to the understanding of the determinants of coparenting in a triadic interactive system prior to conception. We explore the role of partners' attachment security in their coordination of pre-conception coparenting behaviors while they interact with a doll representing their future child. While previous research has consistently identified attachment security as a protective factor for adaptive parent-child relationships at the dyadic level, little is known about the role of couples' attachment style matching in their triadic interactions prior to and during pregnancy.

In general, mental representations are considered important predictors of behaviors. However, partners' pregnancy intentions, one important aspect of their representations of future family life, and the role they play in their future coparenting behaviors have rarely been studied and, to our knowledge, have never been studied in connection with partners' attachment. As others have observed, parents' expectations and representations regarding their behaviors toward their children may be important predictors of their actual behaviors (Vertsberger and Knafo-Noam 2019).

Along with that, dyadic adjustment within a conjugal couple is another important characteristic associated with early coparental functioning (Simonelli et al. 2016). In this study we addressed the possibility that the dyadic adjustment of the conjugal couple might interact with partners' attachment similarity in affecting coparenting behavior.

A second major focus in our chapter is on comparing coparenting behaviors in same-sex versus heterosexual couples. Coparenting, dyadic adjustment, and the transition to parenthood have been found to be both similar and different for same-sex compared to different-sex couples, as we will discuss in the next section. As coparenting before and during pregnancy has not been explored much in same-sex couples (Miscioscia et al. 2013), our study included observations of this underrepresented group. Specifically, we observed coparenting behaviors in three groups of couples prior to conception: two groups with same-sex couples (lesbian and gay individuals) and one group with couples composed of heterosexual individuals.

Transition to Parenthood for Same-Sex Couples

Over the past 50 years, significant medical progress in addition to cultural changes has allowed couples of the same sex to experience parenthood (Patterson 1992). Different options are available to same-sex couples such as assisted medical procreation, surrogacy, adoption, and elective coparenthood, which refers to granting an individual a formal or informal relationship as additional parental figures to the child, perhaps in conjunction with self-insemination (Jadva et al. 2015).

A consistent body of research on the transition and access to parenthood for lesbian and gay couples has accumulated in the past couple of decades outlining multiple identity challenges for LGBT parents (Cao et al. 2016). Of note is that these studies have found no differences in terms of psychosocial adaptation between children raised by same-sex versus different-sex sets of parents (for a review, see Goldberg 2010). The initial debate on whether LGB parents are as "good as" traditional heterosexual parents has shifted to the possibility that some LGB parents may be better, on average, than heterosexual parents (Biblarz and Stacey 2010). Herek et al. (2009) describe *heterosexism* like an ideological system that denies, denigrates, and stigmatizes any nonheterosexual form of behavior, identity, relationship, or community (Baiocco and Laghi 2013). Despite the sheer number of studies that have confirmed LGB parenting skills (Goldberg et al. 2011; Patterson 2009), and adaptive psychosocial developmental outcomes for children of same-sex parents (Tasker 2013), these homonegative attitudes remain (Baiocco et al. 2020; Webb et al. 2019) and affect the functioning of LGB families. The legal climate and internalized homophobia can influence changes in mental health among new gay or lesbian parents (Goldberg and Smith 2011; Herek and Garnets 2007).

Past studies have identified a series of challenges for same-sex parents (D'Amore et al. 2013; D'Amore and Baiocco 2014). As Ritenhouse (2011) explained, LGB parents may have to face social stigma or legal biases concerning their suitability as

parents or simply be unrecognized as parents because of heteronormativity (the social bias assuming that everyone is heterosexual). Same-sex couples may have to work hard to achieve social acceptance: same-sex couples encounter challenges in gaining validation and support from families of origin and the mainstream community and have to justify their chosen family and their partner as family member in front of others (Green and Mitchell 2008). Becoming a parent involves more difficulties and challenges for gay or lesbian couples than it does for heterosexual couples, as same-sex couples experience pressures and prejudice from the social context in which they enter parenthood often in the absence of support from their families of origin (Chabot and Ames 2004; Ross 2005). Furthermore, these parents need to overcome legal and other costs related to surrogacy and other assisted reproductive technologies (ARTs) that need a level of organization and financial commitment that are generally not required for heterosexual parents (D'Amore and Baiocco 2014).

Using nationally representative data, Riskind and Patterson (2010) studied parenting intentions and desires in a sample of childless lesbian, gay, and heterosexual Americans. The authors found that 37% of childless lesbian participants expressed a desire for children, compared to 68% of heterosexual females. Conversely, 54% of childless gay men participants expressed a desire for children compared to 67% of heterosexual men (Baiocco and Laghi 2013). Among gay or lesbian couples, only one parent at most has a genetic link to their child (Goldberg and Smith 2008), and the nonbiological parent may feel a lack of recognition as a parent (Cherguit et al. 2013). Gay men have long been stereotyped as uninterested in children and parenting (Carone et al. 2018; Mallon 2004); they seem to challenge gendered parenthood expectations more so than lesbian mothers (Stacey 2006) and are judged more harshly because they are perceived as violating traditional gender roles linked to hegemonic models of masculinity (Wells 2011). Heterosexual men and women hold more negative attitudes toward gay fathers than toward lesbian mothers (Carneiro et al. 2017).

Cultural changes suggest that more LGB individuals may pursue parenthood in the future (Baiocco and Laghi 2013; Goldberg et al. 2012; Riskind and Patterson 2010) and that many LGB parents accomplish parenthood through adoption (Gianino 2008; Ryan and Whitlock 2007) or having children through previous heterosexual relationships (Tasker 2013). Lewin's (1993) study of 73 lesbian mothers and 62 heterosexual mothers found that both groups explained their desire to be a parent based on psychologically oriented reasons, such as the belief that parenthood is an important part of personal development, as well as on gender-related reasons, such as the belief that motherhood enables one to achieve the status of a complete woman (Goldberg 2012).

Studies have shown that even when desired and planned, the transition to parenthood implies increased stressors for same-sex and different-sex couples (Elek et al. 2002; Medina et al. 2009). After becoming parents, couples report decreases in their sexual activity and couple satisfaction (Foux 2008; Gianino 2008); partners have to balance domestic and other priorities, face the challenge of dealing with crying infants (Meijer and van den Wittenboer 2007), and experience the transformation of their own identities (Gianino 2008; Goldberg and Perry-Jenkins 2007). Of note is

that a decline in relationship satisfaction and mental health problems, such as postpartum depression, are as common for lesbian mothers as they are for heterosexual mothers (Goldberg and Sayer 2006; Goldberg and Smith 2008). Some LGB parents may also experience rejection by the broader LGB community, who view parenting as a “sellout” to traditional (heteronormative) family models (Gianino 2008). Lesbians and gay men become parents in a societal context that stigmatizes them for their sexuality, and when they become parents, they often find that their parenting is under scrutiny, which may further contribute to their stress and anxiety (Goldberg and Smith 2014). On the other hand, social support from friends and the LGBT community lowers parenting stress for LGB parents (Titlestad and Robinson 2019; Tornello et al. 2011).

Italian law does not yet permit the legal rights for child custody for gay and lesbian nongenetic parents. In Italy, the absence of legislative protection for the rights of LGB nongenetic parents means that these parents may feel that they constantly have to prove their parenting abilities (Lingiardi and Carone 2016). Despite these challenges for same-sex couples in Italy, Carone et al. (2017) reported low levels of conflict between same-sex partners who became parents together.

Titlestad and Robinson (2019) described several positive characteristics of same-sex parenting, including negotiating a coparenting relationship in the absence of socially prescribed roles, by shared, collaborative parenting. In fact, the literature consistently confirms that same-sex couples establish tasks and organize the division of labor in a more egalitarian manner (Gotta et al. 2011; Kurdek 2006; Patterson et al. 2004), in contrast to heterosexual couples who report role specialization (Goldberg 2010). Overall, mothers tend to be more involved in and skilled at child-care than fathers (Stacey and Biblarz 2001). Patterson (1995) revealed differences in relationship satisfaction among lesbian couples, between biological and nonbiological mothers. Nonbiological mothers in lesbian couples engaged in the same quantity of involvement with children than did their partners, but biological mothers spent more time in the real child caregiving, whereas nonbiological mothers proportionately spent more time in activities and playtime. Considering the division of labor, gay fathers tended to divide household and child-rearing responsibilities equally; the greater the equality, the more satisfaction gay fathers indicated in their relationship (Tornello et al. 2015). Gay men who became parents through surrogacy reported overall high levels of relationship quality and well-being comparable to those of lesbian mothers who conceived through donor insemination and heterosexual parents who conceived through IVF (Van Rijn-van Gelderen et al. 2018). But notwithstanding their differences, same-sex and different-sex couples have been shown to report similar degrees of satisfaction with their relationship and with parenthood (Johnson and O’Connor 2002; Patterson 2005; Tasker and Golombok 1998).

In sum, past studies have identified many commonalities as well as important differences in lesbian and gay parents’ coparenting and parenting experiences during and after the transition to parenthood compared to heterosexual couples. However, few studies directly observed same-sex couples’ coparenting behaviors during or before pregnancy to explore factors that might help them to navigate this major life transition. One as of yet unexplored factor is partners’ attachment style.

The Role of Attachment Style in Couples' Romantic Relationship

Just as important as partners' own developmental histories in the construction of their romantic relationship is their relational past which shapes their attachment models. A secure attachment strategy is based on a model of an available and responsive attachment figure and is associated with active and flexible coordination of attachment behavior (Bowlby 1969). A defensive strategy, which is based on a model of an unavailable attachment figure, forms a second continuum ranging from deactivation to hyperactivation of the attachment system. The deactivating strategy is used to actively divert attention from attachment cues and minimizes distress cues, while the hyperactivating strategy is used to monitor the attachment figure and maximizes distress cues continually. Shaver and Hazan (1987) applied attachment theory to romantic love, demonstrating that secure adult attachment is associated with intimacy, support, and caring experiences, while avoidant attachment is related to fear of intimacy. Anxious-ambivalent attachment in adults is associated with emotional instability and obsessive preoccupation.

Individual differences in terms of attachment style affect how individuals relate to each other, starting with their choice of partners. Different hypotheses have been proposed regarding the impact of attachment style on partner choice. Many studies report that partner choice confirms individuals' perceptions of self and others and justifies the repetition of their relational models (Bartholomew 1990; De Carli et al. 2018). In this sense, individuals with secure attachment models would choose partners with equally secure models (Collins and Read 1990; Feeney 1994), while insecurely attached individuals would choose partners with a complementary style of insecure attachments (Collins and Read 1990). This means that individuals with avoidant attachment styles would be more likely to choose partners with a complementary anxious-ambivalent attachment style in order to balance the relationship.

Even though this notion of complementarity in partners' insecure attachment styles has been generally accepted, some studies show that the criteria of partner choice are based on the similarity of attachment styles. Anxious individuals would tend to mate with other anxious individuals, while avoidant individuals would be attracted to others with equally avoidant attachment styles (Frazier et al. 1996). While there may be debate regarding complementary versus similarity of different insecure attachment patterns between partners, researchers agree that individuals with secure attachment orientations tend to choose other secure people, while individuals with insecure attachment orientations tend to choose partners with insecure attachment orientations, thus underscoring the importance of individuals' representations in their partner choices (Simonelli and Bastianoni 2001). A third hypothesis supported by the literature foresees that all individuals, regardless of their attachment style, tend to choose secure partners, in order to assure better opportunities to create a secure bond (Chappell and Davis 1998).

Le Poire et al. (1999) propose a conceptualization based on the fears that individuals with different attachment styles experience, which predispose how they

handle intimate relationships. The researchers propose that a combination of limited fear of intimacy and limited fear of abandonment favors secure attachment bonds in adult relationships. In contrast, strong fears of abandonment would lead to excessive concerns about relationships and excessive dependence on them. Finally, strong fears of intimacy would favor devaluing intimate relationships and promote avoidance of them (Le Poire et al. 1999).

Le Poire and colleagues' claims are supported by empirical data that shows that partners' secure attachment orientations are associated with better relational outcomes compared to insecure ones. Specifically, security of attachment is associated with higher levels of relational satisfaction and a greater willingness to listen sensitively to the partner (Cassidy et al. 2013). In contrast, an insecure style is associated with higher levels of conflict and discomfort with intimacy in the relationship (Treboux et al. 2004).

The search for security in the relationship with a partner is the primary function of attachment. Specifically, attachment relationships imply the search for and maintenance of proximity/closeness and resistance to separation, with the attachment figure being used as a secure base for exploration and for a safe haven in times of threat (Carli et al. 2009). Weiss (1986) argues that these typical features of attachment bonds are present in long-lasting love relationships (Carli et al. 2009).

Hazan and Shaver (1994) propose that the motivational system responsible for the child-caregiver bond is akin to that of a romantic relationship between two adults. They suggest that just like the parent-child attachment bond, romantic attachments evolve via the pursuit of physical proximity with the partner and reliance on the partner who becomes a secure base. Heffernan et al. (2012) report that in the initial phase of romantic relationships, the search for proximity was the prevailing characteristic of the bond, followed by the safe haven and the secure base.

Recently Simpson and Rholes (2017) proposed a conception of the couple's well-being based on the diathesis-stress process model. According to this conceptualization, insecurity in attachment is a diathesis that, if associated with certain types of stressful events, generates maladaptive responses that compromise individual and couple well-being. This implies, for example, that people with avoidant attachments are not always distancing and unsupportive in intimate relationships; their attachment behavior would be encouraged only by particular stressors, such as the pressure to give or receive support, to accentuate intimacy, or to express their own emotional experiences (Simpson and Rholes 2017). Likewise, anxious individuals are demanding, cling to each other, and inclined to use dysfunctional conflict resolution tactics only in the presence of stressful events that trigger their internal operating models, such as events that threaten relational stability (Simpson and Rholes 2017). The authors also stress that insecure people are less inclined to think, feel, and behave in line with their dysfunctional patterns if they perceive the partner as engaged in the relationship; the activation of attachment behaviors, dysfunctional or adaptive, therefore also depends on the behavior of the partner and on how intentions are inflected.

Individuals with secure attachments do not have particularly rigid and defensive mind-sets and, when partnered with another securely attached individual, will likely

experience a couple relationship characterized by flexibility and emotional interdependence that results in acceptable levels of dyadic satisfaction (Carli et al. 2009). If a securely attached individual was partnered with an insecurely attached individual, this attachment dissimilarity might provide a corrective experience for the insecure partner and increase chances for positive marital adaptation. In contrast, the insecure/insecure dissimilar couple is characterized by strong dissatisfaction, conflict, and difficulty but may also – paradoxically – be characterized by various degrees of dyadic adaptation. The reason for these counterintuitive consequences of two insecure partners' adaption is that homologous attachment models do not require partners to face, systematically, relational methods that activate their defensive systems (Carli et al. 2009). As Banse (2004) points out, some effects of insecurity in an attachment are partly offset by positive effects resulting from particular combinations of attachment styles. For example, the distancing/distancing couple can be dysregulated as far as the emotional climate in their relationship is concerned, but their autonomy and reciprocal independence maintain their dyadic satisfaction. However, the worried/worried match is characterized by a high degree of emotional demands, in which both partners try to saturate their need for closeness. The worried/distancing partnership is the one most at risk of developing high levels of couple dissatisfaction, as one partner obsessively requires care and the other denies the importance of this need, feeding dysfunctional relational patterns that often lead these couples to require therapeutic intervention (Carli et al. 2009). Thus, the attachment relationship between partners may constitute a possible risk or a protective factor, affecting how well the couple adjusts to significant life transitions such as parenthood.

The Present Study

In the study we describe in this chapter, our first goal is to explore whether overall adult attachment security and similarities in partners' adult attachment styles within their couple relationship ensure better quality intuitive coparenting prior to pregnancy. Two characteristics of adults' attachment style are considered in this study: (1) the couple's average level of security based on the sum of each partner's attachment and (2) the difference between partners' attachment security.

Our second goal in this chapter is to compare coparental interactions observed during the decision process to parenthood (i.e., when partners express the intention and desire to be or to become parents) in groups of couples who differ in their sexual orientations. Specifically, we observed a cross-national sample composed of Italian and Belgian couples divided into three groups: heterosexual, lesbian, and gay couples. As previous research has not yet explored coparenting prior to birth with respect to partners' sexual orientation, we were interested in comparing couples' pre-conception coparenting alliances, attachment security, and attachment matching across the three groups of couples.

Methods

Participants

One hundred and eleven unmarried lesbian, gay, and heterosexual couples from Belgium ($N = 62$) and Italy ($N = 49$) were recruited, resulting in a total of 222 participants (64 gays, mean age = 29.05, $SD = 7.22$; 62 lesbians, mean age = 25.98, $SD = 5.15$; 96 heterosexuals, mean age = 25.00, $SD = 4.08$). The three groups of participants differed significantly in age ($F(2,108) = 4.95$, $p = 0.01$); on average, gays were older than lesbians ($t(114) = 2.75$, $p = 0.010$, 95%CI [0.85;5.27], Bonferroni corrected) and heterosexuals ($t(89.95) = 4.07$, $p < 0.001$, 95%CI [2.07;6.02], Bonferroni corrected). Participants were recruited by each collection site as follows: in Belgium, we recruited 16 gay, 19 lesbian, and 27 heterosexual couples; in Italy, we recruited 16 gay, 12 lesbian, and 21 heterosexual couples. Inclusion criteria were (i) a minimum duration of the couple relationship of 1 year (in order to ensure the stability of the couple); (ii) no previous marriages; (iii) no current children in the couple or prior children from previous partnerships; and (iv) both partners' support of the idea of becoming parents in the near future. Participants were recruited in Northern Italy and Liège County in Belgium through Web-posted advertisements and through activist associations; prospective participants who contacted the researchers to express their interest in participating in the study were then invited to the respective laboratories in each country for the assessment.

Procedures¹

After signing consent forms, participants were observed during the Prenatal Lausanne Trilogue Play (PLTP; Carneiro et al. 2006) and completed a set of questionnaires on psychological well-being (i.e., attachment), relationship, and sociodemographic characteristics. Using the standard PLTP role-play procedure, couples were invited by a facilitator to interact with a doll representing their baby, for an average time of 5 min (Carneiro et al. 2006; see Chap. 3 for details).

Measures

Lausanne Trilogue Play Prenatal Coparenting Alliance Scale The pre-conception coparenting alliance in couples was assessed using Carneiro et al.'s (2006) coding system for the PLTP, which consists of five scales ranging from 1 to

¹Ethics committee of "Faculté de Psychologie, Logopédie et Sciences de l'Éducation" University of Liege. Project accepted the 10/31/2013.

5 on a Likert scale: (1) coparent playfulness, (2) structure of the play, (3) intuitive parenting behaviors, (4) couple cooperation scale, and (5) family warmth. Scores on the five scales were added to obtain a total score for couples' pre-conception coparenting alliances ranging from 5 to 25 with higher scores signifying better quality pre-conception coparenting alliances.

Security in Adult Attachment Each partner's level of attachment security was measured by the Attachment Style Questionnaire (ASQ; Feeney et al. 1994). The ASQ has 40 items partitioned into 5 dimensions: confidence, discomfort with closeness, need for approval, preoccupation with relationships, and relationships as secondary. ASQ items are rated on a 6-point scale ranging from 1 (totally disagree) to 6 (totally agree). Prior research has supported the use of the ASQ to tap into both broad attachment dimensions (anxiety and avoidance) and the five-facet attachment styles initially identified by Feeney et al. (1994) (Karantzas et al. 2010). The relationship anxiety dimension consisted of 15 items (from the *need for approval* and *preoccupation with relationships* subscales; possible range = 15–90), whereas the avoidance dimension comprised 25 items (from the *discomfort with closeness*, *relationships as secondary*, and [low] *confidence* subscales; possible range = 31–94). In this study, we focused on the variable of *confidence* as a measure of attachment security of the participants, independently of their anxiety and avoidance scores. In order to operationalize the variables aimed at measuring the levels of attachment matching within each couple, we combined each partner's *confidence* scores within the couple, as described below in our Plan of Analysis section.

Couple Satisfaction Couple satisfaction was assessed for each participant using the Dyadic Adjustment Scale (DAS; Spanier 1976). The Italian version of the DAS originally translated and validated by Gentili et al. (2002) and the French version validated by Vandeleur et al. (2003) were used. The 32 items of the DAS assessed several aspects of the couple's life, such as the frequency and intensity of disagreements and/or agreements on the marital emotions, actions, and activities. The total score across all responses ranged between 0 and 151, with higher scores reflecting partners' higher satisfaction with the couple relationship. Scores for each partner were averaged to compute one couple score measuring couple satisfaction.

Plan of Analyses

Subsequent to descriptive analyses, we performed different multilevel models in order to test the differences in individual characteristics, taking into account the nested structure of the data (i.e., participants were nested in couple relationships). To study the interplay of personal characteristics in predicting each couple's combined parenting ability, we could not use multilevel models because there was no dyadic variability in the outcome variable. We used the *confidence scale* of the Attachment Style Questionnaire (ASQ), to operationalize the construct of

attachment matching within the couple. Notably, this scale does not measure the attachment toward the partner but gives a more general level of attachment security for the individual. For each couple, we computed two composite scores: the average attachment security scores (i.e., *Couple Average Attachment Security*, CAAS) and the absolute value of the difference of attachment security scores between the two members of each couple (i.e., *Couple Difference in Attachment Security*, CDAS). The CAAS score described how secure the couple was on average, irrespectively of each partner's contribution, and identified the couple's average level of attachment security. The CDAS score measured how much each individual differed from his or her partner on general attachment security. The CDAS score was defined as the difference in attachment style within the couple. In this way, we obtained two variables representing the quality of attachment within each couple relationship that were each independent of the particular attachment style of the individual. Notably, these two variables were not correlated ($r = -0.14$, $p = 0.13$).

We performed two multiple regression analyses to separately test the interaction between the average couple relationship satisfaction and the two attachment-matching couple scores, the CAAS and the CDAS scores, in predicting couples' pre-conception coparenting alliances. The first multiple regression analysis was tested for the main effects of the CAAS and CDAS scores as well as the interaction between these two attachment-matching scores in predicting the pre-conception coparenting alliances, controlling for the following confounding effects: average age, length of the relationship, cohabiting status (i.e., living together versus not living together), collecting site (i.e., Belgium versus Italy), and sexual orientation (i.e., heterosexual versus homosexual). Then we tested the role of couple satisfaction (DAS) in interaction with couples' attachment-matching scores in predicting couples' pre-conception coparenting alliance while controlling for the same previously listed confounding variables.

Results

At the individual level, results of the multilevel analyses showed significant between-group differences for participants' couple satisfaction ($F(2,108) = 3.62$, $p = 0.03$); lesbians showed greater couple satisfaction with partners than did gay men ($t(123.20) = -3.13$, $p = 0.004$, 95%CI [-13.48;-3.04], Bonferroni corrected) and heterosexuals ($t(123.91) = 3.31$, $p = 0.003$, 95%CI [3.21;12.73], Bonferroni corrected). No differences in attachment confidence on the ASQ were found between groups.

Table 8.1 presents descriptive statistics of variables aggregated for couples by their sexual orientation and results from sets of ANOVAs comparing the three types of couples with respect to their attachment style, couple satisfaction, coparenting subscales, and total pre-conception coparenting alliances observed during the prenatal LTP. No differences in the distribution of cohabiting status across groups were found (15 [47%] gay couples living together; 20 [65%] lesbian couples living

together; 29 [60%] heterosexual couples living together;²(2) = 2.27, $p = 0.32$). Bonferroni-corrected post hoc analyses showed that gay couples were older than heterosexual ones ($b = -4.05$, $SE = 1.16$, $t(102) = 3.48$, $p = 0.003$, Bonferroni corrected), while lesbian couples reported greater satisfaction compared to heterosexual ones ($b = -7.97$, $SE = 3.18$, $t(102) = -2.51$, $p = 0.04$, Bonferroni corrected). Notably, no differences in attachment style matching between couples and no differences in pre-conception coparenting alliance measures were found.

Table 8.2 shows the results from the first multiple regression analysis testing for main effects of and interaction effects between the CAAS and CDAS scores on the pre-conception coparenting alliance measure. A significant main effect for the length of the relationship emerged, meaning that longer relationships resulted in lower pre-conception coparenting alliance scores. Although no main effects of the target variables were found, we found a significant interaction effect between the CAAS and the CDAS scores, controlling for all confounding variables. The CAAS score effect resulted in a negative but nonsignificant effect when the CDAS score was high ($b = -0.12$, $SE = 0.14$, $t(102) = -0.89$, $p = 0.37$) and a positive and marginally significant effect when the CDAS score was low ($b = 0.23$, $SE = 0.12$, $t(102) = 1.87$, $p = 0.06$). This means that when couples' CDAS scores were low, higher CAAS scores were associated with greater pre-conception coparenting alliances, while when CDAS scores were high, no association between CAAS scores and pre-conception coparenting alliances was found.

In our last set of analyses, we separately examined the role of the CAAS and CDAS scores in interaction with couples' average relationship satisfaction. Results from these analyses are presented in Table 8.3. No main nor interaction effects were found for the CAAS score and couple satisfaction. In contrast, the interaction effect between the CDAS score and couple relationship satisfaction was significant. Couple satisfaction showed a marginally significant negative effect when the CDAS score was high ($b = -0.07$, $SE = 0.04$, $t(102) = -1.89$, $p = 0.06$) and a significant positive effect when the CDAS score was low ($b = 0.08$, $SE = 0.04$, $t(102) = 2.06$, $p = 0.04$).

Discussion

In our study we explored whether it was possible to find associations between couples' intuitive coparental alliance, attachment matching, and dyadic relationship satisfaction during the phase in the couple relationship when partners plan to have children. We were especially interested in determining whether the overall level of attachment security in the couple relationship was important for the coparental alliance and whether similarities in partners' adult attachment styles ensured a higher quality of coparental alliance prior to conception. We were also curious to see whether gay, lesbian, and heterosexual couples would differ in either their attachment style or in their pre-conception coparenting alliances.

Table 8.1 Descriptive variables and ANOVA results for couples' relationship length, age, attachment style, couple satisfaction, PLTP scale scores, and pre-conception coparenting alliance score by type of couple

	Gay couples (N = 32)		Lesbian couples (N = 31)		Heterosexual couples (N = 48)		F (2, 108)	p
	M	SD	M	SD	M	SD		
<i>Couple variables</i>								
Relationship length (months)	45.72	43.34	33.94	19.55	42.15	26.42	1.22	.30
Average age (years)	29.05	6.61	25.98	4.78	25.00	3.79	6.44	.002
CAAS	33.96	4.42	33.08	5.68	34.60	3.93	1.03	.36
CDAS	5.48	3.94	5.84	4.73	6.42	3.71	0.54	.59
Couple satisfaction	110.16	13.17	118.42	14.60	110.45	13.24	3.95	.02
<i>Prenatal LTP scale scores</i>								
Coparent playfulness	3.47	1.14	3.48	0.96	3.62	0.96	0.30	.74
Structure of the play	4.00	1.08	4.00	1.00	4.33	0.97	1.48	.23
Intuitive parenting behaviors	3.38	1.34	3.03	1.28	3.15	1.46	0.51	.60
Couple cooperation	3.72	0.85	3.77	0.76	3.69	0.99	0.09	.92
Family warmth	3.66	1.10	3.35	1.05	3.38	1.00	0.88	.42
<i>Pre-conception coparenting alliance</i>	18.22	4.17	17.68	3.66	18.13	4.16	0.17	.85

Note. The last two columns are the results of each univariate ANOVA models to test the differences between groups on each variable

CAAS = Couple Average Attachment Security

CDAS = Couple Difference Attachment Security

Table 8.2 Multiple regression models testing the role of CAAS, CDAS, their interaction, and their interaction with sexual orientation, on pre-conception coparenting alliance observed during the Prenatal LTP

	Model 1				Model 2				Model 3			
	b	SE	T	p	b	SE	t	P	b	SE	t	p
Relationship length (months)	-0.05	0.01	-3.43	<.001	-0.05	0.01	-3.63	<.001	-1.45	1.03	-1.40	.16
Collecting site (Italy vs Belgium)	-0.28	0.99	-0.28	.78	-0.20	0.97	-0.21	.84	-0.31	0.99	-0.32	.75
Average age (years)	0.17	0.10	1.72	.09	0.17	0.10	1.78	.08	-0.04	0.01	-2.87	.01
Cohabiting status	-0.64	0.81	-0.79	.43	-0.72	0.80	-0.90	.37	-0.63	0.80	-0.78	.44
Lesbian couples (0 = gay couples)	-0.67	1.03	-0.65	.52	-1.04	1.02	-1.02	.31	-0.62	0.98	-0.64	.53
Heterosexual couples (0 = gay couples)	0.26	1.00	0.26	.79	0.04	0.99	0.04	.97	0.11	0.10	1.09	.28
CAAS	0.08	0.10	0.77	.45	0.06	0.10	.58	.56	0.27	0.19	1.43	.16
CDAS	0.01	0.09	0.07	.94	-0.01	0.09	-0.12	.91	0.36	0.18	2.04	.04
CDAS*CAAS					-0.05	0.02	-2.21	.03	-0.05	0.05	-1.04	.30
CAAS*heterosexual couples									-0.24	0.21	-1.13	.26
CAAS*lesbian couples									-0.32	0.23	-1.42	.16
CDAS*heterosexual couples									-0.66	0.24	-2.75	.01
CDAS*lesbian couples									-0.42	0.24	-1.76	.08
CDAS*CAAS*heterosexual couples									0.00	0.06	0.03	.98
CDAS*CAAS*lesbian couples									0.00	0.06	0.06	.95
R2			R2 = .12				R2 = .16				R2 = .25	
F			F(8,102) = 1.80, p = .08				F(9,101) = 2.20, p = .03				F(15,95) = 2.08, p = .02	
F for change in R2							F(1,101) = 4.87, p = .03				F(6,95) = 1.75, p = .12	

Note. CAAS and CDAS are centered on the grand mean. CAAS = Couple Average Attachment Security. CDAS = Couple Difference Attachment Security. Dummy coding was used to test the difference between the categorical variable "sexual orientation." The reference group is always gay couples (set to 0)

Table 8.3 Multiple regression models testing the role of couple relationship satisfaction in interaction with CAAS and CDAS on the pre-conception coparenting alliance observed during the Prenatal LTP

	Model 1				Model 2				Model 3			
	b	SE	t	p	b	SE	t	p	b	SE	t	p
Relationship length (months)	-0.05	0.01	-3.49	< .001	-0.05	0.01	-3.58	< .001	-0.04	0.01	-2.63	.01
Collecting site (Belgium vs Italy)	-0.02	0.92	-0.02	.98	-0.07	0.89	-0.08	.94	-0.54	0.91	-0.59	.56
Average age (years)	0.19	0.10	1.92	.06	0.14	0.09	1.52	.13	0.07	0.10	0.76	.45
Cohabiting status	-0.64	0.82	-0.78	.44	-0.58	0.79	-0.73	.47	-0.48	0.79	-0.60	.55
CDAS	-0.01	0.09	-0.06	.95	2.28	0.79	2.89	.005	0.16	1.65	0.10	.92
Couple satisfaction	0.01	0.03	0.32	.75	0.01	0.03	0.42	.68	0.12	0.05	2.21	.03
Lesbian couples (0 = gay couples)	-0.74	1.07	-0.69	.49	-1.20	1.05	-1.14	.26	9.21	7.96	1.16	.25
Heterosexual couples (0 = gay couples)	0.40	0.98	0.41	.68	0.04	0.96	0.04	.97	19.1	7.48	2.56	.01
CDAS*couple satisfaction					-0.02	0.01	-2.91	.004	0.00	0.01	0.10	.92
CDAS*heterosexual couples									1.23	2.03	0.61	.55
CDAS*lesbian couples									3.75	2.15	1.75	.08
Couple satisfaction*heterosexual couples									-0.10	0.07	-1.38	.17
Couple satisfaction*lesbian couples									-0.17	0.07	-2.57	.01
CDAS*couple satisfaction*heterosexual couples									-0.02	0.02	-0.86	.39
CDAS*couple satisfaction*lesbian couples									-0.04	0.02	-1.89	.06
R2		R2 = .12				R2 = .19				R2 = .29		
F		F(8,102) = 1.73, p = .10				F(9,101) = 2.60, p = .01				F(15,95) = 2.65, p = .002		
F for change in R2						F(1,101) = 8.48, p = .004				F(6,95) = 2.40, p = .03		

Note. CAAS, CDAS, and couple satisfaction scores are centered on the grand mean
 CAAS = Couple Average Attachment Security. CDAS = Couple Difference Attachment Security

Our results revealed a significant interaction between our measure of couples' average attachment security and our measure of intra-couple differences in attachment security. We found that partners' average level of attachment security impacted the pre-conception coparental alliance, only when both partners had a similar level of attachment security. Our findings also showed how a similar pattern of attachment security between partners predicted the quality of coparental interactions irrespective of whether the parenting couple comprised two mothers, two fathers, or a heterosexual mother and father. In addition, the only between-group differences in outcome measures we uncovered between gay, lesbian, and heterosexual couples planning parenthood were in their couple satisfaction, which we found to be higher for lesbian couples compared to the other two groups. Thus, our findings indicated that neither couples' attachment similarity nor their pre-conception coparenting alliances are associated with the sexual orientation of partners.

Notwithstanding the challenges that same-sex couples faced, especially for our subsample of gay and lesbian Italian couples who had no legal method for registering their partnership at the time of our study, the lesbian, gay, and heterosexual couples provided similar responses to our measures in this study. Our findings are consistent with the vast majority of studies comparing family functioning in LGB and heterosexual parents for the postpartum period when there are already children partaking in family interactions. While others have shown that lesbian and gay couples appear to divide childcare and household labor along more egalitarian lines than do heterosexual couples (Gotta et al. 2011; Kurdek 2006; Patterson et al. 2004), our findings indicated that the formation of the coparenting alliance and couples' attachment security are relational qualities that operate similarly across couples with varying sexual orientations, at least prior to conception. While others found no differences in decline in couple relationship satisfaction or mental health problems post-birth between lesbian and heterosexual mothers (Goldberg and Sayer 2006; Goldberg and Smith 2008) with equal similarities reported for new fathers (Van Rijn-van Gelderen et al. 2018), we found that lesbian couples in our study rated their couple satisfaction higher than gay and heterosexual couples. We can only speculate as to why these differences in findings may have occurred; perhaps the fact that our couples were just contemplating parenthood but were not yet pregnant or had given birth like couples in previous studies may have played a role. However, other researchers also reported higher couple satisfaction in lesbian Italian samples (Sommantico et al. 2019), along with lower levels of internalized stigma for sexuality and affectional relationships (Sommantico et al. 2018). Therefore, we speculate that this group difference might reflect a potential interplay between the role of disclosure of sexual orientation and group differences in perceived levels of sexual stigma (Jordan et al. 2000).

Our findings indicate that irrespective of their sexual orientation, when both partners display a similar pattern of attachment, the role of attachment security in coparenting behaviors prior to couples' conception emerges, with more secure couples showing better coparental abilities in their role-play interactions. On the other hand, when partners show a noteworthy difference in their attachment security, their level of attachment security does not affect their coparenting behaviors. These results

suggest that it is not just the security of each partner's attachment per se that matters but rather a dyadic matching between both partners comprising the couple, which determines the quality of coparental abilities prior to conception.

As we described above, one attachment theory proposes that differences in partners' attachment styles within a given couple, such as a secure/insecure partnership, could constitute a corrective experience for the insecure partner and in this way help to promote marital adaptation. While we did not observe marital adaptation but coparenting behaviors, our results show that dyadic matching of couple's secure attachment is most influential in providing a foundation from which couples build strong coparental alliances. In other words, both partners need to have a matching and more secure attachment style in order to show high pre-conception coparenting alliances.

As most research has shown, even when both partners desire to become parents, they experience challenges in their romantic relationship that can alter their dynamics. This may negatively impact the creation of their new coparenting subsystem in the family, for example, when one partner shows no support toward the other and competes with the child for the partner's care and attention. In contrast, when both partners' sense of security experienced early in their relationship allows them to better regulate their affect, this facilitates receiving protection, support, and comfort within their romantic relationship during periods of stress, such as may be experienced during the transition to parenthood (Mikulincer and Shaver 2004).

Another noteworthy finding in our study was that relationship satisfaction with the partner positively impacted coparenting alliances when partners' attachment security was similar, though it showed a trend in the opposite direction when differences between partners' attachment security were great. Attachment security facilitated the satisfaction of basic psychological needs within the relationship, and it makes sense that partners with similar attachment styles, who felt greater satisfaction in their couples' relationship, would also show a better propensity for a strong coparenting alliance at the pre-conception stage.

In line with findings by Young et al. (2017), our results confirm the importance of conceptualizing individual attachment, marital, and coparental subsystems within a multidimensional systemic framework, suggesting that a healthy dyadic adjustment is a significant intervening factor that helps explain links between attachment security and the coparenting alliance. The dyadic adjustment seems to positively affect coparenting interactions only within the context of small differences between partners' attachment security. Previous research has emphasized that parents with higher attachment anxiety and avoidance reported lower levels of marital adjustment, less coparental cooperation, and greater coparenting conflict (Young et al. 2017). Our study extends these findings and suggests that an individual's level of attachment anxiety or avoidance may not be as relevant to coparenting behaviors as the dyadic match between partners' levels of attachment security.

The quality of affective regulation, which is associated with dyadic adaptation, would, therefore, be the result of what Monguzzi (2006) has defined as a "slot couple." Considering all the possible combinations of partners' attachment styles within a couple relationship, and in light of our findings, it seems that a secure-secure

matching is more adaptive than all other combinations. A secure-secure partnership should give rise to a balanced relationship, in which the mental states of both partners are expressed coherently and consciously, facilitating both individuals' affective regulation and their dyadic adjustment.

Romantic relationships evolve within a social network, and social support is an important aspect of that context (Elizur and Mintzer 2003). For this reason, we conducted our study in two different legal contexts for same-sex couples. However, country of residence (Belgium or Italy) did not affect the role of attachment matching and security in couples' pre-conception coparenting alliance. In a previous report of this research, we observed that sexual stigma had an impact on partners' capacity to manage coparenting (Miscioscia et al. 2017). In our Italian subsample, we observed that LG participants with better coparental alliances had higher dyadic satisfaction scores possibly due to experiencing lower levels of internalized homophobia and greater social support (Miscioscia et al. 2017). Recent work by Calvo et al. (2020) reported that in gay men, their level of attachment anxiety rather than their attachment avoidance was directly linked to internalized homophobia, though both attachment anxiety and avoidance may also indirectly influence internalized homophobia mediated by perceived social support. Negative effects of homophobia on gay men can be reduced by improving social support, which could mitigate detrimental fallout from an insecure attachment style and consequently support the coparenting alliance.

This study has some limitations we would like to acknowledge. First, we do not have longitudinal follow-up observations of couples in our study either during their pregnancies or their postpartum periods. Such data would have been invaluable in demonstrating links between the early coparenting alliance we observed even before a child was conceived during the time when partners started to imagine themselves in the role of parents and later points in their family development when parenthood would have become more of a reality for them. Nonetheless, all participants had expressed their desire for parenthood and had begun to negotiate this as couples. In the future, a longitudinal design should investigate this further by observing intentions and behaviors during the prepregnancy and the pregnancy stages of family life. Another limitation in our study is that our sample was not representative of the population because of its size and method of sampling; in fact, participants were recruited only in convenient cities, and a fair number of them were involved in activist associations.

Conclusion

Our research has shown that similar patterns of attachment between partners predict the quality of coparental interactions irrespective of whether the parenting couple comprised two mothers, two fathers, or a heterosexual mother and father. Our research contributes to a better understanding of the aspects of family structure that are relevant for understanding coparenting alliances that form before pregnancy.

Certainly, our results require replication to better understand if differences observed between lesbian, gay, and heterosexual couples may be due to the specific time period we sampled in our study, that is, due to the fact that couples were not yet pregnant or parents but were merely planning parenthood. As indicated by our findings, partners' sexual orientation does not play a role in the relationship between partners' attachment matching and intuitive coparenting behaviors and alliances despite the fact that the transition to parenthood can harbor additional stressors for lesbian and gay partners.

Couples' desire to become parents and their negotiation of pregnancy plans (timing, number of children, etc.) are aspects of a particularly exciting field to explore further in order to better understand the role of family constellations in children's well-being. Child development needs to be studied within the context of family systems starting when the couple plans pregnancy. Researchers have just begun to focus on coparenting behaviors during this pre-conception stage (Rasmussen et al. 2019). Future investigations should continue to utilize longitudinal and multimethod assessments that include coparenting observations from pre-conception through the postpartum period and expand their scope beyond the two-parent, heterosexual family.

Acknowledgments The authors would like to thank Chiara Failoni, Paolo Roberto Pagone, and Adelaide Blavier for their support in this research study. This study is part of the first author's Ph.D. research project.

References

- Abramson, L., Mankuta, D., Yagel, S., Gagne, J. R., & Knafo-Noam, A. (2014). Mothers' and fathers' prenatal agreement and differences regarding postnatal parenting. *Parenting, 14*(3–4), 133–140. <https://doi.org/10.1080/15295192.2014.972749>.
- Ammaniti, M., Tambelli, R., & Odorisio, F. (2013). Exploring maternal representations during pregnancy in normal and at-risk samples: The use of the interview of maternal representations during pregnancy. *Infant Mental Health Journal, 34*(1), 1–10. <https://doi.org/10.1002/imhj.21357>.
- Baiocco, R., & Laghi, F. (2013). Sexual orientation and the desires and intentions to become parents. *Journal of Family Studies, 19*(1), 90–98. <https://doi.org/10.5172/jfs.2013.19.1.90>.
- Baiocco, R., Rosati, F., Pistella, J., Salvati, M., Carone, N., Ioverno, S., & Laghi, F. (2020). Attitudes and beliefs of Italian educators and teachers regarding children raised by same-sex parents. *Sexuality Research and Social Policy, 17*, 229–238. <https://doi.org/10.1007/s13178-019-00386-0>.
- Banse, R. (2004). Adult attachment and marital satisfaction: Evidence for dyadic configuration effects. *Journal of Social and Personal Relationships, 21*(2), 273–282. <https://doi.org/10.1177/0265407504041388>.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships, 7*(2), 147–178. <https://doi.org/10.1177/0265407590072001>.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*(1), 83–96. <https://doi.org/10.2307/1129836>.

- Belsky, J. (1985). Exploring individual differences in marital change across the transition to parenthood: The role of violated expectations. *Journal of Marriage and the Family*, 47(4), 1037–1044. <https://doi.org/10.2307/352348>.
- Belsky, J., & Jaffee, S. R. (2006). The multiple determinants of parenting. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (pp. 38–85). Wiley.
- Biblarz, T. J., & Stacey, J. (2010). How does the gender of parents matter? *Journal of Marriage and Family*, 72(1), 3–22. <https://doi.org/10.1111/j.1741-3737.2009.00678.x>.
- Bouchard, G. (2014). The quality of the parenting alliance during the transition to parenthood. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 46(1), 20–28. <https://doi.org/10.1037/a0031259>.
- Bowlby, J. (1969). *Attachment and loss, Vol. 1: Attachment*. New York: Basic Books.
- Calvo, V., Cusinato, M., Meneghet, N., & Miscioscia, M. (2020). Perceived social support mediates the negative impact of insecure attachment orientations on internalized homophobia in gay men. *Journal of Homosexuality*. <https://doi.org/10.1080/00918369.2020.1734378>.
- Cao, H., Mills-Koonce, W. R., Wood, C., & Fine, M. A. (2016). Identity transformation during the transition to parenthood among same-sex couples: An ecological, stress-strategy-adaptation perspective. *Journal of Family Theory Review*, 8(1), 30–59. <https://doi.org/10.1111/jftr.12124>.
- Carli, L., Cavanna, D., & Zavattini, G. (2009). *Psicologia delle relazioni di coppia*. Bologna: Il Mulino.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The Prenatal Lausanne Trilogue play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal*, 27(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Carneiro, F. A., Tasker, F., Salinas-Quiroz, F., Leal, I., & Costa, P. A. (2017). Are the fathers alright? A systematic and critical review of studies on gay and bisexual fatherhood. *Frontiers in Psychology*, 8:1636. <https://doi.org/10.3389/fpsyg.2017.01636>.
- Carone, N., Baiocco, R., Ioverno, S., Chirumbolo, A., & Lingiardi, V. (2017). Same-sex parent families in Italy: Validation of the Coparenting Scale-Revised for lesbian mothers and gay fathers. *European Journal of Developmental Psychology*, 14(3), 367–379. <https://doi.org/10.1080/17405629.2016.1205478>.
- Carone, N., Lingiardi, V., Chirumbolo, A., & Baiocco, R. (2018). Italian gay father families formed by surrogacy: Parenting, stigmatization, and children’s psychological adjustment. *Developmental Psychology*, 54(10), 1904–1916. <https://doi.org/10.1037/dev0000571>.
- Cassidy, J., Jones, J. D., & Shaver, P. R. (2013). Contributions of attachment theory and research: A framework for future research, translation, and policy. *Development and Psychopathology*, 25(4pt. 2), 1415–1434. <https://doi.org/10.1017/S0954579413000692>.
- Chabot, J. M., & Ames, B. D. (2004). “It wasn’t ‘let’s get pregnant and go do it’:” Decision making in lesbian couples planning motherhood via donor insemination. *Family Relations*, 53(4), 348–356. <https://doi.org/10.1111/j.0197-6664.2004.00041.x>.
- Chappell, K. D., & Davis, K. E. (1998). Attachment, partner choice, and perception of romantic partners: An experimental test of the attachment-security hypothesis. *Personal Relationships*, 5(3), 327–342. <https://doi.org/10.1111/j.1475-6811.1998.tb00175.x>.
- Cherguit, J., Burns, J., Pettle, S., & Tasker, F. (2013). Lesbian co-mothers’ experiences of maternity healthcare services. *Journal of Advanced Nursing*, 69(6), 1269–1278. <https://doi.org/10.1111/j.1365-2648.2012.06115.x>.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58(4), 644–663. <https://doi.org/10.1037/0022-3514.58.4.644>.
- D’Amore, S., & Baiocco, R. (2014). La transition vers la parentalité des familles homoparentales: recherche et implications cliniques. *Cahiers Critiques de Therapie Familiale et de Pratiques de Reseaux*, 52(1), 41–56. <https://doi.org/10.3917/ctf.052.0041>.

- D'Amore, S., Miscioscia, M., Scali, T., Haxhe, S., & Bullens, Q. (2013). Couples homosexuels et familles homoparentales. Défis, ressources et perspectives pour la thérapie systémique. *Thérapie Familiale*, 34(1), 69–84. <https://doi.org/10.3917/TF.131.0069>.
- De Carli, P., Riem, M. M. E., & Parolin, L. (2017). Approach-avoidance responses to infant facial expressions in nulliparous women: Associations with early experience and mood induction. *Infant Behavior and Development*, 49, 104–113. <https://doi.org/10.1016/j.infbeh.2017.08.005>.
- De Carli, P., Tagini, A., Sarracino, D., Santona, A., Bonalda, V., Cesari, P. E., & Parolin, L. (2018). Like grandparents, like parents: Empirical evidence and psychoanalytic thinking on the transmission of parenting styles. *Bulletin of the Menninger Clinic*, 82(1), 46–70. <https://doi.org/10.1521/bumc.2017.81.11>.
- Delmore-Ko, P., Pancer, S. M., Hunsberger, B., & Pratt, M. (2000). Becoming a parent: The relation between prenatal expectations and postnatal experience. *Journal of Family Psychology*, 14(4), 625–640. <https://doi.org/10.1037/0893-3200.14.4.625>.
- Elek, S. M., Hudson, D. B., & Fleck, M. O. (2002). Couples' experiences with fatigue during the transition to parenthood. *Journal of Family Nursing*, 8(3), 221–240. <https://doi.org/10.1177/107484070200800305>.
- Elizur, Y., & Mintzer, A. (2003). Gay males' intimate relationship quality: The roles of attachment security, gay identity, social support, and income. *Personal Relationships*, 10(3), 411–435. <https://doi.org/10.1111/1475-6811.00057>.
- Favez, N., Lopes, F., Bernard, M., Frascarolo, F., Lavanchy Scaiola, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2012). The development of family alliance from pregnancy to toddlerhood and child outcomes at 5 years. *Family Process*, 51(4), 542–556. <https://doi.org/10.1111/j.1545-5300.2012.01419.x>.
- Favez, N., Widmer, E. D., Frascarolo, F., & Doan, M. (2019). Mother-stepfather coparenting in stepfamilies as predictor of child adjustment. *Family Process*, 58(2), 446–462. <https://doi.org/10.1111/famp.12360>.
- Feeney, J. A. (1994). Attachment style, communication patterns, and satisfaction across the life cycle of marriage. *Personal Relationships*, 1(4), 333–348. <https://doi.org/10.1111/j.1475-6811.1994.tb00069.x>.
- Feeney, J. A., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 128–152). New York: Guilford Press.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting*, 3(2), 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Fivaz-Depeursinge, E., Frascarolo, F., & Corboz-Warnery, A. (1996). Assessing the triadic alliance between fathers, mothers, and infants at play. In J. P. McHale & P. A. Cowan (Eds.), *New directions for child development, No. 74. Understanding how family-level dynamics affect children's development: Studies of two-parent families* (pp. 27–44). Jossey-Bass.
- Flanagan, K. M., Clements, M. L., Whitton, S. W., Portney, M. J., Randall, D. W., & Markman, H. J. (2002). Retrospect and prospect in the psychological study of marital and couple relationships. In *Retrospect and prospect in the psychological study of families* (pp. 99–125).
- Foley, S., & Hughes, C. (2018). Great expectations? Do mothers' and fathers' prenatal thoughts and feelings about the infant predict parent-infant interaction quality? A meta-analytic review. *Developmental Review*, 48, 40–54. <https://doi.org/10.1016/j.dr.2018.03.007>.
- Foux, R. (2008). Sex education in pregnancy: Does it exist? A literature review. *Sexual and Relationship Therapy*, 23, 271–277. <https://doi.org/10.1080/14681990802226133>.
- Frascarolo, F., Despland, J.-N., Tissot, H., & Favez, N. (2012). Le coparentage, un concept clé pour évaluer le fonctionnement familial. *Psychothérapies*, 32(1), 15–22. <https://doi.org/10.3917/psys.121.0015>.
- Frazier, P. A., Byer, A. L., Fischer, A. R., Wright, D. M., & Debord, K. A. (1996). Adult attachment style and partner choice: Correlational and experimental findings. *Personal Relationships*, 3(2), 117–136. <https://doi.org/10.1111/j.1475-6811.1996.tb00107.x>.

- Gable, S., Belsky, J., & Crnic, K. (1995). Coparenting during the child's 2nd year: A descriptive account. *Journal of Marriage and the Family*, 57(3), 609. <https://doi.org/10.2307/353916>.
- Gentili, P., Contreras, L., Cassaniti, M., & D'arista, F. (2002). La Dyadic Adjustment Scale: Una misura dell'adattamento di coppia. *Minerva Psichiatrica*, 43(2), 107–16.
- Gianino, M. (2008). Adaptation and transformation: The transition to adoptive parenthood for gay male couples. *Journal of GLBT Family Studies*, 4(2), 205–243. <https://doi.org/10.1080/15504280802096872>.
- Goldberg, A. E. (2010). *Lesbian and gay parents and their children: Research on the family life cycle*. American Psychological Association.
- Goldberg, A. E. (2012). *Gay dads: Transitions to adoptive fatherhood*. New York: NYU Press.
- Goldberg, A. E., & Perry-Jenkins, M. (2007). The division of labor and perceptions of parental roles: Lesbian couples across the transition to parenthood. *Journal of Social and Personal Relationships*, 24(2), 297–318. <https://doi.org/10.1177/0265407507075415>.
- Goldberg, A. E., & Sayer, A. (2006). Lesbian couples' relationship quality across the transition to parenthood. *Journal of Marriage and Family*, 68(1), 87–100. <https://doi.org/10.1111/j.1741-3737.2006.00235.x>.
- Goldberg, A. E., & Smith, J. Z. (2008). Social support and psychological Well-being in lesbian and heterosexual preadoptive couples. *Family Relations*, 57(3), 281–294. <https://doi.org/10.1111/j.1741-3729.2008.00500.x>.
- Goldberg, A. E., & Smith, J. Z. (2011). Stigma, social context, and mental health: Lesbian and gay couples across the transition to adoptive parenthood. *Journal of Counseling Psychology*, 58(1), 139–150. <https://doi.org/10.1037/a0021684>.
- Goldberg, A. E., & Smith, J. Z. (2014). Perceptions of stigma and self-reported school engagement in same-sex couples with young children. *Psychology of Sexual Orientation and Gender Diversity*, 1(3), 202–212. <https://doi.org/10.1037/sgd0000052>.
- Goldberg, A. E., Kinkler, L. A., & Hines, D. A. (2011). Perception and internalization of adoption stigma among gay, lesbian, and heterosexual adoptive parents. *Journal of GLBT Family Studies*, 7(1–2), 132–154. <https://doi.org/10.1080/1550428X.2011.537554>.
- Goldberg, A. E., Kinkler, L. A., Richardson, H. B., & Downing, J. B. (2012). On the border: Young adults with LGBQ parents navigate LGBTQ communities. *Journal of Counseling Psychology*, 59(1), 71–85. <https://doi.org/10.1037/a0024576>.
- Gotta, G., Green, R.-J., Rothblum, E., Solomon, S., Balsam, K., & Schwartz, P. (2011). Heterosexual, lesbian, and gay male relationships: A comparison of couples in 1975 and 2000. *Family Process*, 50(3), 353–376. <https://doi.org/10.1111/j.1545-5300.2011.01365.x>.
- Green, R.-J., & Mitchell, V. (2008). Gay and lesbian couples in therapy: Minority stress, relational ambiguity, and families of choice. In A. S. Gurman (Ed.), *Clinical handbook of couple therapy* (4th ed.). New York: Guilford Press.
- Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry*, 5(1), 1–22. https://doi.org/10.1207/s15327965pli0501_1.
- Heffernan, M. E., Fraley, R. C., Vicary, A. M., & Brumbaugh, C. C. (2012). Attachment features and functions in adult romantic relationships. *Journal of Social and Personal Relationships*, 29(5), 671–693. <https://doi.org/10.1177/0265407512443435>.
- Herek, G. M., & Garnets, L. D. (2007). Sexual orientation and mental health. *Annual Review of Clinical Psychology*, 3(1), 353–375. <https://doi.org/10.1146/annurev.clinpsy.3.022806.091510>.
- Herek, G. M., Gillis, J. R., & Cogan, J. C. (2009). Internalized stigma among sexual minority adults: Insights from a social psychological perspective. *Journal of Counseling Psychology*, 56(1), 32–43. <https://doi.org/10.1037/a0014672>.
- Huston, T. L., & Holmes, E. K. (2004). Becoming parents. In A. Vangelisti (Ed.), *Handbook of family communication* (pp. 105–133). Mahwah: Erlbaum.
- Jadva, V., Freeman, T., Tranfield, E., & Golombok, S. (2015). 'Friendly allies in raising a child': A survey of men and women seeking elective co-parenting arrangements via an online connection website. *Human Reproduction*, 30(8), 1896–1906. <https://doi.org/10.1093/humrep/dev120>.

- Johnson, S., & O'Connor, E. (2002). *The gay baby boom: The psychology of gay parenthood*. NYU Press.
- Jordan, K. M., & Deluty, R. H. (2000). Social support, coming out, and relationship satisfaction in lesbian couples. *Journal of Lesbian Studies*, 4(1), 145–164. https://doi.org/10.1300/J155v04n01_09.
- Karantzias, G. C., Feeney, J. A., & Wilkinson, R. (2010). Is less more? Confirmatory factor analysis of the Attachment Style Questionnaires. *Journal of Social and Personal Relationships*, 27(6), 749–780. <https://doi.org/10.1177/0265407510373756>.
- Kargar Jahromi, M., Zare, A., Taghizadeganzadeh, M., & Rahmani Koshkaki, A. (2014). A study of marital satisfaction among non-depressed and depressed mothers after childbirth in Jahrom, Iran, 2014. *Global Journal of Health Science*, 7(3), 140–146. <https://doi.org/10.5539/gjhs.v7n3p140>.
- Kline, M., Cowan, P. A., & Pape Cowan, C. (1991). The origins of parenting stress during the transition to parenthood: A new family model. *Early Education & Development*, 2(4), 287–305. https://doi.org/10.1207/s15566935eed0204_3.
- Korja, R., Ahlqvist-Björkroth, S., Savonlahti, E., Stolt, S., Haataja, L., Lapinleimu, H., et al. (2010). Relations between maternal attachment representations and the quality of mother–infant interaction in preterm and full-term infants. *Infant Behavior and Development*, 33(3), 330–336. <https://doi.org/10.1016/j.infbeh.2010.03.010>.
- Kurdek, L. A. (2006). Differences between partners from heterosexual, gay, and lesbian cohabiting couples. *Journal of Marriage and Family*, 68(2), 509–528. <https://doi.org/10.1111/j.1741-3737.2006.00268.x>.
- Lawrence, E., Rothman, A. D., Cobb, R. J., Rothman, M. T., & Bradbury, T. N. (2008). Marital satisfaction across the transition to parenthood. *Journal of Family Psychology*, 22(1), 41–50. <https://doi.org/10.1037/0893-3200.22.1.41>.
- Le Poire, B. A., Shepard, C., & Duggan, A. (1999). Nonverbal involvement, expressiveness, and pleasantness as predicted by parental and partner attachment style. *Communication Monographs*, 66(4), 293–311. <https://doi.org/10.1080/03637759909376481>.
- Lewin, E. (1993). *Lesbian mothers: Accounts of gender in American culture*. Cornell University Press.
- Lingiardi, V., & Carone, N. (2016). Madri lesbiche, padri gay: genitori de-generati? *Giornale Italiano di Psicologia*, 43(1–2), 57–80. doi: 10.1421/83618.
- Mallon, G. P. (2004). *Gay men choosing parenthood*. Columbia University Press.
- McHale, J. P. (2007). When infants grow up in multiperson relationship systems. *Infant Mental Health Journal*, 28(4), 370–392. <https://doi.org/10.1002/imhj.20142>.
- McHale, J. P., & Irace, K. (2011). Coparenting in diverse family systems. In J. P. McHale & K. M. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems* (pp. 15–37). Washington, DC: American Psychological Association.
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, 16(3), 711–733. <https://doi.org/10.1017/S0954579404004742>.
- Medina, A. M., Lederhos, C. L., & Lillis, T. A. (2009). Sleep disruption and decline in marital satisfaction across the transition to parenthood. *Families, Systems & Health*, 27(2), 153–160. <https://doi.org/10.1037/a0015762>.
- Meijer, A. M., & van den Wittenboer, G. L. H. (2007). Contribution of infants' sleep and crying to marital relationship of first-time parent couples in the 1st year after childbirth. *Journal of Family Psychology*, 21(1), 49–57. <https://doi.org/10.1037/0893-3200.21.1.49>.
- Mikulincer, M., & Shaver, P. R. (2004). Security-based self-representations in adulthood. In *Adult attachment: Theory, research, and clinical implications* (pp. 159–195). New York: Guilford Press.

- Miscioscia, M., D'Amore, S., & Delvoye, M. (2013). De deux à trois... Transition à la parentalité et alliances familiales dans les familles lesboparentales. *Thérapie Familiale*, 34(1), 131–148. <https://doi.org/10.3917/TF.131.0131>.
- Miscioscia, M., Blavier, A., Pagone, P. R., & Simonelli, A. (2017). The desire of parenthood: Intuitive co-parental behaviors and quality of couple relationship among Italian and Belgian same-sex and opposite-sex couples. *Frontiers in Psychology*, 8:10. <https://doi.org/10.3389/fpsyg.2017.00110>.
- Monguzzi, F. (2006). *La coppia come paziente. Relazioni patologiche e consultazione clinica* (Vol. 16). FrancoAngeli.
- Pape Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Patterson, C. J. (1992). Children of lesbian and gay parents. *Child Development*, 63(5), 1025–1042. <https://doi.org/10.1111/j.1467-8624.1992.tb01679.x>.
- Patterson, C. J. (1995). Families of the lesbian baby boom: Parents' division of labor and children's adjustment. *Developmental Psychology*, 31(1), 115–123. <https://doi.org/10.1037/0012-1649.31.1.115>.
- Patterson, C. J. (2005). Lesbian and gay parents and their children: Summary of research findings. *Lesbian and Gay Parenting*, 5–22. Washington, DC: American Psychological Association.
- Patterson, C. J. (2009). Children of lesbian and gay parents: Psychology, law, and policy. *American Psychologist*, 64(8), 727–736. <https://doi.org/10.1037/0003-066X.64.8.727>.
- Patterson, C. J., Sutfin, E. L., & Fulcher, M. (2004). Division of labor among lesbian and heterosexual parenting couples: Correlates of specialized versus shared patterns. *Journal of Adult Development*, 11(3), 179–189. <https://doi.org/10.1023/B:JADE.0000035626.90331.47>.
- Rasmussen, H. F., Corner, G. W., & Margolin, G. (2019). Young adult couples' behavioral and physiological responses to the infant simulator: A preliminary illustration of coparenting. *Infant Behavioral Development*, 56, 101255. <https://doi.org/10.1016/j.infbeh.2018.04.004>.
- Riskind, R. G., & Patterson, C. J. (2010). Parenting intentions and desires among childless lesbian, gay, and heterosexual individuals. *Journal of Family Psychology*, 24(1), 78–81. <https://doi.org/10.1037/a0017941>.
- Ritenhouse, D. (2011). What's orientation go to do with it? The best interest of the standard and legal bias against gay and lesbian parents. *Journal of Poverty*, 15(3), 309–329. <https://doi.org/10.1080/10875549.2011.589260>.
- Ross, L. E. (2005). Perinatal mental health in lesbian mothers: A review of potential risk and protective factors. *Women & Health*, 41(3), 113–128. https://doi.org/10.1300/J013v41n03_07.
- Ryan, S., & Whitlock, C. (2007). Becoming parents. *Journal of Gay & Lesbian Social Services*, 19(2), 1–23. <https://doi.org/10.1080/10538720802131642>.
- Schoppe, S. J., Mangelsdorf, S. C., & Frosch, C. A. (2001). Coparenting, family process, and family structure: Implications for preschoolers' externalizing behavior problems. *Journal of Family Psychology*, 15(3), 526–545. <https://doi.org/10.1037/0893-3200.15.3.526>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., Frosch, C. A., & McHale, J. L. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology*, 18(1), 194–207. <https://doi.org/10.1037/0893-3200.18.1.194>.
- Shapiro, J. L., Diamond, M. J., & Greenberg, M. (1995). *Becoming a father: Contemporary, social, developmental, and clinical perspectives* (Vol. 8). New York: Springer.
- Shaver, P., & Hazan, C. (1987). Being lonely, falling in love: Perspectives from attachment theory. *Journal of Social Behavior & Personality*, 2, 105–124.
- Simonelli, A., & Bastianoni, P. (2001). Stili di attaccamento individuali e di coppia: Due strumenti a confronto [styles of individual attachment and couple attachment: Comparison of two instruments]. *Rassegna Di Psicologia*, 18(1), 27–48.
- Simonelli, A., Bighin, M., & de Palo, F. (2012). Coparenting interactions observed by the prenatal lausanne triogue play: An Italian replication study. *Infant Mental Health Journal*, 33(6), 609–619. <https://doi.org/10.1002/imhj.21350>.

- Simonelli, A., Parolin, M., Sacchi, C., De Palo, F., & Vieno, A. (2016). The role of father involvement and marital satisfaction in the development of family interactive abilities: A multilevel approach. *Frontiers in Psychology*, *7*, 1725. doi: 10.3389/fpsyg.2016.01725.
- Simpson, J. A., & Rholes, W. S. (2017). Adult attachment, stress, and romantic relationships. *Current Opinion in Psychology*, *13*, 19–24. <https://doi.org/10.1016/j.copsyc.2016.04.006>.
- Sommantico, M., De Rosa, B., & Parrello, S. (2018). Internalized sexual stigma in Italian lesbians and gay men: The roles of outness, connectedness to the LGBT community, and relationship satisfaction. *Journal of Sex & Marital Therapy*, *44*(7), 641–656. <https://doi.org/10.1080/00092623X.2018.1447056>.
- Sommantico, M., Donizzetti, A. R., Parrello, S., & De Rosa, B. (2019). Gay and lesbian couples' relationship quality: Italian validation of the Gay and Lesbian Relationship Satisfaction Scale (GLRSS). *Journal of Gay & Lesbian Mental Health*, *23*(3), 326–348. <https://doi.org/10.1080/19359705.2019.1621231>.
- Sommer, K., Whitman, T. L., Borkowski, J. G., Schellenbach, C., Maxwell, S., & Keogh, D. (1993). Cognitive readiness and adolescent parenting. *Developmental Psychology*, *29*(2), 389–398. <https://doi.org/10.1037/0012-1649.29.2.389>
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, *38*(1), 15–28. <https://doi.org/10.2307/350547>.
- Stacey, J. (2006). Gay parenthood and the decline of paternity as we knew it. *Sexualities*, *9*(1), 27–55. <https://doi.org/10.1177/1363460706060687>.
- Stacey, J., & Biblarz, T. J. (2001). (How) Does the sexual orientation of parents matter? *American Sociological Review*, *66*(2), 159–183. <https://doi.org/10.2307/2657413>.
- Tasker, F. (2013). Developmental outcomes for children raised by lesbian and gay parents. In L. C. McCain & D. Cere (Eds.), *What is parenthood? Contemporary debates about the family* (pp. 171–190). New York: New York University Press.
- Tasker, F., & Golombok, S. (1998). The role of co-mothers in planned lesbian-led families. *Journal of Lesbian Studies*, *2*(4), 49–68. https://doi.org/10.1300/J155v02n04_05.
- Teubert, D., & Pinquart, M. (2010). The association between coparenting and child adjustment: A meta-analysis. *Parenting*, *10*(4), 286–307. <https://doi.org/10.1080/15295192.2010.492040>.
- Tissot, H., Kuersten-Hogan, R., Frascarolo, F., Favez, N., & McHale, J. P. (2019). Parental perceptions of individual and dyadic adjustment as predictors of observed coparenting cohesion: A cross-national study. *Family Process*, *58*(1), 129–145. <https://doi.org/10.1111/famp.12359>.
- Titlestad, A., & Robinson, K. (2019). Navigating parenthood as two women: The positive aspects and strengths of female same-sex parenting. *Journal of GLBT Family Studies*, *15*(2), 186–209. <https://doi.org/10.1080/1550428X.2018.1423660>.
- Tornello, S. L., Farr, R. H., & Patterson, C. J. (2011). Predictors of parenting stress among gay adoptive fathers in the United States. *Journal of Family Psychology*, *25*(4), 591–600. <https://doi.org/10.1037/a0024480>.
- Tornello, S. L., Kruczowski, S. M., & Patterson, C. J. (2015). Division of labor and relationship quality among male same-sex couples who became fathers via surrogacy. *Journal of GLBT Family Studies*, *11*(4), 375–394. <https://doi.org/10.1080/1550428X.2015.1018471>.
- Treboux, D., Crowell, J. A., & Waters, E. (2004). When “new” meets “old”: Configurations of adult attachment representations and their implications for marital functioning. *Developmental Psychology*, *40*(2), 295–314. <https://doi.org/10.1037/0012-1649.40.2.295>.
- Van Egeren, L. A. (2003). Prebirth predictors of coparenting experiences in early infancy. *Infant Mental Health Journal*, *24*(3), 278–295. <https://doi.org/10.1002/imhj.10056>.
- Van Rijn-van Gelderen, L., Bos, H. W. M., Jorgensen, T. D., Ellis-Davies, K., Winstanley, A., Golombok, S., Rubio, B., Gross, M., Vecho, O., & Lamb, M. E. (2018). Wellbeing of gay fathers with children born through surrogacy: A comparison with lesbian-mother families and heterosexual IVF parent families. *Human Reproduction*, *33*(1), 101–108.
- Vandeleur, C. L., Fenton, B. T., Ferrero, F., & Preisig, M. (2003). Construct validity of the French version of the Dyadic Adjustment Scale. *Swiss Journal of Psychology/Schweizerische Zeitschrift Für Psychologie/Revue Suisse de Psychologie*, *62*(3), 167–175. <https://doi.org/10.1024/1421-0185.62.3.167>.

- Vertsberger, D., & Knafo-Noam, A. (2019). Mothers' and fathers' parenting and longitudinal associations with children's observed distress to limitations: From pregnancy to toddlerhood. *Developmental Psychology*, 55(1), 123–134. <https://doi.org/10.1037/dev0000622>.
- Webb, S. N., Kavanagh, P. S., & Chonody, J. M. (2019). Straight, LGB, married, living in sin, children out of wedlock: A comparison of attitudes towards 'different' family structures. *Journal of GLBT Family Studies*, 16(1), 66–82, <https://doi.org/10.1080/1550428X.2019.1577201>.
- Weiss, R. S. (1986). Continuities and transformations in social relationships from childhood to adulthood. In W. W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 95–110). Hillsdale, NJ: Lawrence Erlbaum.
- Wells, G. (2011). Making room for daddies: Male couples creating families through adoption. *Journal of GLBT Family Studies*, 7(1-2), 155–181. <https://doi.org/10.1080/1550428X.2011.537242>.
- Young, M., Riggs, S., & Kaminski, P. (2017). Role of marital adjustment in associations between romantic attachment and coparenting. *Family Relations*, 66(2), 331–345. <https://doi.org/10.1111/fare.12245>.

Chapter 9

From Pregnancy to Toddlerhood: Does Gender Matter for the Development of Family Relationships?



Nicolas Favez and Hervé Tissot

Family relationships are acknowledged as a primary context for the social and cognitive development of the child (Walsh 2012). *Family* is a construct that can encompass a wide variety of relational systems; for the purpose of this chapter, we focus on the mother-father-child triad as the first-level unit beyond the dyad that can be qualified as a family-level system. The studies dedicated to the relational dynamic within the triad have shown that cohesion in the coparental relationship (the part of their relationship concerning the child) and parental adjustment to the child's characteristics (in particular, the child's temperament) are linked with positive outcomes in children, such as the ability to understand multiple perspectives and the development of positive cognitions about social relationships (Cummings and Davies 2010; Favez et al. 2012; Raikes and Thompson 2006). On the other hand, conflict and tensions between parents and the spillover of negative emotions from their relationship to parent-child relationships are predictive of various maladapted outcomes in children, such as anxiety or social withdrawal (Favez et al. 2006a; McHale and Lindahl 2011; Teubert and Pinquart 2010).

Numerous studies have aimed to identify the predictors of the quality of early family relationships, with a focus on the coparental relationship, theoretically considered as the core relational process for family functioning (Minuchin 1974). From the family life cycle standpoint, these predictors are seen as influencing the construction of family relations across time; that is, they have to be understood from a developmental perspective (McHale 2007). In this approach, longitudinal studies that start during pregnancy are of primary interest, in particular, because they allow one to disentangle the factors of influence pertaining to the parents and their

N. Favez (✉) · H. Tissot

Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

Center for Family Studies, IUP, Department of Psychiatry, University Hospital Center and University of Lausanne, Lausanne, Switzerland

e-mail: nicolas.favez@unige.ch; herve.tissot@unige.ch

© Springer Nature Switzerland AG 2021

R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,
https://doi.org/10.1007/978-3-030-51988-9_9

181

relationship from the factors pertaining to the child, a much harder distinction to make after birth. Studies in this domain have highlighted different types of variables of influence at both the level of representations and the level of interactions. For example, prenatal interactions between parents that simulate a first encounter with their baby-to-be have been shown to be predictive of postnatal mother-father-infant interactions: In particular, coparental coordination and mutual support – or the absence thereof – can already be observed in the second trimester of pregnancy (e.g., Cairo et al. 2012; Carneiro et al. 2006; Favez et al. 2006b). On the other hand, recent studies have shown that parents' representations of the quality of their couple relationship, their future family functioning, and coparenting collaboration are predictive of their effective coparental coordination after birth (Favez et al. 2013; Kuersten-Hogan 2017; McHale and Rotman 2007). These links are similar to those that have been observed between the representations that the parents have of their future baby during pregnancy and their parenting behavior after the baby is born (Stern 1991; Theran et al. 2005).

In this chapter, we specifically focus on a factor that has been rarely considered in studies on the transition to parenthood: parents' gender-role orientation during pregnancy and its influence on the construction of coparental and family interactions. Gender roles are defined as “pre-determined schemas to which men and women were expected to adhere” (Donnelly and Twenge 2017, p. 556). It is well known that representations of gender roles are intimately linked to the way that each parent envisions the tasks that she or he is ready to assume and which tasks are considered to fall under the other parent's responsibility and expertise (Goldscheider et al. 2015; Katz-Wise et al. 2010; Pape Cowan and Cowan 1992). Gender-role orientation should thus be one of the background variables that foreshadows the engagement of each parent and, in turn, coparental organization as early as during pregnancy. The gender role is not determined by the biological sex of the individual; both constructs have been diversely used in family theories according to the time period and schools of thought.

Biologically Determined Roles Versus Systemic Functions

The biological sex of the parent was traditionally considered as paramount in family functioning and in the development of the child by psychodynamic theories. For example, from a Freudian perspective (e.g., Freud 1924), children have to identify with the parent of the same sex and to differentiate themselves from the parent of the other sex in order to construct a gender identity that is congruent with their biological sex. Each parent was expected to play a predetermined and specialized role (not labeled this way in these theories) that was congruent with social expectations in two separated spheres: Women were considered to be naturally (i.e., biologically) drawn to taking care of children and providing affection, so that they had to assume family duties, whereas men were considered to be naturally determined to provide resources for the family and to ensure discipline in education, so that they had to be

engaged in the workforce (Lamb and Lewis 2010; Perälä-Littunen 2007). These theories, while representing a window on family organization in the Western world at the beginning of the twentieth century, had the consequence of crystallizing the view of the family. Despite this configuration starting out as descriptive and representative of a time period, it became prescriptive, so that any deviation from this model was considered, in essence, dysfunctional. Anthropology has, however, long shown that this organization was neither universal nor essential (Harrell 1997).

The systemic approach considered a different view: The emphasis here was on equifinality, defined as the possibility of using different means to achieve a goal, and on functional roles, defined as a set of tasks necessary to the functioning of the whole system (Cox and Paley 1997). In the case of parenting, these tasks are to provide affection, protection, care, and education to the children; the sex of the parent is irrelevant, as long as the roles are fulfilled. Both parents – any adult in fact – can thus interchangeably take on parenting duties. Different types of families should thus be able to accomplish the functions of a family system and to provide a loving and nurturing context for children. This theoretical stance has been amply validated by empirical studies that have shown that in contemporaneous families, both parents – and any adult, irrespective of biological sex – are able to love, protect, and educate children and that *parenting* and *coparenting* are concepts that may be used for any adult team in charge of a child (Biblarz and Stacey 2010; Dufur et al. 2010; Hook and Chalasani 2008; McHale et al. 2002). However, the downside of this perspective was that it overlooked the fact that, even if mothers and fathers can both fulfill family roles, they may do so in different manners, even in the most egalitarian families. Studies have, for example, shown that parental interactive behaviors with an infant are notably different in women and in men, with a higher prevalence of vocal stimulations in mothers and of physical games in fathers (Nordahl et al. 2014; Power 1985). But how is it possible to be both similar and different? Gender-role theory is a perspective that takes into account both equifinality and specialization at the same time in order to explain these apparent contradictions.

The Gender Revolution and Gender-Role Theory

In the second half of the twentieth century, a gender revolution took place, and the idea of a possible interchangeability and sharing of tasks between parents came progressively to the fore in Western societies, even though the idea of a natural aptitude to accomplish certain roles still remains strong today. Women increasingly participated in the labor force and men increasingly participated in family work (Goldscheider et al. 2015). Studies in the 1960s and 1970s showed that mothers may be involved at work and fathers the primary caregivers without the child being harmed (Booth 1992; Favez et al. 2018). There was thus a shift from the conceptualization of task sharing based on biologically determined traits to the idea of tasks being determined according to socially determined gender roles. According to

socio-constructivist theories, these roles are mainly determined by social norms and depend on a given era and cultural context. Such norms are thus likely to change and evolve through time. In Western societies, some qualities have historically been considered as masculine (such as instrumentality, autonomy, competitiveness, and productivity) and others as feminine (such as expressivity, orientation toward interpersonal relationships, dependency, and communication). Regarding parental roles, these constructs are congruent with the representations of fathers as being oriented toward pragmatism and discipline, and mothers as being oriented toward love and affection, the representation of feminine qualities being deeply rooted in the way laypeople assess the qualities needed for parenting (Hoffman and Moon 2000).

The gender schema theory (Bem 1974) is an emblematic example of a new way, in the 1970s, to conceptualize roles. According to this theory, any individual may have a masculine or a feminine gender-role orientation, or even one that is androgynous (both feminine and masculine, which are compatible with one another) or undifferentiated (having neither feminine nor masculine qualities). Masculinity and femininity are thus considered traits of personality. Flexibility is a central feature of this theory: being able to endorse both feminine and masculine roles without experiencing a lowering of self-esteem – an aptitude that is especially pronounced in androgynous personalities – allows for a richer personal and interpersonal experience and greater adaptation skills to life circumstances. In contrast, a strict masculine orientation in men or a strict feminine orientation in women restricts the behaviors that individuals may implement and experience (Bem 1981b; Bem et al. 1976). In this model, masculinity is defined as having dominant, assertive, and instrumental dispositions, while femininity is defined as having nurturing and expressive dispositions. Although this theory was proposed during the 1970s, studies have shown that identification with these gendered personality traits, as defined by Bem (1974), is still strong today; in a meta-analysis that included 34 studies completed between 1993 and 2012, the only difference found over time was that in recent years women tended to identify less with feminine traits (Donnelly and Twenge 2017).

Gender-Role Orientation and Parenting

A few studies have been specifically dedicated to examining whether orientations toward masculinity or femininity were linked with parenting. They have, for example, shown that in any given individual, an association of low femininity with high masculinity is less favorable to the implementation of parenting behaviors (Sanderson and Thompson 2002). In a study in Switzerland, our research group found that fathers who are involved in domestic and parenting tasks are less likely to have a strict masculine orientation than are fathers who are not (or who are less) involved in family life. Engaged fathers with a high masculine orientation also have a high feminine orientation; that is, they tend to match the androgynous profile described in the gender-schema theory. A high feminine orientation in fathers seems

thus to be associated with a better aptitude for taking care of children (which is not incompatible with also having a high masculine orientation at the same time; Frascarolo et al. 1996).

Whereas gender-role orientation was not their main focus, studies on maternal “gatekeeping” have uncovered how social expectations influence parenting and coparenting. Indeed, it has been shown that a mother may inadvertently or purposefully engage in behaviors which restrict the father’s access to the child, or in any case lower the control the father can exert on child-related daily tasks. These behaviors have been tagged as “negative gatekeeping behaviors”; as a consequence of this form of maternal gatekeeping, the father may disengage himself from parenting or even from family life. This dynamic is thus unfavorable to coparenting cooperation. Gatekeeping behaviors are motivated, consciously or not, by maternal beliefs about mothers’ and fathers’ roles in the family; these beliefs are operating as early as pregnancy – and certainly even before (Allen and Hawkins 1999; Van Egeren 2003, 2004). According to traditional social representations, femininity is at the core of a mother’s role; thus, the higher the mother’s identification with feminine values, the more she might be likely to enact gatekeeping behaviors, at the expense of coparenting cooperation. However, to date, no study has been specifically dedicated to examine the links between gender-role orientation and coparenting.

Differences in Parenting Behavior According to the Sex of the Child

Finally, hints of the effects of gender might be found in studies that have shown that parenting practices vary according to the sex of the child. For instance, parents tend to educate their children according to gender stereotypes (Clearfield and Nelson 2006; Laflamme et al. 2002; Paquette et al. 2003). Coparental interactions also seem to be influenced by the expectations that parents have related to the sex of the child. In a study in Switzerland, we found that worsening of coparental interactions through the first year in primiparous families was observed only when the child was a boy (Favez et al. 2006b). In another US study, McHale et al. (2002) found that in families of boys, a tense relationship led to more conflictive coparenting, whereas in families of girls, it led to more skewed coparenting, with one parent, usually the father, withdrawing from family life. One hypothesis offered to explain this difference was that, because having a male child tends to be more socially valued, both parents stay engaged despite their mutual resentment; as a result, daily conflicts are more likely to happen. In all cases, expectations associated with the sex of the child and gendered representations explain the relational processes operating in these families, at least during the postpartum period. To date, no study has examined the role of the expected gender of the child-to-come with respect to prenatal coparental interactions or prenatal family dynamics.

What Should Be Concluded?

From a socio-constructivist perspective, gender revolution will be achieved following changes in individuals' personality characteristics; that is, men preparing to take care of their baby should develop more feminine traits and women preparing to enter the workforce should develop more masculine traits (Eagly et al. 2000). At that moment, a shift will occur between the traditionally specialized roles, supposedly determined by biological sex, and contemporaneous roles that rely on equifinality: Both parents, or any adult, will be able to implement the feminine and masculine qualities necessary to raise and educate children.

For the time being, we are in an intermediate phase, with both traditional and contemporaneous contradictory forces exerting their influences on parents and families to varying degrees; as early as pregnancy, we expect parenting as well as coparenting to be influenced by the extent to which parents adhere to traditional versus more contemporary roles and by their gender-role orientation (Katz-Wise et al. 2010; Knudson-Martin 2012; Koivunen et al. 2009). There is evidence that couples' more contemporaneous views during pregnancy often give way to more traditional views in the early postpartum period. Pape Cowan et al. (1985) discovered in their *Becoming a Family Project* that many men and women who held egalitarian views of parental roles during pregnancy adopted more gender-stereotypical attitudes and role divisions after the birth of their first child. These violations of couples' prenatal egalitarian expectations were associated with postpartum decreases in couples' marital satisfaction (Pape Cowan et al. 1985); on the other hand, couples who were able to share child care responsibilities more equally in the postpartum period experienced greater satisfaction with parental roles and couple relationship quality (Cowan and Cowan 1987).

Gender-Role Orientation and Family Interactions from Pregnancy to Toddlerhood: A Sample Study

We have conducted several longitudinal studies in which we focused on the development of family interactions through the transition to parenthood (see McHale et al. 2018, for a historical overview); one of them – the focus of this chapter – was specifically dedicated to identifying prenatal precursors of mother-father-baby interactions. We took several measures during pregnancy (at the fifth month), including gender-role orientation in both parents and prenatal interactions. Families in our study were expecting their first child, who was the target of the study, and were followed from pregnancy until the second half of their child's first year of life (at 3, 9, and 18 months) in order to assess postnatal family interactions. Two later follow-up points, at 5 and 15 years, were also subsequently completed. In this chapter, we focus on the first 18 months of this longitudinal study. All of the families who took part in this study happened to have implemented traditional specialized

roles (the mother as main caretaker), as is the case in most families in Switzerland. Even though the analysis of gender roles was not the main goal of the study, we were able to observe gendered effects. For example, in the first months after birth, fathers were more at ease playing with their babies when they had the opportunity to see mothers play first, whereas no such effects were observed for mothers (Frascarolo et al. 2003). This effect was especially pronounced in families with high coparental cohesion (Udry-Jørgensen et al. 2016). Our attention was therefore drawn to a possible interinfluence between parental roles, gender-role orientation, and the quality of family relationships.

Consequently, we specifically analyzed our data on gender-role orientation according to the two constructs of masculinity and femininity assessed during pregnancy. In accordance with the literature, we tested four hypotheses. First, we expected higher femininity in fathers during their partners' pregnancy to be linked with better postnatal cooperation during family interactions, as more feminine fathers are theoretically more oriented toward parental tasks. Second, we expected higher femininity in pregnant mothers to be linked with lower postnatal cooperation, as more feminine mothers might "close the gate" to the father in order to be congruent with what they view as the traditional duties of mothers. Third, we expected the influence of gender-role orientation on interactions of families-to-be to be already observable during pregnancy. Fourth and finally, we expected the links between gender-role orientation during pregnancy and family cooperation in the postpartum to be different in families of boys versus families of girls. Family cooperation was assessed in terms of family alliance (FA), that is, the way the family is able to coordinate to achieve a task (Fivaz-Depeursinge and Corboz-Warnery 1999).

Method

Sample

The sample consisted of 50 families expecting their first child (27 boys, 23 girls), recruited through press announcements and in a maternity ward during pregnancy. Families were Swiss, French-speaking, clinically non-referred, and middle- to upper-middle class (Hollingshead Index of Social Position). The mean age was 30 years ($SD = 3.2$) for mothers and 32 years ($SD = 5.4$) for fathers.

Procedure

Families were studied in our laboratory in the University Hospital during the fifth month of pregnancy and then again when their child was 3, 9, and 18 months old. Family interactions were video recorded while families participated in the Lausanne

Trilogue Play (LTP), a semi-standardized observation situation designed for the assessment of interactions during pregnancy (prenatal LTP) and after birth (standard LTP). A self-report questionnaire was also completed by the parents in the laboratory following the prenatal LTP to assess gender-role orientation.

The Prenatal LTP In this situation, pregnant couples enacted an encounter with their child (Fivaz-Depeursinge et al. 2010), represented by a doll (with a baby's body but an undefined face). The experimenter asked couples to imagine and enact the first time the three of them are alone together after birth. The procedure is described in detail in Chap. 3 of this book (Fivaz-Depeursinge et al.). The mean duration of the prenatal LTP was 5.10 min ($SD = 1.46$ min; range 2.15–9.25 min).

The Standard LTP This play situation after birth involves the father, mother, and baby together and follows the same four-part scenario as the prenatal LTP (Corboz-Warnery et al. 1993). When the infant was 3 and 9 months old, the parents sat on chairs and the child in a baby chair, which could be oriented in three positions: toward one parent, toward the other, and between the two of them. When the child was 18 months old, the parents and child sat around a small round table, and various toys were at hand (wooden blocks, animals, a dinner set, a small hairbrush, a car). The instructions were as follows:

We ask you to play together as a family according to the following scenario in four parts. In the first part, one of you plays with the child, the other one being simply present. In the second part, roles are reversed. In the third part, you both play with the child together. In the last part, you will talk a while together; it will be the child's turn to be simply present or playing on her own.

In 50% of cases, we asked the mothers to be the first to play, and in the other 50%, we asked the fathers to be first. On the other hand, we let the parents decide the duration of the play. The mean duration was 11.10 min at 3 months ($SD = 2.58$; range 4.57–17.58), 10.30 min at 9 months ($SD = 2.69$; range 5.92–17.00), and 13.48 min at 18 months ($SD = 2.45$; range 6.43–19.50). There were no significant differences in the durations of play interactions between the three observation times.

Assessment of Family Alliance (FA)

Prenatal FA Prenatal FA was assessed by coding the prenatal LTP videos with five Likert scales, scores ranging from 0 (*inappropriate*) to 1 (*partially appropriate*) to 2 (*appropriate*; Carneiro et al. 2006). The videos were coded for the following: (a) coparental playfulness toward the task (the couple's capacity to create a playful space and to co-construct the game; interrater reliability; Cohen's kappa = 0.83), (b) structure of the play (the couple's capacity to structure the play in four parts according to the instructions; kappa = 0.78), (c) intuitive parenting behaviors (use of intuitive parenting behaviors such as baby talk; kappa = 0.63), (d) couple's cooperation

(degree of active cooperation reached by the couple during the play; kappa = 0.64), and (e) family warmth (positive bond and mood between parents during play, including the infant and not at her expense; kappa = 0.64). The scores of the five scales ($\alpha = 0.79$) were summed to obtain a global score between 0 and 10. The higher the score, the more functional the prenatal alliance.

Postnatal FA The quality of the postnatal FA was assessed by coding the standard LTP videos with the Family Alliance Assessment Scales (Favez et al. 2011). This instrument consists of 11 scales that assess triadic interactive behaviors, scores ranging from 0 (*inappropriate*) to 1 (*partially appropriate*) to 2 (*appropriate*), for postures, gazes, role implication, task fulfillment, co-construction, parental scaffolding, family warmth, validation of the child's emotional experience, authenticity of the expressed affects, communication mistakes during the game, and communication mistakes during transitions. A total score was then computed by adding the scores of these scales (0–22 points; $\alpha = 0.87$). The higher the score, the higher the alliance.

Coding Strategy The coding was done by four pairs of independent coders, one pair at each time point, so that eight coders were involved. At each time point, one of the coders coded all of the LTPs and the other double coded 30% of the LTPs. Intraclass coefficients for the prenatal LTP scores ranged between 0.68 and 0.94, for an average of 0.82; at 3, 9, and 18 months, coefficients ranged between 0.83 and 0.96, for an average of 0.88. Coders at a given time were blind to the coding of the other times. All coders were trained by senior coders of our team.

Assessment of Gender-Role Orientation

Each partner's gender-role orientation was assessed during pregnancy by using the Bem Sex Roles Inventory (BSRI; Bem 1974, 1981a). This questionnaire assesses sexual identity, defined as "the representation people have of themselves regarding their sexual roles." Two dimensions are assessed: masculinity and femininity. The standard version of the questionnaire includes 60 items: 20 are considered feminine (e.g., affectionate, compassionate, gentle), 20 are considered masculine (e.g., act as leader, aggressive, competitive), and 20 are neutral, designed to assess social desirability. Each item is assessed on a 7-point scale ranging from 1 (*never*) to 7 (*always*). In the present study, we used the 38-item version of the inventory, with 19 masculine items and 19 feminine items. From the standard version, the two items "I am masculine" and "I am feminine" were removed, as they were considered to be too related to biological sex (Bem 1979; Frascarolo et al. 1996). The 20 neutral items were also not retained (Holt and Ellis 1998). A mean of the 38 items was then computed to obtain a total score of masculinity and femininity for each respondent ($\alpha = 0.85$ and 0.82, respectively, for mothers; $\alpha = 0.88$ and 0.82, respectively, for fathers). The higher the score, the higher the person ranks on the considered

dimension. In the original model, respondents are categorized in one of four categories of gender-role orientation: androgynous, masculine, feminine, or undifferentiated. In this study, we used the scores of the two dimensions of femininity and masculinity as continuous variables, rather than using the categories, and we used the cross-product of the two dimensions as a measure of androgyny.

Statistical Analyses

As a preliminary step, we used structural equation modeling to investigate the evolution of postnatal FA by specifying a growth curve model with two factors, an intercept and a slope factor, which represent families' baseline scores and change in FA scores between 3 and 18 months (Model 1), respectively. To investigate whether the evolution of FA was similar or different according to the gender of the child, we then used multigroup analyses and tested the same model separately in families of boys and girls. In a first model (Model 1a), the mean and variance of the intercept and slope factors were freely estimated in each group (assuming differences between families of boys and girls), whereas in a second model (Model 1b), these parameters were set to be equal in families of boys and girls (assuming equivalence between families of boys and girls). The adjustment of these two nested models was compared by using a likelihood ratio test (LRT).

Then, to test for the influence of prenatal variables on postnatal FA, we specified a model (Model 2) in which the FA intercept and slope factors were regressed on gender-role orientation variables, namely, masculinity, femininity, and androgyny in mothers and in fathers. Due to the difference in the nature of the measures between the two coding instruments, we included prenatal FA as a covariate in the model and not as a variable of the same level as the other time points. We centered masculinity and femininity variables and created the androgyny variable as a cross-product of these centered variables.

Again, to test for potential differences in families of boys versus families of girls regarding the influence of parental gender-role orientation on the evolution of FA, we used multigroup analyses and tested the same model separately in families of boys and girls. In a first model, the regression weights that linked gender-role orientation variables to the FA intercept and slope factors were freely estimated in each group (assuming differences between families of boys and girls), whereas in the second model, these parameters were set to be equal in both groups (assuming equivalence between families of boys and girls). These two nested models were compared by using an LRT.

All statistical analyses were performed with IBM SPSS 24 software and Mplus version 7. We used chi square, comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) to assess the fit of the models. Models were estimated by using a maximum likelihood estimator with robust standard errors and a mean- and variance-adjusted test statistic (MLMV estimator), which is robust to non-normality (Maydeu-Olivares 2017).

Results

Descriptive Statistics

Descriptive statistics (see Table 9.1) showed that there were values close to both ends of the continuum in prenatal FA and in postnatal FA at each time point. Mean scores tended to be in the *partially appropriate – appropriate* range (a score of 5 for prenatal FA and of 11 for postnatal FA could reflect an average of partially appropriate scores, that is, a score of 1 on each dimension of both coding systems). There was thus a general trend toward a functional alliance in our sample.

Regarding the BSRI, the means were 5.10 for femininity and 4.45 for masculinity in mothers and 5.07 for femininity and 4.87 for masculinity in fathers. Comparison with a reference sample of 447 couples from a previous study in Switzerland (Frascarolo et al. 1996) showed no significant difference between this sample and the reference sample.

FA Through the Transition to Parenthood

The results for the growth curve model of the evolution of FA along the first 18 months showed that Model 1 had a good fit, $\chi^2 = 0.200$, $df = 1$, $p = 0.655$, CFI = 1.000, SRMR = 0.011, RMSEA = 0.000, 90% confidence interval (CI) [0.000, 0.334]. The estimated means of the intercept and slope factors were significant ($M = 12.671$, $p < 0.001$, and $M = 2.308$, $p < 0.001$, respectively). These results suggested that the average FA score was different from 0 at baseline and tended to increase linearly from 3 to 18 months. The variance of the intercept factor was significant ($\sigma^2 = 32.575$, $p < 0.001$), suggesting that there was a significant heterogeneity in FA scores at baseline. In contrast, the variance of the slope factor was not

Table 9.1 Descriptive data of study variables ($N = 50$)

Variables	Theoretical range	Mean	SD	Minimum	Maximum
Family alliance (LTP)					
Prenatal	0–10	6.3	2.0	1	9
3 months	0–22	12.9	5.8	3	21
9 months	0–22	14.3	5.9	2	22
18 months	0–22	15.0	5.2	5	22
Prenatal BSRI					
Maternal femininity	1–7	5.10	0.60	3.11	6.37
Maternal masculinity	1–7	4.45	0.70	3.11	6.26
Paternal femininity	1–7	5.07	0.61	3.53	6.26
Paternal masculinity	1–7	4.87	0.85	2.89	6.78

Note. LTP Lausanne Trilogie Play, BSRI Bem Sex Roles Inventory

significant, indicating homogeneity in the way that FA scores increase from 3 to 18 months.

Concerning potential differences in the postnatal evolution of FA in families of boys or girls, the results of the estimation of Model 1a and Model 1b, assuming differences or equivalence, respectively, in FA evolution in families of boys or girls, showed that both models had a good fit, $\chi^2 = 1.582$, $df = 2$, $p = 0.454$, CFI = 1.000, SRMR = 0.028, RMSEA = 0.000, 90% CI [0.000, 0.430] and $\chi^2 = 5.348$, $df = 6$, $p = 0.500$, CFI = 1.000, SRMR = 0.186, RMSEA = 0.000, 90% CI [0.000, 0.283], respectively. All fit indices showed a good fit for both models, except for the SRMR of Model 1b, which was higher than 0.05, a finding not uncommon in small samples. The results of the LRT were nonsignificant ($\chi^2 = 3.786$, $df = 4$, $p = 0.436$), which suggested that Model 1b should be preferred, as it was more parsimonious, but not statistically different from Model 1a.

Prenatal Gender-Role Orientation as Predictor of FA

The results for the test of Model 2 (see Fig. 9.1) showed that this model had a good fit, $\chi^2 = 6.926$, $df = 8$, $p = 0.545$, CFI = 1.000, SRMR = 0.016, RMSEA = 0.000, 90% CI [0.000, 0.178], with a nonsignificant chi square, a CFI above 0.95, and an SRMR and RMSEA below 0.05.

Parameter estimates showed that the FA intercept factor, that is, the baseline level of FA in the postnatal period, was predicted only by lower maternal androgyny. On the other hand, the FA slope factor, that is, the evolution of the alliance throughout the postpartum period, was negatively associated with paternal masculinity and positively associated with maternal femininity and androgyny.

Concerning potential differences according to child gender, the results of the estimation of Model 2a and Model 2b, assuming differences or equivalence, respectively, in the influence of parental gender-role orientation on the evolution of FA in families of boys and girls, showed contrasting results, particularly in the adjustment of the models. Model 2a could be considered to have a moderate to good fit according to the different fit indices, $\chi^2 = 23.394$, $df = 16$, $p = 0.104$, CFI = 0.930, SRMR = 0.054, RMSEA = 0.160, 90% CI [0.000, 0.291]. The nonsignificant chi square indicated good fit, and the CFI value between 0.90 and 0.95 indicated an acceptable rather than an excellent fit. The SRMR, at just above 0.05, indicated a correct fit, whereas the RMSEA indicated a poor fit. Model 2b could also be considered to have a moderate to good fit according to the different fit indices, but globally showed a slightly lower adjustment, $\chi^2 = 40.264$, $df = 28$, $p = 0.063$, CFI = 0.88, SRMR = 0.070, RMSEA = 0.156, 90% CI [0.000, 0.257]. The nonsignificant chi square indicated good fit and the SRMR, at below 0.08, was acceptable. In contrast, the CFI and RMSEA values indicated a poor fit. The result of the LRT comparing these two models was not significant ($\chi^2 = 14.721$, $df = 12$, $p = 0.257$) and indicated

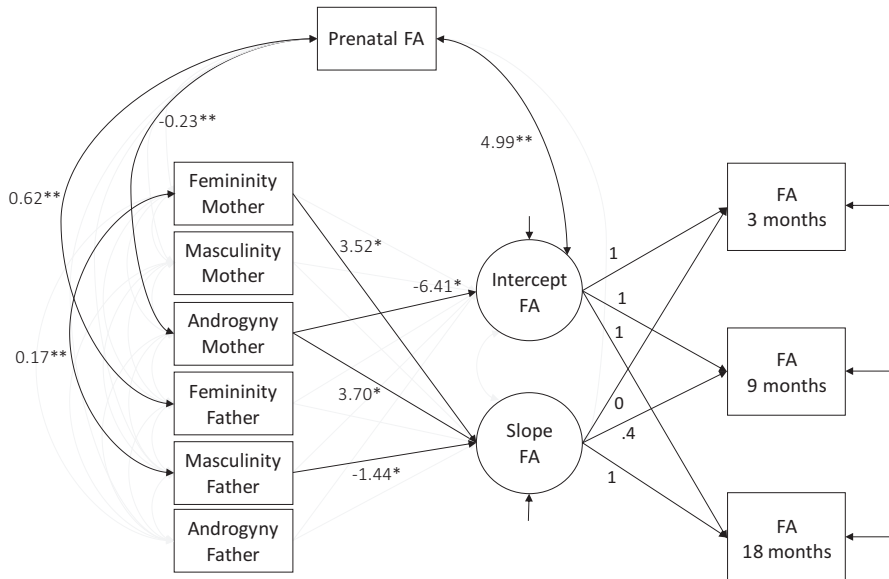


Fig. 9.1 Results of the parameter estimation for Model 2. Model fit: $\chi^2 = 6.926$, $df = 8$, $p = 0.545$, comparative fit index = 1.000, standardized root mean square residual = 0.016, root mean square error of approximation = 0.000, 90% confidence interval [0.000, 0.178]. All estimates are non-standardized. FA Family alliance

that Model 2b should be preferred, assuming equivalence between families of boys and girls in the influence of parental gender orientation on postnatal FA evolution.

Prenatal FA, as a covariate, was specifically positively linked with femininity in fathers and negatively with androgyny in mothers; it was also strongly positively linked with the FA intercept factor, suggesting a continuity in the quality of alliances from the prenatal to the postnatal period.

Discussion

Following studies on gender-role orientation and parenting, we expected gender-role orientation as assessed during pregnancy in both parents to be linked with the development of FA throughout the first 18 postpartum months. Firstly, we expected higher femininity in expectant fathers to be predictive of better FA, as femininity in fathers has been shown to be favorable to paternal engagement; secondly, we expected higher femininity in expectant mothers to be predictive of lower FA, as maternal femininity may be one of the factors motivating gatekeeping behaviors. Whereas our results showed that gender-role orientation is generally related to the

development of FA, the specific links between these variables differed somewhat from our expectations.

Our results show that androgyny in mothers is linked with an overall lower postnatal alliance; even though we expected femininity and not androgyny in mothers to be unfavorable to FA, this finding nevertheless makes theoretical sense. It may be the combination of femininity and masculinity in more androgynous mothers that leads them to engage in gatekeeping behaviors, with the consequence of lowering cooperation between them and their partners. Indeed, the feminine characteristics of androgynous mothers may lead them to stick to traditional roles, whereas their masculine characteristics may provide them with the necessary assertiveness to affirm their will. On the other hand, androgyny and femininity in mothers are paradoxically both predictive of an increase of alliance across the first 18 months, a picture that is congruent with a traditional family organization that relies on the centrality of maternal engagement. With respect to fathers' gender-role orientation, although their femininity is not linked with postnatal family alliance, their masculinity is predictive of a lowering of the alliance over time. This latter finding is congruent with a contemporaneous organization of the family that relies on more egalitarian and less dominant paternal behaviors.

In sum, the evolution of FA is predicted by a blend of traditional and contemporaneous tendencies in parental gender-role attitudes. Notably, prenatal FA, used as a control variable in our study described in this chapter, is strongly linked to the level of postnatal FA, showing that similar patterns of interactions are already operating before the birth of the couples' first child – the organization of the actual triad is foreshadowed by the imaginary triad, a result we have noted previously (Favez et al. 2013). Moreover, in accordance with our third hypothesis, we found that prenatal FA is linked to two variables related to gender-role orientation. Androgyny in expectant mothers is associated with lower prenatal alliance, as is the case with postnatal alliance. Maternal gatekeeping behavior, influenced at least in part by expectant mothers' gender-role attitudes regarding motherhood, may thus already be operating during pregnancy. On the other hand, we also found that femininity in fathers is associated with better prenatal family alliance, whereas this is not the case with postnatal alliance. In fathers with more feminine gender-role orientations, this may reflect a process of their investment in a role traditionally assigned to mothers; their readiness to collaborate with mothers and willingness to endorse more feminine-gendered traits may be part of their effort to build a parental identity prior to their children's births (Eggebeen and Knoester 2001; Favez and Frascarolo 2019). However, once the baby is born, this effect seems to fade, perhaps due to the joint influence of maternal gatekeeping and the social context in which the young family is developing or due to changing gender-role attitudes after the transition to parenthood (Pape Cowan et al. 1985).

How can these mixed results and the coexistence of multiple influences on the development of postnatal FA be explained? We suggest that they hint at parallel historical and contemporaneous influences that place today's parents in Western cultures such as Switzerland within a period of transition; traditional parental role divisions are still influential while more egalitarian parental roles are also operating

to shape couples' ideas of their families envisioned during pregnancy as well as their developing families during the early postpartum months. Although the gender revolution has brought a change toward more egalitarian parenting practices between mothers and fathers (Cabrera et al. 2000; Trifan et al. 2014), the process is still in a transitional phase (Goldscheider et al. 2015). This intermediate era in which traditional views of parenting have not been quite abandoned and new views fully embraced by all families may explain interindividual variations between families: Some families may continue to endorse traditional roles, while others may have switched to the new way of endorsing masculinity and femininity, and still others switch between these different gender-role orientations. This may be why, as a group, the families in our study showed these multiple influences. Moreover, contradictory influences may also coexist within the same family at an intraindividual and dyadic level; parents may be torn between old and new roles. There might indeed be specific processes operating during the transition to parenthood that lead to the adoption of more traditional roles after the baby is born – which would explain the differences in the influence of gender-role orientation on FA we observed between the prenatal and the postnatal periods, especially in fathers.

Others have described the transition to parenthood as a period of changes in gender-role attitudes toward more specialized roles (Katz-Wise et al. 2010; Pape Cowan et al. 1985; Pape Cowan and Cowan 1992); in a way, congruence with traditional roles allows parents to follow a familiar pathway with well-established landmarks so that uncertainties associated with parenthood may be reduced. Pape Cowan et al. (1985) suggest that in the face of the multitude of changes impinging on the couple during the transition to parenthood, men and women may fall back on familiar role models they encountered in their families of origin which is why their roles may become more gender stereotypical and increasingly different after birth of their first child (Pape Cowan et al. 1985). Moreover, parenthood is a domain in which pressure to conform to gender stereotypes is particularly high; this pressure may not be explicit, but rather a consequence of the socialization of fathers and mothers. The traditional model is thus so internalized that it seems natural to follow it; as a consequence, families may feel the need to conform to social representations of what a family should be, at least to a certain extent. Finally, the demands of the social environment in most present-day European and other cultures are contradictory in themselves: Both parents are supposed to be at the same time efficient professionals and nurturing caregivers; that is, they are expected to follow both contemporaneous and traditional gender-role standards. Combining active involvement with children with their role as financial provider may be difficult for fathers, especially as the employment world is not yet ready to offer men the conditions that allow them to manage both their jobs and their family lives (McGill 2014). This is especially the case in Switzerland where paternity leave is almost non-existing. Similarly, mothers have to combine engagement in the workforce with child care and family responsibilities, a double agenda that may induce feelings of guilt and over-burden for mothers (Borelli et al. 2017; Craig 2006; Donnelly et al. 2016; Milkie et al. 2002).

Does this mean that after the gender revolution has been completed and this transitional phase has passed, family systems will be in a “perfect state of equifinality” (each parent fulfilling parental tasks necessary to family functioning) and that the masculine and feminine dimensions in parenting will have no importance? While no one can predict the answer to this question with certainty, we believe that whichever terms are used to designate them, the qualities typically understood as feminine or masculine are still important for adaptive family functioning, regardless of how these qualities are divided among the caregivers of children. Based on our findings with families led by two, heterosexual parents, it seems best if both parents are able to incorporate these qualities equally, but this does not imply that fathers will behave exactly like mothers and that mothers will behave exactly like fathers (Hook and Chalasani 2008). Theories that highlight the importance of the qualities traditionally attributed to fathers and to mothers for the development of the child thus have to make a shift in order to associate these qualities not with the biological sex – as most classic theories have done – but with “postgender” roles.

Finally, we also expected the links between gender roles and FA to differ according to the sex of the child. This fourth hypothesis was not confirmed, as our model in which equality between families of boys and girls is constrained allows a better explanation of the data than our model in which the influence of the sex of the child is freely estimated. Even though differences in the type of non-cohesive behaviors have been observed between families of boys and girls (McHale et al. 2002), the effect of gender-role orientation in parents is not primarily determined by the sex of the child and seems to be instead linked to features of the parents themselves – features which are already influential during pregnancy – and to their engagement in a collaborative coparental relationship.

In conclusion, although we did not find a clear pattern that links gender roles and FA (or perhaps precisely because we did not find this pattern), this study shows that representations of gender roles need to be considered in the development of early family relationships, as early as during pregnancy. Parental representations of the baby, of the future family, and of the self as a parent have all been shown to be linked to the way each parent behaves during family interactions. Ambivalence regarding roles and contradictory influences such as those highlighted in this study have been frequently described in surveys of the transition to parenthood. Studies have shown that parents are willing to be egalitarian but continue to organize themselves, unconsciously, according to traditional roles. Postgender attitudes are thus not yet completely achieved (Knudson-Martin and Mahoney 2005), a previously reported finding that our results support as well. Cultural expectations, cultural norms, social norms, individual expectations, and behaviors may change at different paces, creating discrepancies between and within families (Fox et al. 2000; Milkie et al. 2002). Taking these variables pertaining to the larger social environment into account would allow us to better understand this tension parents have to face during the transition to parenthood. For example, a welfare state regime greatly influences the transition in gender norms, as shown in Europe with the differences observed in the balance of family/work time in fathers and mothers according to the national policies of different countries (Neilson and Stanfors 2014).

Several limitations of this study have to be mentioned. First, this is a secondary study embedded in a larger study on the transition to parenthood. Since the influence of gender role was not the primary variable of interest in our study, we lack complementary measures to strengthen our results. Secondly, we used the BSRI questionnaire, whose construct validity has been debated over the years. Other instruments (see Moradi and Parent 2013) could be used to confirm and further test the validity of the psychological qualities that we identified as feminine and masculine (Lips 2017). Moreover, we stuck with the tradition that considers gender role as being close to a trait. However, gender also has state-like qualities; that is, the expression of gender is affected by the specifics of the context for a given individual (Keener and Strough 2017), so that multiple contexts should be taken into account for a comprehensive assessment of gender-role orientation in any individual. Finally, alternative methodologies and additional data would be needed to understand the exact process by which representations of gender roles may affect the relationship between parents and their mutual interactive behaviors during pregnancy and through the first years of life of the child. For example, it would be interesting to take into account each parent's perception of the other parent's gender-role orientation and the expectations associated with these representations.

Even though our study has raised more questions than it has answered, it shows the importance of taking gender-role orientations of parents-to-be as well as new parents into account in explorations of coparenting interactions. Understanding the role of gender-role orientation allows for a more comprehensive depiction of the contextual development of family relationships across the transition to parenthood.

Acknowledgments This study was supported by the Swiss National Science Foundation, grant 32-52508.97.

References

- Allen, S. M., & Hawkins, A. J. (1999). Maternal gatekeeping: Mothers' beliefs and behaviors that inhibit greater father involvement in family work. *Journal of Marriage and Family*, *61*, 199–212. <https://doi.org/10.2307/353894>.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *42*, 155–162. <https://doi.org/10.1037/h0036215>.
- Bem, S. L. (1979). Theory and measurement of androgyny: A reply to the Pedhazur-Tetenbaum and Locksley-Colten critiques. *Journal of Personality and Social Psychology*, *37*, 1047–1054. <https://doi.org/10.1037/0022-3514.37.6.1047>.
- Bem, S. L. (1981a). *Bem Sex Role Inventory: Professional manual*. Palo Alto: Consulting Psychologists Press.
- Bem, S. L. (1981b). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, *88*, 354–364. <https://doi.org/10.1037/0033-295X.88.4.354>.
- Bem, S. L., Martina, W., & Watson, C. (1976). Sex typing and androgyny: Further explorations of the expressive domain. *Journal of Personality and Social Psychology*, *34*, 1016–1023. <https://doi.org/10.1037/0022-3514.34.5.1016>.
- Biblarz, T. J., & Stacey, J. (2010). How does the gender of parents matter? *Journal of Marriage and Family*, *72*, 3–22. <https://doi.org/10.1111/j.1741-3737.2009.00678.x>.

- Booth, A. (Ed.). (1992). *Child care in the 1990s: Trends and consequences*. Hillsdale: Erlbaum.
- Borelli, J. L., Nelson, S. K., River, L. M., Birken, S. A., & Moss-Racusin, C. (2017). Gender differences in work-family guilt in parents of young children. *Sex Roles, 76*, 356–368. <https://doi.org/10.1007/s11199-016-0579-0>.
- Cabrera, N. J., Tamis-LeMonda, C. S., Bradley, R. H., Hoffert, S., & Lamb, M. E. (2000). Fatherhood in the twenty-first century. *Child Development, 71*, 127–136. <https://doi.org/10.1111/1467-8624.00126>.
- Cairo, S., Darwiche, J., Tissot, H., Favez, N., Germond, M., de Roten, Y., et al. (2012). Family interactions in IVF families: Change over the transition to parenthood. *Journal of Reproductive and Infant Psychology, 30*, 5–20.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal, 27*, 207–228. <https://doi.org/10.1002/imhj.20089>.
- Clearfield, M. W., & Nelson, N. M. J. S. R. (2006). Sex differences in mothers' speech and play behavior with 6-, 9-, and 14-month-old infants. *Sex Roles, 54*, 127–137. <https://doi.org/10.1007/s11199-005-8874-1>.
- Corboz-Warnery, A., Fivaz-Depeursinge, E., Gertsch Bettens, C., & Favez, N. (1993). Systemic analysis of father-mother-baby interactions: The Lausanne triadic play. *Infant Mental Health Journal, 14*, 298–316. [https://doi.org/10.1002/1097-0355\(199324\)14:4<298::AID-IMHJ2280140405>3.0.CO;2-#](https://doi.org/10.1002/1097-0355(199324)14:4<298::AID-IMHJ2280140405>3.0.CO;2-#).
- Cowan, C. P., & Cowan, P. A. (1987). Men's involvement in parenthood: Identifying the antecedents and understanding the barriers. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transitions to parenthood: Longitudinal studies of early family experience* (p. 145–174). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48*, 243–267. <https://doi.org/10.1146/annurev.psych.48.1.243>.
- Craig, L. (2006). Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender and Society, 20*, 259–281. <https://doi.org/10.1177/0891243205285212>.
- Cummings, E. M., & Davies, P. (2010). *Marital conflict and children: An emotional security perspective*. New York: Guilford.
- Donnelly, K., & Twenge, J. M. (2017). Masculine and feminine traits on the Bem Sex-Role Inventory, 1993–2012: A cross-temporal meta-analysis. *Sex Roles, 76*, 556–565. <https://doi.org/10.1007/s11199-016-0625-y>.
- Donnelly, K., Twenge, J. M., Clark, M. A., Shaikh, S. K., Beiler-May, A., & Carter, N. T. (2016). Attitudes toward women's work and family roles in the United States, 1976–2013. *Psychology of Women Quarterly, 40*, 41–54. <https://doi.org/10.1177/0361684315590774>.
- Dufur, M. J., Howell, N. C., Downey, D. B., Ainsworth, J. W., & Lapray, A. J. (2010). Sex differences in parenting behaviors in single-mother and single-father households. *Journal of Marriage and Family, 72*, 1092–1106. <https://doi.org/10.1111/j.1741-3737.2010.00752.x>.
- Eagly, A. H., Wood, W., & Diekmann, A. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 123–174). Mahwah: Erlbaum.
- Esgebeen, D. J., & Knoester, C. (2001). Does fatherhood matter for men? *Journal of Marriage and Family, 63*, 381–393. <https://doi.org/10.1111/j.1741-3737.2001.00381.x>.
- Favez, N., & Frascarolo, F. (2019). Gender-role orientation in parents: A factor contributing to prenatal coparental interactions in primiparous families. *Early Child Development and Care*. Advance online publication. <https://doi.org/10.1080/03004430.2018.1564915>.
- Favez, N., Frascarolo, F., Carneiro, C., Montfort, V., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006a). The development of the family alliance from pregnancy to toddlerhood and children outcomes at 18 months. *Infant and Child Development, 15*, 59–73. <https://doi.org/10.1002/icd.430>.

- Favez, N., Frascarolo, F., & Fivaz-Depeursinge, E. (2006b). Family alliance stability and change from pregnancy to toddlerhood and marital correlates. *Swiss Journal of Psychology, 65*, 213–220. <https://doi.org/10.1024/1421-0185.65.4.213>.
- Favez, N., Lavanchy Scaiola, C., Tissot, H., Darwiche, J., & Frascarolo, F. (2011). The Family Alliance Assessment Scales: Steps toward validity and reliability of an observational assessment tool for early family interactions. *Journal of Child and Family Studies, 20*, 23–37. <https://doi.org/10.1007/s10826-010-9374-7>.
- Favez, N., Lopes, F., Bernard, M., Frascarolo, F., Lavanchy Scaiola, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2012). The development of family alliance from pregnancy to toddlerhood and child outcomes at 5 years. *Family Process, 51*, 542–556. <https://doi.org/10.1111/j.1545-5300.2012.01419.x>.
- Favez, N., Frascarolo, F., Lavanchy Scaiola, C., & Corboz-Warnery, A. (2013). Prenatal representations of family in parents and coparental interactions as predictors of triadic interactions during infancy. *Infant Mental Health Journal, 34*, 25–36. <https://doi.org/10.1002/imhj.21372>.
- Favez, N., Tissot, H., & Frascarolo, F. (2018). Shared parental care in the first 18 months as a context for sensitivity and coparenting. *Journal of Family Studies*. Advance online publication. <https://doi.org/10.1080/13229400.2018.1527711>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle*. New York: Norton.
- Fivaz-Depeursinge, E., Frascarolo-Moutinot, F., & Corboz-Warnery, A. (2010). Observational tool: The prenatal lausanne trilogue play. In S. Tyano, M. Keren, H. Herrman, & J. Cox (Eds.), *Parenthood and mental health* (pp. 121–127). Hoboken: Wiley-Blackwell.
- Fox, G. L., Bruce, C., & Combs-Orme, T. (2000). Parenting expectations and concerns of fathers and mothers of newborn infants. *Family Relations, 49*, 123–131. Retrieved from <http://www.jstor.org/stable/585808>.
- Frascarolo, F., Chillier, L., & Robert-Tissot, C. (1996). Relations entre l'engagement paternel quotidien et les représentations des rôles sexuels [Links between paternal engagement and gender roles representations]. *Archives de Psychologie, 64*, 159–177.
- Frascarolo, F., Favez, N., & Fivaz-Depeursinge, E. (2003). Fathers' and mothers' performances in father-mother-baby games. *European Journal of Psychology of Education, 18*, 101–111. <https://doi.org/10.1007/BF03173479>.
- Freud, S. (1924). Der Untergang des Ödipuskomplexes [The dissolution of the Oedipus complex]. *Internationale Zeitschrift für Psychoanalyse, 10*(3), 245–252.
- Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review, 41*, 207–239. <https://doi.org/10.1111/j.1728-4457.2015.00045.x>.
- Harrell, S. (1997). *Human families*. Boulder: Westview Press.
- Hoffman, C. D., & Moon, M. J. S. R. (2000). Mothers' and fathers' gender-role characteristics: The assignment of postdivorce child care and custody. *Sex Roles, 42*, 917–924. <https://doi.org/10.1023/a:1007002601502>.
- Holt, C. L., & Ellis, J. B. (1998). Assessing the current validity of the Bem Sex-Role Inventory. *Sex Roles, 39*, 929–941. <https://doi.org/10.1023/a:1018836923919>.
- Hook, J., & Chalasani, S. (2008). Gendered expectations? Reconsidering single fathers' child-care time. *Journal of Marriage and Family, 70*, 978–990. Retrieved from <http://www.jstor.org/stable/40056312>.
- Katz-Wise, S. L., Priess, H. A., & Hyde, J. S. (2010). Gender-role attitudes and behavior across the transition to parenthood. *Developmental Psychology, 46*, 18–28. <https://doi.org/10.1037/a0017820>.
- Keener, E., & Strough, J. J. S. R. (2017). Having and doing gender: Young adults' expression of gender when resolving conflicts with friends and romantic partners. *Sex Roles, 76*, 615–626. <https://doi.org/10.1007/s11199-016-0644-8>.
- Knudson-Martin, C. (2012). Changing gender norms in families and society. In F. Walsh (Ed.), *Normal family processes: Growing diversity and complexity* (4th ed., pp. 324–346). New York: Guilford Press.

- Knudson-Martin, C., & Mahoney, A. R. (2005). Moving beyond gender: Processes that create gender equality. *Journal of Marital and Family Therapy*, *31*, 235–258. <https://doi.org/10.1111/j.1752-0606.2005.tb01557.x>.
- Koivunen, J. M., Rothaupt, J. W., & Wolfram, S. M. (2009). Gender dynamics and role adjustment during the transition to parenthood: Current perspectives. *The Family Journal*, *17*, 323–328. <https://doi.org/10.1177/1066480709347360>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, *8*, 475. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Laflamme, D., Pomerleau, A., & Malcuit, G. J. S. R. (2002). A comparison of fathers' and mothers' involvement in childcare and stimulation behaviors during free-play with their infants at 9 and 15 months. *Sex Roles*, *47*, 507–518. <https://doi.org/10.1023/a:1022069720776>.
- Lamb, M. E., & Lewis, C. (2010). The development of significance of father-child relationships in two-parent families. In M. E. Lamb (Ed.), *The role of the father in child development* (pp. 94–153). Hoboken: Wiley.
- Lips, H. M. J. S. R. (2017). Sandra Bem: Naming the impact of gendered categories and identities. *Sex Roles*, *76*, 627–632. <https://doi.org/10.1007/s11199-016-0664-4>.
- Maydeu-Olivares, A. (2017). Maximum likelihood estimation of structural equation models for continuous data: Standard errors and goodness of fit. *Structural Equation Modeling: A Multidisciplinary Journal*, *24*, 383–394. <https://doi.org/10.1080/10705511.2016.1269606>.
- McGill, B. S. (2014). Navigating new norms of involved fatherhood: Employment, fathering attitudes, and father involvement. *Journal of Family Issues*, *35*, 1089–1106. <https://doi.org/10.1177/0192513X14522247>.
- McHale, J. P. (2007). *Charting the bumpy road of coparenthood: Understanding the challenges of family life*. Washington, DC: Zero to Three Press.
- McHale, J. P., & Lindahl, K. M. (Eds.). (2011). *Coparenting: A conceptual and clinical examination of family systems*. Washington, DC: American Psychological Association.
- McHale, J. P., & Rotman, T. (2007). Is seeing believing? Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior and Development*, *30*, 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J. P., Lauretti, A., Talbot, J., & Pouquette, C. (2002). Retrospect and prospect in the psychological study of coparenting and family group process. In J. P. McHale & W. S. Grolnick (Eds.), *Retrospect and prospect in the psychological study of families* (pp. 127–165). Mahwah: Erlbaum.
- McHale, J. P., Favez, N., & Fivaz-Depeursinge, E. (2018). The Lausanne Trilogue Play paradigm: Breaking discoveries in family process and therapy. *Journal of Child and Family Studies*, *27*, 3063–3072. <https://doi.org/10.1007/s10826-018-1209-y>.
- Milkie, M. A., Bianchi, S. M., Mattingly, M. J., & Robinson, J. P. (2002). Gendered division of childrearing: Ideals, realities, and the relationship to parental well-being. *Sex Roles*, *47*, 21–38. <https://doi.org/10.1023/a:1020627602889>.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Moradi, B., & Parent, M. C. (2013). Assessment of gender-related traits, attitudes, roles, norms, identity, and experiences. In K. F. Gelsinger et al. (Eds.), *APA handbook of testing and assessment in psychology* (Vol. 2, pp. 467–488). Washington, DC: American Psychological Association.
- Neilson, J., & Stanfors, M. (2014). It's about time! Gender, parenthood, and household divisions of labor under different welfare regimes. *Journal of Family Issues*, *35*, 1066–1088. <https://doi.org/10.1177/0192513x14522240>.
- Nordahl, K. B., Janson, H., Manger, T., & Zachrisson, H. D. (2014). Family concordance and gender differences in parent-child structured interaction at 12 months. *Journal of Family Psychology*, *28*, 253–259. <https://doi.org/10.1037/a0035977>.
- Pape Cowan, C., & Cowan, P. A. (1992). *When partners become parents: The big life changes for couples*. New York: Basic Books.

- Pape Cowan, C., Cowan, P., Heming, G., Garrett, E., Coysh, W., Curtis-Boles, H., & Boles, A., III. (1985). Transitions to parenthood: His, hers, and theirs. *Journal of Family Issues*, 6(4), 451–481.
- Paquette, D., Carbonneau, R., Dubeau, D., Bigras, M., & Tremblay, R. E. (2003). Prevalence of father-child rough-and-tumble play and physical aggression in preschool children. *European Journal of Psychology of Education*, 18, 171–189.
- Perälä-Littunen, S. (2007). Gender equality or primacy of the mother? Ambivalent descriptions of good parents. *Journal of Marriage and Family*, 69, 341–351. <https://doi.org/10.1111/j.1741-3737.2007.00369.x>.
- Power, T. G. (1985). Mother-and father-infant play: A developmental analysis. *Child Development*, 56, 1514–1524. Retrieved from <https://www.jstor.org/stable/1130470>.
- Raikes, H., & Thompson, R. (2006). Family emotional climate, attachment security and young children's emotion knowledge in a high risk sample. *British Journal of Developmental Psychology*, 24, 89–104.
- Sanderson, S., & Thompson, V. L. S. (2002). Factors associated with perceived paternal involvement in childrearing. *Sex Roles*, 46, 99–111. <https://doi.org/10.1023/a:1016569526920>.
- Stern, D. N. (1991). Maternal representations: A clinical and subjective phenomenological view. *Infant Mental Health Journal*, 12, 174–186.
- Teubert, D., & Pinquart, M. (2010). The association between coparenting and child adjustment: A meta-analysis. *Parenting*, 10, 286–307.
- Theran, S. A., Levendosky, A. A., Bogat, A. G., & Huth-Bocks, A. C. (2005). Stability and change in mothers' internal representations of their infants over time. *Attachment & Human Development*, 7, 253–268.
- Trifan, T. A., Stattin, H., & Tilton-Weaver, L. (2014). Have authoritarian parenting practices and roles changed in the last 50 years? *Journal of Marriage and Family*, 76, 744–761. <https://doi.org/10.1111/jomf.12124>.
- Udry-Jørgensen, L., Tissot, H., Frascarolo, F., Despland, J.-N., & Favez, N. (2016). Are we better together? A study on maternal and paternal sensitivity. *Early Child Development and Care*, 186, 915–926. <https://doi.org/10.1080/03004430.2015.1068768>.
- Van Egeren, L. A. (2003). Prebirth predictors of coparenting experiences in early infancy. *Infant Mental Health Journal*, 24(3), 278–295. <https://doi.org/10.1002/imhj.10056>.
- Van Egeren, L. A. (2004). The development of the coparenting relationship over the transition to parenthood. *Infant Mental Health Journal*, 25(5), 453–477. <https://doi.org/10.1002/imhj.20019>.
- Walsh, F. (2012). *Normal family processes. Growing diversity and complexity* (4th ed.). New York: Guilford Press.

Chapter 10

Coming Together or Falling Apart: Coparenting the First Child While Expecting the Second



Brenda L. Volling, Lin Tan, Richard Gonzalez, and Lauren R. Bader

The transition to parenthood is a time of great expectations as parents welcome their first child into their lives. Marital relationship quality declines after the transition to parenthood at the same time that couples now take on their new role as coparents (Twenge et al. 2003). Coparenting refers to the ability of parents to coordinate and share responsibilities for childrearing and does not include the romantic or sexual aspects of the couple relationship. The decline in marital relationship quality often reported in so many transition to parenthood studies perhaps should be viewed as a normative developmental shift in family dynamics, as the couple shifts their attention from the romantic and companionate aspects of their relationship to now assume their roles as coparents. Indeed, research has revealed significant relations between coparenting and marital quality in the first year of infancy (Durtschi et al. 2017; McHale 1995) and that marital relationship quality during pregnancy is a significant and consistent predictor of coparenting relationship quality in the first year after the birth of the first child (Le et al. 2016; Schoppe-Sullivan and Mangelsdorf 2013). Therefore, when couples report better marital communication, more marital satisfaction, and a greater sense of belonging before the birth of an infant, they are also more likely to be more cooperative and supportive coparents after the birth of their infant.

Most families in the USA and elsewhere often have more than one child (World Bank 2019), and many parents report that they knew they wanted two or more children even before they had their first child (Knox and Wilson 1978). Second and subsequent transitions to parenthood differ in important respects from first transitions to parenthood (Goldberg and Michaels 1988), and observing families during

B. L. Volling (✉) · L. Tan · R. Gonzalez
Department of Psychology, University of Michigan, Ann Arbor, MI, USA
e-mail: volling@umich.edu

L. R. Bader
Institute for Advanced Study in Toulouse, Toulouse, France

multiple transitions affords insights into the principles operating during these transitions (Cowan 1991). Coparental roles continue to evolve with each subsequent birth as parents learn how to manage the care of two or more children and adapt to their new roles as coparents (Kuo et al. 2017). These changes in family roles and expectations may also be why Twenge et al. (2003) found in their meta-analyses that marital satisfaction continued to decline with each subsequent child. But, the birth of an infant may not be the harbinger of marital dissatisfaction if parents are successfully arbitrating their roles as coparents, cooperating in the rearing of their children, and feeling content with their decision to have two children.

Several researchers have suggested that consideration of the father across the transition from one child to two children should be an important focus for studies of second-time parenthood (Kreppner 1988; Stewart 1990), yet few studies have actually done so. Given the substantial changes in the mother-firstborn relationship over this time, fathers may be significant supports for their firstborn children, buffering the stress of the transition and helping alleviate adjustment issues (Volling et al. [in press](#)). In this regard, fathers may assume this supportive role through the coparenting relationship with the mother as they work together to manage the care of two young children in the family.

What Is Coparenting in Families with Multiple Children?

Few studies have examined coparenting around the birth of a second child or have considered coparenting of multiple children. Most coparenting research to date has focused on coparenting as a triadic construct in a family of three consisting of mother, father, and child. The triadic context certainly represents the coparenting context for couples with firstborn children, but as McHale (2007) notes, second-born children rarely spend time in a coparenting triad. Instead, “coparenting” with two children is conducted in a tetradic context, or what Murphy (2018) termed a “family of four,” and often involves parents coparenting both siblings together, rather than individually, during the week and even more so on the weekend (reported in McHale 2007). McHale and his colleagues (McConnell et al. 2003, cited in McHale 2007) conducted tetradic family interactions with fathers, mothers, first-born preschoolers, and second-born one-year-olds and found differences in coparenting across firstborn and second-born children. Specifically, coparents displayed more mutual supervision of the first child than the second child and were warmer and more cooperative but also more directive and less child-centered in interactions with the firstborn than the second born. These findings are reminiscent of work by Volling and Elins (1998) who also found that mothers and fathers reported more control of preschool siblings than their 16-month-old toddler siblings. McHale and colleagues would go on to find that even when older siblings were not present, parents still appeared to engage in more mutual supervision and directives with first-born 12-month-olds than second-born 12-months old, suggesting that coparenting may be child-specific, but longitudinal research is needed to address how

coparenting may change across the transition from one to two children and whether the coparenting of one child predicts coparenting of the other.

Coparenting During the Transition to Siblinghood

Recent work on coparenting among second-time parents has focused predominantly on coparenting of the first child before the birth of an infant sibling and how this predicts children's adjustment after the birth (Kolak and Volling 2013; Song and Volling 2015), or whether coparenting of the first child changes in the months and year following the infant sibling's birth (Kuo et al. 2018; Szabó et al. 2012). In prior reports, we found that observations of high cooperative coparenting and low undermining coparenting with the firstborn while mothers were pregnant with the second child actually predicted fewer externalizing problem behaviors in the month after the birth, particularly for children high in negative emotionality (Kolak and Volling 2013), and parent reports of more cooperative and less undermining coparenting predicted children's cooperation in the care of the infant sibling (Song and Volling 2015).

Only one study to date has examined how coparenting of the first child before the infant sibling's birth predicted coparenting of the second child when they were 1 year old. Szabó et al. (2012) observed mothers and fathers during triadic interactions with the first child prebirth and also conducted tetradic interactions with mothers, fathers, and both children 1 year after the birth of the sibling. Mothers and fathers also reported on the quality of their coparenting relationship at both times, including how they coparented each child separately at 1 year. These longitudinal findings portray a complex picture depending on whether we focus on rank-order stability (individual differences) or mean-level change and sibling differences. For instance, parent-reported coparenting (more supportive, less undermining) of the firstborn prebirth actually predicted coparenting of the sibling 1 year later, and coparenting of the firstborn and the 1-year-old sibling was also significantly correlated concurrently, even though mothers reported significantly higher quality coparenting (mean-level) of the 1 year old than the firstborn. During tetradic observations at 1 year after the birth, coparenting cooperation of the older and younger sibling was modestly correlated, and there were no mean differences in cooperative coparenting across the two siblings. As the authors noted, "parent reports and observations suggested an overlap between the coparenting subsystem with child 1 and child 2" (p. 559) and not necessarily that coparenting was child-specific.

Because we found in our prior work that coparenting of the firstborn before the birth of the second child predicted the firstborn's behavior problems and positive involvement with the infant sibling in the first month after the birth, we decided to focus this chapter on coparenting of the first child during the mother's pregnancy with the second (prenatal coparenting) to determine what parent, child, and family factors during the prenatal period covaried with cooperative and undermining coparenting. It should be noted that Szabó et al. (2012) did not find that cooperative

coparenting of the firstborn in mother-father-child triadic interaction before the birth of the sibling actually predicted cooperative coparenting of either child 1 year later in tetradic interactions. Their findings suggest that what predicts coparenting during triadic interaction with mothers, fathers, and firstborns prebirth may not be the same as what predicts coparenting of either child or both children after the birth. Nonetheless, prenatal coparenting in the mother-father-firstborn triad did predict how well firstborns adjusted to the transition and the birth of their infant sibling so we were interested in learning what child and family factors covaried with prenatal coparenting quality. To do so, we utilized Feinberg's (2003) ecological model of coparenting, which underscores the individual parent (parent mental health), child (behavior problems), and family-level (e.g., marital quality, parenting stress) factors that influence the coparenting relationship.

Determinants of Coparenting

Individual Parent Characteristics Both parental depression and parental self-efficacy have been linked to coparenting. Mothers (23%) and fathers (10%) have been shown to experience depressive symptoms in the perinatal period (Paulson and Bazemore 2010), and the effects of maternal and paternal depression can impact the entire family system, including mother-infant, father-infant, and interparental interactions, as well as the social-emotional development of children (Letourneau et al. 2012; Volling et al. 2018). Parents' depression around the transition to parenthood was associated with both coparenting and marital issues (Feinberg et al. 2016; Feinberg and Kan 2008; Tissot et al. 2016). For instance, Elliston et al. (2008) found that for first-time fathers, but not mothers, an increase in depressive symptoms from pregnancy to 3 months postpartum was associated with fathers' withdrawal during a coparenting discussion task at 3 months postpartum, and Isacco et al. (2010) found that fathers high on depressive symptoms 1 year after the birth of a first child predicted fathers' perceptions of less coparental support from mothers at the same time. Even though both studies found that fathers' depression was related to coparenting and not necessarily mothers' depression, maternal and paternal depression is often correlated, and as such, researchers may need to examine mothers' and fathers' depressive symptoms together at a dyadic or family level rather than as individual independent predictors of coparenting, which is itself a family-level construct.

Parental self-efficacy refers to parents' judgments about their competence and effectiveness in parenting their children (Teti et al. 1996). Because partners often share parenting responsibilities, their encouragement or discouragement of each other can increase or hinder an individual's sense of parental self-efficacy, which could also lead to more cooperative and less undermining coparenting (Murphy 2018; Schoppe-Sullivan et al. 2015). Maternal and paternal self-efficacy was positively related to supportive and negatively related to undermining

coparenting when the firstborn child was 13 months old (Solmeyer and Feinberg 2011). During the first and third trimesters of pregnancy, fathers' parental self-efficacy was positively correlated with coparenting support (Pinto et al. 2016). In the current study, we also looked at the relations between parental depression, parental efficacy, and coparenting of the first child during the last trimester of the pregnancy with the second, but with a major difference. Rather than examining mothers' and fathers' efficacy and depressive symptoms at the level of each individual parent, we utilized a latent variable analysis that partitioned variance into a shared, dyadic component representing how similar mothers and fathers were in depression and efficacy, from an individual component that reflected the unique contribution of each parent, either mother or father, when predicting cooperative and undermining coparenting.

Individual Child Characteristics We chose to focus on the older sibling's externalizing behavior problems during the pregnancy with their infant sibling because previous research has shown a robust link between the quality of the coparenting relationship and children's externalizing behavior (Murphy et al. 2016; Schoppe et al. 2001; Teubert and Pinquart 2010) and because we know that coparenting relationship quality predicted increases in externalizing behavior problems for children across the prenatal to early postnatal period after the transition to siblinghood (Kolak and Volling 2013). Older siblings' displays of externalizing behavior during the pregnancy of a second child may overwhelm parents anticipating and planning for the arrival of their second baby and undermine their support for each other when parenting their first child. Therefore, we included children's externalizing behavior problems as a covariate in our analyses predicting coparenting during pregnancy.

Family-Level Influence We focused here on parenting stress because, not surprisingly, other studies have found links between parenting stress and less supportive coparenting relations for first-time mothers and fathers around the transition to parenthood (Durtschi et al. 2017) and at the end of the first year of infancy (Solmeyer and Feinberg 2011). Indeed, Schoppe-Sullivan et al. (2016) found that mothers' perceptions of coparenting mediated the relation between maternal self-efficacy and parenting stress such that self-efficacy predicted mothers' reports of supportive coparenting, which, in turn, predicted lower parenting stress. In a recent study of mothers in two-child Chinese families, parenting stress was related to less maternal warmth, but only in families with low levels of undermining coparenting (Chen 2018). As such, we also included mothers' and father's reports of parenting stress in our latent dyadic model to examine whether prenatal coparenting was better predicted by the shared dyadic or individual components of parenting stress. Because marital relationship quality has also been consistently linked with coparenting (e.g., Holland and McElwain 2013; Le et al. 2016; McHale 1995), we also included marital conflict as a family-level covariate in our models when predicting undermining and cooperative coparenting.

Shared-Couple or Individual-Level Predictors of Coparenting

Family systems theory underscores the interdependent nature of individuals within the family, and that individuals must be understood in the context of various family relationships (Cox and Paley 2003), including the coparenting relationship. To best understand family dynamics, one must focus not only on relations among individual family members but also on relations at the relationship or dyadic level. To this end, we used a unique statistical approach when analyzing parental depression, parental self-efficacy, and parenting stress as predictors of prenatal coparenting. In the current paper, we used a dyadic, latent variable framework, often referred to as the common fate model (Ledermann and Kenny 2012) or latent group model (Gonzalez and Griffin 2002), to take into consideration a dyadic relationship perspective that included information from both parents, rather than analyzing mothers' and fathers' reports of coparenting separately. We refer to this approach here as the latent dyad model (LDM) and use it to predict observed and parent-reported coparenting of the firstborn. As shown in Fig. 10.1, the LDM assumes an underlying latent structure that represents the dyadic or shared variance between mothers' and fathers' reports of depression, parental efficacy and parenting stress, and individual-level error variances after accounting for the shared variance that reflects the unique effects of each parent. Because we had both mothers' and fathers' reports for each of the key individual and family-level predictors of interest, we were able to examine both dyadic and individual predictors of coparenting. For present purposes, we used these dyadic and individual-level predictors of the LDM to predict both parent-reported coparenting and observed coparenting of the firstborn during the prenatal period. We included measures of both cooperative and undermining coparenting, because in our previous studies we had found that both of these coparenting characteristics predicted firstborn children's behavioral adjustment in the month following the birth of the second child (Kolak and Volling 2013; Song and Volling 2015).

Methods

Participants

Families were part of the longitudinal Family Transitions Study (FTS) designed to investigate firstborns' adjustment to the birth of a second child and consisted of 5 time points: prenatal, 1, 4, 8, and 12 months following the birth of a second child. The current study utilized data from the initial prenatal time point when mothers were in the third trimester of their pregnancy with their second child. Pregnant mothers ($N = 241$) were recruited mostly through local obstetric offices, childcare centers, and child-birth classes and some media outlets targeting parents. The following criteria were used to select participants into the study: (a) biological fathers of the infant had to be resident; (b) firstborns had to be between 1 and 5 years of age

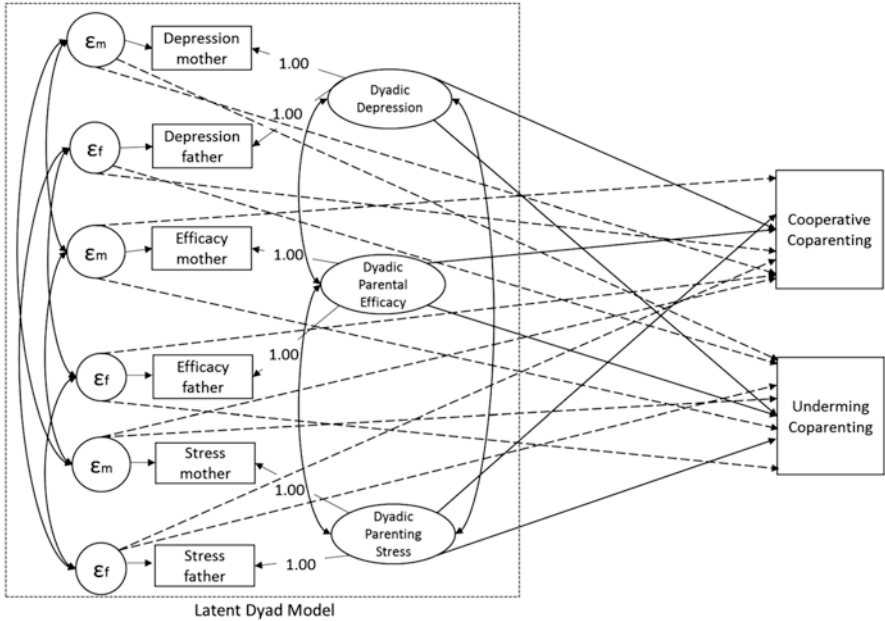


Fig. 10.1 The proposed model using a Latent Dyad Model (LDM) framework (depicted within the box) to predict cooperative and undermining coparenting. Solid lines depict direct paths between the shared, dyadic variance between mothers’ and fathers’ reports of depression, parental efficacy, and parenting stress predicting cooperative and undermining coparenting. Dashed lines represent paths from the unique, individual-level variance estimates (ϵ) for mothers and fathers predicting coparenting

at the time of the birth; and (c) both the first- and second-born children had to be free of known mental or physical developmental delays. On average, firstborn children were 2.5 years old ($M = 31$ months; $SD = 10$ months) at the birth of the second child. Most families earned between \$60,000 and \$99,999; mothers and fathers were mostly White (86%), and the majority of parents had at least a 4-year college degree (79% for fathers and 83% for mothers). Because the LDM requires information from both mothers and fathers for analyses, 18 families were removed from analyses because one or both parents were missing data on depression, parental efficacy, or parenting stress, resulting in 224 families for analyses.

Measures from the Family Transitions Study

The coparenting composites used here were created using the same analytic procedures conducted by Kolak and Volling (2013) to create factor scores of cooperative and undermining coparenting from prenatal triadic interactions and composites of parent reports of cooperative and undermining coparenting (Song and Volling 2015)

used in earlier reports from the Family Transitions Study, a longitudinal investigation of child and family adjustment across the transition from one child to two. Further, maternal and paternal reports of depression, parenting stress, and parental efficacy were used in the LDM to create the dyadic latent variables and individual-level variables. Parent reports of marital conflict and children's externalizing behaviors were used as covariates. Demographic information was obtained from couples during an interview conducted at the prenatal home visit.

Parent-Reported Coparenting Both mothers and fathers completed the 14-item Coparenting Questionnaire (Margolin et al. 2001) on a 5-point Likert scale, which yields three coparenting scales: *cooperation* (e.g., "My spouse fills me in on what happens during our older child's day" $\alpha = 0.79$ for fathers and 0.66 for mothers), *conflict* (e.g., "My spouse argues with me about our older child" $\alpha = 0.74$ for fathers and 0.74 for mothers), and *triangulation* (e.g., "My spouse tries to get our older child to take sides when we argue" $\alpha = 0.50$ for fathers and 0.63 for mothers). Because mothers' and fathers' scores were correlated for cooperation, $r = 0.35$, $p < 0.001$, conflict, $r = 0.53$, $p < 0.001$, and triangulation, $r = 0.29$, $p < 0.001$, scores were averaged across parents, and triangulation and conflict were further averaged to create an undermining coparenting composite (see Song and Volling 2015).

Observations of Coparenting During a prenatal home visit, mothers, fathers, and firstborn children were observed and videotaped for 25 min in a series of dyadic and triadic sessions, in which parents were told to play with their child "as you normally would." Coparenting interaction was coded during two mother-father-child triadic free-play sessions, one 10-min session at the beginning and a 5-min session at the end of the visit, resulting in a total of 15 min of observation. Each 5-min interval was coded for cooperation, pleasure, interactiveness, displeasure, coldness, and competition using 5-point rating scales (Schoppe-Sullivan et al. 2004). Interrater reliability was assessed on 20% of the videotapes, and intraclass correlation coefficients ranged from 0.72 to 0.90. Ratings were summed across each 5-min segment and used in a principal components analysis with varimax rotation (see Kolak and Volling 2013), which resulted in two factors: (1) *supportive coparenting* (high loadings for pleasure, cooperation, and interactiveness) and (2) *undermining coparenting* (high loadings for displeasure, competition, and coldness).

Predictors of Coparenting

Parenting Stress At the prenatal time point, both mothers and fathers completed the 14-item Parenting Daily Hassles scale (PDH, Crnic and Greenberg 1990), which assesses stress related to typical everyday events in parenting and parent-child interactions using a 5-point Likert scale. For present purposes, we used the 7-item *challenging behavior hassles* subscale (e.g., "Older child demands to be entertained or played with", $\alpha = 0.75$ for fathers and 0.74 for mothers).

Depressed Mood Mothers and fathers completed the 21 items of the widely used Beck Depression Inventory (BDI, Beck et al. 1961), which assesses the intensity of depression using a 0 to 3 scale, with 0 (*no depressive symptoms*) to 3 (*severe depressive symptoms*), $\alpha = 0.79$, for fathers and $\alpha = 0.85$, for mothers.

Parental Self-efficacy Mothers and fathers completed the 47-item Parental Locus of Control Scale (PLOC, Campis et al. 1986). We focused on three subscales: (a) *parental self-efficacy* (e.g., “What I do has little effect on my older child’s behavior” $\alpha = 0.67$ for fathers and 0.76 for mothers), *child control of parents’ life* (e.g., “My life is chiefly controlled by my older child” $\alpha = 0.62$ for fathers and 0.65 for mothers), and *parental control of child behavior* (“I always feel in control when it comes to my older child” $\alpha = 0.81$ for fathers and 0.82 for mothers). Scores were reverse coded so that higher scores reflected higher self-efficacy.

Covariates

Demographic Information Information about family income, parental education, child gender, and age were collected during a couple interview at the prenatal time point.

Children’s Externalizing Behavior Children’s externalizing behavior has been associated with coparenting conflict in a number of studies (e.g., Murphy et al. 2016; Kolak and Volling 2013) and was thus used as a covariate. Mothers and fathers completed the 99-item Child Behavior Checklist (CBCL 1.5–5 years, Achenbach and Rescorla 2000) to assess children’s adaptive and maladaptive functioning on a 3-point Likert scale. The CBCL yields two broadband scores, externalizing and internalizing problems, $\alpha = 0.88$ for fathers and $\alpha = 0.89$ for mothers. Mothers’ and fathers’ scores were correlated, $r = 0.34$, $p < 0.001$, and averaged.

Marital Conflict Coparenting is also highly correlated with marital relationship quality, so we also included an indicator of marital conflict as a covariate in analyses. Mothers and fathers completed the 25-item Intimate Relations Questionnaire (IRQ, Braiker and Kelley 1979) to assess perceptions of marital functioning on a 9-point Likert scale and used the 5-item conflict scale, $\alpha = 0.68$ for fathers and $\alpha = 0.79$ for mothers. Because mothers’ and fathers’ scores were correlated, $r = 0.51$, $p < 0.001$, they were averaged into a single composite of marital conflict to be used as a covariate in analyses.

Descriptive statistics and correlations among the study variables can be found in Table 10.1. Child age and parents’ education were significantly related to reported cooperative and undermining coparenting. To minimize issues with multicollinearity, we averaged maternal and paternal education ($r = 0.55$, $p < 0.001$) and together with child age included both as covariates in the analyses.

Data Analysis Plan

The current analyses were designed to use a LDM framework to examine the determinants of coparenting. Based on the ecological framework of coparenting (Feinberg 2003), we identified parental depression, parenting efficacy, and parenting stress as three important determinants of observed and parent-reported cooperative and undermining coparenting and examined both the dyadic and individual-level effects that may reflect the family environment in which parents share characteristics of stress and psychological well-being. We also tested whether the effects of each predictor changed once covariates, including sociodemographic variables, child externalizing behaviors, and marital conflict, were added into the models. All models were run using Mplus 8.2 (Muthén and Muthén 1998–2017), and maximum likelihood estimation was used.

Using parental depression, parental efficacy, and parenting stress as our predictors, we conducted a LDM and used the shared (dyadic) and unique (individual) variances to predict both observed and reported coparenting conflict and cooperation of the first child during the pregnancy with the second. We used structural equation modeling (SEM) to test four different models, first focused on observational coparenting and then on parent-reported coparenting. We started with a basic LDM in which the shared (mother and father) and unique variance estimates of parental depression, parenting efficacy, and parenting stress were used to predict supportive and undermining coparenting (Model 1) before adding the demographic covariates of child age and parents' education (Model 2), then children's externalizing problem behaviors (Model 3), and, finally, marital conflict (Model 4) to predict coparenting. With each addition, we were interested in whether the findings from the basic LDM remained or changed. All covariances between the covariates and the dyadic-level determinants were accounted for in each model.

Results

Latent Dyad Model

A LDM was fit for parental depression, parental efficacy, and parenting stress in which the dyadic-level latent variable represents shared-couple variance, whereas the residual error variance reflects the individual-level variance unique to the mother or father that is not captured by the dyadic-level latent variable. For example, dyadic-level depression represents the shared depression between the mother and father, and the individual-level depression represents the unique within-person depression of mother and father. The factor loadings to mothers' and fathers' reports were fixed to 1 for all the dyadic-level latent variables (see Fig. 10.1), and the residual variances for depression, parenting stress, and parental efficacy were set to be equal between mothers and fathers. The latter constraint provides a dissimilarity

Table 10.1 Descriptive statistics and correlations for study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Reported cooperative coparenting	-													
2. Reported undermining coparenting	-0.56**	-												
3. Observed cooperative coparenting	0.13	-0.02	-											
4. Observed undermining coparenting	-0.14*	0.06	0.01	-										
5. Maternal depression	-0.24**	0.27**	0.04	0.03	-									
6. Paternal depression	-0.11	0.29**	-0.12	-0.11	0.19**	-								
7. Maternal efficacy	0.30**	-0.35**	0.02	-0.03	-0.28**	-0.11	-							
8. Paternal efficacy	0.29**	-0.36**	0.06	-0.05	-0.08	-0.27*	0.36**	-						
9. Maternal parenting stress	-0.23**	0.26**	-0.03	0.02	0.09	0.03	-0.45**	-0.42**	-					
10. Paternal parenting stress	-0.18**	0.25**	-0.04	-0.02	0.08	0.14*	-0.34**	-0.46**	0.83**	-				
11. Externalizing behavior	-0.14*	0.24**	0.01	-0.01	0.17*	0.17**	-0.42**	-0.40**	0.41**	0.42**	-			
12. Marital conflict	-0.31**	0.57**	-0.03	0.08	0.32**	0.27**	-0.22**	-0.19*	0.18**	0.19**	0.15*	-		
13. Child age	-0.09	0.17**	0.02	0.07	-0.04	-0.01	0.05	-0.02	0.29**	0.31**	0.01	0.06	-	
14. Parental education	0.08	-0.18**	-0.05	-0.07	-0.10	-0.05	-0.08	-0.01	0.10	0.12	-0.02	0.03	-0.01	-
<i>N</i>	224	224	224	224	224	224	224	224	224	224	223	224	224	224
<i>M</i>	4.24	1.48	0.02	-0.02	9.09	6.02	2.86	2.90	2.50	2.37	10.81	4.01	29.63	3.29
<i>SD</i>	0.48	0.32	1.00	1.00	5.70	4.70	0.40	0.38	0.38	0.60	5.48	1.10	10.13	0.65

Note. * $p < 0.05$; ** $p < 0.01$

interpretation to the residual variance, which is conceptually different from the shared variance (e.g., two dyads may have the same latent dyad factor score, but the mother and father in one dyad have identical observed scores, whereas the mother and father of the other dyad may have different observed scores). The residual covariances for mothers and fathers were constrained to be equal (e.g., the residual covariance of maternal depression and efficacy was set to be equal to the residual covariance for paternal depression and efficacy). The intercepts for maternal and paternal parenting efficacy were constrained to be equal, but the intercepts for depression and parenting stress were not because paired *T*-tests revealed that the means were significantly different for mothers and fathers for depression, $t(223) = 6.90$, $p < 0.01$, and parenting stress, $t(223) = 5.19$, $p < 0.01$, but not for parenting efficacy, $t(223) = -0.131$, $p = 0.19$. The LDM had acceptable model fit, RMSEA = 0.07, $\chi^2(10) = 20.87$, $p = 0.02$, CFI = 0.97, TLI = 0.96. $R^2 = 0.19$ for depression, $R^2 = 0.36$ for parenting efficacy, and $R^2 = 0.83$ for parenting stress indicating more shared variance between mothers and fathers for parenting stress than depression and efficacy.

LDM Predicting Cooperative and Undermining Coparenting

LDM parameters for parental depression, parental efficacy, and parenting stress were then used to test whether the dyadic (shared) or individual (unique) variables predicted observed and reported cooperative and undermining coparenting (Model 1). The model predicting observed coparenting did not have any significant paths from either dyadic- or individual-level predictors to coparenting, so no further analyses were conducted using observed coparenting. The LDM model to predict reported coparenting had acceptable fit, RMSEA = 0.07, $\chi^2(10) = 20.88$, $p = 0.02$, CFI = 0.98, TLI = 0.95, and results are presented in Fig. 10.2. Dyadic levels of parental depression positively predicted and dyadic levels of parenting efficacy negatively predicted reported undermining coparenting, and dyadic, shared variance of parenting efficacy positively predicted reported cooperative coparenting. None of the individual-level predictors representing the unique effects of either mothers or fathers significantly predicted reported cooperative or undermining coparenting.

In Model 2, we added the demographic variables of child age and parent education to determine if the significant predictor paths from Model 1 would remain. Model 2 continued to have good fit, RMSEA = 0.05, $\chi^2(16) = 23.96$, $p = 0.09$, CFI = 0.99, TLI = 0.96, and none of the significant paths from the dyadic-level variables from Model 1 to cooperative and undermining coparenting changed once the demographic variables were added (see Table 10.2). There were now significant paths between the age of the firstborn child and both cooperative and undermining coparenting, with parents reporting more undermining and less cooperative coparenting with older firstborn children. Child age was also significantly and positively

associated with dyadic parenting stress, $b = 1.84, p < 0.01$; parents reported more parenting stress with older firstborns.

In Model 3, we added children’s externalizing behavior problems as a covariate; the model fit was good, $RMSEA = 0.04, \chi^2(19) = 25.14, p = 0.09, CFI = 0.99, TLI = 0.98$. Once children’s externalizing behavior problems were included into Model 3, however, the direct paths from the latent dyadic variables for parental depression and parental efficacy to undermining coparenting reduced in significance, $p < 0.10$, but the path from the latent dyadic variable for parenting efficacy to cooperative coparenting was still significant (see Table 10.2). In addition, children’s externalizing behavior problems were significantly and positively correlated with the latent dyadic variables of parental depression, $b = 4.86, p < 0.01$; parental efficacy, $b = -0.87, p < 0.01$; and parenting stress, $b = 1.39, p < 0.01$, indicating that parents reported more depression, less parental efficacy, and more parenting stress when children exhibited more externalizing behavior problems.

In the final Model 4, we added marital conflict as a covariate with good model fit, $RMSEA = 0.03, \chi^2(22) = 25.23, p = 0.29, CFI = 1.00, TLI = 0.99$. All paths from the latent dyadic variables were now nonsignificant in their prediction of reported cooperative and undermining coparenting (see Table 10.2). Once added to the model, marital conflict was significantly related to the latent dyadic variables of parental depression $b = 1.70, p < 0.01$; parental efficacy $b = -0.09, p < 0.01$; and parenting stress $b = 0.13, p < 0.01$, as well as children’s externalizing behavior problems, $b = 0.86, p = 0.04$, revealing that more marital conflict was positively related

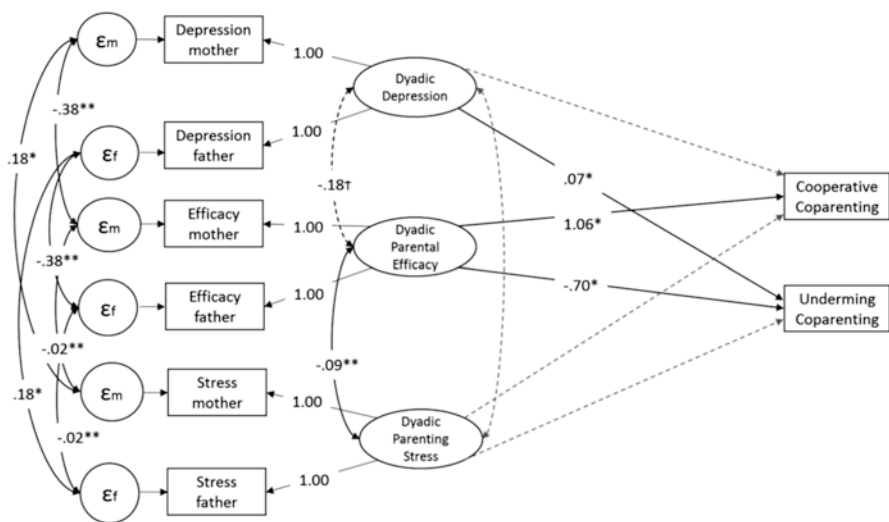


Fig. 10.2 Model 1: Parental depression, parenting efficacy, and parenting stress predicting cooperative and undermining coparenting. Significant paths are solid lines and nonsignificant paths are dashed lines. Paths from individual-level variables to coparenting were all nonsignificant and omitted in this figure for the ease of presentation

$^\dagger p < 0.10$; $^* p < 0.05$; $^{**} p < 0.01$

Table 10.2 Unstandardized parameter estimates for SEM models of dyadic shared variance of common fate variables of depression, parenting efficacy, and parenting stress predicting reported cooperative and undermining coparenting

	Model 1		Model 2		Model 3		Model 4	
	Cooperative	Undermine	Cooperative	Undermine	Cooperative	Undermine	Cooperative	Undermine
<i>Dyadic-level effect</i>								
Depression	-0.05	0.07*	-0.05	0.07*	-0.07	.08	-0.11	-0.09
Parenting efficacy	1.06*	-0.70*	1.28*	-0.93*	1.93*	-1.39	2.11	-1.42
Parenting stress	0.15	-0.08	0.27	-0.20	0.28	-0.20	0.29	-0.21
<i>Covariates</i>								
Child age	-	-	-0.01*	0.01**	-0.01	0.01*	-0.01	.01
Parental education	-	-	0.02	-0.05	0.04	-0.06	0.01	-0.06
Child externalizing behavior	-	-	-	-	.04	-0.03	0.05	-0.03
Marital conflict	-	-	-	-	-	-	0.11	-0.02

Note. $p < 0.10$; * $p < 0.05$; ** $p < 0.01$. *Cooperative* Cooperative Coparenting, *Undermine* Undermining Coparenting

to parents' reports of parental depression, parenting stress, and children's externalizing behavior problems and to a lower sense of parenting efficacy.

Post-Hoc Mediation Testing

Because paths between the shared dyadic latent variables went from significant to nonsignificant with the addition of the covariates, particularly children's externalizing behavior problems and marital conflict, these changes suggested there may be mediating or indirect effects such that one variable (e.g., children's externalizing) had an effect on coparenting indirectly via another variable in the model (e.g., parental efficacy). Given the significant prediction of parental efficacy for both undermining and cooperative coparenting, and parental depression for undermining coparenting, we restricted our tests of indirect effects to variables reflecting parents' psychological characteristics (depression, efficacy) as the mediating paths between the other family (parenting stress, marital conflict) and child (externalizing behavior problems) variables, hypothesizing that family and child level stressors affect coparenting indirectly through parental feelings of competence and depressive symptoms. Indirect effects were tested using Mplus 8.2 (Muthén and Muthén 1998–2017) following Preacher and Hayes' (2008) bootstrapping method based on 5000 bootstrapped samples. All of the indirect paths tested were significant; unstandardized estimates with bias-corrected bootstrap 95% confidence intervals are summarized here.

Latent dyadic parenting stress was related indirectly to cooperative coparenting, *estimate* = -0.34 , 95% CI [-1.25 , -0.14], and undermining coparenting, *estimate* = 0.23 , 95% CI [0.10 , 0.73], through latent dyadic parenting efficacy. Children's externalizing behavior problems were indirectly related to undermining coparenting through the effect on both latent dyadic parental efficacy, *estimate* = 0.02 , 95% CI [0.01 , 0.08], and latent dyadic parental depression, *estimate* = 0.01 , 95% CI [0.001 , 0.07], and indirectly related to cooperative coparenting through latent dyadic parental efficacy, *estimate* = -0.04 , 95% CI [-0.13 , -0.02]. Finally, marital conflict was indirectly related to undermining coparenting through the effect on both latent dyadic parental efficacy, *estimate* = 0.05 , 95% CI [0.003 , 0.17], and latent dyadic parental depression, *estimate* = 0.08 , 95% CI [$0.0.02$, 0.62], and indirectly related to cooperative coparenting through latent dyadic parental efficacy, *estimate* = -0.07 , 95% CI [-0.27 , -0.01].

Discussion

Although many families have more than one child, we still know little about family processes before and after the birth of a second child. The current chapter used an ecological framework to examine the child, parent, and family-level predictors of

the quality of the coparenting relationship between fathers and mothers with their firstborn child during the last trimester of the mother's pregnancy with the second child. We chose to focus on the pregnancy period because we knew from our earlier findings that the quality of the coparenting relationship during pregnancy predicted firstborn children's emotional and behavioral adjustment in the first month after the birth of their infant sibling (Kolak and Volling 2013), as well as their positive interest in and care of the infant sibling (Song and Volling 2015).

Because of our interests in family processes and the coparenting relationship which reflects both mothers' and fathers' efforts to work together in the coparental dyad, we also utilized the LDM to reflect dyadic-level representations of the combined influence of mothers and fathers in the family using information obtained from both fathers and mothers on their depressive symptoms, feelings of parental competence in disciplining the older sibling, and levels of parenting stress in managing children's challenging behaviors. The LDM allowed us to differentiate between the shared variance between mothers and fathers representing dyadic influence and what was unique to each parent as reflected in the constrained residuals and then determine whether it was the shared information about the dyad or the unique individual information that predicted cooperative and undermining coparenting. In each case, it was the dyadic components that predicted parent-reported coparenting quality. There was no evidence suggesting that individual parent information added more to the prediction than what they shared at the level of the dyad. Here, there was evidence that the latent dyadic components of parental depression and parental efficacy were effective in predicting parent-reported undermining coparenting and the latent dyadic component of parental efficacy was effective in predicting parent-reported cooperative coparenting.

Not only were the dyadic components of depression, parental efficacy, and parenting stress more influential in predicting coparenting quality, but it was the aspects of intrapersonal functioning, namely, depression and feelings of efficacy, that had direct effects on coparenting, not parenting stress, which was more representative of family-level aspects of environmental influence. Parenting stress, on the other hand, did appear to affect coparenting indirectly via its effect on mothers' and fathers' intrapersonal functioning. Tests of indirect effects indicated quite clearly that parenting stress undermined personal well-being and, in turn, affected the quality of the coparental relationship so that when parents were similar in their stress in dealing with their children's challenging behaviors, they also reported a shared sense of lower confidence in their abilities to discipline children's disruptive behaviors, which left parents reporting more undermining and less cooperative coparenting. Based on our earlier work, we knew this combination of more undermining and less cooperative coparenting predicted children's behavior problems, and less cooperation and positive interest in the infant sibling in the month shortly after the infant's birth. Marital conflict, which one could argue also reflects the dyadic nature of difficult communication and disagreements within the marital dyad, also had an effect on parent-reported coparenting, but again, this was not necessarily direct, but indirect, working its ill effects on coparenting by eroding the intrapersonal well-being of the couple and decreasing their shared sense of parental competence in dealing

with their children's difficult behaviors, while also increasing their negative mood in the form of greater depressive symptomatology.

Because earlier research had uncovered strong relations between coparenting and children's externalizing behavior problems (e.g., Latham et al. 2018; Schoppe-Sullivan et al. 2009), we also included parents' reports of their children's externalizing problems into the LDM as a covariate to see whether or not we could continue to predict coparenting once children's difficult behavior was included, acknowledging that some children are indeed more difficult to coparent than others (Cook et al. 2009). Once we added children's externalizing behavior to the LDM, the direct effects of both latent dyadic depression and latent dyadic parental efficacy predicting reports of undermining coparenting were reduced in significance indicating that dealing with children's difficult behavior may very well be responsible for parental depressed affect and inadequate feelings of parental competence in dealing with disruptive child behavior that creates the context for undermining coparenting. Indeed, testing for indirect effects revealed that children's externalizing behavior problems compromised parental well-being, leaving parents feeling less efficacious, which, in turn, led to more undermining and less cooperative coparenting, and reporting more depressive symptoms, which also contributed to the likelihood parents reported more undermining coparenting. These findings implicate the intricate complexities between individual parents, individual children, the coparental relationship, and the nature of dyadic relations across the family system.

Despite the insights gained through this analysis, we must also recognize the limitations of this research and the approach taken here. First, the LDM was only successful in predicting parents' reports of coparenting and not the observations of coparenting interaction occurring in the mother-father-child triad during prenatal home visits. Why this would be the case is not entirely clear, but the observational episode of coparenting may have been too short to truly assess the undermining nature of coparental interactions. Parents may be unlikely to engage in such interactions with home visitors collecting observational data but be more likely to report that such behavior does exist in their relationship. Moreover, the coparenting relationship encompasses more than the cooperative and undermining aspects of coparenting used here but also refers to joint decision-making and the division of child care. We cannot know for certain if similar findings would have been found if we had examined the division of child care or joint problem solving until more research is conducted in this area.

Furthermore, Murphy (2018) recently uncovered a coparenting strategy (divide and conquer) that parents of two children often used; one in which the mother would be responsible for one sibling, while the father would be engaged in the care of the other sibling. This work is quite telling in underscoring that we cannot make assumptions about coparenting in families of four based on coparenting research on mother-father-child triads, which probably only reflects coparenting of firstborn children and firstborn children only before a second child is born. Recall that Szabó et al. (2012) did not find that coparenting of the first child in prenatal triadic interactions predicted coparenting in tetradic interactions a year later. Thus, coparenting may very well change when two or more siblings are involved and certainly may be

different after the birth of an infant sibling when the family of three now becomes a family of four. In the current research, we focused on coparenting of the firstborn when mothers were pregnant with the second born, a time when coparenting can still be observed in a triadic context and plays a pivotal role in predicting firstborn children's adjustment (behavior problems, positive interest in the baby) 1 month after the sibling's birth. Although we also have video observations of fathers and mothers interacting with both children after the birth in triadic and tetradic situations, we are still working on a coding system that we believe adequately captures the coparenting dynamics in these interactions and advise others to be cognizant of the changing dynamics of coparenting with each additional child added to the family.

Perhaps other prenatal predictors not assessed in the current study would have predicted observed coparenting quality before the birth or may even play a role in predicting coparenting after the birth of the second child. For instance, McHale et al. (2004) investigated whether first-time mothers' and fathers' pessimistic beliefs about their partners' parenting and expectations of an inequitable division of labor during pregnancy predicted actual coparenting interactions at 3 months postpartum. In fact, it appeared that such pessimistic or negative representations of the future coparenting relationship actually predicted less coparenting cohesion when interacting with their 3-month-old infant, particularly if that infant was temperamentally challenging and difficult to soothe. Whether the same would be the case when expecting a second child is an unexplored area of investigation and may warrant more attention in the future. Based on qualitative interviews, mothers pregnant with a second child often report worrying about whether the older sibling will accept the new baby, whether they can manage the care of two children, whether the father will assist in this care, and whether they will be able to meet the emotional needs of both children (Jenkins 1976; Mercer 1979; Merilo 1988). Thus, it is quite possible that what parents think about the transition and how worried they may be about incorporating a second baby into the household and managing the care of two children with their partners could play some role in predicting how coparenting unfolds in those early months and the year after the birth. Clearly, this is an area worthy of future study.

In conclusion, the current findings suggest that coparenting the first child during the pregnancy of the second child is predicted by both individual parent, child, and family-level factors consistent with an ecological framework. Using a LDM approach, however, we were able to further pinpoint whether these variables predicted the quality of the coparental relationship at the level of the parenting dyad or individual parent, an important consideration for future research given the dyadic nature of the coparenting relationship, even if coparenting is meant to capture a whole-family dynamic. The LDM clearly indicated that what parents share as a couple (e.g., more similar in depressive symptoms, parental efficacy, and parenting stress) is more predictive of reports of cooperative and undermining coparenting than what is unique to the individual and that the effects of difficult child behaviors and marital conflict during the pregnancy with the second child on the coparenting relationship were often indirect and mediated through the dyadic indicators of parental well-being and psychological functioning. Future work, our own included,

now needs to consider how parents renegotiate their coparenting roles once the second infant is born and coparenting incorporates not one but two children in the family and whether we need to consider additional coparenting constructs (e.g., divide and conquer) into our research designs when examining multi-child systems. The addition of a single infant changes the entire family system and no doubt what it means to coparent, how we study coparenting, and the multitude of ways that family relationships are intertwined.

Acknowledgments The research reported was supported by grants R01HD042607 and K02HD047423 from the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development. We are grateful to the parents and children of the Family Transitions Study and the many research staff who helped with data collection and coding.

References

- Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for ASEBA preschool forms & profiles*. Burlington: University of Vermont, Research Center for Children, Youth, & Families.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571. <https://doi.org/10.1001/archpsyc.1961.01710120031004>.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 135–168). New York: Academic.
- Campis, L. K., Lyman, R. D., & Prentice-Dunn, S. (1986). The Parental Locus of Control Scale: Development and validation. *Journal of Clinical Child Psychology*, 15, 60–267. https://doi.org/10.1207/s15374424jccp1503_10.
- Chen, B. B. (2018). The relationship between Chinese mothers' parenting stress and sibling relationships: A moderated mediation model of maternal warmth and co-parenting. *Early Child Development and Care*, 1–9. <https://doi.org/10.1080/03004430.2018.1536048>.
- Cook, J. C., Schoppe-Sullivan, S. J., Buckley, C. K., & Davis, E. F. (2009). Are some children harder to coparent than others? Children's negative emotionality and coparenting relationship quality. *Journal of Family Psychology*, 23(4), 606–610. <https://doi.org/10.1037/a0015992>.
- Cox, M. J., & Paley, B. (2003). Understanding families as systems. *Current Directions in Psychological Science*, 12(5), 193–196. <https://doi.org/10.1111/1467-8721.01259>.
- Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. *Child Development*, 61, 1628–1637. <https://doi.org.lib.assumption.edu/10.2307/1130770>.
- Durtschi, J. A., Soloski, K. L., & Kimmes, J. (2017). The dyadic effects of supportive coparenting and parental stress on relationship quality across the transition to parenthood. *Journal of Marital and Family Therapy*, 43(2), 308–321. <https://doi.org/10.1111/jmft.12194>.
- Elliston, D., McHale, J., Talbot, J., Parmley, M., & Kuersten-Hogan, R. (2008). Withdrawal from coparenting interactions during early infancy. *Family Process*, 47(4), 481–499. <https://doi.org/10.1111/j.1545-5300.2008.00267.x>.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice*, 3(2), 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Feinberg, M. E., & Kan, M. L. (2008). Establishing family foundations: Intervention effects on coparenting, parent/infant well-being, and parent-child relations. *Journal of Family Psychology*, 22(2), 253. <https://doi.org/10.1037/0893-3200.22.2.253>.

- Feinberg, M. E., Jones, D. E., Hostetler, M. L., Roettger, M. E., Paul, I. M., & Ehrenthal, D. B. (2016). Couple-focused prevention at the transition to parenthood, a randomized trial: Effects on coparenting, parenting, family violence, and parent and child adjustment. *Prevention Science, 17*(6), 751–764. <https://doi.org/10.1007/s11121-016-0674-z>.
- Goldberg, W., & Michaels, G. (1988). Conclusion: The transition to parenthood: Synthesis and future directions. In G. Michaels & W. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 342–360). Cambridge: Cambridge University Press.
- Gonzalez, R., & Griffin, D. (2002). Modeling the personality of dyads and groups. *Journal of Personality, 70*(6), 901–924. <https://doi.org/10.1111/1467-6494.05027>.
- Holland, A. S., & McElwain, N. L. (2013). Maternal and paternal perceptions of coparenting as a link between marital quality and the parent–toddler relationship. *Journal of Family Psychology, 27*(1), 117–126. <https://doi.org/10.1037/a0031427>.
- Isacco, A., Garfield, C. F., & Rogers, T. E. (2010). Correlates of coparental support among married and nonmarried fathers. *Psychology of Men & Masculinity, 11*(4), 262. <https://doi.org/10.1037/a0020686>.
- Jenkins, P. W. (1976). Conflicts of a secundigravida. *Maternal-Child Nursing Journal, 5*, 117–126.
- Knox, D., & Wilson, K. (1978). The differences between having one and two children. *The Family Coordinator, 27*(1), 23–25. <https://doi.org/10.2307/582722>.
- Kolak, A. M., & Volling, B. L. (2013). Coparenting moderates the association between firstborn children’s temperament and problem behavior across the transition to siblinghood. *Journal of Family Psychology, 27*(3), 355–364. <https://doi.org/10.1037/a0032864>.
- Krepner, K. (1988). Changes in parent-child relationships with the birth of a second child. *Marriage and Family Review, 12*, 157–181. https://doi.org/10.1300/J002v12n03_09.
- Kuo, P. X., Volling, B. L., & Gonzalez, R. (2017). His, hers, or theirs? Coparenting after the birth of a second child. *Journal of Family Psychology, 31*(6), 710–720. <https://doi.org/10.1037/fam0000321>.
- Kuo, P. X., Volling, B. L., & Gonzalez, R. (2018). Gender role beliefs, work–family conflict, and father involvement after the birth of a second child. *Psychology of Men & Masculinity, 19*(2), 243–256. <https://doi.org/10.1037/men0000101>.
- Latham, R. M., Mark, K. M., & Oliver, B. R. (2018). Coparenting and children’s disruptive behavior: Interacting processes for parenting sense of competence. *Journal of Family Psychology, 32*(1), 151–156. <https://doi.org/10.1037/fam0000362>.
- Le, Y., McDaniel, B. T., Leavitt, C. E., & Feinberg, M. E. (2016). Longitudinal associations between relationship quality and coparenting across the transition to parenthood: A dyadic perspective. *Journal of Family Psychology, 30*(8), 918–926. <https://doi.org/10.1037/fam0000217>.
- Ledermann, T., & Kenny, D. A. (2012). The common fate model for dyadic data: Variations of a theoretically important but underutilized model. *Journal of Family Psychology, 26*(1), 140–148. <https://doi.org/10.1037/a0026624>.
- Letourneau, N. L., Dennis, C. L., Benzies, K., Duffett-Leger, L., Stewart, M., Tryphonopoulos, P. D., et al. (2012). Postpartum depression is a family affair: Addressing the impact on mothers, fathers, and children. *Issues in Mental Health Nursing, 33*(7), 445–457. <https://doi.org/10.3109/01612840.2012.673054>.
- Margolin, G., Gordis, E. B., & John, R. S. (2001). Coparenting: A link between marital conflict and parenting in two-parent families. *Journal of Family Psychology, 15*, 3–21. <https://doi.org/10.1037/0893-3200.15.1.3>.
- McConnell, M., Khazan, I., Lauretti, A., & McHale, J. (2003, April). *Time to expand: Studying coparenting in families with multiple children*. Paper presented at the Society for Research in Child Development, Tampa, FL.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology, 31*(6), 985–996. <https://doi.org/10.1037/0012-1649.31.6.985>.
- McHale, J. P. (2007). When infants grow up in multiperson relationship systems. *Infant Mental Health Journal, 28*, 370–392. <https://doi.org/10.1002/imhj.20142>.

- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to co-parenthood: Parents' pre-birth expectations and early coparental adjustment at three months post-partum. *Development and Psychopathology, 16*, 711–733. <https://doi.org/10.1017/S0954579404004742>.
- Mercer, R. T. (1979). Having another child: She's a multip....She knows the ropes. *MCN: The American Journal of Maternal/Child Nursing, 4*, 301–304.
- Merilo, K. F. (1988). Is it better the second time around? *MCN: The American Journal of Maternal/Child Nursing, 13*, 200–204.
- Murphy, S. E. (2018). *We can work it out: Mothers' and fathers' coparenting of two children* (Unpublished doctoral dissertation). University of Texas at Austin, Austin, TX.
- Murphy, S. E., Jacobvitz, D. B., & Hazen, N. L. (2016). What's so bad about competitive coparenting? Family-level predictors of children's externalizing symptoms. *Journal of Child and Family Studies, 25*(5), 1684–1690. <https://doi.org/10.1007/s10826-015-0321-5>.
- Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide. Eighth edition*. Los Angeles: Muthén & Muthén.
- Paulson, J. F., & Bazemore, S. D. (2010). Prenatal and postpartum depression in fathers and its association with maternal depression: A meta-analysis. *Journal of the American Medical Association, 303*(19), 1961–1969. <https://doi.org/10.1001/jama.2010.605>.
- Pinto, T. M., Figueiredo, B., Pinheiro, L. L., & Canário, C. (2016). Fathers' parenting self-efficacy during the transition to parenthood. *Journal of Reproductive and Infant Psychology, 34*(4), 343–355. <https://doi.org/10.1080/02646838.2016.1178853>.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891. <https://doi.org/10.3758/brm.40.3.879>.
- Schoppe, S. J., Mangelsdorf, S. C., Frosch, C. A., & McHale, S. (2001). Coparenting, family process, and family structure: Implications for preschoolers' externalizing behavior problems. *Journal of Family Psychology, 15*(3), 526–545. <https://doi.org/10.1037/0893-3200.15.3.526>.
- Schoppe-Sullivan, S. J., & Mangelsdorf, S. C. (2013). Parent characteristics and early coparenting behavior at the transition to parenthood. *Social Development, 22*(2), 363–383. <https://doi.org/10.1111/sode.12014>.
- Schoppe-Sullivan, S. J., Mangelsdorf, S. C., & Frosch, C. A. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology, 18*(1), 194–207. <https://doi.org/10.1037/0893-3200.18.1.194>.
- Schoppe-Sullivan, S. J., Weldon, A. H., Cook, J. C., Davis, E. F., & Buckley, C. K. (2009). Coparenting behavior moderates longitudinal relations between effortful control and preschool children's externalizing behavior. *Child Psychology and Psychiatry, 50*(6), 698–706. <https://doi.org/10.1111/j.1469-7610.2008.02009.x>.
- Schoppe-Sullivan, S. J., Altenburger, L. E., Lee, M. A., Bower, D. J., & Kamp Dush, C. M. (2015). Who are the gatekeepers? Predictors of maternal gatekeeping. *Parenting Science and Practice, 15*, 166–186. <https://doi.org/10.1080/15295192.2015.1053321>.
- Schoppe-Sullivan, S. J., Settle, T., Lee, J., & Kamp Dush, C. M. (2016). Supportive coparenting relationships as a haven of psychological safety at the transition to parenthood. *Research in Human Development, 13*(1), 32–48. <https://doi.org/10.1080/15427609.2016.1141281>.
- Solmeyer, A. R., & Feinberg, M. E. (2011). Mother and father adjustment during early parenthood: The roles of infant temperament and coparenting relationship quality. *Infant Behavior and Development, 34*(4), 504–514. <https://doi.org/10.1016/j.infbeh.2011.07.006>.
- Song, J.-H., & Volling, B. L. (2015). Coparenting and children's temperament predict firstborns' cooperation in the care of an infant sibling. *Journal of Family Psychology, 29*(1), 130–135. <https://doi.org/10.1037/fam0000052>.
- Stewart, R. B. (1990). *The second child: Family transition and adjustment*. Newbury Park: Sage.
- Szabó, N., Dubas, J. S., & van Aken, M. A. G. (2012). And baby makes four: The stability of coparenting and the effects of child temperament after the arrival of a second child. *Journal of Family Psychology, 26*(4), 554–564. <https://doi.org/10.1037/a0028805>.

- Teti, D. M., O'Connell, M. A., & Reiner, C. D. (1996). Parenting sensitivity, parental depression and child health: The mediational role of parental self-efficacy. *Early Development and Parenting*, 5(4), 237–250. [https://doi.org/10.1002/\(sici\)1099-0917\(199612\)5:4<237::Aid-edp136>3.0.Co;2-5](https://doi.org/10.1002/(sici)1099-0917(199612)5:4<237::Aid-edp136>3.0.Co;2-5).
- Teubert, D., & Pinquart, M. (2010). The association between coparenting and child adjustment: A meta-analysis. *Parenting: Science and Practice*, 10(4), 286–307. <https://doi.org/10.1080/15295192.2010.492040>.
- Tissot, H., Favez, N., Frascarolo, F., & Despland, J. N. (2016). Coparenting behaviors as mediators between postpartum parental depressive symptoms and toddler's symptoms. *Frontiers in Psychology*, 7, 1912.
- Twenge, J. M., Campbell, W. K., & Foster, C. A. (2003). Parenthood and marital satisfaction: A meta-analytic review. *Journal of Marriage and Family*, 65(3), 574–583. <https://doi.org/10.1111/j.1741-3737.2003.00574.x>.
- Volling, B. L., & Elins, J. L. (1998). Family relationships and children's emotional adjustment as correlates of maternal and paternal differential treatment: A replication with toddler and preschool siblings. *Child Development*, 69(6), 1640–1656. <https://doi.org/10.2307/1132137>.
- Volling, B. L., Yu, T., Gonzalez, R., Tengelitsch, E., & Stevenson, M. M. (2018). Maternal and paternal trajectories of depressive symptoms predict family risk and children's emotional and behavioral problems after the birth of a sibling. *Development and Psychopathology*, 1–18. <https://doi.org/10.1017/S0954579418000743>.
- Volling, B. L., Steinberg, E. J., & Kuo, P. X. (in press). Is it easier the second time around? Fathers roles across the transition from one child to two. In H. E. Fitzgerald, K. von Klitzing, N. Cabrera, T. Skjøthaug, & J. de Scarano, Mendonça (Eds.), *Handbook of fathers and child development: Prenatal to preschool*. Switzerland: Springer International Publishing AG.
- World Bank. (2019, June 21). *Fertility rate, total (births per woman)*. Retrieved from <https://data.worldbank.org/indicator/sp.dyn.tfrt.in>

Part III
Couple Relationships During Pregnancy
and Beyond

Chapter 11

The Interrelationship Between the Prenatal Marital and Coparenting Subsystems: Forecasting Postpartum Family Dynamics in First-Time Parents



Regina Kuersten-Hogan, Susan Jarquin, and Linda Charpentier

Interest in the coparenting relationship first intensified during the early 1980s when researchers began to explore coparenting dynamics after the dissolution of the marital relationship (Ahrns 1981). These early studies of coparenting in divorced families provided evidence that the marital and coparental subsystems of the family are distinct, with opportunities for preserving or reorganizing the coparenting relationship in the face of deteriorating romantic relationships. These historical roots of coparenting research laid the foundation for a growing consensus that coparenting relationships are distinct from marital relationships, though it remains possible, as Bouchard (2014) suggested, that couple and coparenting relationships are less closely related in divorced couples than they are in intact families. While there is now widespread agreement that partners' romantic and coparenting relationships in the postpartum period constitute distinct yet interrelated subsystems of the family (McHale 1995; McHale 1997; McHale and Lindahl 2011), it is still unclear whether a similar interrelationship between these two family subsystems may already be coming into being during the pregnancy.

Pregnant couples' expectations, hopes, and beliefs regarding future family life after the impending birth of their first child were first carefully documented in the seminal work by Pape Cowan and Cowan (1992) and subsequently detailed further in the large number of studies on the transition to parenthood in the decades that followed. Indeed, long before the birth of their first child, partners develop internal working models or representations of family relationships that provide them with templates of how partners should work together as a team (Kuersten-Hogan 2017;

R. Kuersten-Hogan (✉)

Clinical Counseling Psychology Department, Assumption University, Worcester, MA, USA

e-mail: kuersten@assumption.edu

S. Jarquin

Division of Pain Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

L. Charpentier

Crosswalk Behavioral Health, Inc., Westminster, MA, USA

© Springer Nature Switzerland AG 2021

R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,

https://doi.org/10.1007/978-3-030-51988-9_11

227

McHale and Dickstein 2019; McHale et al. 1996). These internal working models are constructed over the course of each parent's childhood, when they are exposed to a variety of models of partnerships and coparenting (e.g., by observing caregivers in the immediate environment and extended family, families of friends, or fictitious models portrayed in the media, etc.). Whether partners are aware of these representations or not, they linger and are available to be carried over into their families of procreation, where they may guide couples as they negotiate the formation of their romantic and coparenting relationships. It is these representations of family-of-origin relationships that are thought to guide couples' prenatal coparenting behaviors as they engage in enactments with their mentally represented or symbolized child – and even with video images of their unborn child (Ammaniti and Gallese 2014, also see Chap. 5 in this book). Exactly how these representations are reflected in couples' observable coparenting and marital behaviors during pregnancy is still a mystery. Equally unclear is the extent to which the marital and coparenting relationships already constitute two distinct subsystems of the family during pregnancy.

Continuity and Change in Family Dynamics Across the Transition to Parenthood

Based on recent observational studies, there is gathering evidence suggesting continuity in coparental dynamics across the transition to parenthood (Altenburger et al. 2014; Carneiro et al. 2006; Favez et al. 2006; Kuersten-Hogan 2017; Shai 2018). Using the Prenatal Lausanne Trilogue Play paradigm (PLTP, Carneiro et al. 2006), expecting couples with more supportive family alliances and coparenting dynamics during pregnancy have been observed to show more supportive postpartum alliances and coparenting at 3 months (Carneiro et al. 2006; Kuersten-Hogan 2017), 9 months (Altenburger et al. 2014), and 2 years (Favez et al. 2006) and even during adolescence (Frascarolo et al. 2018). This growing line of research provides suggestive evidence for the existence of a prenatal coparenting relationship and highlights its predictive value for postpartum coparenting.

There is also evidence from studies dating back to the 1980s with the seminal work of Belsky, Spanier, and Rovine (1983) and of Lewis (1988a, 1988b, 1989) that prenatal observations of marital behaviors predict the quality of the postnatal marital relationship. Decades of research have demonstrated declines in couples' reports of their marital or couple satisfaction from pre- to post-birth (see Chap. 1 in this book for a detailed review of changes in the couple relationship). Since the early investigations into the transition to parenthood, findings from *observational* studies of marital behaviors across the transition to parenthood have mirrored those of couples' reports of their relationship declines. For example, Heinicke and Guthrie's (1996) longitudinal study demonstrated declines in the quality of marital interactions from pregnancy to the postpartum period that were predicted by couples' negative affect, off-task behaviors, and difficulties in problem-resolution observed

during their prenatal interactions. In addition, Cox et al. (1999) observed that changes in the marital relationship across the transition to parenthood were determined by partners' depressive symptoms, problem-solving behaviors, children's gender, and whether pregnancies were planned or not.

Despite declines in couples' relationship satisfaction and quality across the transition to parenthood, there is also evidence that couples' relative ranking with respect to the quality of their relationship remains stable and predictable between pregnancy and the postpartum period (Pape Cowan and Cowan 1992). Couples with more supportive marital relationships prior to the birth of their first child continue to show better postpartum marital functioning compared to couples with poor prenatal marital quality (Pape Cowan and Cowan 1992). Pape Cowan et al. (1991) point out that prebirth challenges in couples' relationships are merely amplified by the stress introduced due to the arrival of their first child. Pape Cowan and colleagues emphasize that prenatal marital quality plays a more significant role in predicting postpartum adjustment than the birth and specific characteristics of the baby. In other words, they argue that the arrival of the firstborn cannot assume the blame for partners' maladaptive responses to parenthood, as the birth of the first child simply triggers processes that were already present within parents and their marital relationship prior to entering parenthood (Cowan and Pape Cowan 1988). Overall, the Cowans view the transition to parenthood as a period characterized by significant continuity between pre- and postbirth marital quality with partners' marital satisfaction, role satisfaction, and self-esteem remaining consistent and predictable between the prenatal and postpartum periods (Cowan and Pape Cowan 1988). This continuity in partners' experiences reported across the transition to parenthood has more recently been confirmed by other researchers observing marital behaviors during pregnancy and the postpartum period (Jessee et al. 2018; Perren et al. 2005; Talbot et al. 2009 – also see other chapters in Part III of this book).

Similar consistency at least for certain couples was reported by Lewis (1988a, 1988b) in his longitudinal study of marital and family competence across the transition to parenthood, which included observations of couples' marital discussions. Lewis differentiated between 5 different types of couples based on their marital competence ranging from *highly competent* to *severely dysfunctional/chaotic* and found that most couples' marital structures remained overall stable from pregnancy to 12 months postpartum. However, continuity of marital quality across the transition to parenthood depended on the level of couples' prenatal functioning; in contrast to couples who were highly competent in their prenatal marital functioning and remained highly competent in the postpartum period, pregnant couples who Lewis classified as *competent but pained* were most at risk for declines in marital functioning after birth, and *highly conflicted* pregnant couples were most unpredictable in their postpartum marital changes. The latter two types of couples presented with marital changes from pregnancy to the postpartum period that Lewis conceptualized as crises suggesting that continuity in relationship dynamics across the transition to parenthood may not be observed for all couples.

As the abundance of evidence that has accumulated over the last three decades suggests, the couple or marital relationship can best be described as involving

normative declines in partners' relationship quality within the context of relative stability for many couples which allows for identification of couples at risk for adjustment problems in the postpartum period (Cowan and Pape Cowan 1988). This said, since the time of early parenthood transition studies, direct observations of both prenatal and postpartum marital relationships have generally been the exception rather than the rule in longitudinal studies, as most investigations have relied predominantly on couples' self-reports of marital adjustment or satisfaction. Yet as Margolin et al. (1998) pointed out over two decades ago, observations and self-reports of family dynamics are complimentary, and direct observations contribute important information on interactional patterns in families that cannot be gleaned from self-reports.

In addition, one important question that has seldom been addressed concerns whether and how the marital and coparental subsystems might be interrelated before birth and whether a consideration of both subsystems combined would better predict postpartum dynamics than either prenatal construct alone. It is also unknown whether there is domain specificity in prenatal predictors of postpartum marital versus coparenting behaviors.

Our main goal in this chapter is hence to explore the nature of the interrelationship between the prenatal marital and coparenting relationship and to investigate the respective value of these prenatal predictors in forecasting specific and related postpartum family dynamics. We briefly review existing research drawing primarily on prior observational studies that describe interrelationships between marital and coparenting dynamics. The vast majority of these studies have focused on the postpartum interrelationship between the marital and coparenting subsystems – these findings are considered first as they can provide insights into the interrelationships between these two family subsystems during pregnancy.

Interrelationships Between Postpartum Marital and Coparenting Dynamics

Which specific characteristics of the marital subsystem are interrelated with the coparenting subsystem within the family is still not fully understood even during the postpartum period. Delineating the nature of interconnected qualities for these two executive family subsystems requires close observations of families engaged in marital and coparenting interactions. Unfortunately, the majority of family studies have not combined observations of marital dynamics with observations of coparenting. In addition, most existing studies have focused on antagonistic or unsupportive marital and coparenting relationships and explored their impact on children's functioning. For example, based on their observations of couples' problem-solving discussions, Katz and Gottman (1996) identified high conflict and hostility between partners as characteristics of aversive marital interactions that spillover into the coparenting relationship and place children at risk for internalizing and

externalizing behavior problems. In testing the immediate effects of couples' marital discussions on subsequent family interactions, Kitzmann (2000) found further support for the spillover of couples' negative affect from their marital into their coparenting dynamics. Specifically, Kitzmann reported that higher levels of couples' negativity expressed during marital discussions resulted in lower family cohesion, lower parental engagement, lower family warmth, and less democratic parenting observed during triadic interactions immediately following marital discussions. In contrast, after couples first discussed pleasant topics, they used a more democratic approach with their sons during subsequent family interactions.

Although these findings cannot verify whether the spillover from marital to coparenting interactions is more than just a temporary effect, they provide evidence of affective connections between the marital and coparenting subsystems and suggest that a closer look at other shared characteristics between these subsystems is in order. In addition, while Kitzmann's findings support the idea of a spillover of negative affect from the marital to the coparenting relationship, the influence between the marital and coparenting relationships is best conceptualized as bidirectional in nature. Emotions arising during coparenting interactions can also seep into couples' concurrent and subsequent marital exchanges. There is some limited evidence that the early coparenting relationship also prospectively shapes elements of the marital relationship during postpartum interactions. For example, Schoppe-Sullivan et al. (2004) report that couples' undermining coparenting during infancy predicted lower levels of positive marital engagement during the preschool years.

While studies of the spillover effect of family subsystems have focused more on the negative attributes shared between the marital and coparenting subsystems, the spillover of positive characteristics such as cooperation and warmth transmitted from one subsystem to the other is also likely to occur. Merrifield and Gamble (2013) describe evidence for a spillover of positive affect between the marital and coparenting relationships in families with young children that serves to buffer the negative effects of stressors arising within one of the subsystems from impacting the other subsystem with additional benefits for parents' self-efficacy. Indirect evidence for the spillover of positive affect between the marital and coparental subsystems also comes from Lewis' longitudinal study of couples during the transition to parenthood. Although Lewis (1989) did not specifically focus on coparenting, positive affect by couples in his study who were rated as *highly competent* in their marital functioning spilled into other family subsystems and fostered adaptive functioning in all family members. Finally, Kitzmann's finding that couples' discussions of pleasant topics sparked more democratic parenting during subsequent triadic interactions can be taken as evidence of a need for richer exploration of other supportive qualities that marital and coparenting relationships may also share.

As an alternative to the spillover between marital and coparental subsystems, it is also possible that these two family subsystems have a complementary or compensatory connection with one another. Compensatory dynamics were reported between coparental partners in Caldera and colleagues' (2002) qualitative analyses of interviews with Mexican-American parents, when one parent reported taking over in situations in which the other parent was unsuccessful or lacked in parenting skill. A

similar balancing between strengths and weaknesses in the couple and coparenting subsystems may also exist. Indeed, such processes were first identified and discussed in McHale's (1995) seminal paper on coparenting and triadic dynamics during infancy, which validated two systemic hypotheses suggested by family theory. Specifically, McHale's work linked marital conflict to hostile-competitive coparenting (consistent with spillover explanations), but also linked marital power to parenting discrepancies in a manner suggesting compensatory processes. According to systemic conceptualizations, processes existing in one subsystem can compensate for areas of weakness in the other.

Another example of how these compensatory processes between the marital and other subsystems of the family might operate can again be found in Lewis's (1989) study, within dynamics shown by couples he described as *competent but pained*. Families who were competent but pained had marital structures infused with underlying conflict as well as low intimacy and closeness, though these negative qualities were contained within or restricted to the marital relationship and did not appear to spill over into other family subsystems. In other words, parents in these competent but pained families were not observed to pull their children into parental coalitions but instead fostered children's psychological development in spite of underlying marital conflict. We might expect that in these competent but pained families, the marital and coparental subsystems would also remain more separate from one another than in families who were less competent. Since the competent but pained families focused a lot of their attention on and invested their energy in their children, this subtype of families may be illustrating how one subsystem, in Lewis's study the parent-child system, can make up or compensate for weaknesses in the marital subsystem. It is unclear how the competent but pained couples managed to keep their conflict confined to their marital relationship, while other couples with lower levels of marital competencies did not succeed at separating affect between the subsystems. Perhaps there is a threshold beyond which the level of conflict arising in the couple relationship can no longer be contained within that subsystem. These findings suggest that not all families experience an affective spillover between the marital and coparental subsystems and that for some the strengths of one subsystem can compensate for areas of weakness in the other system; however, the findings do not shed light onto the nature of the interrelationship between these various subsystems.

Similar to the compensation hypothesis, another explanation of the interrelationship between the couple and coparental systems suggests that strengthening one subsystem may come at the expense of the other subsystem. This possible interrelationship is consistent with Van Egeren's (2004) finding of an inverse relationship between partners' perceptions of their postpartum marital and coparenting relationship. Specifically, Van Egeren found that improvements in couples' coparenting experiences sparked declines in their marital quality; on the other hand, as their marriages improved, partners' perceptions of their coparenting worsened. Though these specific findings have seldom been replicated, they are nonetheless of interest here, as Van Egeren proposed that parents' investment in their coparenting

relationship could potentially come at the expense of lowered intimacy in their couple relationship and vice versa.

Aside from the spillover explanation, other hypothesized interrelationships between the couple and coparenting relationships have not been widely studied yet during postpartum family interactions. We should not assume that these different explanations are mutually exclusive though – each may apply to different characteristics of the family system and together may provide a more comprehensive description of their interrelationships. For example, findings of spillover between the marital and coparenting subsystems seem to focus predominantly on affective sharing across family subsystems with disharmony and conflict arising in one subsystem and “corrupting” or “tainting” the emotional tone of the other subsystem. The compensation hypothesis on the other hand may be most relevant when considering the allocation or distribution of discretionary family time, attention, and resources. As partners’ supplies of attention and energy are finite, it would follow that greater resources spent on one subsystem will not be available to spend on the other subsystem.

Whether the postpartum marital and coparenting relationships are characterized by spillover or compensation between these two subsystems or a combination of both, it is clear that they are interlinked during the postpartum period. Their unique connections during the postpartum period suggest that perhaps similar interrelationships between the marital and coparenting relationships may be detectable even as early as the pregnancy.

Interrelationships Between Prenatal Marital and Coparenting Relationships

While less than a handful of studies have explored the interrelationship between marital and coparenting relationships prior to birth, there is some suggestive evidence that these two family subsystems may already be discernible during pregnancy with each exerting specific and distinctive influences on postpartum family dynamics. Altenburger and colleagues observed couples’ prenatal coparenting behaviors as well as their prenatal marital discussions and found that greater family warmth expressed during prenatal coparenting was associated with greater cohesiveness, interaction quality, and paternal problem-solving during prenatal marital discussions (Altenburger et al. 2014). In addition, paternal problem-solving during prenatal marital discussions was linked to greater coparental cooperation, playfulness, and paternal intuitive parenting observed during prenatal coparenting interactions. Altenburger and colleagues also reported that coparenting behaviors observed during pregnancy predicted *unique* variance in coparenting at 9 months postpartum above prenatal marital behaviors suggesting that aspects of prenatal coparenting are distinctly different from the prenatal marital relationship.

Though they did not focus on coparenting dynamics, a seminal study by Lindahl, Clements, and Markman (1997) reported that husbands' marital behaviors observed during couples' prenatal marital discussions and couples' negative escalation during these discussions predicted husbands' conflict and children's triangulation in marital conflict during triadic interactions 5 years after children's birth. Coalitions formed between parents and children during postpartum family interactions were also predicted by couples' marital interactions, specifically by their prenatal negative escalation. In another major study of the transition to coparenthood, McHale et al. (2004) documented that observed prenatal marital quality predicted observed coparenting cohesion at 3 months postpartum, with marriage–coparenting trajectories differing as a function of infant characteristics. In their prospective study, these pathways proved to be most pronounced among families who had infants high in negative reactivity.

Other studies have found similar cross-time connections between marital behaviors during pregnancy and coparenting in the postpartum period. For example, in a study distinguishing maternal and paternal behaviors during marital interactions, Van Egeren (2004) reported that fathers' positive marital behaviors observed during prenatal interactions predicted both mothers' and fathers' coparenting perceptions after birth. In another line of study, negative affect expressed during prenatal marital interactions predicted coparenting conflict observed during triadic interactions at 24 months postpartum (Gallegos et al. 2017). Though relying exclusively on parental reports, Le and colleagues also found that perceptions of relationship quality during pregnancy predicted coparenting perceptions at 6 months postpartum for both partners (Le et al. 2016).

These studies provide important insights into the interrelationship of prenatal marital behavior and postpartum family and coparenting dynamics, though direct observations of both marital and coparenting behaviors during pregnancy would allow for an even closer examination of the interrelationship between these two prenatal family subsystems. In addition, given concerns that self-reports of the marital and coparenting relationship do not measure the same qualities as do direct observations, it is also more difficult to draw conclusions about the interrelationship between the prenatal marital and coparental subsystems when studies relied heavily or solely on parental self-reports of family dynamics during pregnancy. However, taken together, these previous studies provide evidence that the prenatal marital relationship predicts postpartum coparenting and support the argument for their close interrelationship.

Though the evidence is limited, a theme in some of the studies cited above, and a few others, is that spillover effects may be more pronounced between the father–child and marital subsystems. This may even be so during pregnancy (albeit only for parental representations of these relationships during pregnancy, rather than for any actual observations of family dynamics). For example, Foley and colleagues' analyses of expectant parents' narratives describing their thoughts and feelings about their baby indicated a prenatal spillover effect of expectant fathers' dissatisfaction with their romantic relationship into their perceived relationship with their unborn child (Foley et al. 2019). These findings lend some support to the proposition that

spillover between different family subsystems may already be beginning during pregnancy and may involve a family subsystem that is mentally represented during pregnancy (i.e., the father–child relationship as depicted in fathers’ prenatal narratives).

In sum, there is some limited evidence that interrelationships exist between the prenatal marital and coparenting subsystems and that they also have some distinct, unshared qualities that predict unique aspects of postpartum functioning. However, previous studies did not specify the nature of these interrelationships between prenatal marital and coparenting subsystems, such as a potential spillover of affect from one prenatal subsystem to the other. Our own Transition to Parenthood Study hence explored the interrelationships between the marital and coparenting subsystems during pregnancy in order to help establish whether their shared and unique attributes can help to predict specific aspects of postpartum family dynamics.

Transition to Parenthood Study

Our Transition to Parenthood Study followed couples who were pregnant with their first child until 12 months postpartum and used multimeasure assessments of the marital and coparenting relationships that relied heavily on direct observations of family dynamics combined with interviews and questionnaires. The general questions we explore in this chapter focus on the nature of the relationship between marital and coparenting dynamics observed during pregnancy and on the value of these observations for predicting qualities of postpartum family dynamics. Specifically, our first question asks if observations of couples’ prenatal *marital* harmony and conflict are associated with parallel observations estimating their prenatal *coparenting* harmony and antagonism. The answer to this question can provide some insights into the interrelationship between the prenatal marital and coparenting relationships. We expected to find similar interrelationships between prenatal coparenting and marital dynamics than those found for the postpartum period with a spillover of harmony and conflict between the two subsystems. Our second question asks whether prenatal marital and coparenting dynamics each predict unique aspects of postpartum family dynamics. We expected that both marital and coparenting behaviors observed during prenatal interactions would show some continuity with respective postpartum dynamics while also predicting unique aspects of the postpartum marital and coparenting relationships. This would provide indirect evidence that the marital and coparenting subsystems are already distinct during pregnancy despite their interrelationship.

Participants Our original Transition to Parenthood Study sample included 55 couples from the USA who were recruited via childbirth classes in their last trimester of pregnancy with their first child. Although not an inclusion requirement for this study, almost all couples (96.4%) were married, and the two unmarried couples in our sample were cohabitating. All but two couples were heterosexual. On average,

couples had been together for 6.75 years ($SD = 3.43$) at the time of recruitment into the study. Both mothers ($M = 126.38$, $SD = 15.68$) and fathers ($M = 124.62$, $SD = 16.66$) obtained scores over 100 on the Marital Adjustment Task (MAT, Locke and Wallace 1959) during pregnancy indicating that their prenatal marital satisfaction was above the customary cut-off for determining marital distress in the partnership. Participating couples were predominantly white (85.5% of mothers, 90.9% of fathers) and well-educated (72.6% of mothers and 74.6% of fathers had at least a Bachelor's Degree) with yearly gross family incomes of \$55,001 or above (89.1% of couples). Couples were studied during pregnancy (in our laboratory) as well as at 3 months (in families' homes) and 12 months (in our laboratory) after birth. A few couples did not continue their participation after pregnancy due to stillbirth or moving away. At 3 months postpartum, 52 of the original 55 families remained in the study (26 boys, 26 girls). At 12 months postpartum, 44 families (24 boys, 20 girls) remained in the study. Observations of coparenting dynamics during pregnancy and the postpartum period always preceded observations of marital interactions in our study.

Observations of Prenatal Coparenting Dynamics During the first prenatal observation task in our study, we observed partners' coparenting dynamics using an adapted version of Carneiro and colleague's Prenatal Lausanne Trilogue Play (PLTP, Carneiro et al. 2006). Consistent with the original PLTP (see Chap. 3 for details), we first interviewed couples to help them envision their unborn child's characteristics and mentally represent interactions with their baby. The doll we used to symbolize the baby in this task was similar in size and weight to a newborn but, unlike in the original PLTP, had a defined head covered by a flesh-colored cloth that matched couples' predictions of their babies' skin tones and detailed body parts (neck, torso, arms, legs, hands, feet). The ambiguity of the doll's facial features and expression combined with the doll's gender-neutral clothing were designed to assist couples in better imaging play with their own baby. We maintained the standard LTP triangular seating arrangement and instructions to couples to play as they imagined they would with their baby while incorporating the four LTP segments. However, in a departure from the original PLTP, we permitted though did not encourage couples to take the doll out of the seat and to use infant toys that were located on a shelf in the laboratory playroom.

We videotaped the PLTP using two cameras to capture parents' facial expressions, gestures, and behaviors for future coding. The mean length of the PLTP was 7.8 minutes (range 2.0 to 17.5 minutes). Two highly trained coders not involved in coding marital interactions rated the prenatal coparenting dynamics using an adapted version of the Coparenting and Family Rating Scale (CFRS, McHale et al. 2001). The CFRS comprises global scales measuring coparental competition, cooperation, verbal sparring, parental investment, and parent-child and coparental warmth observed during interactions. Two composite variables to capture prenatal coparenting dynamics were created: One composite measured harmonious coparenting behaviors during pregnancy (coparental cooperation and warmth, maternal

and paternal investment, and mother-child and father-child warmth); the second composite measured antagonistic coparenting behaviors during pregnancy (coparental competition and verbal sparring).

Observations of Prenatal Marital Dynamics Following procedures detailed by McHale and colleagues (McHale et al. 2004), we observed couples' prenatal marital interactions in the laboratory during two 5-minute discussion tasks during the last trimester of their pregnancy. Our selection of discussion topics was based on partners' independent identification of areas of disagreement in their marital relationship using the MAT (Locke and Wallace 1959), which involved topics such as handling family finances, demonstration of affection, friends, sex relations, conventionality, philosophy of life, and ways of dealing with in-laws. We chose one discussion topic rated as high in disagreement by the husband and low in disagreement by his wife and a second discussion topic rated as high in disagreement by the wife and low in disagreement by her husband. Themes of the prenatal marital discussion task were thus designed to elicit conflict, and couples were instructed to work toward some resolution.

Couples' discussions were videotaped for subsequent coding by two highly trained, independent coders not involved in coding coparenting observations. Observations of couples' interactions during the two marital discussions were combined and coded with respect to couples' intimacy of communication, warmth expressed between partners, power distribution, autonomy, problem-solving ability, level of overt conflict, and each partner's withdrawal during the discussions. Based on raw-score correlations, we created one composite score for harmonious marital interactions during pregnancy that was comprised of the sum of standardized scores for intimacy of communication, marital warmth, power, autonomy, and problem-solving. A second composite measured marital conflict during prenatal interactions and consisted of summed, standardized scores for couples' overt conflict, as well as husbands' and wives' withdrawal behaviors during the discussion tasks.

Observations of Postpartum Marital and Coparenting Dynamics We repeated observations of the same coparenting and marital interaction tasks in families' homes at 3 months postpartum and added an additional observation of coparenting dynamics during a mealtime interaction at 12 months postpartum in our laboratory. At 3 months postpartum, we utilized an adapted version of the postnatal Lausanne Trilogue Play (LTP, Fivaz-Depeursinge and Corboz-Warnery 1999), for which we used a commercially bought infant seat and permitted, though did not encourage, parents' use of toys during the play interaction with their infants. At 12 months postpartum, families were videotaped while they shared a snack in our laboratory. No specific instructions were given to families for this naturalistic mealtime observation, which was self-timed.

Postpartum marital and coparenting interactions were again videotaped for coding purposes. During the postpartum LTP, we used two cameras capturing infants' whole bodies and faces as well as parents' faces and upper bodies. The mean length of the postnatal LTP was 7.5 minutes (range 2.1 to 17.2 minutes) and 10.8 minutes

(range 4.5 to 16.1 minutes) for the 12-month-mealtime interactions. Separate coders rated coparenting dynamics for the prenatal and postnatal interaction tasks. We computed the same composite scores for observations of postpartum harmonious and antagonistic coparenting behaviors as were calculated for prenatal coparenting behaviors.

Results from our Transition to Parenthood Study

Interrelationships Between Prenatal Marital and Coparenting Relationships We found evidence of interrelationships between prenatal coparenting behaviors observed during the PLTP and marital behaviors observed during prenatal discussions (see Table 11.1). Specifically, greater prenatal coparenting harmony was associated with greater prenatal marital harmony and lower prenatal marital conflict. In addition, prenatal coparenting conflict showed a significant negative correlation with prenatal marital harmony, though associations between prenatal coparenting conflict and marital conflict fell just short of significance.

These findings echo those reported in previous studies for postpartum coparenting and marital relationships suggesting that these two family subsystems are already interlinked during pregnancy. Our findings are consistent with an affective spillover hypothesis, suggesting that the continuity between these two executive subsystems of the family previously documented during the postpartum period may also be operative during the prenatal period. Conflict and hostility arising in the

Table 11.1 Significant correlations between observational measures for prenatal marital and coparenting behaviors

Prenatal marital behaviors observed during problem-solving task	Prenatal coparenting behaviors observed during PLTP				
	Cooperation	Coparental warmth	Father-child warmth	Coparenting harmony composite	Coparenting antagonism composite
Intimacy of communication	0.37**	0.51***	0.27 [†]		
Marital warmth	0.35*	0.57***	0.30*		
Power	0.34*	0.49***	0.30*		
Autonomy	0.30*	0.55***	0.41**		
Problem-solving	0.46**	0.57***	0.43**		
Overt conflict	-0.41**	-0.56***	-0.23		
Wife’s withdrawal	-0.20	-0.36*	-0.31*		
Husband’s withdrawal	-0.21	-0.38**	-0.17		
Marital harmony composite				0.42***	-0.27*
Marital conflict composite				-0.37**	0.21 [†]

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$ [†] $p = 0.07$

prenatal marital relationship during pregnancy can spill into prenatal coparenting interactions creating lower cooperation and coparental warmth between partners. On the other hand, warmth partners express in their romantic relationship during pregnancy may also color their prenatal coparenting behaviors and facilitate more cooperative, invested, and warm interactions as partners imagine interacting with their child.

As the spillover of affect between prenatal marital and coparenting relationships is most likely bidirectional and our findings are only correlational, we also need to consider the possibility that prenatal coparenting interactions may shape partners' marital relationship, even though their coparenting "only" involves their symbolized or imagined child. We found numerous instances of anecdotal evidence of this spillover of prenatal coparenting dynamics into prenatal marital interactions in our Transition to Parenthood Study. One example involved a wife who used the PTLP to lecture her partner on the proper ways of interacting with infants and critiqued him on the types of interactions she envisioned he would be having with their baby. Their prenatal coparenting interaction with the doll was high in competition and verbal sparring and low in cooperation and coparental warmth. The negative affect exchanged between partners during the PLTP clearly colored their subsequent marital discussion, which was high in conflict and hostility and ended with the husband's withdrawal from the discussion. Overall, associations we found between prenatal coparenting and marital harmony and conflict support the notion that the coparenting and marital relationships develop in a parallel and interrelated fashion during pregnancy, though they already constitute distinct subsystems of the family even prior to birth.

The fact that we did not counterbalance the administration of the coparenting and marital interactions resulting in the coparenting observations always preceding observations of marital discussions needs to be considered in the interpretation of our findings. As in Kitmann's study (2000), which reports spillover effects from couples' postpartum marital interactions to their subsequent family interactions, our study's findings may have also been biased by the predetermined order in which our observational tasks were administered. More definitive confirmation is needed by studies using a counterbalanced administration of marital and coparenting observations in order to ascertain the degree to which spillover between these two subsystems can be seen during pregnancy.

Prenatal Predictors of Marital Dynamics at 3 Months Postpartum Our assessments of marital interactions during pregnancy and the early postpartum period relied entirely on observational methods and provided further evidence of continuity between prenatal and postpartum marital behaviors. Specifically, we found that marital harmony observed during couples' prenatal discussions of areas of conflict in their relationship predicted their marital harmony ($r = 0.52, p < 0.001$) and marital conflict ($r = -0.39, p < 0.01$) observed during marital discussions at 3 months postpartum. In addition, marital conflict observed during prenatal discussions predicted marital conflict ($r = 0.47, p < 0.001$) and marital harmony ($r = -0.54, p < 0.001$) observed during couples' postpartum discussions. Our observations

confirm findings by other researchers, specifically by Pape Cowan and Cowan (1992) and by Lewis (1989) based on their interviews with couples across the transition to parenthood and more recently by Jessee et al. (2018), Perren et al. (2005), and Talbot et al. (2009) based on their observations of couples' marital behaviors. In line with these previous investigations, our findings demonstrate that certain aspects of observable marital behaviors remain relatively consistent between pregnancy and postpartum despite some small but significant declines in marital satisfaction. Of note is that we also found prenatal coparenting harmony to predict marital harmony ($r = 0.38, p < 0.01$) and marital conflict ($r = -0.34, p < 0.01$) at 3 months postpartum.

Alone, these findings are insufficient to argue for domain specificity, and so we completed additional regression analyses to determine whether there was any evidence for the unique predictive value and contributions of marital conflict versus harmony. To evaluate the specific contributions of prenatal marital versus coparenting dynamics in predictions of postpartum marital dynamics, regression analyses (see Table 11.2) were conducted and indicated that prenatal marital dynamics did in fact uniquely contribute in predicting postpartum marital interactions over and above the contribution of prenataally observed coparenting behaviors. Specifically, we found that prenataally observed marital harmony predicted an additional 15.8% ($p < 0.01$) of variance in 3-month marital harmony above the contribution of prenataally observed coparenting harmony. In addition, we found that prenataally observed marital conflict explained an additional and significant 13.9% ($p < 0.01$) of the variance in 3-month marital conflict above variance explained by prenatal coparenting harmony.

In sum, we found evidence that observations of postpartum marital dynamics were predicted in part by observations of prenatal coparenting harmony, though a significant portion of these postpartum marital dynamics were predicted uniquely by prenataally observed marital harmony and conflict. These findings suggest that the prenatal marital relationship has some distinctly different characteristics from the prenatal coparenting relationship despite any spillover that may occur between the two family subsystems during pregnancy.

Prenatal Predictors of Coparenting Dynamics at 3 and 12 Months Postpartum

Findings from our Transition to Parenthood Study replicated previous research reporting continuity between coparenting interactions observed during pregnancy and coparenting observed during the first postpartum year. We found that coparenting dynamics during the LTP at 3 months and during the family mealtime interactions at 12 months postpartum were predicted by coparenting observed during the PLTP. Specifically, greater coparenting harmony observed during pregnancy predicted greater coparenting harmony ($r = 0.59, p < 0.001$) and lower coparenting antagonism ($r = -0.38, p < 0.01$) at 3 months postpartum as well as greater coparenting harmony ($r = 0.44, p < 0.01$) and lower antagonism ($r = -0.39, p < 0.01$) at 12 months postpartum. Couples who showed greater prenatal coparenting antagonism also tended to be more antagonistic in their coparenting behaviors observed during the 3-month LTP ($r = 0.56, p < 0.001$) and the 12-month mealtime interactions

Table 11.2 Hierarchical regressions predicting marital and coparenting harmony and conflict at 3 and 12 months postpartum

		3-month coparenting harmony (LTP)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.19	0.25 [†]	0.23.
	Prenatal marital harmony			
Step 2:		0.39	0.49***	0.49
	Prenatal coparenting harmony			
		3-month coparenting antagonism (LTP)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.11	-0.08	-0.21
	Prenatal marital harmony			
Step 2:		0.18	-0.10*	-0.29
	Prenatal coparenting harmony			
		12-month coparenting harmony (mealtime)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.16	0.27 [†]	0.27
	Prenatal marital harmony			
Step 2:		0.25	0.31*	0.33
	Prenatal coparenting harmony			
		12-month coparenting antagonism (mealtime)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.09	-0.06	-0.17
	Prenatal marital harmony			
Step 2:		0.18	-0.13*	-0.32
	Prenatal coparenting harmony			
		12-month coparenting antagonism (mealtime)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.10	0.19 [†]	0.27
	Prenatal marital conflict			
Step 2:		0.19	0.32*	0.30
	Prenatal coparenting antagonism			
		3-month marital harmony (discussion)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.15	0.17	0.19
	Prenatal coparenting harmony			
Step 2:		0.30	0.43**	0.44
	Prenatal marital harmony			
		3-month marital conflict (discussion)		
		<i>R</i> ²	<i>B</i>	β
Step 1:		0.12	-0.09	-0.20
	Prenatal coparenting harmony			
Step 2:		0.26	0.37**	0.40
	Prenatal marital conflict			

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$ [†] $p = 0.07$

($r = 0.34, p < 0.05$). While expected, finding continuity between prenatal and postpartum coparenting reassured us that the adaptations we had made to the original PLTP did not impede meaningful observations of prenatal coparenting nor did it lower the predictive value of prenatal coparenting dynamics for observations of postpartum coparenting. Of note is that coparenting observations during the LTP at 3 months postpartum also correlated with coparenting observed during our 12-month mealtime interaction (see Kuersten-Hogan and McHale 2013 for a detailed description of these findings that is beyond the scope of this chapter).

Our observations of couples' prenatal marital harmony and conflict were also predictive of postpartum coparenting, echoing studies of the past. Couples' prenatal marital harmony scores predicted greater coparenting harmony observed at 3 months ($r = 0.44, p < 0.01$) and 12 months ($r = 0.40, p < 0.01$) as well as lower coparenting antagonism observed at 3 months ($r = -0.34, p < 0.01$) and 12 months ($r = -0.30, p < 0.05$). In addition, greater marital conflict observed during pregnancy predicted lower coparental harmony observed at 3 months postpartum ($r = -0.36, p < 0.01$) as well as lower coparental harmony ($r = -0.33, p < 0.05$) and greater coparental antagonism ($r = 0.32, p < 0.05$) at 12 months postpartum (in Chap. 12 of this book, Hazen et al. report similar patterns of associations between prenatal couple interactions and coparenting dynamics observed at 24 months postpartum).

These findings suggest that it was not the prenatal coparenting relationship alone which predicted postpartum coparenting – the prenatal marital relationship also contributed. However, regression analyses indicated that prenatal coparenting predicted unique variance over and above variance in postpartum coparenting explained by prenatal marital behaviors. Coparenting harmony observed during pregnancy predicted 19.8% ($p < 0.01$) of additional variance in 3-month coparenting harmony and 8.9% ($p < 0.05$) of additional variance in 12-month coparenting harmony above variance predicted by prenatal marital harmony. Prenatal coparenting harmony also predicted significant and additional variance in 3-month coparenting antagonism (7%, $p < 0.05$) as well as in 12-month antagonism (8.6%, $p < 0.05$) above variance predicted by prenatal marital harmony. Finally, prenatal coparenting antagonism predicted an additional and significant portion of variance in 12-month coparenting antagonism (8.6%, $p < 0.05$) above variance predicted by prenatal marital conflict.

Taken together, we found that observing prenatal coparenting harmony and antagonism improved our ability to predict postpartum coparenting dynamics over relying solely on prenatal marital predictors. There are aspects of postpartum coparenting that can only be gleaned from observations of specific prenatal coparenting behaviors. As we previously described, the same is true for predictions of the postpartum marital relationship. These findings support the notion that certain characteristics of the coparental and marital subsystems are already distinct and separate during pregnancy.

While processes involved in the prenatal marital and coparental subunits appear to be interrelated with affect arising in one of these subsystems spilling over into the other subsystem, there are certain aspects of each subsystem's attributes that are unique and more separate. We hence propose a new model depicting specific

characteristics of the prenatal marital and coparental relationships that we hypothesize to be separate and others that we suspect to be interrelated. That model is described next.

Model of the Interrelationship Between Prenatal Marital/Couple and Coparenting Relationships

The model we propose depicts some shared as well as distinct qualities of the prenatal marital/couple and coparenting relationships embedded within a complex and bidirectional network of factors that help to predict postpartum family dynamics. Pape Cowan et al. (1985) emphasized the importance of assessing three-generational influences on the transition to parenthood and called our attention to the importance of family-of-origin experiences in partners' adaptation to becoming parents. As shown in Fig. 11.1, we also emphasize childhood experiences in families of origin and propose that these experiences shape the emergence of internal working models or templates specific to romantic partnerships and to coparenting relationships. Partners' templates in turn give rise to forming their dyadic marital/couple relationship and their coparenting relationship emerging during pregnancy. Partners' marital or romantic relationships include uniquely dyadic attributes focused exclusively on the couples' romantic partnership such as their attachment to their romantic partners, their physical/sexual relationship, as well as their general sense of intimacy and closeness experienced in their partnership.

In contrast to these unshared characteristics of the dyadic romantic relationship, other attributes of this relationship may already be shared with the coparenting subsystem during pregnancy and thus show their interconnections we observed during pregnancy. The model we are proposing suggests that these shared attributes may include many of the qualities Lewis (1988b, 1989) measured in his assessment of prenatal marital competence, namely, problem-solving abilities, communication styles, warmth, distribution of power and control, and affect expressions or emotional climate. As we previously described, past studies have already identified negative affect expression as an important attribute shared between the marital and coparenting systems (Katz and Gottman 1996; Kitzmann 2000). Future investigations need to identify additional qualities, including positive affect, likely to be shared between the marital/couple and coparental subsystems during pregnancy. Though we still know very little about distinct attributes of the prenatal coparenting relationship, we expect them to include pregnant couples' affective involvement with their unborn child or their attachments to the fetus, their triadic capacity and triadic interaction style, their expectations for allocation of child care responsibilities, and their parenting styles and attitudes.

We conceptualize our model as a work in progress that is by no means intended to include all factors that may exert their influence on the coparenting and marital/couple relationships during the transition to parenthood. In their structural model of

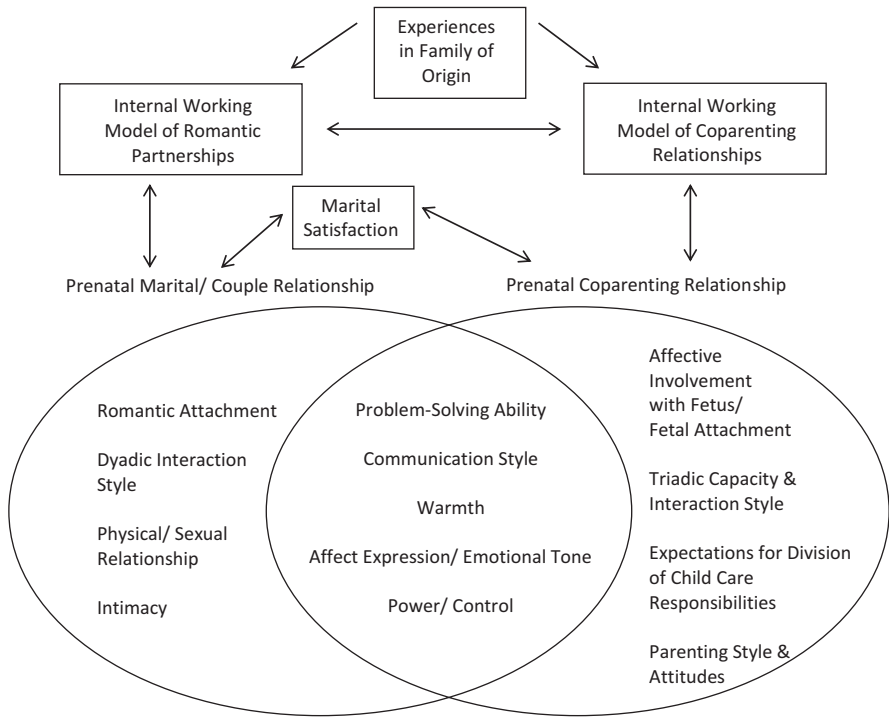


Fig. 11.1 Model of prenatal marital/couple and coparenting interrelationships

the transition to parenthood, Carolyn and Philip Cowan (Cowan and Cowan 1987) suggest that the couple relationship serves as mediator between all other levels within the family system. This systemic view suggests that any negative experiences or events arising either within or outside of the family reverberate through different subsystems and relationships within the family via the marital or couple relationship. Similar to the Cowans’ model, our model also incorporates this notion of an affective spillover between the marital and coparental subsystems during pregnancy such that processes within one subunit impact processes in the other. However, based on our as well as others’ findings, we also considered whether some aspects of each subsystem may have certain characteristics that are still relatively separate and may function more independently of the other family systems during pregnancy. We also envision that over the course of the transition to parenthood, the degree to which subsystems share qualities may increase (i.e., the two subsystems become increasingly more interrelated), though each subsystem would always retain certain unique and unshared qualities.

Feinberg’s ecological model of coparenting (2003) provides many additional factors postulated to influence the postpartum coparenting relationship that we did not include in our model of prenatal coparenting. Feinberg’s model specifies parental characteristics such as their personality and mental health, which combine with

parenting and child characteristics as well as external stressors and resources available to the family that impact coparenting quality after birth. We see our model as augmenting Feinberg's model by illuminating specific prenatal and preconception factors likely to play a role for the coparenting and marital/couple relationships during pregnancy.

The prenatal couple and coparenting relationships illustrated in our model are meant to reflect both the representational and behavioral manifestations of these relationships. In other words, the shared and distinct characteristics of each subsystem can be expressed and should be assessed via parents' self-reported perceptions as well as via direct observations of their couple or coparental behaviors. For example, intimacy in the couples' romantic relationship involves partners' own sense of connection and closeness as well as behavioral indicators of intimacy that can be directly observed in couples' interactions. In the same realm, coparental involvement in the family includes both partners' perceptions of their own and coparenting partners' involvement and is also evident via direct observation of their triadic interactions with their mentally represented child.

We hope that our model will guide future investigations into these prenatal family subsystems in order to verify and expand upon the proposed interrelationships between the prenatal couple and coparenting subsystems.

Conclusion

As our review of previous studies on the transition to parenthood has illustrated, direct observations of couple and coparental behaviors during and after pregnancy are still less common than assessments of parental perceptions. We recommend that future studies concentrate more on observations of coparenting and couple functioning during pregnancy in order to further explore their interconnections and identify specific prenatal predictors of postpartum family dynamics. Understanding how these prenatal family subsystems overlap and in which ways they are distinct may aid in developing effective prenatal interventions for families at risk for maladjustment after the transition to parenthood.

In addition, we need to gain a better understanding of contextual influences on our observations of prenatal and postpartum family dynamics. Work by Melby et al. (1995) suggests that task effects play an important role in observations of family dynamics, for example, with discussion tasks promoting positive marital interactions including marital warmth and support and with problem-solving tasks showcasing conflict and problem-solving behaviors. We expect that contextual or task factors exert similar influences on prenatal family dynamics, as the research by Shai (2018) described in Chap. 6 seems to indicate. In addition to considerations regarding specific tasks used for observing prenatal coparenting and couple interactions, future research should also attend to the order in which these tasks are presented to couples during pregnancy. As previously discussed and especially relevant for detecting affective spillover between the prenatal couple and coparenting

subsystems, the order of observational tasks for couple and coparenting interactions should be counterbalanced. In addition, researchers should also pay attention to the temporal gap between administration of consecutive interaction tasks to pregnant couples. Especially when couples evidence conflictual dynamics during an initial interaction task, the affective arousal from this first task may directly carry over to a subsequently administered task and make it difficult to discern whether any affective spillover represents only temporary effects or long-term influences between the subsystems. Gottman and Levenson's (2004) findings of considerable consistency between marital partners' affect expressed during a postpartum problem-focused discussion and a subsequent pleasant-topic discussion support this concern, though most couples in their study were able to show some rebound from the negative affect aroused in the first discussion task. As these findings suggest, the nature of prenatal interaction tasks and their sequencing are both important to consider in future investigations of the interrelationship between the coparenting and couple subsystems.

Our findings support the idea that an affective spillover between the marital/couple and coparental subsystems previously observed only during the postpartum period may already be in evidence during prenatal family interactions. It is still unclear whether the prenatal marital/couple and coparenting subsystems also complement one another or whether one subsystem may compensate for shortcomings in the other subsystem during pregnancy. Based on our findings, affective spillover does not seem to be restricted to negative emotions shared between the prenatal marital and coparental relationships; as our observations indicated, prenatal marital and coparenting harmony with expressions of positive affect between family members are also linked during pregnancy.

These results support the argument that coparenting and marital/couple relationships develop in an interrelated and parallel fashion during pregnancy and that each shapes the evolving dynamics of the other subsystem. Though these findings demand replication by observational studies using larger sample sizes with greater family diversity, they provide initial evidence that the marital and coparenting subsystems contain unique characteristics that best predict specific postpartum family dynamics. In order to test and elaborate on our proposed model depicting the interrelationship between the prenatal couple and coparenting relationships, an expanded range of interaction tasks suitable for direct observations of a variety of couple and coparental behaviors across the transition to parenthood is needed. Future studies should also focus on identifying additional characteristics that may be shared between the prenatal couple and coparenting subsystems and that would be fruitful targets for prenatal interventions with families.

Acknowledgments We would like to thank the families who participated in our Transition to Parenthood Study for volunteering their time and sharing their experiences with us. We are also thankful for the work contributed by our coders, Kristen Chirichetti, Courtney Carpenter, Elizabeth Masterman, Jennifer Burgoyne, Debora Franco, and Yeonjoo Son. Finally, we wish to express a special thanks to our collaborators for the 12-month follow-up study phase, Drs. Maria Kalpidou, Paula Fitzpatrick, Amy Cirillo, and Fang Zhang.

References

- Ahrons, C. (1981). The continuing coparental relationship between divorced spouses. *American Journal of Orthopsychiatry*, 51(3), 415–428.
- Altenburger, L., Schoppe-Sullivan, S., Lang, S., Bower, D., & Kamp Dush, C. (2014). Associations between prenatal coparenting behavior and observed coparenting behavior at 9-months postpartum. *Journal of Family Psychology*, 28(4), 495–504. <https://doi.org/10.1037/fam0000012>.
- Ammaniti, M., & Gallese, V. (2014). *The birth of intersubjectivity: Psychodynamics, neurobiology, and the self*. New York: W. W. Norton & Company.
- Belsky, J., Spanier, G., & Rovine, M. (1983). Stability and change in marriage across the transition to parenthood. *Journal of Marriage and Family*, 45(3), 567–577.
- Bouchard, G. (2014). The quality of the parenting alliance during the transition to parenthood. *Canadian Journal of Behavioral Science*, 46(1), 20–28. <https://doi.org/10.1037/a0031259>.
- Caldera, Y., Fitzpatrick, J., & Wampler, K. (2002). Coparenting in intact Mexican American families: Mothers' and fathers' perceptions. In J. M. Contreras, K. A. Kerns, & A. M. Neal-Barnett (Eds.), *Latino children and families in the United States: Current research and future directions* (pp. 107–131). Westport, CT: Praeger Publishers/Greenwood Publishing Group.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal*, 27, 207–228. <https://doi.org/10.1002/imhj.20089>.
- Cowan, C., & Cowan, P. (1987). Men's Involvement in Parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Lawrence Erlbaum Associates, Publishers.
- Cowan, P., & Pape Cowan, C. (1988). Changes in marriage during the transition to parenthood: Must we blame the baby? In G. Y. Michaels & W. A. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 114–154). Cambridge University Press.
- Cox, M., Paley, B., Burchinal, M., & Payne, C. (1999). Marital perceptions and interactions across the transition to parenthood. *Journal of Marriage and the Family*, 61(3), 611–625. <https://doi.org/10.2307/3564>.
- Favez, N., Frascarolo, F., & Fivaz-Depeursinge, E. (2006). Family alliance stability and change from pregnancy to toddlerhood and marital correlates. *Swiss Journal of Psychology*, 65(4), 213–220. <https://doi.org/10.1024/1421-0185.65.4.213>.
- Feinberg, M. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting Science and Practice*, 3(2), 95–131. https://doi.org/10.1207/S15327922PAR0302_01.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers, and infants*. New York: Basic Books.
- Foley, S., Branger, M., Alink, L., Lindberg, A., & Hughes, C. (2019, July 29). Thinking about you baby: Expectant parents' narratives suggest prenatal spillover for fathers. *Journal of Family Psychology*. Advance online publication. <https://doi.org/10.1037/fam0000568>.
- Frascarolo, F., Fivaz-Depeursinge, E., & Philipp, D. (2018). The child and the couple: From zero to fifteen. *Journal of Child and Family Studies*, 27. <https://doi.org/10.1007/s10826-018-1090-8>.
- Gallegos, M., Murphy, S., Benner, A., Jacobvitz, D., & Hazen, N. (2017). Marital, parental and whole-family predictors of toddlers' emotion regulation: The role of parental emotional withdrawal. *Journal of Family Psychology*, 31(3), 294–303. <https://doi.org/10.1037/fam0000245>.
- Gottman, J., & Levenson, R. (2004). Rebound from marital conflict and divorce prediction. *Family Processes*, 38, 287–292. <https://doi.org/10.1111/j.1545-5300.1999.00287.x>.
- Heinicke, C., & Guthrie, D. (1996). Prebirth marital interactions and postbirth marital development. *Infant Mental Health Journal*, 17(2), 140–151.
- Jessee, A., Mangelsdorf, S., Wong, M., Schoppe-Sullivan, S., Shigeto, A., & Brown, G. (2018). The role of reflective functioning in predicting marital and coparenting quality. *Journal of Child and Family Studies*, 27, 187–197. <https://doi.org/10.1007/s10826-017-0874-6>.

- Katz, F. L., & Gottman, J. (1996). Spillover effects of marital conflict: In search of parenting and coparenting mechanisms. *New Directions for Child Development*, 74, 57–76. PMID:9308430.
- Kitzmann, K. (2000). Effects of marital conflict on subsequent triadic family interactions and parenting. *Developmental Psychology*, 36(1), 3–13. <https://doi.org/10.1037//0012-1649.36.1.3>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, 8, 475. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Kuersten-Hogan, R., & McHale, J. P. (2013). L'observation du coparentage dans les familles biparentales: influence du contexte et de l'âge de l'enfant (Coparenting Observations in Two-Parent Families Across Contexts and Time). In N. Favez, F. Frascarolo, & H. Tissot (Eds.), *Le bébé au sein de la triade: le développement de l'alliance familiale (The baby within the triad: the development of family alliance)*. Bruxelles: De Boeck.
- Le, Y., McDaniel, B., Leavitt, C., & Feinberg, M. (2016). Longitudinal associations between relationship quality and coparenting across the transition to parenthood: A dyadic perspective. *Journal of Family Psychology*, 30(8), 918–926. <https://doi.org/10.1037/fam0000217>.
- Lewis, J. M. (1988a). The transition to parenthood: I. The rating of prenatal marital competence. *Family Process*, 27(2), 149–165. <https://doi.org/10.1111/j.1545-5300.1988.00149.x>.
- Lewis, J. M. (1988b). The transition to parenthood: II. Stability and change in marital structure. *Family Process*, 27(3), 273–283. <https://doi.org/10.1111/j.1545-5300.1988.00273.x>.
- Lewis, J. M. (1989). *The birth of the family: An empirical inquiry*. Brunner/Mazel Publishers.
- Lindahl, K. M., Clements, M., & Markman, H. (1997). Predicting marital and parent functioning in dyads and triads: A longitudinal investigation of marital processes. *Journal of Family Psychology*, 11(2), 139.
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, 21, 251–255. <https://doi.org/10.2307/348022>.
- Margolin, G., Oliver, P., Gordis, E., O'Hearn, H., Medina, A., Ghosh, C., & Morland, L. (1998). The nuts and bolts of behavioral observation of marital and family interaction. *Clinical Child and Family Psychology Review*, 1(4), 195–213. <https://doi.org/10.1023/A:1022608117322>.
- McHale, J. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology*, 31, 985–996. <https://doi.org/10.1037/0012-1649.31.6.985>.
- McHale, J. (1997). Overt and covert coparenting processes in the family. *Family Process*, 36, 183–201.
- McHale, J., & Dickstein, S. (2019). The interpersonal context of early childhood development: A systemic approach to infant-family assessment. In A. Carter & R. DelCarmen Wiggins (Eds.), *Oxford handbook of infant, toddler, and preschool mental health assessment, second edition* (pp. 79–96). Oxford University Press.
- McHale, J., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberson, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, 16, 711–733. <https://doi.org/10.1017/S0954579404004742>.
- McHale, J., Kuersten, R., & Lauretti, A. (1996). New directions in the study of family-level dynamics during infancy and early childhood. In: J. McHale and P. Cowan, (Eds.). Understanding how family level dynamics affect children's development: Studies in two-parent families. *New Directions for Child Development*, 74, 5–27.
- McHale, J. P., Kuersten-Hogan, R., & Lauretti, A. (2001). Evaluating Coparenting and family-level dynamics during infancy and early childhood: The Coparenting and Family Rating System. In P. K. Kerig & K. M. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research* (pp. 151–170). Mahwah, NJ: Lawrence Erlbaum.
- McHale, J., & Lindahl, K. (2011). *Coparenting: A conceptual and clinical examination of family systems*. Washington, DC: American Psychological Association.

- Melby, J., Ge, X., Conger, R., & Warner, T. (1995). The importance of task in evaluating positive marital interactions. *Journal of Marriage and Family*, 57(4), 981–994. <http://www.jstor.org/stable/353417>.
- Merrifield, K. A., & Gamble, W. C. (2013). Associations among marital qualities, supportive and undermining coparenting, and parenting self-efficacy: Testing spillover and stress-buffering processes. *Journal of Family Issues*, 34(4), 510–533. <https://doi.org/10.1177/0192513X12445561>.
- Pape Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Pape Cowan, C., Cowan, P., Heming, G., Garrett, E., Coysh, W., Curtis-Boles, H., & Boles, A., III. (1985). Transitions to parenthood: His, hers, and theirs. *Journal of Family Issues*, 6(4), 451–481.
- Pape Cowan, C., Cowan, P., Heming, G., & Miller, N. (1991). Becoming a family: Marriage, parenting, and child development. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 79–109). Lawrence Erlbaum Associates, Publishers.
- Perren, S., Von Wyl, A., Bürgin, D., Simoni, H., & Von Klitzing, K. (2005). Intergenerational transmission of marital quality across the transition to parenthood. *Family Process*, 44(4), 441–459. <https://doi.org/10.1111/j.1545-5300.2005.00071.x>.
- Schoppe-Sullivan, S., Mangelsdorf, S., Frosch, C., & McHale, J. (2004). Associations between coparenting and marital behavior from infancy to the preschool years. *Journal of Family Psychology*, 18(1), 194–207. <https://doi.org/10.1037/0893-3200.18.1.194>.
- Shai, D. (2018). The inconsolable doll task: Prenatal coparenting behavioral dynamics under stress predicting child cognitive development at 18 months. *Infant Behavior and Development*. <https://doi.org/10.1016/j.infbeh.2018.04.003>.
- Talbot, J., Baker, J., & McHale, J. (2009). Sharing the love: Prebirth adult attachment status and coparenting adjustment during early infancy. *Parenting, Science and Practice*, 9(1–2), 56–77. <https://doi.org/10.1080/15295190802656760>.
- Van Egeren, L. (2004). The development of the coparenting relationship over the transition to parenthood. *Infant Mental Health Journal*, 25(5), 453–477. <https://doi.org/10.1002/imhj.20019>.

Chapter 12

The Prenatal Couple Relationship: Relations with Postnatal Family Dynamics and Child Outcomes



Nancy L. Hazen, Ashleigh I. Aviles, Martin I. Gallegos, Helen B. Poulsen,
Ziyu Tian, and Deborah B. Jacobvitz

The transition to parenthood creates considerable challenges to individual and family adjustment. On average, marital satisfaction, communication, and expression of affection decrease (Cowan and Cowan 2000), as couples have less time to spend with each other (Crawford and Huston 1993) and must cope with new responsibilities of parenting while experiencing greater sleep deprivation and stress (Medina et al. 2009). Also, changes in division of household labor occur, and in opposite sex couples, the mother generally assumes a larger share of these tasks due to assuming primary care of the new infant, often leading to more traditional gender role attitudes and behaviors (Katz-Wise et al. 2010). The psychological health of individuals can also decline, as the risk of depressive symptoms increases for both partners (Pancer et al. 2000). Thus, a key aim of this chapter is to draw on research conducted in our lab to examine prenatal factors that predict how well couples navigate this often tumultuous transition and how these prenatal factors relate to postnatal family dynamics, as well as children's developmental outcomes.

The burgeoning research on the transition to parenthood has been inspired and guided largely by Minuchin's structural family systems theory (Minuchin 1988). According to structural family systems theory, families are made up of dyadic subsystems, including couple, parent-child, and sibling relationships. The individuals who comprise these dyadic subsystems are systems in themselves, each with distinct temperaments and developmental histories. With the transition to parenthood,

N. L. Hazen (✉) · A. I. Aviles · Z. Tian · D. B. Jacobvitz
Department of Human Development and Family Sciences, The University of Texas at Austin,
Austin, TX, USA
e-mail: nancyhazen@mail.utexas.edu

M. I. Gallegos
Department of Psychology, University of Texas at San Antonio, San Antonio, TX, USA

H. B. Poulsen
Department of Research & Evaluation, Austin Independent School District, Austin, TX, USA

each individual in the couple subsystem experiences significant transformations in personal identity and well-being as they adjust to their new roles as parents. The couple's relationship is also qualitatively transformed as they become coparents and renegotiate their intimate relationship and their work and domestic roles. Moreover, two new dyadic family subsystems are created – in opposite-sex couples, a mother-child and a father-child relationship – and each partner invests time and emotional effort into these new relationships. Clearly, although the transition to parenthood is a normative individual and family transition – that is, it is predictable and expectable – it marks a critical time in both individual and family life cycles.

Happily, however, families adapt. While patterns of family interaction are generally stable and resistant to change, they are also adaptive, open, and self-organizing. As such, they eventually adjust to disruptions and reach a new, qualitatively different pattern of homeostasis (Minuchin 1988). Thus, following the transition to parenthood, new patterns of family dynamics emerge that are a complex function of the existing individual and dyadic systems within the family transacting with the stresses and supports in contexts outside the family (Cox et al. 2010). Accordingly, families vary widely in the nature and quality of their adaptation. Although most studies find declines in marital satisfaction after the transition to first-time parenthood (Pinquart and Teubert 2010), many couples show stability or even improvement in marital satisfaction or quality (Lawrence et al. 2008). For example, we found that 23% of mothers and 37% of fathers reported equal or increased feelings of love 8 months after the transition to parenthood, and 20% of mothers and 28% of fathers reported equal or lower conflict (Holmes et al. 2013). We next discuss past and ongoing studies from our longitudinal study of the transition to first-time parenthood, the Partners and Parents Project (PPP), that elucidate how prenatal couple relationships forecast postnatal family dynamics and children's later outcomes.

The Partners and Parents Project (PPP)

The PPP followed 125 opposite-sex couples recruited between 1993 and 1995 in the Austin, Texas area, from their third trimester of pregnancy until their children were in second grade (7–8 years old). Couples expecting their first child were recruited primarily from childbirth classes and were required to be English-speaking and living together (96% were married). Although the median family income ranged from \$30,000 to \$45,000, this sample was somewhat socioeconomically diverse, as about one-third was at or below poverty level at the time of recruitment. Participants were 82% white non-Hispanic, 7% white Hispanic, 2% African American, and 8% of mixed racial/ethnic backgrounds. They were generally highly educated; 60% of the couples had at least a bachelor's degree, and 30% had some college or trade/business coursework. At the time of recruitment, expectant parents ranged in age from 16 to 41 years (mean age = 29 for mothers and 30 for fathers).

Family systems theorists have argued that research on the transition to parenthood should include behavioral observations of family interactions over time, as well as

prenatal assessments of the couples' cognitive representations of couple and parent-child relationships (Cox et al. 2010; Kuersten-Hogan 2017). Thus, in the PPP, we observed couple interactions prior to the birth of their first child and tried to collect as much observational data on couple interaction, dyadic parent-child interaction, and whole-family interaction across the first 2 years following the transition to parenthood as was practical. Because each parent brings their own childhood history to the transition to parenthood, via their current representations of parent-child attachment relationships and marital relationships, we also assessed parents' prenatal mental representations of attachment using the gold-standard Adult Attachment Interview (AAI, Main et al. 1984/2003), and we developed a new assessment of each parents' representations of their own parents' marriage, the Grandparent Marriage Interview (GMI, Jacobvitz 1992), based on attachment theory and the AAI protocol.

Families in our longitudinal study were visited in four main waves: prenatal (third trimester of pregnancy), 8 months postpartum, 24 months postpartum, and 7 years postpartum. At the first three waves, couples engaged in marital interaction tasks lasting about 20–25 min, during which they discussed areas of potential disagreement tailored to each phase of the transition to parenthood. Prenatally, they were asked to discuss how their relationship had changed since becoming pregnant, to identify an area of difference and come to an agreement about it, and to plan an activity together. At 8 and 24 months, respectively, they were asked to discuss with their partner what they liked about their partner's parenting and about their household division of labor, as well as what they would like to change. Self-report measures of marital quality were also obtained from each parent at each wave.

At 8 and 24 months postpartum, we also obtained videotapes of mother-child and father-child interactions. At 8 months, each parent engaged with the infant in play, a clothing change, and feeding interactions for 20–25 min. At 24 months, mother-child and father-child interactions were videotaped for about 30 min each during play, clean-up, and teaching tasks (in which toddlers were given challenging puzzles and tool-use tasks that require parental help) in a laboratory setting. At both assessment times, the order of interactions with mother and with father was counterbalanced.

Triadic (mother-father-child) interactions were observed at 24 months during home visits, during which parents were instructed to engage in a card-sorting activity, prepare a snack, and change their child's clothes, all within 25 min. This task was designed to simulate real-life situations that required parents to complete an adult task while concurrently caring for their child under mild time pressure. If parents completed the tasks early, they were asked to engage their child in a challenging peg-sorting task that required parent help. Unfortunately, we were not able to obtain triadic interactions at 8 months postpartum since we could only do one home visit, and infants were too tired to engage in a triadic interaction after having completed two dyadic interactions. We also did not obtain prenatal coparenting interactions, since procedures for observing prenatal interactions, such as the Prenatal Lausanne Trilogue Play (PLTP; Carneiro et al. 2006), had not yet been developed.

We next describe findings to date regarding prenatal predictors of the patterns and quality of interaction in the family systems and subsystems that emerge during the first 2 years following the transition to parenthood (specifically, the postnatal marital subsystem, the new dyadic mother-child and father-child caregiving subsystems, and the new family triad) and how these postnatal family interaction patterns relate to children's developmental outcomes.

Prenatal Couple Predictors of Postnatal Marital Quality and Dynamics

Cowan and Cowan (2000) have asserted that the quality of the couple relationship is the central risk or protective factor affecting how well the family copes with major life transitions, and we concur. Couple interaction patterns, established prenatally, can affect child outcomes indirectly, via spillover to parent-child and whole-family interactions (including coparenting), or directly, when children witness parental conflict (Erel and Burman 1995). Most of our studies obtained from the PPP sample have focused on how prenatal couple interactions forecast later parent-child and whole-family interaction patterns and, in turn, how these family interactions relate to later child outcomes. However, we have also examined continuity and change in marital interaction across the transition to parenthood (Curran et al. 2006; Gallegos et al. 2020).

We coded our marital interaction tasks, obtained prenatally and at 24 months postpartum, at the dyadic level, using family systems-based scales which were adapted from scales designed to assess healthy versus maladaptive triad family interactions (Jacobvitz 2004). These included scales assessing the emotional content of the couple interaction (positive and negative affect, hostility, and emotional attunement of the couple). Marital interactions at 8 months postpartum are still in the process of being coded with this coding system. However, we used a portion of these 8-month interactions, in which couples discussed what they liked and what they would change about their partner's parenting, to code each spouse's perceptions of their partner's parenting quality (Sasaki et al. 2010). Marital interactions at each phase were coded by different coding teams.

In general, we found that qualities of marital interaction from before couples had their first child until the child was 2 years old were stable over the transition to parenthood, but changes in marital interaction patterns were also predicted by parents' prenatal representations of their parents' marriages (Curran et al. 2006) and by each partners' postnatal perceptions of their spouses' parenting (Gallegos et al. 2020). Specifically, in an early study, we examined husbands' and wives' representations of their parents' marriages, obtained prenatally, as a predictor of continuity and change in couples' emotional attunement in marital interactions from the third trimester before their first child's birth until 24 months postpartum (Curran et al. 2006). We reasoned that high emotional attunement is likely to be important for a

smooth transition to parenthood, a time when it is critical for couples to communicate openly and empathically about the responsibilities and stressors they encounter regularly as new parents. Couples were rated as high on emotional attunement if they showed a high degree of positive emotional connectedness and responsiveness. Such couples listen to each other without disruptive interruptions, often ask clarifying questions to better understand each other's reasoning, and are able to disagree without escalation or disengagement. Couples who scored low on this scale were tense, emotionally distant, or contentious. Assessments of each partner's representation of their parents' marriage were obtained using the Grandparent Marriage Interview (GMI, Jacobvitz 1992), a semistructured interview designed to assess adult children's recollections of their parents' marriage. The GMI is coded for *content* (respondents' memories of affection, conflict, and communication in their parents' marriage) and for *insight* (the extent to which respondents' memories are rich, coherent, and believable, as well as their ability to make connections between their parents' marriage and their own current marriage).

We found that couples' emotional attunement was stable from the prenatal observation until 24 months postpartum. However, change in emotional attunement was predicted by wives' representations of their parents' marriage. Specifically, wives who recalled high conflict in their parents' marriage in an insightful manner showed greater residualized postnatal emotional attunement (controlling for prenatal attunement) than other husbands and wives. This suggests that they may be more likely to anticipate potential postnatal marital problems and prevent them by increasing emotional attunement to their spouses. In contrast, wives who recalled a highly conflictual parental marriage with low insight showed the *lowest* residualized postnatal emotional attunement. Thus, they may be predisposed to repeat negative interaction patterns they recall from their parents' marriage, since they lack insight to change them. A similar nonsignificant trend was found for husbands, so the gender difference between wives and husbands was not significant.

In a more recent study, we examined the role of parents' perceptions of their partners' parenting quality at 8 months postpartum as a predictor of continuity and change in hostility and net positive affect (positive minus negative affect) in marital interactions from the prenatal to 24-month couple interaction (Gallegos et al. 2020). High *positive affect* was characterized by a mutually warm, caring, comfortable, and fun emotional climate with high mutual positive regard, whereas *negative affect* was rated highly when the couple's interaction was characterized by tension, stiff postures, lack of eye contact, and negative voice tones. Low scores on these scales indicated an absence of positive or negative affect, respectively. The *hostility* scale assessed the extent to which the marital dyad (one or both members) showed critical, hurtful, hostile, or sarcastic behaviors toward each other.

Overall, we found significant continuity for the couples' net positive affect and hostility from the prenatal to the 24-month marital interactions. Moreover, the couple's higher hostility and lower net positive affect predicted each spouse's more negative perceptions of their partner's parenting. In addition, mothers' (but not fathers') more negative perceptions of their spouses' parenting at 8 months postpartum predicted higher couple hostility at 24 months (controlling for prenatal couple

hostility) and mediated the relation between prenatal and 24-month couple hostility. That is, after controlling for the effect of mothers' perceptions of fathers' parenting, prenatal couple hostility was not significantly related to their hostility at 2 years postpartum, indicating that marital hostility was stable over time only when mothers had more negative views of their husbands' parenting. We also found that wives had significantly more negative perceptions of their husbands' parenting than husbands did of their wives' parenting. Taken together, these latter two findings are consistent with past research on maternal gatekeeping. Maternal gatekeeping beliefs include socially conditioned gender-typed beliefs in differentiated family roles with mother as primary caregiver and father as primary breadwinner, as well as assumptions that fathers have less competence and less investment in caregiving (Schoppe-Sullivan et al. 2008). Mothers' more critical views of fathers' parenting have been found to relate to fathers' lower involvement in infant caregiving (e.g., Schoppe-Sullivan et al. 2008), and a key area of dissatisfaction expressed by wives after the transition to parenthood is that their husbands are not as involved in child care as they would like them to be (Cowen and Cowen 2000). Our data suggest that mothers' more negative perceptions of fathers' parenting may not only decrease father involvement but may also perpetuate or exacerbate hostility in the marital dyad.

In contrast, fathers' (but not mothers') perceptions of their spouse's parenting were predictive of greater couple net positive affect at 24 months. However, in this case, fathers' more positive perceptions of their spouses' parenting did not mediate the relation of prenatal couple positive affect to 24-month postnatal couple positive affect, and stability of couple positive affect across the transition to parenthood remained highly significant even after controlling for fathers' perceptions of their spouse's parenting. It is interesting to note that positive and negative affect in marital interactions was more stable over the transition to parenthood than hostility. This may be because emotionality is more likely to relate to personality traits (e.g., being high in neuroticism or agreeableness), which are generally fairly stable over time, whereas hostility may be more specifically related to resentment of the spouse. Hostility is also a more antagonistic form of marital quality than general negative affect and may thus have been more likely than negative or positive affect to be affected by mothers' negative perceptions of their spouse.

Prenatal Couple Predictors of Postnatal Mother-Child and Father-Child Interactions

Findings from our longitudinal study also indicate that qualities of the prenatal couple interaction predict later patterns of mother-child and father-child interaction. In one study (Poulsen et al. 2018), we examined the dyadic emotional climate of the prenatal couple interaction (positive affect plus reverse-coded negative affect) and the couple's joint attachment representation (grouped as secure-secure, secure wife-insecure husband, insecure wife-secure husband, and insecure-insecure, as assessed

by the AAI) as predictors of mothers' and fathers' sensitivity and hostility in interactions with their infant at 8 months. We found that negative marital interaction was significantly higher for couples in which the husband had an insecure representation of attachment, compared with couples with secure husbands. Also, in secure wife-insecure husband pairs, both mothers and fathers were less sensitive with their infants, compared with secure-secure pairs. We also found significant indirect effects between joint attachment pairings and both parents' sensitivity and hostility, mediated through prenatal marital affect, suggesting that lower quality caregiving in couples with at least one insecure member can be at least partially explained by negative prenatal marital affect.

These findings show the value of examining the couple as a dyadic system, rather than simply examining each parent's individual prenatal behavior and representations as predictors of their caregiving quality. Couples' prenatal marital interaction and each partner's 8-month caregiving quality were affected not only by their own representations of attachment but also by those of their spouse (for similar findings in couples planning pregnancy, see Chap. 8 in this book). Moreover, different patterns emerged for mothers and fathers, such that the caregiving of insecure mothers, but not insecure fathers, seemed to benefit from having married a secure spouse. This pattern may have emerged because prenatal patterns of marital interaction were more negative when the husband had an insecure representation of attachment, whereas marital affect in insecure wife-secure husband couples did not differ from that of secure-secure couples. This is consistent with past research indicating that negative marital quality is more prevalent in couples with insecure husbands than in couples with insecure wives (Creasey 2002). Since women have been found to assume more responsibility for relationship maintenance than men (Canary and Stafford 2001), wives with insecure attachment representations may try harder to maintain positive marital interactions than insecure men do. In turn, negative marital affect can spillover to parent-child interaction by increasing parents' negative mood and exhausting their resources for dealing with the stress of being a new parent (for further discussion of spillover of negative marital affect into other family subsystems, see Chap. 11 in this book).

Many studies have examined spillover from marital negativity to negative/hostile parent-child interaction patterns, but the depletion of parents' emotional resources due to marital negativity can also result in parents' emotional withdrawal during infant caregiving, which is understudied. Thus, we also examined the prenatal couple relationship as a predictor of parents' emotional withdrawal during interactions with their infants at 8 months (Gallegos et al. 2017). Using structural equation modeling, we found that after controlling for family income, infant temperament, and both parents' depressive symptoms, prenatal marital negative affect predicted both fathers' and mothers' emotional withdrawal from the infant. In turn, fathers' (but not mothers') emotional withdrawal predicted their toddlers' less adaptive emotion regulation at 24 months. Toddlers' adaptive emotion regulation was assessed by observing the child in two challenging 5–10-min task situations presented by a research assistant and designed to induce frustration. Adaptive emotion regulation

was defined as the child's ability to express emotions adapted to solving the tasks (e.g., persisting in the task even when frustrated, and showing joy and pride upon its solution), without withdrawing from the tasks, becoming so distressed or angered that they could not complete the tasks, or showing a lack of emotion when failing or succeeding at the tasks.

Toddlers' emotion regulation may have been predicted by fathers', but not mothers', higher emotional withdrawal because father–infant interactions may play a unique role in the development of toddlers' emotion regulation. Fathers are more likely than mothers to engage infants in emotionally stimulating and challenging play, and fathers' sensitive engagement in such play with their infants may promote the development of their children's emotion regulation (Hazen et al. 2010; Paquette 2004). Another possible explanation is that fathers in our sample were simply more likely to show emotional withdrawal when interacting with their infants, compared to mothers. This may be because fathers in an emotionally negative marriage may feel that their wives have emotionally withdrawn from them in favor of seeking love and attention from their infant. Feeling left out of a newly developing mother–child alliance, these fathers may respond by withdrawing from interactions with both mother and child. This fits with claims by family systems theorists that problems in the marital subsystem can lead to unhealthy cross-generational coalitions characterized by parent–child role reversal, in which a parent seeks intimacy, care, and/or companionship from their child rather than their spouse (Macfie et al. 2008).

With this in mind, we are currently investigating whether parent–child interaction characterized by an early form of parent–child role reversal can be reliably observed in infancy and toddlerhood and can be predicted from negative premarital couple interactions (Aviles et al. 2019 July). Early parent–child role reversal was defined as parental behavior indicating that the parent wants or expects the child to meet his or her needs, rather than the reverse. Items in the role-reversal scale include, "Parent seems annoyed or frustrated when child shows they have a will of their own," and "Parent shows annoyance or hurt feelings when child does not respond to parents' initiations." Interrater reliability for role reversal was acceptable at both 8 and 24 months postpartum. A latent variable of marital negativity was created by combining ratings of couples' dyadic premarital negative affect, hostility, controlling behaviors, and blurred boundaries. Observed prenatal marital negativity significantly predicted both mother–infant and father–infant early role reversal at 8 months, as well as mother–toddler role reversal at 24 months. Interestingly, the relation of negative marital interaction to parent–child role reversal at 8 months was almost twice as strong for fathers than for mothers, perhaps indicating that when a couple has marital problems, fathers are more likely than mothers to feel left out and resentful of infant behavior that seems to be rejecting. However, later in development when children were toddlers, negative prenatal marital interactions predicted role reversal in mothers but not fathers. For mothers, it may be that spillover from prenatal marital negativity predicts mothers' role-reversed behavior only when their child becomes more autonomous, in toddlerhood.

Prenatal Couple Predictors of Triadic Family Interactions: Coparenting Quality

To investigate how prenatal marital quality forecasts triadic (mother–father–child) family interactions observed at 24 months, we used two different coding systems: one that assesses coparenting quality and one that assesses healthy versus maladaptive family boundaries. As soon as partners become parents, or as soon as they find out that they are expecting a child, they form a coparenting alliance, and the extent to which they function as allies versus adversaries is likely to relate to their prenatal marital quality. Most research on coparenting has focused on two dimensions of coparenting: cooperative, characterized by each partner assisting and supporting the others' parenting efforts, and competitive, characterized by each parent undermining the other parent and jockeying for control (McHale 1995). To code coparenting observed in our triadic family interaction task, we used the Coparenting and Family Rating System (McHale et al. 2000), which assesses dyadic cooperative and competitive coparenting, as well as other aspects of dyadic-level coparenting, including conflict (verbal sparring), warmth, and child-centeredness. Prenatal predictors of coparenting quality, particularly competitive coparenting, are important to identify, since we found that competitive coparenting predicted children's symptoms of attention deficit-hyperactivity disorder (ADHD) and oppositional-defiant disorder (ODD) assessed by teacher reports using the Child Behavior Checklist (CBCL, Achenbach 1991) when the children were 7 years old, even after controlling for cooperative coparenting and each parent's dyadic parenting quality (Umemura et al. 2015).

We first examined the relation between change in each partner's self-reported marital satisfaction and conflict across the transition to parenthood (assessed prenatally, at 8 months, and at 24 months) and their coparenting quality at 24 months (Christopher et al. 2015). Latent growth curve modeling indicated that declines in fathers' marital satisfaction predicted higher dyadic competitive coparenting, and increases in fathers' marital conflict predicted lower dyadic cooperative coparenting, while mothers' reports of the marital relationship were unrelated to coparenting. These findings are consistent with research indicating that fathers' parenting quality is more affected by a negative marital relationship than is mothers' parenting quality (Katz and Gottman 1996), perhaps because parenting is more central to women's identity due to gender role socialization.

Surprisingly, we found little relation between observed prenatal couple interaction and observed cooperative or competitive coparenting at 24 months. However, in the previously discussed study by Gallegos et al. (2017), we found that negative prenatal marital affect not only predicted both parents' emotional withdrawal at 8 months, but also predicted higher levels of coparenting conflict (verbal sparring) at 24 months, which in turn also predicted toddlers' less adaptive emotion regulation. Verbal sparring is distinct from competitive coparenting in that the latter involves spouses undermining their partner's parenting by triangulating the child in the middle of the conflict. For example, one parent might set a limit (e.g., "We can't

watch TV right now;”), while the other contradicts that limit (“Oh, let him watch it, it’s okay.”) High scores in verbal sparring indicate that the couple argues a great deal in front of the child, but their conflict does not necessarily involve or triangulate the child. It may be that negative affect in our prenatal couple interaction task forecasted later parental conflict during triadic family interaction (as guided by the hypothesis of spillover – see Chap. 11 in this book for similar findings), but not competitive coparenting, because the prenatal couple interaction tasks did not simulate future coparenting contexts. The use of prenatal coparenting interactions such as the PLTP may be better suited to forecasting postnatal coparenting interactions.

Prenatal Couple Predictors of Triadic Family Interactions: Boundary Disturbances

Using the Triadic Family Boundary Disturbances Coding System (Jacobvitz 2004) to code enmeshed, blurred boundaries in mother–father–toddler interactions, we rated the extent to which one parent tries to draw the child into an alliance by using one or more of the following tactics: spousification of the child (turning to the child rather than the spouse for intimacy or companionship, flirting or whispering secrets to the child, or touching the child seductively), parentification of the child (acting helpless and turning to the child for caregiving and support, rather than caring for the child), parentification of spouse (one spouse treating the other like a child), or alliances, in which one parent shows a pattern of trying to draw the child into a coalition, leaving out or undermining the spouse. We found that enmeshed prenatal couple interactions, in which one member of the couple is inappropriately manipulative and guilt-inducing, intrudes on their spouses’ personal or psychological space, or treats their spouse like a child, forecast enmeshed boundary disturbances in the family triad at 24 months (Jacobvitz et al. 2006 April). Moreover, poor boundaries in the triad were associated with children’s difficulty regulating emotion at 24 months (Jacobvitz et al. 2013, April) and with children’s emotional and behavioral problems at age 7 (Jacobvitz et al. 2004). We are currently working on identifying which particular patterns of enmeshed boundary disturbances observed in couple interactions (guilt-inducing, intrusive, or parentification) carry forward to particular patterns of boundary disturbances at 24 months and how these particular patterns relate to distinct child outcomes.

In future studies, we plan to investigate change and continuity in enmeshed boundary disturbances from the couple to the triad, as well as change and continuity in rigid, distancing boundary disturbances and healthy, balanced family interaction, by examining the role of possible moderating factors such as child temperament, life events, parenting stress, parents’ perceptions of each other’s parenting, and changes in parents’ attachment representations, from pregnancy to 24 months postpartum. We also plan to code each individual spouse’s behaviors in prenatal, 8-month, and 24-month dyadic couple interactions, as well as in the 24-month

triadic interactions, to help elucidate the role of each spouse in unbalanced family interaction patterns. For example, if the husband treats the wife like a child in the prenatal couple interaction, will the wife later parentify the child? And what will the husband's role be at this time?

Case Studies of Pre- and Postnatal Family Interactions

We next present two case studies of families whose struggles with the transition to parenthood were forecasted by their representations of attachment and their prenatal couple interactions, to provide a more holistic picture of how particular patterns of prenatal predictors relate to postnatal dyadic and whole-family interactions within a family and to the child's developmental outcomes. The two cases present different profiles of couple interaction problems, with Family A showing a wide variety of problems, while Family B showed primarily enmeshed patterns of interaction.

Family A: Kate, Mark, and Blake

Both Kate and Mark brought forward a history of negative childhood experiences and insecure representations of attachment to the quality of care they provided their own child. Both were children of divorce. On her prenatal AAI, Kate said she felt responsible for protecting her mother from her father, who was an abusive alcoholic. Mark's prenatal AAI was inaudible and could not be scored, but his AAI at 24 months postpartum revealed a history of abuse and inadequate care. Both Kate and Mark were categorized as "cannot classify," indicating a breakdown of strategies for integrating and describing early relationship experiences, alternating between dismissive derogation of attachment and angry preoccupation with their childhood attachment relationships. The "cannot classify" category has been associated with higher rates of psychopathology and past histories of maltreatment (Schuengel and van Ijzendoorn 2001).

In their prenatal marital interaction, Mark and Kate received high ratings for dyadic marital hostility, negative affect, controlling behavior, and enmeshment; in fact, they had the highest rating of all couples on hostility, negative affect, and the latent variable for negative marital interaction. As shown in the vignette below, they had difficulty communicating and staying on task. Kate was generally sullen and uncomfortable, and Mark, although often charming and affectionate, was also controlling, quick to anger, and continually intruded on Kate's personal space.

After a few minutes of discussing the assigned questions, Mark and Kate lapsed into long silences, interrupted with off-topic comments about Kate's swollen feet, while Mark tapped Kate's legs with a pencil eraser. Mark returned to the discussion topic, saying he was happy that she got pregnant the first month they were together. Kate replied, "It wasn't the first month, it was the second." In an irritated tone, Mark said, "I'm sorry, why does that bother

you?" Kate replied, "It just does," then explained that her swollen joints were causing her to be in a bad mood. When Mark asked her about her swollen feet, she responded, "We're wasting time." In a condescending tone, Mark replied, "Well then, talk, 'Miss We're-Wasting-Time'. I'm ready. Enlighten me with your incredible opinions about our early relationship." Kate said, "I don't have any light to shed on anything, I just don't want to discuss my body." Mark said, grinning, "You don't like your body right now, do you?" Kate laughed, embarrassed, saying "Shut up!" Mark started to kiss her neck and she pushed him back. Mark said, "I tell you this though, I don't worry about, like--" Kate interrupted, "About me cheating on you." Mark replied, "No, smart ass." Then he mimicked her voice, using a high-pitched tone, "Worried about me cheating on you." Kate said, "Well, that's what you were worried about before. You were going to keep me at home pregnant!" Mark replied, "Well, that's cause you told me all those stories!" Mark repeatedly touched her, lifting her dress up by the hem to peek under. Kate, annoyed, pushed her dress down, saying "Stop!" Mark laughed, "Why do you always do that?" Kate replied, "Because it's nasty." Mark said, "What?" Kate replied, "Just, pulling my dress up all the time. It's irritating." Mark responded angrily, "Isn't it though?" Pausing, he continued, laughing, "Thinking about that camera being on, it's so hot." He then continued trying to lift her dress.

In the 8-month marital interaction, Mark and Kate were both very critical of each other's parenting, and they expressed this in a hostile manner. Normally at 8 months, the marital interaction was dyadic, but in this case, their son Blake was present because he refused to leave his parents to play with the researchers in another room.

When discussing what she would change about Mark's parenting, Kate said that he has no patience. Baby Blake fussed for attention, and Mark pushed him back somewhat roughly, making him cry. Kate said angrily, "Don't treat him like that, you just make him cry every time you do that!" Mark looked exasperated and said that Blake "pisses everybody off sometimes." Kate complained, "You think he's indestructible, and he's not!" Mark countered angrily, "Well, I'm not going to walk around on pins and needles watching him constantly!" Kate later said "There's one more thing- I wish you were more affectionate to him. I play with him and I take responsibility. When I'm here, I'm the primary caretaker, and that's not fair." When Mark later criticized Kate's parenting, she turned away and stared blankly. Mark angrily yelled, "I hate it when you do that, you zone out like you're on two thousand drugs or something!"

In the 8-month parent-infant interactions, both parents showed a relatively high degree of emotional disengagement with Blake. For example, Kate and Blake rarely made eye contact, and Kate was insensitive in the feeding interaction, trying repeatedly to force Blake to eat while he turned his head and pushed the spoon way. Mark's emotional disengagement with Blake was even more extreme. He was insensitive and often handled his son like an inanimate object, seeming to have no idea how to engage him in play.

During feeding, Blake did not respond when Mark said his name. Mark seemed annoyed, gripped the baby's forehead while he was laying on the floor and shook it from one side to the other. During play, Mark turned on loud music. He sat down with Blake and whistled, saying, "Come here", banging on the floor. Blake started crawling towards him, but changed course. Mark grabbed Blake by his ankles, pulled Blake to him, and shook Blake's arms. Blake tried to crawl away again, and Mark pulled him back. He grabbed Blake's ankle and shook it, then covered Blake's face with his hand and moved it back and forth. Mark continued to manipulate Blake's body in a robotic way, not talking to him or making eye contact. Blake was unresponsive and looked away. He attempted to leave several times, and Mark pulled him back. Mark said to the camera, "Seems boring to play with him because

uh, I don't know, I just like to let him explore more. It seems like he learns more than if you play with him; it's kind of dragging."

At 24 months, Mark and Kate displayed even more hostility and emotional distance in their marital interaction than they did prenatally or at 8 months. In the prenatal interaction, they sat close together, and their hostile, controlling, and intrusive behaviors were often tempered or masked with humor, smiles, and laughter. This time, they avoided eye contact and were tense, irritated, and quick to lash out at each other. In the triadic mother–father–toddler interaction, the parents engaged in a high degree of verbal sparring and competitive coparenting. Kate undermined Mark's parenting in front of Blake several times.

Blake turned on the television. Mark said, "He shouldn't have that on now." Kate responded, "Just let him if he wants to." Later, when Mark started to help dress Blake, Kate said to the camera, "This never happens this way; I always do this myself." Mark responded, "Well, you just get pissed because they (his clothes) don't match." Mark left the room, and Kate said to Blake, "This is reality, see? He walks off and leaves me to put on all the clothes, right?"

By 24 months, Blake scored lower than any child in the emotion regulation task. He did not even try to obtain the toys, but quickly collapsed on the floor and wailed, "No! No! No!" At age 7, Blake's teacher rated him on the CBCL within the clinical range on externalizing behaviors, attention problems, and ADHD. By the final wave, Mark and Kate had divorced.

Family B: Jay, Anna, and Sam

Compared to Family A, who had very high ratings on all of our scales assessing problematic couple interactions, Family B is more typical of families in our study, as they showed more specific and less extreme types of problematic behaviors during the prenatal interaction. This couple is an example of a secure wife-insecure husband pair, based on their AAI classifications, a pairing which we found to be particularly vulnerable to emotionally negative marital interactions and less sensitive mother–infant and father–infant interactions (Poulsen et al. 2018). Anna described a childhood with a caring, protective father she felt very close to and a mentally ill, controlling mother who had to be involuntarily hospitalized due to violent behavior toward Anna when she was 17. Anna said that she was her father's favorite, and when her mother was overly controlling, her father often contradicted her mother and intervened on Anna's behalf, suggesting the possibility of a father–daughter alliance. Nonetheless, Anna was classified as having a secure attachment representation since she described these events in a clear, coherent, believable way. Jay experienced childhood abuse and was classified as unresolved with respect to this abuse. Similar to Mark and Kate, he was also rated in the "cannot classify" category on the AAI due to lacking a consistent strategy for integrating his early negative relationship experiences, alternating between minimizing their effects on him and becoming preoccupied with blaming his parents.

In their prenatal couple interaction, Jay and Anna received high ratings for enmeshed boundaries (around the 90th percentile), while their scores for hostility, negative affect, and controlling behavior were just moderately high (70th–80th percentile). Throughout the interaction, Jay treated Anna like a child, scolding and lecturing her. Anna was affectionate and giggly, stroking Jay's arm. He accepted the affection, but was loud and snarky, often responding to her serious questions and comments with sarcastic, condescending humor.

Jay and Anna stated that their area of disagreement was that he would like her to be more dependable and she would like him to be more patient. Jay said, "So you say you'll do something, you do it! I want that lamp on the table and I want it clean. Three days I go back and nothing is done. If I say be there at 5 and you come at 6 that is not dependable. Don't promise if you ain't gonna deliver." Anna said she would like Jay to be less of a perfectionist and more patient. Jay said that Anna will need to be more supportive and helpful when the baby comes, adding that she will have to be up with the baby, but he won't since he has to work. When Anna remarked that the new artificial Christmas tree they just bought is an "investment in their family," Jay responded sarcastically, "Some families invest in the stock market, our family invests in trees." The researcher returned to ask if they resolved their disagreement. Jay spoke for Anna, "She will work on being more dependable and my patience will fall in place."

During the 8-month marital interaction, Jay was very critical of Anna's parenting, while Anna said mostly positive things about Jay's parenting. This contrasts with our finding that mothers are generally much more critical of fathers' parenting than the reverse. Also, Anna never contradicted Jay or defended herself, and she held Jay's hand throughout the interaction.

Jay said that Anna's greatest parenting strength is "finding enjoyment in doing nothing". Anna asked what he means by this. He responded, "I could never just stay at home all day." Jay then told Anna she has "the personality where you can just hold him all day and say 'aww' and kiss his little boobos", while Jay does not like to hold baby Sam because he "squirms too much." Then he said that she holds Sam too much, which will cause Sam to not explore as much and to want to be held all the time. Anna complimented Jay for being a hard worker and good provider, and for playing with Sam and teaching him things.

In her dyadic interaction with 8-month old Sam, Anna was very sensitive while feeding him, but when he was too tired to play, she kept putting him on the floor to play and giving him toys when he clearly just wanted to be held. Also, when Sam was contentedly playing with blocks, she interrupted him by giving him a toy phone and saying, "Call Daddy." It seemed that she could be sensitive, but her concern with pleasing Jay by following his parenting advice interfered with this. Jay's interaction with Sam was much less sensitive, showing signs of early role reversal. Jay wanted the play to be on his terms, not Sam's. He intrusively talked and laughed loudly and slapped his thighs to get Sam's attention.

Sam was busy hitting pegs with a plastic hammer, while Jay interrupted him six times by pushing a stuffed animal in his face, shouting, "Sam!" Sam crawled away, and Jay went after him, tossing him up in the air. Sam whined and left to ride on a plastic car. Jay then put the stuffed animal in Sam's face eight more times. When Sam cried, Jay looked upset and shouted, "What's wrong?" three times. Sam tried to move away again, and Jay shouted, "What?" three times. Jay playfully poked Sam's stomach three times. When Sam crawled away, Jay said, "Are you trying to get away from me?" and crawled after him, roaring. Jay stuck out his tongue, flicking it around like a lizard, to regain Sam's attention.

At the 24-month phase, Jay continued to show intrusive, dominating behavior. In the dyadic father–toddler play, he lectured Sam concerning which toys to play with and how to play with them. He was critical with Sam when Sam did not follow his instructions. The triadic family interaction was rated as high on the enmeshed and controlling scales, since Jay was intrusive with both Anna and Sam and showed signs of role-reversed parentification with Sam. Jay immediately took charge of the triadic interaction task and gave Anna orders. She fetched the child’s clothes and prepared the snack while Jay played with Sam. When Anna told Jay that Sam needed a diaper change, Jay said, “I’ll let you do it.” Moreover, it seemed that an alliance was forming between Jay and Sam, since Sam spent the entire triadic interaction with Jay, while Anna was not involved with Sam and seemed indifferent. Jay also frequently undermined Anna’s authority as a parent. During the card-sorting task, Jay rejected Anna’s responses condescendingly when he disagreed with her. For example, he ridiculed her when she disagreed with the card that said, “I think children must learn early not to cry” and said, “You know I don’t want Sam crying all the time.” He also asked Sam to back him up in disagreeing with Anna, saying, “You tell her, Sam, this is it.” The father-child play showed several signs of father-child role-reversal. For example, Jay asked Sam for a kiss 12 times, although Sam was uninterested. When Sam refused, Jay playfully spanked him, which upset Sam. Jay also asked Sam to feed him (Jay) when it was time for Sam to eat his snack. Jay opened his mouth and said, “Aaahh,” and Sam fed him.

In the emotion regulation task at 24 months, Sam showed a moderate amount of overregulation (around the 70th percentile). He was unemotional, showing no signs of frustration or distress, but also no joy or pride when he completed the task with the researcher’s assistance. During the last wave of data collection, when Sam was in second grade, his teacher rated him as high on the anxiety disorder (87th percentile in our sample) and somatic complaints (84th percentile) scales, indicating possible internalizing symptoms, although not quite in the clinical range.

Conclusions, Future Directions, and Implications

Taken together, findings from our research indicate that prenatal couple interaction patterns tend to be continuous over time and to carry over to parent–child and whole-family interactions. Emotionally negative and hostile couple interaction patterns generally predicted less sensitive and more emotionally disengaged parent–child interactions and more conflictual coparenting, whereas couple interactions characterized by blurred, enmeshed boundaries tended to forecast blurred boundaries in parent–child and triadic interactions and an increased likelihood of parent–child alliances. In some troubled couples, such as Family A, emotionally negative, disengaged, hostile, and enmeshing couple interactions co-occurred. In such couples, postnatal parent–child and whole-family interactions also seem to be characterized by multiple problems. Other troubled couples show one dominant problem; for example, Couple B primarily showed enmeshed boundaries in couple, parent–child, and whole-family relationships across the transition to parenthood. It may be that children in

multi-problem families show greater risk for multiple and more extreme emotional and behavioral problems than those in families with one dominant problem.

Our research also demonstrates the value of observing family interactions at multiple levels across the transition to parenthood. Children experience their parents both in individual interactions and together in whole-family interactions. For example, Sam had very different experiences with his mother one-on-one versus in the whole-family context. In dyadic interactions, Anna gave him her full attention and was often sensitive, although the stress of marriage to a spouse who treats her like a child and denigrates her parenting may have provoked instances of insensitivity. It is interesting to note that Anna's moments of insensitivity may have been influenced by Jay's criticisms. For example, Jay had criticized her for holding Sam too much, and in the dyadic interaction at 8 months, she put him on the floor to explore rather than holding him when he was tired and wanted to be held.

In addition, our findings indicate that parents' representations of their early childhood experiences with attachments to their own parents and with their parents' marriage help explain prenatal and postnatal patterns of couple, parent-child, and family interaction. In particular, dyadic-level assessments of representations may provide unique information toward predicting children's outcomes. For example, we found that examining parents' joint representations of attachment predicted not only their prenatal marital interactions more effectively than using only individual representations but also predicted their parent-child interactions at 8 months more effectively (Poulsen et al. 2018). Future researchers may also find it productive to examine couples' joint representations of marital and coparenting relationships. We are also interested in exploring how the specific content of parents' representations of childhood relationships may relate to their current family interaction patterns. For example, even though Anna had a secure attachment representation, she seemed content to let Jay take control of the parenting in the family interaction and was unconcerned and even supportive of Jay and Sam developing an alliance that left her on the sidelines. Perhaps her positive memories of a close relationship and possible alliance with her father, who protected her from a controlling, mentally ill mother, helps explain this.

Finally, our research has implications for interventions to help couples at risk for a problematic transition to parenthood. Risk factors we have identified in couple relationships include low emotional attunement, distancing hostile or controlling interactions, and enmeshed boundaries in which one spouse is intrusive or guilt-inducing or treats their partner like a child. Also, insecure attachment representations in even one partner, especially if that partner is the husband, is a risk factor for marital negativity and insensitive parenting, as are negative representations of the parental marriage that lack insight. Intervention should occur at the behavioral as well as representational levels, since couples have limited awareness of their actual behaviors (Kuersten-Hogan 2017). Couples with insecure attachment histories should also be helped to recognize the importance of resolving issues from their relationship with their parents during childhood so they do not unwittingly treat their child in the same negative way. Parents may not be aware that boundary disturbances such as parent-child alliances and role reversals can be as psychologically damaging as physical abuse and can lead children to later develop emotional and behavioral problems.

Acknowledgments This research was supported by Grant SBR-9212990 from the National Science Foundation and Grant 3332 from the Hogg Foundation for Mental Health.

References

- Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4–18 and 1991 profile*. Burlington: University of Vermont, Department of Psychiatry.
- Aviles, A. I., Reisz, S., Jacobvitz, D., & Hazen, N. (2019, July). *Antecedents and consequences of early parent-child role reversal and relations with toddler autonomy*. Paper to be presented at the biennial meeting of the International Attachment Conference, Vancouver, CA.
- Canary, D. J., & Stafford, L. (2001). Equity in the preservation of personal relationships. In J. Harvey & A. Wenzel (Eds.), *Close romantic relationships: Maintenance and enhancement* (pp. 133–151). London: Psychology Press.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal coparenting alliance. *Infant Mental Health Journal, 27*, 207–228.
- Christopher, C., Umemura, T., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Marital quality over the transition to parenthood as a predictor of coparenting. *Journal of Child and Family Studies, 24*, 3636–3651.
- Cowan, C. P., & Cowan, P. A. (2000). *When partners become parents: The big life change for couples*. Mahwah: Erlbaum.
- Cox, M. J., Mills-Koonce, R., Propper, C., & Gariépy, J. L. (2010). Systems theory and cascades in developmental psychopathology. *Development and Psychopathology, 22*, 497–506.
- Crawford, D. W., & Huston, T. L. (1993). The impact of the transition to parenthood on marital leisure. *Personality and Social Psychology Bulletin, 19*, 39–46.
- Creasey, G. (2002). Associations between working models of attachment and conflict management behavior in romantic couples. *Journal of Counseling Psychology, 49*, 365–375.
- Curran, M. A., Hazen, N., Jacobvitz, D., & Sasaki, T. (2006). How representations of the parental marriage predict marital emotional attunement during the transition to parenthood. *Journal of Family Psychology, 20*, 477–484.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin, 118*, 108–132.
- Gallegos, M. I., Murphy, S. E., Benner, A. D., Jacobvitz, D. B., & Hazen, N. L. (2017). Marital, parental, and whole-family predictors of toddlers' emotion regulation: The role of parental emotional withdrawal. *Journal of Family Psychology, 31*, 294–303.
- Gallegos, M. I., Jacobvitz, D., & Hazen, N. (2020). Marital interaction quality over the transition to parenthood: The role of parents' perceptions of spouses' parenting. *Journal of Family Psychology*. <http://dx.doi.org/10.1037/fam0000656>
- Hazen, N., McFarland, L., Jacobvitz, D., & Boyd-Soisson, E. (2010). Fathers' frightening behaviors and sensitivity with infants: Relations with fathers' attachment representations, father-infant attachment, and children's later outcomes. *Early Child Development and Care, 180*, 51–69.
- Holmes, E. K., Sasaki, T., & Hazen, N. L. (2013). Smooth versus rocky transitions to parenthood: Family systems in developmental context. *Family Relations, 62*, 824–837.
- Jacobvitz, D. (1992). *The Grandparent Marriage Interview*. Unpublished manuscript, University of Texas at Austin.
- Jacobvitz, D. (2004). *The triadic boundary disturbances coding system*. Unpublished Manuscript, The University of Texas at Austin.
- Jacobvitz, D., Hazen, N., Curran, M., & Hitchens, K. (2004). Observations of early triadic family interactions: Boundary disturbances in the family predict symptoms of depression, anxiety, and attention-deficit/hyperactivity disorder in middle childhood. *Development and Psychopathology, 16*, 577–592.

- Jacobvitz, D., Hazen, N., Loch, L., & Saunders, R. (2006, March). *Boundary disturbances in marriage: Links with triadic family interactions*. Paper presented at the biennial meeting of the Society for Research on Adolescence. San Francisco, CA.
- Jacobvitz, D., Reisz, S., Umemura, T., & Hazen, N. (2013, April). *Spousal boundary disturbances pre-birth predict parent-child alliances, children: Emotion regulation and later adjustment*. Paper presented at the biannual meeting of the Society for Research in Child Development, Seattle.
- Katz, L., & Gottman, J. M. (1996). Spillover effects of marital conflict: In search of parenting and coparenting mechanisms. In J. P. McHale & P. A. Cowan (Eds.), *Understanding how family level dynamics affect children's development: Studies of two-parent families* (pp. 57–76). San Francisco: Jossey-Bass.
- Katz-Wise, S., Priess, H., & Hyde, J. (2010). Gender-role attitudes and behavior across the transition to parenthood. *Developmental Psychology, 46*, 18–28.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology, 8*, 1–17.
- Lawrence, E., Rothman, A. D., Cobb, R. J., Rothman, M., & Bradbury, T. N. (2008). Marital satisfaction across the transition to parenthood. *Journal of Family Psychology, 22*, 41–50.
- Macfie, J., Houts, R. M., Pressel, A. S., & Cox, M. J. (2008). Pathways from infant exposure to marital conflict to parent-toddler role reversal. *Infant Mental Health Journal, 29*, 297–319.
- Main, M., Goldwyn, R., & Hesse, E. (1984/2003) *Adult attachment scoring and classification system*. Unpublished manuscript, University of California at Berkeley.
- McHale, J. P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology, 31*, 985–996.
- McHale, J. P., Kuersten-Hogan, R., & Lauretti, A. (2000). Evaluating coparenting and family-level dynamics during infancy and early childhood: The Coparenting and Family Rating System. In P. K. Kerig & K. M. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research* (pp. 151–170). Florence: Taylor and Francis.
- Medina, A. M., Lederhos, C. L., & Lillis, T. A. (2009). Sleep disruption and decline in marital satisfaction across the transition to parenthood. *Families, Systems & Health, 27*, 153–160.
- Minuchin, P. (1988). Relationships within the family: A systems perspective on development. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 7–26). Oxford: Clarendon.
- Pancer, S. M., Pratt, M., Hunsberger, B., & Gallant, M. (2000). Thinking ahead: Complexity of expectations and the transition to parenthood. *Journal of Personality, 68*, 253–279.
- Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human Development, 47*, 193–219.
- Pinquart, M., & Teubert, D. (2010). A meta-analytic study of couple interventions during the transition to parenthood. *Family Relations, 59*, 221–231.
- Poulsen, H., Hazen, N., & Jacobvitz, D. B. (2018). Parents' prenatal joint attachment representations and early caregiving: the indirect role of prenatal marital affect. *Attachment and Human Development, 21*(6), 597–615. doi.org/10.1080/14616734.2018.1492003
- Sasaki, T., Hazen, N. L., & Swann, W. B., Jr. (2010). The supermom trap: Do involved dads erode moms' self-competence? *Personal Relationships, 17*, 71–79.
- Schoppe-Sullivan, S. J., Brown, G. L., Cannon, E. A., Mangelsdorf, S. C., & Sokolowski, M. S. (2008). Maternal gatekeeping, coparenting quality, and fathering behavior with infants. *Journal of Family Psychology, 22*, 389–398. <https://doi.org/10.1037/0893-3200.22.3.389>.
- Schuengel, C., & van Ijzendoorn, M. H. (2001). Attachment in mental health institutions: A critical review of assumptions, clinical implications, and research strategies. *Attachment & Human Development, 3*, 304–323.
- Umemura, T., Christopher, C., Mann, T., Jacobvitz, D., & Hazen, N. (2015). Coparenting problems with toddlers predict children's symptoms of psychological problems at age 7. *Child Psychiatry & Human Development, 46*, 981–996.

Chapter 13

The Role of Prenatal Communication in Young Couples' Depression and Relationship Security Across the Transition to Parenthood



Paul Florsheim and Jason Burrow-Sanchez

Introduction: Two Young Couples Find Out They're Going to Have a Baby

Meg was 17 years old and a senior in high school, living with her parents in a suburban community, when she discovered she was pregnant. She recalled feeling devastated as she sat staring at the home-pregnancy test, alone in her bedroom, agonizing about whether to have an abortion, give the baby up for adoption, or keep it. All the choices seemed wrong and she fell into a depression, hiding the pregnancy from everyone. When she finally told Juan, her 18-year-old happy-go-lucky boyfriend, that she was pregnant and didn't know what to do, he said he'd stick with her no matter what she decided. Juan convinced Meg to tell her parents, who were upset but supportive, and Meg decided to keep the baby. She booked an appointment with a prenatal clinic for teen moms, where we met and invited her to participate in one of our studies of young expectant parents. During that first interview, Meg tearfully expressed disappointment with herself, believing that all her plans – to attend college and travel to far-away places – would become impossibly difficult after having a baby. When we asked Meg and Juan to participate in a digitally recorded communication activity as part of our research, we were struck by Juan's warmth toward Meg, as she expressed how confused and frightened she felt.

Amber and Steve had a very different set of reactions to discovering they were going to be parents. Amber, who was 19 and working at a daycare center, was excited despite her surprise. When Amber told her boyfriend Steve, who was 21, that she was pregnant, he immediately felt trapped and then felt angry. He was frustrated that Amber would not even discuss the options of abortion or adoption and was upset with himself for not having been more consistent about using protection. When we interviewed Steve, who also volunteered to participate in our research, he told us that he felt completely unprepared for fatherhood

P. Florsheim (✉)

Joseph Zilber School of Public Health, University of Wisconsin Milwaukee,
Milwaukee, WI, USA
e-mail: paulf@uwm.edu

J. Burrow-Sanchez

Department of Educational Psychology, University of Utah, Salt Lake City, UT, USA

© Springer Nature Switzerland AG 2021

R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,
https://doi.org/10.1007/978-3-030-51988-9_13

269

and screened positive for depression. During the communication activity, Steve came across as angry and distant. Amber tried to lighten the mood but when Steve kept berating her for not caring about his feelings, she got irritated with him and told him to grow up, and then to “man up.”

Although the percent of adolescent parents – like Meg and Juan – is at an all-time-low in the United States, the rate of young adult couples, like Amber and Steve, having children outside of marriage is at an all-time high. In 2019, about 4 in 10 children were born to unmarried couples, but for mothers 25-years-old and younger, the rate was about 7 out of 10. The increased numbers of unwed couples having children suggests that young mothers and fathers are forming families quite differently from how their parents and grandparents formed their families. In the 1960s and 1970s, following several social and economic gains (i.e., women’s rights and access to contraception) and losses (i.e., high wage low skill jobs and rigid social norms), young people began to regard marriage as less compelling or necessary, and to define “the family” as more flexible and fluid. The rules of social propriety changed. While most young unwed parents want their children to have a stable home-base, many are reluctant to make firm commitments to each other, preferring to wait and see how the relationship develops over time (Edin and Kefalas 2005).

There is some evidence that many unwed parents function in much the same way as married couples do; they raise their children together, coordinate their livelihoods, function as a unit (McClain 2011). However, this research also indicates that, over time, the relationships of unwed parents tend to be less stable than those of married parents (Brown et al. 2017; Carlson and McLanahan 2010). For example, Brown et al. have found that unwed parents report lower relationship satisfaction and are more likely to split up than married parents, and when break-ups occur, they tend to happen sooner. As suggested by the case of Amber and Steve, when a young woman decides to keep an unplanned child, the decision can pose significant interpersonal challenges for her and her partner, sometimes setting the stage for intense discord and associated psychological risks, such as perinatal depression.

Shifting norms around family formation underscore the importance of studying the interpersonal dynamics of young unwed expectant couples and helping them create stability and security for themselves and their children. Based on previous research from the Fragile Families Study and other large-scale studies, we know that the quality of a couples’ relationship is one of the most potent predictors of whether fathers remain positively engaged with their children (Carlson et al. 2011; Sobolewski and King 2005). Following up on this research, we wanted to examine how young couples’ communications – their words, tone, and body language – can affect their adjustment to parenthood, both positively and negatively. Our goal was simple: knowing that couples’ communications are amenable to change, we wanted to identify targets that would be useful in the development of interventions intended to help young women and men, like Amber and Steve, adjust to parenthood. While there are many ways to define a mother’s or father’s “adjustment to parenthood,” we decided to focus on two components that are directly relevant to providing a child with a secure home-base: (a) risk for parental depression and (b) parents’ relationship security.

Depression and Couple's Communication

In recent years, there has been increased awareness of and interest in perinatal depression, particularly postpartum depression (PPD), which affects approximately 10–20% of new mothers (Wisner et al. 2002). PPD is often overlooked, and when it goes untreated, it can be highly disruptive to the health of both mother and baby. PPD is a distinct subtype of major depression that often includes suicidal thoughts and intense anxiety and, on rare occasions, psychosis. It is different from “the baby blues,” which is milder, briefer, and less dangerous than postpartum depression and attributed to the normal recalibration of hormones following childbirth (C. T. Beck 2006).

In addition to being a serious mental illness that can threaten the well-being of the afflicted parent, PPD can also disrupt a mother's relationship with her infant. So, in addition to feeling sad, anxious, and potentially suicidal, mothers with PPD also experience difficulties bonding with and caring for their babies, which can then further contribute to feelings of depression (Hames et al. 2013). Further, mothers with PPD are more likely to feel criticized and rejected by their partners, which can exacerbate the impact of this illness on family life (Feeney et al. 2003). To address the problem, the American College of Obstetrics and Gynecologists recently put clinical guidelines in place so that perinatal depression screenings will be routinely administered to pregnant women and new mothers, and Medicaid has agreed to pay for screenings, helping to ensure that more women will get treated (Obstetric Practice 2015; Siu et al. 2016).

Some researchers have noted that perinatal depression can afflict fathers too. Although less is known about the causes of perinatal mood disorders in men, there is some research indicating that the consequences of paternal PPD can be disruptive in much the same way it is for women (Eddy et al. 2019). Men who become depressed during their partner's pregnancy, or after their child is born, report feeling inexplicably deflated, becoming more withdrawn, or antagonistic and many have difficulty bonding with their child (Wee et al. 2011; Wilson and Durbin 2010). Several researchers have found that conflict and stress in couples' relations can increase the risk for postpartum depression in men and women, particularly when their relationship status is uncertain and the pregnancy is unplanned (Bouchard 2005; Leathers and Kelley 2000; Matthey et al. 2000). Poor relationships are not necessarily the cause of a young parent's PPD, but relationship conflict and stress can trigger an underlying predisposition or increase the severity of an existing depression (Lamb et al. 2003).

Although research on PPD has increased dramatically in recent years, relatively little is known about how positive relationships diminish the risk for postpartum depression or help depressed mothers or fathers recover more quickly. The absence of research on how relationships can protect against PPD is perplexing, given that interpersonal approaches to treating depression – which often involves teaching positive interpersonal skills to depressed people – is widely used with good effects (Sockol 2018). A key goal of this study was to examine if warm communications between young mothers and fathers might buffer against the risk for PPD.

Relationship Security and Couples Communication

The concept of relationship security is most frequently associated with a young child's attachment to his or her parents, as described by John Bowlby (2008). Several attachment theorists and researchers have applied some of Bowlby's fundamental attachment concepts, such as our innate tendency to seek relationship security, to the development of romantic relationships during adolescence and young adulthood (Fraley et al. 2015; Hazan and Selcuk 2015). Other researchers have proposed that relationship security between parents is vital to establishing stable, nurturing family environments for raising children (Millings et al. 2013).

The concept of relationship security is relevant to the functioning of young mothers and fathers for several reasons. Attachment theory suggests that people tend to find romantic partners who match their attachment expectations; a young woman who feels securely attached to her family of origin is generally more likely to gravitate toward a similarly secure partner. However, it is also the case that when romantic partners have different relationship histories and expectations, their relationships can provide each with new attachment experiences. This means that sometimes, the quality of a young parent's relationship with their partner might help him or her feel more stable or secure and improve their capacity for becoming a secure attachment figure to others. There is evidence that how secure or insecure coparents feel about their relationship with each other can influence how well they function as parents to their children (Paley et al. 2005; Simpson et al. 2003; Talbot et al. 2009). That is, when young couples feel secure in relation to one another, they are more likely to have the psychological resources needed to build a stable interpersonal foundation to ensure their children feel safe and secure (Mikulincer et al. 2002).

Despite the challenges they face, some young parents can create a positive and secure coparenting relationship that empowers them as partners and parents (Ngu and Florsheim 2011). But we know that many young mothers and fathers approach parenthood with divergent experiences of their relationship, which can make the process of family formation complex and prone to conflict (Florsheim and Moore 2020). Sometimes, one parent feels secure and the other feels insecure, generating miscommunications and misunderstandings. This situation raises the question how a secure partner can help his or her less secure partner become more secure, or for that matter, how an insecure partner might help himself or herself find more security by engaging more positively in the relationship. Despite the importance of the coparenting relationship to the stability of families, we still know relatively little about how coparenting couples' communications— what mothers and fathers say and how they say it —can support relationship security and psychological well-being, even under difficult circumstances.

Communication and Moderation In this chapter, we focus mostly on the “moderating” effect of couples' communications on a parent's adjustment to parenthood. The idea of “moderating effects” refers to how two (or more) factors – such as mood and behavior – work together to influence a third factor – such as relationship security. Statistical procedures designed to examine these interactions help us under-

stand how risk and protective factors work in tandem to influence developmental processes and outcomes. We were interested in examining if distressed young expectant parents, feeling insecure about their relationship, make things worse for themselves by blaming and criticizing each other or by communicating hostile indifference. We were also interested in understanding if the warmth between a young father and his partner can be protective, perhaps diminishing his own or his partner's risk for postpartum depression. In general, we hoped to delineate how prenatal psychological risks are either tempered or exacerbated by the quality of the relationship between expectant parents, defined, in part, by the tone and substance of their communications.

Methods

Research Participants

One hundred and forty nulliparous pregnant women aged 15–18 and their partners aged 15–24 were recruited through prenatal clinics serving primarily economically disadvantaged families, including the Spanish-speaking immigrant population, in a midsized city in the Western United States. Our research assistants worked closely with clinic staff and arranged to meet with new clients during regularly scheduled prenatal visits. Pregnant women were invited to participate in the research study if the father of their child was also willing to participate for the first data collection meeting. Couples were first interviewed during the second trimester of the pregnancy (T1). Follow-up interviews were conducted at 6- and 18-months post birth (T2 and T3), but our analyses included only data collected at T1 and T2, given our focus on the initial adjustment to parenthood. Couples were paid \$40.00 per person for each data collection meeting. Partners were interviewed separately to ensure confidentiality. Interviews and questionnaires were available in English and Spanish; translations of measures were done using the translate-back-translate-check procedure (Harkness et al. 2003). About 70% of eligible couples were successfully recruited, and about 80% of mothers and 75% of fathers were successfully retained over the follow-up. Findings pertaining to the demographic characteristics of the sample are provided in the preliminary analysis section.

Measures

Demographic Characteristics All young couples participating in this study were considered “at-risk” because of their status as young unwed parents, but there were important demographic differences between them. As such, we collected data on participant age, ethnicity, marital status/living arrangements, high school enrollment/completion, and employment status.

Depression Maternal and paternal depression was assessed using the *Beck Depression Inventory II* or BDI (A. T. Beck et al. 1996). The BDI is 21-item measure, which is a reliable, validated screener for depression in both clinical and non-clinical populations, including pregnant women and new mothers (Alexander et al. 2014). It has also been used to assess depression in new fathers (Cameron et al. 2016). The BDI was administered at T1 (the second trimester of the pregnancy) and T2 (at 6 months postpartum). The internal consistency of the BDI in this sample was good (male $\alpha = 0.88$; female $\alpha = 0.82$).

Relationship Security The *Experiences in Close Relationships-Revised* (ECR-R; Fraley et al. 2015) was used to assess relationship security at T1 and T2. This 36-item questionnaire measures attachment-related anxiety and attachment-related avoidance in close relationships. Participants were asked to focus on their coparenting partner and rate the degree to which they agree with statements such as “*I prefer not to be close to my partner*” and “*I worry a lot about my relationship with my partner*” on a 7-point scale from 1 = strongly disagree to 7 = strongly agree. Based on previous research with the ECR, individuals with scores of 3.5 or below on both the anxiety and avoidance scales were considered “secure.” Individuals with anxiety or avoidance scores above 3.5 were considered “insecure.” The internal consistency of ECR-R scales (anxiety and avoidance) were good for males $\alpha = 0.79$ and females $\alpha = 0.80$.

Couples’ Communication We collected couples’ communication data by asking expectant couples to participate in two ten-minute communication activities. First, we asked them to discuss and resolve a recent conflict, and then, we asked them to share positive feelings about each other and their relationship. These communication activities were selected, because the capacity to constructively discuss disagreements and express positive feelings is vital to creating a stable and secure coparenting relationship. Couples’ behavior during these activities was recorded with a digital camera and then coded using a coding system based on the Structural Analysis of Social Behavior or SASB (Florsheim and Benjamin 2001).

SASB is a circumplex model of interpersonal behavior (communication) based on two orthogonal dimensions of social behavior: affiliation (warmth and hostility) and interdependence (autonomy and control). The process of SASB coding involves rating each observed interpersonal behavior on each dimension to determine its level of warmth, hostility, autonomy, and control. Based on these scores, the coder can assign up to three of 16 specific behavior codes that reflect different combinations of interdependence and affiliation. For the purposes of this study, we focused on several warm communications (i.e., affirm, disclose, trust, nurture, loving approach, and loving response) and several hostile communications (i.e., ignore, wall off, attack, recoil, blame, and sulk). The frequencies of these behaviors were tallied and then converted to percentages of total warmth and hostility. In the analyses described below, we included hostility scores observed during the conflict resolution activity and warmth scores during the positive sharing activity. Based on the

SASB model, positive conflict resolution communications are low in hostility and positive sharing communications are high in warmth.

Digitally recorded interactions were rated by a coding team trained by the lead author. All coders attained a criterion level of interrater reliability with two partners who were reliable with the lead coder ($ICC > 0.70$). Intraclass correlation is designed to assess for the rate of agreement between two or more raters using an interval or continuous scale while controlling for any systematic bias (Shrout and Fleiss 1979). After attaining reliability, coders coded independently. We randomly selected 15% of the activities for reliability coding. When interrater reliability fell below criterion, consensus coding was used to address discrepancies and additional training was required. Average interrater reliability was 0.89 (ICC) for the conflict task and 0.92 (ICC) for the connection task.

Results

Demographics

In our sample, 53% of participants identified as Latinx; 38% identified as white; 9.4% identified as Native American, African-American, and/or Asian-Pacific Islander. On average, mothers were 16.5 ($SD = 1.2$) and fathers were 18.6 ($SD = 2.2$) years old at T1. Regarding couples' educational and employment background, 55% of mothers and 27.8% of fathers were in school; 47% of mothers and 69% of fathers were working at least part-time. About half of the couples (52%) were living together, often in one of their parents' home. We examined the potential association between demographic variables and our primary variables of interest. We found no demographic differences for depression scores, relationship security scores, or hostile or warm communication scores except for the association between couples' living arrangements and their communication behavior and relationship security. Specifically, results indicated that couples who were living together reported higher warm communication scores (both fathers and mothers), lower hostile communication scores (fathers only), and higher relationship security scores at T2 (mothers only). Therefore, living arrangement was included as a covariate in the analyses described below.

Preliminary Analyses

Prior to running the primary analyses, we examined the bivariate correlations between all primary variables: mothers' and fathers' depression scores at T1 and T2, communication behavior scores at T1, and relationship security scores at T1 and T2. Results of these correlations can be found in Table 13.1. Two sets of correlations

Table 13.1 Means and bivariate correlations between study variables

	Mean (SD)	N	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. MOB Warmth-T1	0.83 (.13)	140	1.00	-.294	.492	-.189	-.137	-.201	.093	-.007	.079	.123	.140	.116
2. MOB Hostility-T1	0.06 (.07)			1.00	-.320	.372	.245	.109	-.112	-.050	-.063	.055	-.006	-.096
3. FOB Warmth-T1	0.86 (.13)				1.00	-.364	-.258	-.274	.092	.116	.155	.173	.126	.046
4. FOB Hostility-T1	0.04 (.05)					1.00	.284	.032	-.028	.071	-.150	-.067	-.061	.013
5. MOB BDI-T1	9.57 (5.51)						1.00	.487	.079	.071	-.301	-.278	.002	-.041
6. MOB BDI-T2	8.16 (7.60)							1.00	-.005	-.056	-.288	-.320	-.027	-.037
7. FOB BDI-T1	6.25 (6.92)								1.00	.440	.032	.081	-.291	-.368
8. FOB BDI-T2	6.76 (8.47)									1.00	-.073	-.153	-.325	-.472
9. MOB ECR-T1	7.28 (2.04)										1.00	.617	.292	.369
10. MOB ECR-T2	6.95 (2.17)											1.00	.279	.491
11. FOB ECR-T1	6.91 (1.93)												1.00	.715
12. FOB ECR-T2	6.69 (2.19)													1.00

Numbers in **bold** are statistically significant at $p < 0.05$

are worth highlighting, because they illustrate how mothers' and fathers' communication behavior, risk for depression, and relationship security are associated: First, fathers' hostile communication behaviors at T1 were positively correlated with mothers' depression scores at both T1 and T2, and fathers' warm behavior at T1 was negatively correlated with mothers' depression scores at T1. Second, fathers' and mothers' depression and relationship security scores at both T1 and T2 were negatively correlated, indicating that high depression corresponds with low rates of relationship security between partners. Although these findings supported our expectations, we were also surprised that some variables were not correlated – such as couples' communication and relationship security. This piqued our interest in how communication, depression, and relationship security might be more complexly interrelated over time, underscoring the import of moderation analyses.

Among the 280 expectant parents who participated in this study, 23% of mothers and 24.5% of fathers reported mild or more serious levels of depression at T1, based on BDI-II guidelines for identifying risk. Moreover, 32% of fathers and 30% of mothers reported feeling insecure about the relationship with their coparenting partner. In addition, 17.5% of mothers and 23.4% of fathers reported feeling both insecure and depressed at T1.

Primary Analyses

We used generalized estimating equations (GEEs) to examine the direct and indirect effects of communication behavior on postnatal depression and relationship security. Postnatal adjustment was defined in terms of depression scores and relationship security scores at T2 (the six-month postbirth follow-up). GEE was selected, because this statistical procedure allowed us to account for the interdependencies found in dyadic data. Although GEE is often used to account for autocorrelations over time, for this study, we used it to account for fathers and mothers being “nested” within a couple. To simplify the reporting of our analyses, we converted all independent variables into dichotomous factor scores. For example, SASB warm and hostile communication scores were dichotomized using mean splits to differentiate between high (1) and low (0) hostility and warmth. High and low depression scores were dichotomized using the recommended BDI guidelines for differentiating between mild depression and clinically nonsignificant depression (Dozois et al. 1998). Relationship security scores were dichotomized based on the combination of each participant's relationship anxiety and avoidance scores. A participant was coded “secure” if he or she had an anxiety score of below 3.5 and an avoidance score of below 3.5 (Fraleigh et al. 2015).

In the first set of GEE analyses, we examined the main effects of the primary independent variables (prenatal depression scores, prenatal relationship security scores, and warm and hostile communication scores) on young fathers' and mothers' postnatal depression and relationship security scores. Results of these analyses indicated that (a) mothers' prenatal depression scores were positively predictive of

Table 13.2 Mothers' and fathers' warmth as a moderator of mothers' and fathers' depression and relationship security

	Mothers				Fathers			
	Postpartum Depression		Relationship Security		Depression		Relationship Security	
	B (SE)	p	B (SE)	p	B (SE)	p	B (SE)	p
GEE Analysis 1: Main Effects								
Intercept	11.25 (2.23)	.00	5.14 (0.54)	.00	4.48 (2.23)	.05	5.12 (0.61)	.00
Living Arrangement (living with partner=1)	-0.54 (1.18)	.65	0.75 (0.36)	.04	2.52 (1.54)	.10	0.10 (0.40)	.80
Mother's Depression	4.14 (2.17)	.05	-0.94 (0.53)	.07	8.16 (2.67)	.00	-1.45 (0.61)	.02
Mother's Security	-1.74 (1.76)	.32	2.01 (0.37)	.00	-1.86 (1.70)	.27	1.83 (0.41)	.00
Mother's Warmth	-0.95 (1.22)	.44	0.06 (0.42)	.88	2.81 (1.99)	.16	-0.10 (0.41)	.81
Mother's Hostility	-0.37 (2.51)	.88	1.12 (0.45)	.01	1.77 (2.15)	.41	1.07 (0.49)	.03
Father's Depression	1.36 (1.39)	.33	-.07 (0.35)	.83	2.05 (1.39)	.14	0.38 (0.40)	.34
Father's Security	0.89 (1.46)	.54	0.44 (.37)	.24	-0.95 (1.86)	.61	0.95 (0.48)	.05
Father's Warmth	-3.77 (1.54)	.01	0.22 (0.47)	.64	-1.77 (2.40)	.46	0.19 (0.38)	.60
Father's Hostility	-2.05 (2.05)	.32	-0.19 (0.50)	.69	-0.32 (1.98)	.87	-0.79 (0.44)	.07
GEE Analysis 2: Combinations of Couples Warmth and Hostility, Controlling for Main Effects/Covariates								
Intercept	10.20 (2.69)	.00	4.38 (0.84)	.00	5.38 (3.77)	.15	4.31 (0.83)	.00
Mother's Warmth X Mother's Hostility	-0.70 (4.20)	.86	-0.94 (0.81)	.24	-5.23 (3.93)	.18	-1.18 (0.87)	.17
Mother's Warmth X Father's Warmth	8.25 (3.54)	.02*	-1.40 (0.84)	.10	1.41 (3.83)	.71	-0.78 (0.82)	.34
Mother's Warmth X Father's Hostility	2.67 (3.70)	.47	1.79 (0.92)	.05*	-2.48 (3.73)	.50	0.47 (0.83)	.57
Mother's Hostility X Father's Warmth	-2.30 (3.55)	.52	0.71 (0.93)	.44	14.03 (4.73)	.00 ^x	-0.38 (1.09)	.73
Mother's Hostility X Father's Hostility	-9.28 (4.83)	.06*	1.09 (0.95)	.25	-1.49 (4.31)	.73	-0.13 (1.04)	.90
Father's Warmth X Father's Hostility	-2.09 (4.03)	.60	-1.78 (0.91)	.05*	0.11 (4.31)	.98	-0.06 (0.98)	.95
GEE Analysis 3: Combinations of Prenatal Risk for Depression and Warmth/Hostility, Controlling for Main Effects/Covariates								
Intercept	7.95 (1.96)	.00	4.84 (0.73)	.00	2.73 (2.73)	.32	4.25 (.67)	.00
Mothers' Depression X Mothers' Warmth	-4.77 (2.97)	.10	-1.42 (4.98)	.29				
Mothers' Depression X Mothers' Hostility	-12.92 (7.46)	.08*	1.83 (1.00)	.07 ^a				
Mothers' Depression X Fathers' Hostility	-1.25 (3.42)	.72	1.54 (1.41)	.28				
Mothers' Depression X Fathers' Hostility	5.97 (6.4)	.35	-1.37 (1.10)	.21				
Fathers' Depression X Fathers' Warmth					2.09 (5.44)	.70	0.42 (1.04)	.68
Fathers' Depression X Fathers' Hostility					17.17 (9.74)	.08 ^x	-5.72 (1.06)	.00*

(continued)

Table 13.2 (continued)

	Mothers				Fathers			
	Postpartum Depression		Relationship Security		Depression		Relationship Security	
	B (SE)	p	B (SE)	p	B (SE)	p	B (SE)	p
Fathers' Depression X Mothers' Warmth					-0.84 (7.13)	.91	1.39 (0.86)	.11
Fathers' Depression X Mothers' Hostility					2.39 (8.89)	.79	3.13 (1.28)	.02*

GEE Analysis 4: Combinations of Prenatal Risk for Depression and Relationship Security, Controlling for Main Effects/Covariates

Intercept	10.20 (2.69)	.00	4.38 (0.84)	.00	5.28 (3.77)	.15	4.31 (0.83)	.00
Mothers' Depression X Mothers' Security	-11.52 (4.95)	.02*	1.29 (.99)	.22				
Mothers' Depression X Fathers' Security	-1.31 (5.33)	.81	-0.79 (0.91)	.41				
Mothers' Depression X Fathers' Depression	-7.80 (5.11)	.13	-0.46 (0.96)	.63	7.62 (5.10)	.13	-1.02 (0.93)	.28
Mothers' Security X Fathers' Security	4.92 (4.15)	.24	-0.64 (0.79)	.42	-0.96 (3.19)	.76	-0.72 (.90)	.42
Fathers' Depression X Mothers' Security					-4.75 (5.04)	.35	1.25 (0.91)	.17
Fathers' Depression X Fathers' Security					-6.70 (11.43)	.56	2.48 (0.89)	.01*

* = Follow-up analyses were not statistically significant

mothers' postnatal depression scores and negatively predictive of mothers' postnatal relationship security scores; (b) mothers' prenatal relationship security scores were positively predictive of mothers' postnatal security scores; (c) fathers' prenatal depression scores were positively predictive of fathers' postnatal depression scores and negatively predictive of fathers' postnatal relationship security scores; (d) fathers' prenatal security scores were positively predictive of fathers' postnatal security score; and (e) fathers' prenatal warm communication scores were negatively predictive of mothers' postnatal depression scores. These findings are outlined in Table 13.2.

In the second set of GEE analyses, we examined if specific combinations of young expectant mothers' and fathers' communication behavior would predict fathers' and mothers' postnatal depression and relationship security scores, controlling for all main effects/covariates. We focused on six interaction terms: mother hostility by mother warmth, mother hostility by father hostility, mother warmth by father hostility, mother warmth by father warmth, mother hostility by father warmth, and father hostility by father warmth. For those interaction terms that were found to be statistically significant, we followed up using Hayes's process macro for SPSS v3.3 (Hayes 2012). In the results reported below, we focus on those interactions that were significant in both the GEE analyses and the PROCESS follow-up analyses.

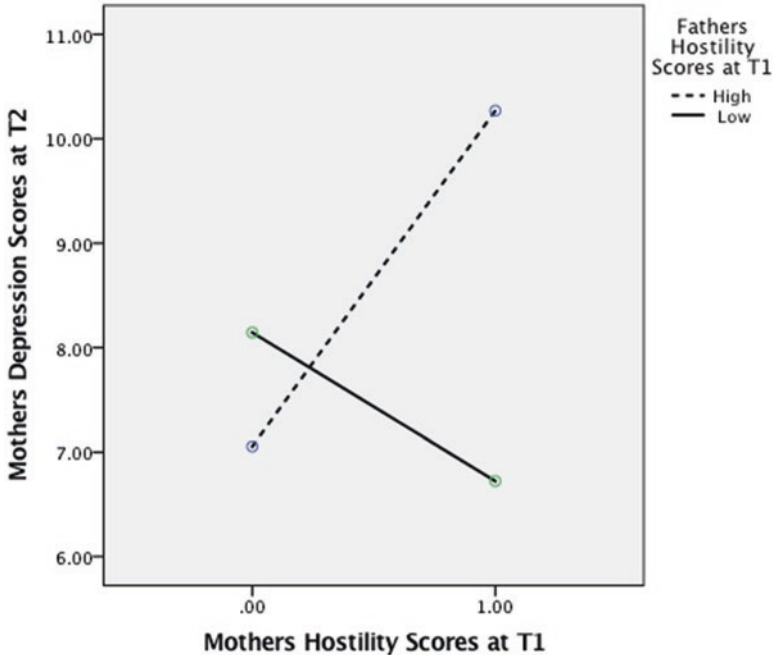


Fig. 13.1 Interactive effect of fathers' and mothers' hostility scores at T1 on mothers' depression scores at T2

Results indicated that when both partners demonstrated high rates of hostility during the disagreement activity at Time 1 (mother hostility by father hostility), *mothers* were at significantly greater risk for postpartum depression. As indicated in Fig. 13.1, compared to mothers with partners who had low hostility scores, mothers who were hostile and had partners who were hostile were more likely to report higher rates of PPD. This finding suggests that when partners “feed” into each other’s hostility, young mothers are more likely to report more PPD symptoms. Results also indicated that the combined effects of expectant fathers’ and mothers’ warmth predicted risk for PPD at T2. As illustrated in Fig. 13.2, when *either* partner demonstrated high rates of warm communication behavior, PPD scores were relatively low, but when both partners demonstrated low warmth, PPD scores were significantly elevated. Taken together, this set of findings highlights the problem of partners matching low warmth with low warmth or high hostility with high hostility; both patterns of exchange put young mothers at heightened risk for depression.

Next, we used GEE to examine how mothers’ and fathers’ communication scores moderated (a) the association between prenatal and postnatal depression scores and (b) the association between prenatal depression and postnatal relationship security. In the first set of analyses predicting mothers’ adjustment at T2, we focused on four interaction terms: (a) mother depression by mother warmth, (b) mother depression by mother hostility (c) mother depression by father warmth, and (d) mother

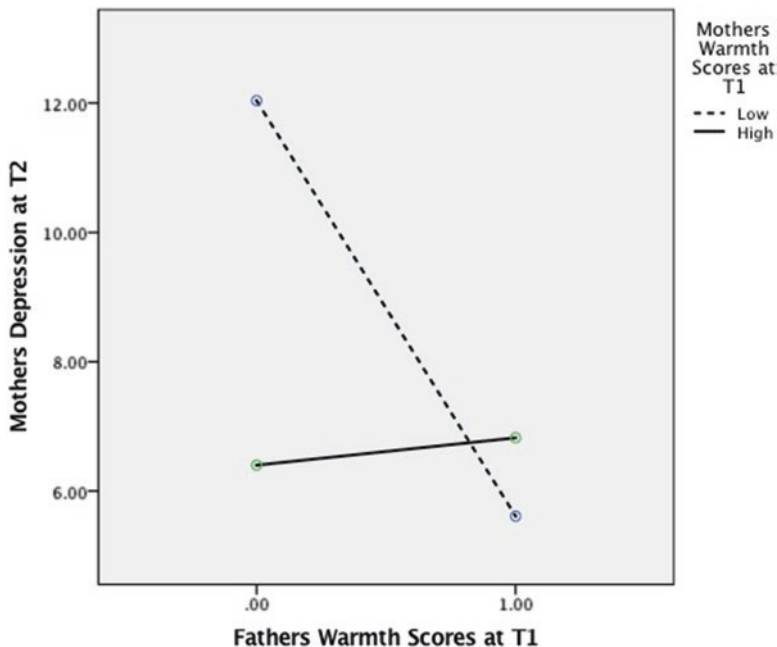


Fig. 13.2 Interactive effect of mothers' and fathers' warmth scores at T1 on mothers' depression scores at T2

depression by father hostility. Following this, we ran a parallel set of analyses focusing on fathers' adjustment scores at T2. Again, in these analyses, we controlled for the direct effects of young mothers' and fathers' warmth and hostility, depression, security, and cohabitation. Results indicated that mothers who were at risk for depression at T1 and who were observed to engage in high rates of hostile communications with their partners reported high rates of depression symptoms at T2 putting them at risk for PPD (see Fig. 13.3). Results also indicated that fathers who were at high risk for depression at T1 and had high hostile communication scores were more likely to report relationship insecurity at T2 compared to fathers who were at risk for depression but who were less hostile (Fig. 13.4). We found that young fathers who were at risk for depression at T1 and who had partners demonstrating high rates of hostile communications were also at higher risk for relationship insecurity at T2. Although this finding is not illustrated in a figure below, the pattern observed is similar to that depicted in Fig. 13.4.

Finally, we examined the interaction effects of fathers' and mothers' prenatal relationship security scores and prenatal depression scores on postnatal relationship security and depression, after controlling for the direct effects of each. For these analyses, we included six interaction terms: mother depression by mother insecurity at T1, father depression by father insecurity at T1, mother depression by father depression at T1, mother insecurity by father insecurity at T1, father depression by

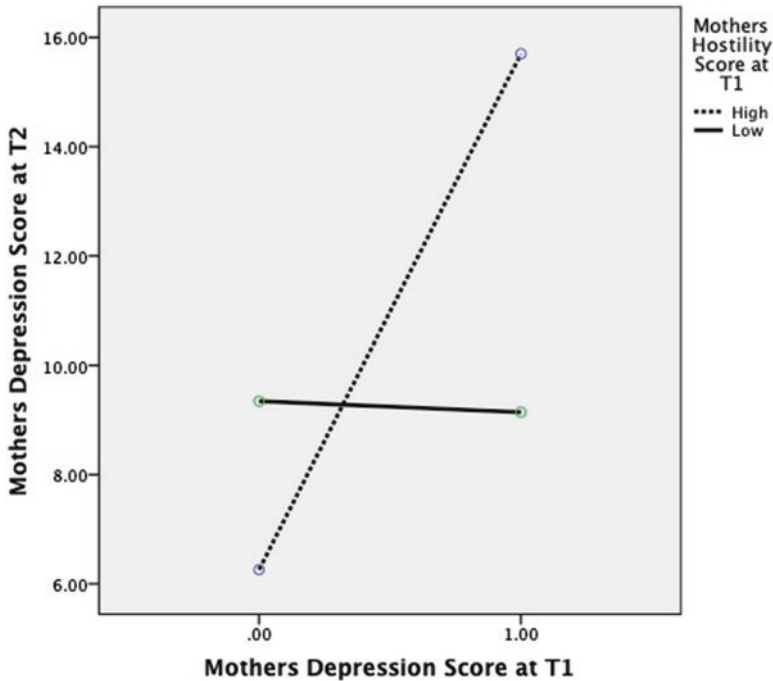


Fig. 13.3 Interaction effect of mothers' hostility scores at T1 by fathers' depression scores at T1 on mothers' depression scores at T2

mother insecurity at T1, and mother depression by father insecurity at T1. This set of analyses was intended to examine how young mothers' and fathers' psychological states affected their own and each other's adjustment to parenthood. Results indicated that mothers who were at risk for depression at T1 but reported relationship security at T1 were more likely to report lower depression scores at T2. Fathers who reported depression risk at T1 but who reported high relationship security at T1 were more likely to report high relationship security at T2. Results of these analyses are depicted in Fig. 13.5 and 13.6.

Discussion

Six months after Meg gave birth to a healthy baby boy, we reinterviewed her and Juan. Meg reported feeling better about her future opportunities and was bonding well with her infant son. Juan remained warm and supportive, and both reported their relationship had kept them grounded through the tumultuous transition to parenthood. In stark contrast, when we followed up with Amber, she told us that she loved being a mom, but she wanted to break up with Steve, because she was tired of bickering about everything. She was also afraid that if she left Steve, he would

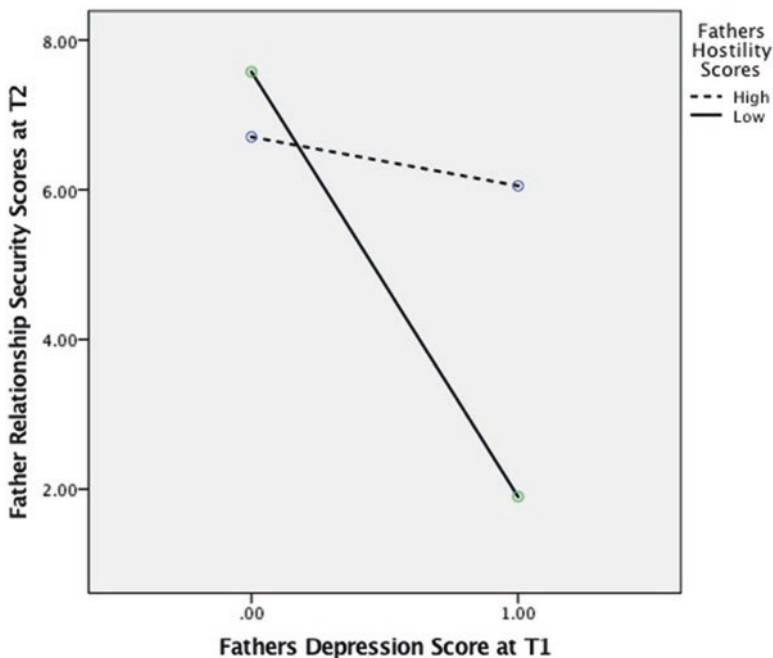


Fig. 13.4 Interaction effect of fathers' hostility scores at T1 by fathers' depression scores at T1 on fathers' security scores at T2

probably just fade away and she didn't want that. When we asked Steve about fatherhood, he said it wasn't going too well. He was trying to help Amber but didn't know how to take care of a baby and was afraid to be left alone with his daughter, because he couldn't soothe her when she cried. Like Amber, he hated arguing all the time but couldn't seem to stop himself from starting fights. He knew that both he and Amber were unhappy but didn't know what to do.

The primary goal of this chapter was to examine how psychological and interpersonal factors interact to influence how couples – such as Meg and Juan – manage the transition to parenthood with the hope of identifying strategies for helping couples, like Amber and Steve. The most obvious predictors of postpartum depression and relationship insecurity are prenatal depression and relationship insecurity, so it was not surprising to find that both mothers' and fathers' depression scores during the prenatal period predicted their depression scores six months after their child's birth (C. T. Beck 2001; Field 2018). The finding that high prenatal depression scores predicted relationship insecurity at follow-up for both mothers and fathers was also expected, given previous research indicating that depression can be disruptive to the development of stable romantic relationships, particularly between coparenting partners (Davila et al. 2016; Williams 2018).

Additionally, the results represented in Fig. 13.5 indicate that mothers who are at risk for depression during their pregnancy but who felt secure in their relationships

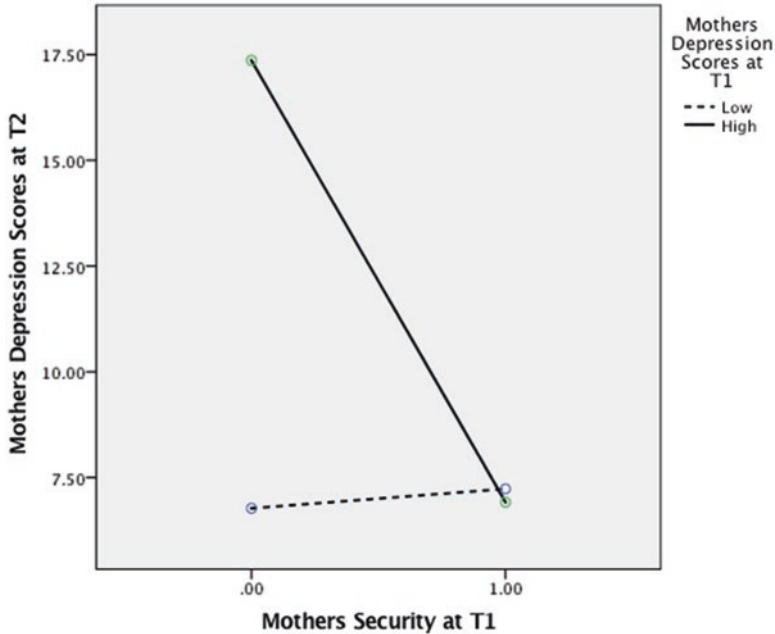


Fig. 13.5 Interaction effect of mothers' security scores at T1 and mothers' depression scores at T1 on mothers' depression scores at T2

with their partners were less likely to report high depression scores at the six-month postbirth follow-up. This suggests that relationship security may diminish a young mother's risk for postpartum depression. Moreover, fathers who reported high depression scores during their partners' pregnancy, and whose partners felt insecure about their relationships, were at higher risk for relationship insecurity at the six-month postbirth follow-up. Generally, these findings demonstrate how the experience of depression and insecurity can reverberate within and between partners. These findings also underscore the value of therapeutic approaches designed to increase relationship security in distressed couples, as they might help facilitate a positive adjustment among at-risk expectant parents (Burgess Moser et al. 2016; Wiebe et al. 2017).

Of course, we don't know if counseling could keep young expectant parents, like Amber and Steve, who report high rates of relationship insecurity and depression, together as romantic partners. Nor do we know if doing so would be helpful in the long run. However, these findings suggest that an approach that reduces hostility and increases warmth might help such couples work together as coparents (Florsheim et al. 2012). For example, results outlined in Fig. 13.4 indicate that fathers who demonstrated low rates of hostility toward their partners, even when they were feeling depressed, were more likely to feel secure at the six-month postbirth follow-up. By contrast, fathers who allowed themselves to become hostile or could not keep

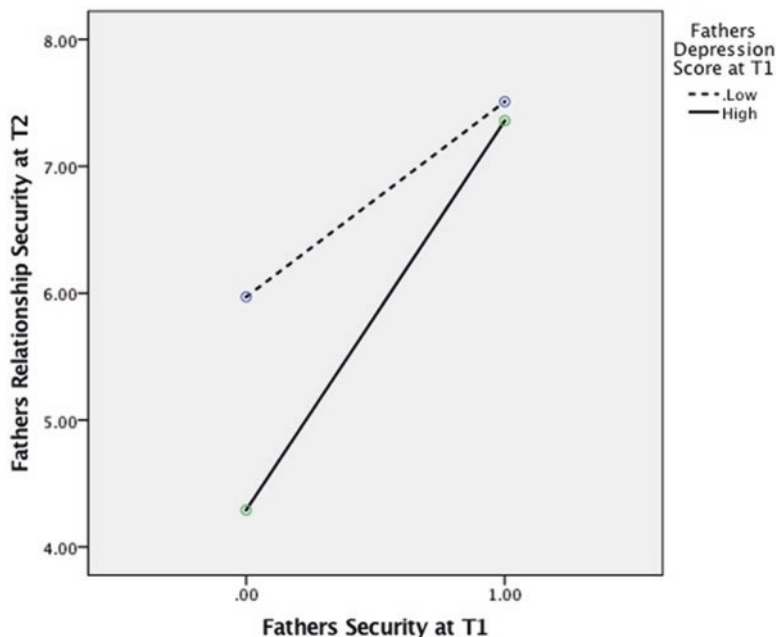


Fig. 13.6 Interaction effect of fathers' security scores at T1 and fathers' depression scores at T1 on fathers' security scores at T2

themselves from becoming hostile, perhaps because their depression made them irritable, became more insecure. These findings suggest that instructing depressed fathers on how to express their feelings, without getting hostile, could help them have a more positive, stable transition to parenthood.

We also found that hostile behavior was a problem for expectant mothers. In addition to the association between fathers' hostility and mothers' prenatal depression, we found that when both young fathers and mothers engaged in high rates of hostile communications, mothers were more likely to report high levels of risk for postpartum depression. This finding, that back-and-forth hostile exchanges contribute to depression in mothers, is consistent with what John Gottman and others have described as the toxic effects of escalating hostility on couples' relations over time. Such hostility often leads to poor relationship outcomes, including physical aggression (Gottman 1993; Sotskova et al. 2015). On the other hand, low hostility seems to be a protective factor, insofar as mothers, who were at risk for depression but were not hostile toward their partners, were significantly less likely to report depression at follow-up (Fig. 13.3).

It is worth noting that despite our expectations, we did not observe that high levels of interpersonal warmth moderated either young expectant mothers' or fathers' depression. That said, mothers whose *partners* expressed more warmth during the pregnancy reported lower risk for postpartum depression scores at the six-month follow-up. More interesting still, we found that when both fathers and

mothers expressed high levels of warmth, the risk for postpartum depression among mothers was relatively low (see Fig. 13.1). Together, these findings suggest that helping young expectant couples learn to express positive feelings toward each other may be equally as important as teaching them to refrain from hostile modes of expression.

Limitations

In this chapter, we maintained a tight focus on a small number of psychological and interpersonal processes, which means that we ignored many other factors that directly and indirectly impact the way young parents navigate the transition to parenthood (e.g., the role of adult attachment and emotion regulation during the transition to parenthood as discussed by Paley and Hajal in Chap. 15 of this book). Our tight focus should not be interpreted to mean that we discount the influence of other factors on maternal and paternal functioning, such as social contextual factors. Indeed, there is some evidence that these broader factors, like neighborhood poverty and racial discrimination, can be as disruptive to young couples as depression or relationship insecurity. As such, there is a need for research on developing strategies for diminishing the negative effects of social and economic disadvantages on family relationships (Cunradi et al. 2000; Murry et al. 2001). Nevertheless, even if we conceive of macro-systemic factors –such as poverty – as primary determinants on family well-being, this does not negate the importance of psychological or interpersonal factors. It has been well documented that the associations between macro-systemic risks and individual outcomes are often mediated through micro-systemic processes, such as how people connect and care for each other (Betancourt and Khan 2008). We need a precise understanding of how young parents' relationships work before we can effectively help make those relationships work better. Paralleling work by Pape Cowan and Cowan (1997) who demonstrated continuity of relationship quality across the transition to parenthood in mostly married and older couples, prenatal relationship characteristics we explored in young and unmarried couples in our study also helped to identify those in need of interventions designed to improve postpartum adjustment.

Clinical Implications

In 2010, Sarah McLanahan and her colleagues wrote a paper summing up the take-away messages from their Fragile Families Study, which is a large, multisite, longitudinal study of young disadvantaged couples, most of whom were recruited immediately after delivering their first baby and followed for over 10 years (McLanahan et al. 2010). This study produced a treasure trove of data that has supported a generation of family research activity, producing dozens of papers

highlighting and elaborating on the vital role of the coparenting relations in child and family well-being. When asked to summarize their results, McLanahan et al. (2010) wrote the following:

Of all the findings from the Fragile Families Study...the one with by far the most critical policy implications is the high level of commitment among unmarried new parents...For this reason, services to parents in fragile families should be immediate, intense, and focused on the couple in their role as cooperative parents. Fashioned as a bumper sticker, our recommendation would be "Support the three T's: Treat early, Treat often, and Treat together" (pp. 14–15).

What does this mean and how does it relate to the young couples appearing in this chapter? From our perspective, treating "*early*" means supporting couples by providing family inclusive services during the pregnancy. The transition to parenthood presents a window of opportunity for stabilizing families because fathers and mothers tend to be more open to education and support at this critical developmental moment. Yes, young couples approaching parenthood are often ambivalent and apprehensive, but they are also highly invested in becoming good parents. As such, they are often willing to accept help intended to support their unborn child (also see McHale et al. Chap. 14 of this book, for an intervention program with unmarried African-American couples as well as Jamison and Feistman Chap. 16, for an intervention with teen parents). The primary reason for treating fathers and mothers *together* is that the most efficient way to teach couples how to communicate more effectively – such as how to express distress or frustration without becoming hostile or how to listen to others more fully and empathically – is to provide direct instruction and guidance *in vivo*. This requires that both partners be in the same room together. We are less certain about McLanahan's suggestion that couples be "*treated often*." A problem with many relationship education programs is that they use a "one size fits all" approach; the dose and focus of treatment is not tailored to the needs of each couple. Some couples – like Juan and Meg – would likely benefit from a small dose of support, but others – like Amber and Steve – would likely need a great deal of communication skills training for an extended period over the course of their pregnancy and into their transition to parenthood. We believe that decisions about how often to treat each couple should depend on their level of need.

Conclusion

The transition to parenthood is a complex intrapersonal and interpersonal process, which can stir up strong positive and negative emotions, bringing couples together or driving them apart. This is particularly true for young couples who confront the challenges of an unexpected (and often untimely) pregnancy. As indicated above, previous research on young at-risk couples has indicated that the quality of the relationship between mothers and fathers is one of the strongest predictors of postpartum depression for both mothers and fathers and, conversely, that depression is a

strong predictor of relationship problems across the transition to parenthood (Whisman et al. 2011). The results reported in this chapter provide some important clues as to how young mothers' and fathers' communications with each other can influence their adjustment to parenthood in both positive and not-so-positive ways. Along with McLanahan and her colleagues (2010), we believe that these findings, and the work of other contributors to this volume, suggest we rethink our approach to prenatal care to better address the relationship needs of expectant mothers and fathers across at their transition to parenthood.

Acknowledgments The work described in this chapter was supported by a grant from the Office of Population Affairs through the Adolescent Family Life Program. In addition to being grateful for this funding, we want to acknowledge the valued contributions of our research participants who agreed to share their experiences with us. We also appreciate the hard work of our research assistants who helped collect our data, particularly Rachel Reinders and Pablo Martins Navarro who painstakingly coded much of the video-recorded interaction data featured in this chapter.

References

- Alexander, L. A., Le, H.-N., De La Fey Rodriguez Munoz, M., & Perry, D. F. (2014). The latent symptom structure of the Beck depression inventory: In Latina pregnant women. *Maternal and Child Health Journal*, 18(5), 1132–1141. <https://doi.org/10.1007/s10995-013-1343-5>.
- Beck, C. T. (2001). Predictors of postpartum depression: An update. *Nursing Research*, 50(5), 275–285. <https://doi.org/10.1097/00006199-200109000-00004>.
- Beck, C. T. (2006). Postpartum depression: It isn't just the blues. *AJN The American Journal of Nursing*, 106(5), 40–50. <https://doi.org/10.1097/00000446-200605000-00020>.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck depression inventory*. <https://doi.org/10.1037/t00742-000>.
- Betancourt, T. S., & Khan, K. T. (2008). The mental health of children affected by armed conflict: Protective processes and pathways to resilience. *International Review of Psychiatry*, 20(3), 317–328. <https://doi.org/10.1080/09540260802090363>.
- Bouchard, G. (2005). Adult couples facing a planned or an unplanned pregnancy: Two realities. *Journal of Family Issues*, 26(5), 619–637. <https://doi.org/10.1177/0192513X94272756>.
- Bowlby, J. (2008). *Attachment*. Basic Books.
- Brown, S. L., Manning, W. D., & Payne, K. K. (2017). Relationship quality among cohabiting versus married couples. *Journal of Family Issues*, 38(12), 1730–1753. <https://doi.org/10.1177/0192513x15622236>.
- Burgess Moser, M., Johnson, S. M., Dalgleish, T. L., Lafontaine, M. F., Wiebe, S. A., & Tasca, G. A. (2016). Changes in relationship-specific attachment in emotionally focused couple therapy. *Journal of Marital and Family Therapy*, 42(2), 231–245. <https://doi.org/10.1111/jmft.12139>.
- Cameron, E. E., Sedov, I. D., & Tomfohr-Madsen, L. M. (2016). Prevalence of paternal depression in pregnancy and the postpartum: An updated meta-analysis. *Journal of Affective Disorders*, 206, 189–203. <https://doi.org/10.1016/j.jad.2016.07.044>.
- Carlson, M. J., & McLanahan, S. S. (2010). Fathers in fragile families. In M. E. Lamb & M. E. Lamb (Eds.), *The role of the father in child development* (pp. 241–269). Hoboken: Wiley.
- Carlson, M. J., Pilkauskas, N. V., McLanahan, S. S., & Brooks-Gunn, J. (2011). Couples as partners and parents over children's early years. *Journal of Marriage and Family*, 73(2), 317–334. <https://doi.org/10.1111/j.1741-3737.2010.00809.x>.

- Committee on Obstetric Practice. (2015). Screening for perinatal depression. Committee Opinion No. 630. American College of Obstetricians and Gynecologists. *Obstetrics & Gynecology*, *125*, 1268–1711. <https://doi.org/10.1097/01.aog.0000465192.34779.dc>.
- Cunradi, C. B., Caetano, R., Clark, C., & Schafer, J. (2000). Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: A multilevel analysis. *Annals of Epidemiology*, *10*(5), 297–308. [https://doi.org/10.1016/s1047-2797\(00\)00052-1](https://doi.org/10.1016/s1047-2797(00)00052-1).
- Davila, J., Capaldi, D. M., & La Greca, A. M. (2016). Adolescent/young adult romantic relationships and psychopathology. *Development and Psychopathology*, 1–34. <https://doi.org/10.1002/9781119125556.devpsy114>.
- Dozois, D. J., Dobson, K. S., & Ahnberg, J. L. (1998). A psychometric evaluation of the Beck Depression Inventory–II. *Psychological Assessment*, *10*(2), 83. <https://doi.org/10.1037/1040-3590.10.2.83>.
- Eddy, B., Poll, V., Whiting, J., & Clevesy, M. (2019). Forgotten fathers: Postpartum depression in men. *Journal of Family Issues*, 0192513X19833111. <https://doi.org/10.1177/0192513x19833111>.
- Edin, K., & Kefalas, M. (2005). *Promises I can keep*. Berkeley: University of California Press.
- Feeney, J., Alexander, R., Noller, P., & Hohaus, L. (2003). Attachment insecurity, depression, and the transition to parenthood. *Personal Relationships*, *10*(4), 475–493. <https://doi.org/10.1046/j.1475-6811.2003.00061.x>.
- Field, T. (2018). Paternal prenatal, perinatal and postpartum depression: A narrative review. *Journal of Anxiety & Depression*, *1*(1), 102.
- Florsheim, P., & Benjamin, L. S. (2001). The structural analysis of social behavior observational coding scheme. In P. K. Kerig, K. M. Lindahl, P. K. Kerig, & K. M. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research* (pp. 127–150). Mahwah: Lawrence Erlbaum Associates Publishers.
- Florsheim, P., & Moore, D. (2020). *Lost and found: Young fathers in the age of unwed parenthood*. New York: Oxford University Press.
- Florsheim, P., Burrow-Sanchez, J. J., Minami, T., McArthur, L., Heavin, S., & Hudak, C. (2012). The young parenthood program: Supporting positive paternal engagement through coparenting counseling. *American Journal of Public Health*, *102*(10), 1886–1892. <https://doi.org/10.2105/AJPH.2012.300902>.
- Fraley, R. C., Hudson, N. W., Heffernan, M. E., & Segal, N. (2015). Are adult attachment styles categorical or dimensional? A taxometric analysis of general and relationship-specific attachment orientations. *Journal of Personality and Social Psychology*, *109*(2), 354. <https://doi.org/10.1037/pspp0000027>.
- Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology*, *61*(1), 6. <https://doi.org/10.1037/0022-006x.61.1.6>.
- Hames, J. L., Hagan, C. R., & Joiner, T. E. (2013). Interpersonal processes in depression. *Annual Review of Clinical Psychology*, *9*, 355–377. <https://doi.org/10.1146/annurev-clinpsy-050212-185553>.
- Harkness, J. A., Van de Vijver, F. J., & Mohler, P. P. (2003). *Cross-cultural survey methods* (Vol. 325). Hoboken: Wiley-Interscience.
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. University of Kansas, KS.
- Hazan, C., & Selcuk, E. (2015). Normative processes in romantic attachment: Introduction and overview. In *Bases of adult attachment* (pp. 3–8). New York: Springer. https://doi.org/10.1007/978-1-4614-9622-9_1.
- Lamb, K. A., Lee, G. R., & DeMaris, A. (2003). Union formation and depression: Selection and relationship effects. *Journal of Marriage and Family*, *65*(4), 953–962. <https://doi.org/10.1111/j.1741-3737.2003.00953.x>.

- Leathers, S. J., & Kelley, M. A. (2000). Unintended pregnancy and depressive symptoms among first-time mothers and fathers. *American Journal of Orthopsychiatry*, 70(4), 523–531. <https://doi.org/10.1037/h0087671>.
- Matthey, S., Barnett, B., Ungerer, J., & Waters, B. (2000). Paternal and maternal depressed mood during the transition to parenthood. *Journal of Affective Disorders*, 60(2), 75–85. [https://doi.org/10.1016/s0165-0327\(99\)00159-7](https://doi.org/10.1016/s0165-0327(99)00159-7).
- McClain, L. R. (2011). Better parents, more stable partners: Union transitions among cohabiting parents. *Journal of Marriage and Family*, 73(5), 889–901. <https://doi.org/10.1111/j.1741-3737.2011.00859.x>.
- McLanahan, S., Garfinkel, I., Mincy, R. B., & Donahue, E. (2010). Introducing the issue. *The Future of Children*, 3–16. <https://doi.org/10.1353/foc.2010.0005>.
- Mikulincer, M., Florian, V., Cowan, P. A., & Cowan, C. P. (2002). Attachment security in couple relationships: A systemic model and its implications for family dynamics. *Family Process*, 41(3), 405–434. <https://doi.org/10.1111/j.1545-5300.2002.41309.x>.
- Millings, A., Walsh, J., Hepper, E., & O'Brien, M. (2013). Good partner, good parent: Responsiveness mediates the link between romantic attachment and parenting style. *Personality and Social Psychology Bulletin*, 39(2), 170–180. <https://doi.org/10.1177/0146167212468333>.
- Murry, V. M., Brown, P. A., Brody, G. H., Cutrona, C. E., & Simons, R. L. (2001). Racial discrimination as a moderator of the links among stress, maternal psychological functioning, and family relationships. *Journal of Marriage and Family*, 63(4), 915–926. <https://doi.org/10.1111/j.1741-3737.2001.00915.x>.
- Ngu, L., & Florsheim, P. (2011). The development of relational competence among young high-risk fathers across the transition to parenthood. *Family Process*, 50(2), 184–202. <https://doi.org/10.1111/j.1545-5300.2011.01354.x>.
- Paley, B., Cox, M. J., Kanoy, K. W., Harter, K. S., Burchinal, M., & Margand, N. A. (2005). Adult attachment and marital interaction as predictors of whole family interactions during the transition to parenthood. *Journal of Family Psychology*, 19(3), 420. <https://doi.org/10.1037/0893-3200.19.3.420>.
- Pape Cowan, C., & Cowan, P. (1997). Working with couples during stressful transitions. In S. Dreman (Ed.), *The family on the threshold of the 21st century: Trends and implications* (pp. 17–47). Mahwah: Lawrence Erlbaum Associates.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420. <https://doi.org/10.1037/0033-2909.86.2.420>.
- Simpson, J. A., Rholes, W. S., Campbell, L., Tran, S., & Wilson, C. L. (2003). Adult attachment, the transition to parenthood, and depressive symptoms. *Journal of Personality and Social Psychology*, 84(6), 1172. <https://doi.org/10.1037/e633872013-173>.
- Siu, A. L., Bibbins-Domingo, K., Grossman, D. C., Baumann, L. C., Davidson, K. W., Ebell, M., et al. (2016). Screening for depression in adults: US Preventive Services Task Force recommendation statement. *JAMA*, 315(4), 380–387. <https://doi.org/10.1001/jama.2015.18392>.
- Sobolewski, J. M., & King, V. (2005). The importance of the coparental relationship for nonresident fathers' ties to children. *Journal of Marriage and Family*, 67(5), 1196–1212. <https://doi.org/10.1111/j.1741-3737.2005.00210.x>.
- Sokol, L. E. (2018). A systematic review and meta-analysis of interpersonal psychotherapy for perinatal women. *Journal of Affective Disorders*, 232, 316–328. <https://doi.org/10.1016/j.jad.2018.01.018>.
- Sotskova, A., Woodin, E. M., & Gou, L. H. (2015). Hostility, flooding, and relationship satisfaction: Predicting trajectories of psychological aggression across the transition to parenthood. *Aggressive Behavior*, 41(2), 134–148. <https://doi.org/10.1002/ab.21570>.
- Talbot, J. A., Baker, J. K., & McHale, J. P. (2009). Sharing the love: Prebirth adult attachment status and coparenting adjustment during early infancy. *Parenting: Science and Practice*, 9(1–2), 56–77. <https://doi.org/10.1080/15295190802656760>.
- Wee, K. Y., Skouteris, H., Pier, C., Richardson, B., & Milgrom, J. (2011). Correlates of ante- and postnatal depression in fathers: A systematic review. *Journal of Affective Disorders*, 130(3), 358–377. <https://doi.org/10.1016/j.jad.2010.06.019>.

- Whisman, M. A., Davila, J., & Goodman, S. H. (2011). Relationship adjustment, depression, and anxiety during pregnancy and the postpartum period. *Journal of Family Psychology, 25*(3), 375. <https://doi.org/10.1037/a0023790>.
- Wiebe, S. A., Johnson, S. M., Lafontaine, M. F., Burgess Moser, M., Dalglish, T. L., & Tasca, G. A. (2017). Two-year follow-up outcomes in emotionally focused couple therapy: An investigation of relationship satisfaction and attachment trajectories. *Journal of Marital and Family Therapy, 43*(2), 227–244. <https://doi.org/10.1111/jmft.12206>.
- Williams, D. T. (2018). Parental depression and cooperative coparenting: A longitudinal and dyadic approach. *Family Relations, 67*(2), 253–269. <https://doi.org/10.1111/fare.12308>.
- Wilson, S., & Durbin, C. E. (2010). Effects of paternal depression on fathers' parenting behaviors: A meta-analytic review. *Clinical Psychology Review, 30*(2), 167–180. <https://doi.org/10.1016/j.cpr.2009.10.007>.
- Wisner, K. L., Parry, B. L., & Piontek, C. M. (2002). Postpartum depression. *New England Journal of Medicine, 347*(3), 194–199. <https://doi.org/10.1056/nejmcp011542>.

Part IV
Interventions During Pregnancy

Chapter 14

A Prenatal Intervention to Support Coparenting in Unmarried African American Family Systems



James P. McHale, Carla Stover, and Katherine McKay

In this chapter, we present the development of a culturally and community-grounded prenatal intervention developed to support coparenting alliances in lower socioeconomic African American families where parents are unmarried¹ and may be non-co-residential. We will detail the progression of the initiative, from its initial inception based on a review of current available interventions and on active engagement with the community to better understand family circumstances through pilot implementation and refinement and finally to implementation of a large ongoing randomized trial. Our aims are to provide insights into what families and community partners have taught us about delivering a culturally competent coparenting intervention. As part of this chronicling, we also provide an overview of our process in obtaining important prenatal and postnatal family data to evaluate the intervention's impact and object lessons learned from that undertaking.

¹Unmarried families are frequently called “fragile families” in the literature (Garfinkel et al. 2001). For reasons we hope will become clear, we have chosen not to employ this term in the current manuscript, reflecting a shift we have made in our own work over time to highlighting family strengths rather than family fragility.

J. P. McHale (✉)

Family Study Center, Department of Psychology, University of South Florida,
St. Petersburg campus, St. Petersburg, FL, USA
e-mail: jmchale@usf.edu

C. Stover

Child Study Center, Yale University School of Medicine, New Haven, CT, USA
e-mail: Carla.stover@yale.edu

K. McKay

Private Practice, Saint Petersburg, FL, USA
e-mail: Kmckay@drkatherinemckay.com

© Springer Nature Switzerland AG 2021

R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,
https://doi.org/10.1007/978-3-030-51988-9_14

295

History of the Initiative

At the time the Figuring It Out for the Child (FIOC) initiative was conceived, there had already been substantial attention and advocacy for the pivotal role played by engaged fathers in promoting their infants' and young children's socioemotional development and, conversely, to various educational or behavioral problems and poorer developmental and life outcomes that are more likely to result among children whose fathers are not actively involved in their lives. Indeed, one influential critique of failures of public health strategies to close black-white birth and health outcome gaps (Lu et al. 2010) had drawn specific attention to enduring failures of systems of care to effectively involve African American fathers. Data on father absence are commonplace in accounts of early infant and child development in lower socioeconomic African American families; over half of poor African American infants are born into families led by unmarried parents (Verpa et al. 2013). Approximately half of all lower socioeconomic African American children grow up in single-mother families with little or no sustained father involvement (Sorensen et al. 2000).

While father absence in African American families has historically been a dominant narrative in the child and family development literature, frequently couched in conceptualizations and terminology that are pejorative to African American men as fathers (Blankenhorn 1995; Cassiman 2008; Mixon 1999), there have also been more recent counter-narratives to this risk and deficit-based view. Contemporary accounts highlight the greater sustained cross-time connection of African American men to their children and the openness and efforts of African American mothers to support and enable such father-child connections and reconnections. Further, instead of relying on pathology-based constructions that look inside the family for insufficiency, African American scholars highlight racial disparities in the social determinants of health. They also draw attention to the strengths, resilience, and wisdom of African American families in the face of challenge.

While acknowledging that the challenges of black infants, children, and families are real, the National Black Child Development Institute has rejected the narrative portraying predominantly shortfalls and deficits and instead highlighted the strengths, insights, and flexibility of black children and their families. This focus on utilizing strengths to improve outcomes for black children, drawing on the inherent intuitions, knowledge, and flexibility of black children's families and communities, has catalyzed a growing national conversation on how African American children can be supported to not just survive but thrive in a country that places countless barriers – including social and institutional racism, prejudice, and limited opportunities – in their way.

It was against this transforming sociocultural backdrop that a group of community leaders, advocates, and academics in St. Petersburg, FL, came together to develop the distinctive FIOC program. FIOC is a strengths-based prenatal program planned to serve unmarried and uncoupled (as well as coupled) African American parents expecting a first child together. A core of the program is an intervention that

brings the mother- and father-to-be together for a set of prenatal mentorship sessions with a male and female mentoring team. The workshop series is offered just to the father-mother dyad and not to a group of families as is more typical. Dyadic rather than group intervention facilitates trust of and rapport with parents, accommodates parents' schedules, and allows space to process and practice skills being learned.

FIOC's aim is to help build and strengthen a coparenting alliance between the two parents, whether caring for the child within a single domicile or across multiple residences. The FIOC intervention involves six 90-min sessions, with a seventh booster session 1 month after the baby's birth. FIOC is based on principles of Focused Coparenting Consultation (FCC; McHale and Irace 2011), which has three stages: consciousness-raising, skill building, and enactment (discussion of actual "hot button" issues the parents themselves identify). FIOC sessions follow the FCC model and emphasize how healthy and safe coparenting helps babies, how adults' beliefs shape their coparenting actions, and how parents can anticipate and overcome obstacles to work effectively as coparents. Conflict resolution is a focus, and at the end of the workshop series, the parents develop a coparenting plan to support one another's involvement as parents to the baby. They also discuss whether and how they might engage support from family members and others in their network, as is by tradition done in the African American community, as partners in their plan. A postnatal booster session 1 month after the baby's arrival reinforces lessons learned during the prenatal intervention. Though the curriculum is squarely focused on communication, collaboration, and problem-solving around the child and child-related issues – coparenting – it steers clear of presumptions of romantic involvement or of present or future committed conjugal relationships. Parents may broach these issues themselves if they wish but only within the context of discussions about their shared child.

Additional details about the unique design and features of the FCC intervention and the FIOC sessions have previously been described elsewhere (Gaskin-Butler et al. 2015; McHale and Carter 2012; McHale et al. 2013). One important and unusual factor worthy of note is that development of the curriculum itself was an iterative process in which African American community leaders reviewed drafts of the intervention and workshop aims and content and recommended changes to make the intervention more "true to life" and cognizant of the life circumstances of families and of the community in which families live. The end product was a curriculum co-constructed with the community it was intended to serve and attuned to many of the most important life issues young parents-to-be would be facing. The dedicated focus on mother-father coparenting throughout the intervention was one that the community leaders who advised on the development believed would speak most strongly to parents, for shared coparenting of young children was not a foreign notion but rather an ethic already well established and honored within the community.

Though the intervention itself was culturally grounded and respectful of community experiences, beliefs, and values, a six-session intervention for expectant unmarried parents – who may or may not have cultivated a sustained commitment to parent together following their having learned about the pregnancy – did not

seem the type of draw that most men and women would find immediately appealing. “Programs” in the community where FIOC was piloted had a spotted history – many to most programs “provided services” without having ever actually stopped to find out from families what types of supports they themselves felt they truly needed most. For as was true in many cities, counties, and jurisdictions throughout the United States where there have been historical institutional racial biases marginalizing communities of color, so many of the men and women in St. Petersburg were struggling financially and trying to address other more pressing basic needs, such as housing, living wages, and quality childcare.

For this reason and following the lead of Theodora Ooms (who in 2002 had outlined a broad-based need for “Marriage Plus” programs in communities where parents experienced additional and significant burdens and a variety of material needs), the FIOC intervention was embedded instead within a broader community service support structure made known to families. At the heart of the support structure, which is currently being applied in a randomized controlled trial sponsored by the National Institute of Child Health and Development (NICHD), is a dedicated opportunity for parents to make successful connections with agencies and programs that already specialize in housing, employment, educational opportunity, material supports, and childcare (and where articulated, substance abuse, health, or mental health services, though these latter services are not usually the ones on parents’ minds when asked to voice their most pressing issues and needs). Parents are actively assisted with making connections to the community’s “Treatment as Usual” services (if they indicate a desire for such assistance) through on-call supports that are provided by a dedicated program staffer who is called a “Resource and Referral Navigator.”

The creation of this role meets an often-unarticulated community need for an advocate, if not a “fixer,” who can assist today’s overburdened parent to deal with the bureaucratic red tape that systems now routinely and deliberately impose making access to services unreasonably difficult to obtain. By design, this navigator in the FIOC program does not function as a case manager, and she opens no case files on the parents. Rather, the FIOC program’s pledge to participants and to the community that refers them is that (aside from mandated reports) all information shared by and aid provided to families remain private and confidential. This promise of privacy and confidentiality has been an important assurance not just to the parents who enroll but also to the community-based referral sources – agencies, organizations, churches, friends, and family members – who have guided parents to the program.

Families in St. Petersburg’s African American community, much like families in sister African American communities throughout the United States (Boyd-Franklin 1995), have grown wary of government-sponsored programs that have promised to help them but ultimately disappointed and frequently also intruded too deeply and too invasively into their private domain. The breeches of trust that have hence arisen have prompted understandable caution and adaptive, protective skepticism anytime there are new programs introduced, purportedly to be helpful. The FIOC program’s approach, providing fathers and mothers an opportunity to sit together with an

independent navigator at their point of entry into the program to think and talk about particular family resources that they might have interest in learning more about or pursuing, was a new experience for many families. That such referrals for programs and services were those that families themselves thought their family might need – not referrals that an outsider deemed they should have – honored parental voice and choice. It also sent a message that the program stood ready to “meet families where they are.” This message was further reinforced by the staffer offering to schedule the initial navigation session at a location of the family’s choice at a time convenient for them, rather than summoning the parents to appear together at an agency location during normal business operating hours.

This time spent getting to know families first and giving them a better sense of what the program would be about is rare in today’s overtaxed, numbers-driven system of care. The forging of trust and building of comfort are what maximizes the likelihood that unmarried expectant parents will contemplate participation (not just alone but together with their baby’s other parent) in a program intervention they have been told will focus on, and aim to help provide solutions to, figuring things out for their shared child. Entry into a program where this is the focus can be an overwhelming proposition for any unmarried parent.

By contrast, having an opportunity to more cautiously talk generally about relevant and available community resources helpful to new parents conveyed that what FIOC believed was most important is what the parents themselves believed to be most important. Parents knew of the formal intervention program features and demands on their time but were assured that the FIOC workshop series could follow later, only when they felt ready, once other more essential needs had been identified and taken on. During this initial phase, at a parent’s request, the navigator would actively help the parent (father and/or mother) to make contact with pertinent area agency supports. Where needed, she would also help the parents to plan and rehearse in advance what they wished to say upon making these contacts, for many agencies have stringent eligibility rules and other potential roadblocks parents must learn to navigate. And most importantly, she assured families she would remain in this supportive role of helping to connect parents to resource providers whenever called upon, as an aid to the parents’ own self-initiated outreach efforts to community support agencies, right up until the time of the baby’s first birthday.

These details are important. Pointing parents toward community resources and supports is nothing new; for nearly a quarter century, Responsible Fatherhood programs that grew from governmental officials’ interests in enhancing lower socioeconomic fathers’ capacity to pay child support have operated in communities of color. When FIOC was first introduced, the community already had available numerous other state and federal programs in support of unmarried, uncoupled mothers, among them TANF, WIC, and numerous home visiting programs (Healthy Start, Parents as Teachers, Nurse Family Partnership). Most of these targeted their services directly and principally to women, though Healthy Families programming has the aspirational goal (and hence often found success) in delivering services to families rather than just to mothers.

For men, the community offered fatherhood services, including services that were financed by responsible fatherhood funding and connected to child support enforcement (McHale 2007; McHale and Lindahl 2011). But there was no guiding hand helping to bring mothers and fathers together as coparents. This is tremendously significant, for the nature of the coparenting alliance unmarried parents create (or fail to create) helps determine whether nonresidential fathers will engage and stay engaged. In analyses of data from the Fragile Families and Child Well-Being Study, Carlson et al. (2008) determined that coparenting between non-co-resident parents during infancy strongly predicted later father involvement, but early father involvement only weakly predicted later coparenting.

Subsequently, McHale et al.'s (2012) review of the literature concluded that prenatal fatherhood programs that encourage father involvement but without also involving mothers frequently miss their intended mark (see also McHale 2007, 2009). One main reason why is that unwelcome father involvement commonly triggers more, rather than less, maternal gatekeeping and coparenting conflict (Talbot et al. 2009). Hence, for any programming aspiring to strengthen father involvement in unmarried African American families, there is a disconnect, as federally funded responsible fatherhood programs seldom successfully engage mothers in their efforts to help the father contribute as a coparent (McHale 2007, 2009). In one of the rare fatherhood intervention studies to examine both father involvement and coparenting as distinct outcomes, Doherty et al. (2006) reported having achieved desired intervention outcomes for early father engagement but having had no effect on coparenting. Most agencies now acknowledge that working with both parents is key, but little is known about how to successfully make that happen.

What about Healthy Marriages approaches? To be sure, there was an infusion of Healthy Marriages funding and programming in the mold of the DHHS/ACF's "Building Strong Families" (BSF) initiative afoot in Pinellas County when the FIOC program took root. That programming was presented to the community at large as a Relationship and Marriage Enhancement (RME) program that helped promote healthy adult-adult relationships. Unfortunately, just as RME efforts largely missed the mark with higher-risk uncoupled parents in massive government-sponsored demonstration projects (see Wood et al. 2012), local services likewise failed to connect with so many families who might have found benefit. Among the more striking and poignant findings from early evaluation efforts examining the BSF roll-out in the Orlando, Florida site (see Dion et al. 2006) was an estimate that fewer than one in ten families served by Healthy Start ever even qualified for the BSF intervention, based on that project's inclusion criteria (mothers and fathers had to be romantically involved and not living together). Local programming was no different, largely failing to speak to the exigencies of unmarried African American parents.

Much has been written about why RME programs never met with their aspirational goals in lower socioeconomic communities, and such discussion is beyond the scope of this chapter. Certainly, among the problems has been a lack of sufficient awareness of and sensitivity to the all-encompassing challenges introduced by institutionalized racism, poverty, underemployment, absence of affordable housing, and other environmental and social determinants of health and well-being. Such

neglect of on-the-ground realities in communities threatens to doom any well-meaning program. In addition, a variety of different authors have looked to factors inside the emerging family. Several scholars have argued that the intensive coupling focus of RME programming is in poor synch with some of the formidable relationship obstacles identified by family scholars including gender mistrust; concerns about readiness to commit, immaturity, and sexual infidelity; and presence of children from prior unions (Carlson et al. 2008; Edin 2000; McLanahan and Carlson 2003; Ooms and Wilson 2004).

While many of these factors do conspire to make commitment to relationship-focused interventions a challenge to families, there are simultaneously many untapped strengths, resources, and cultural norms at work, inspiring confidence that well-conceived and culturally attuned coparenting interventions, supported by the community, offer promise. For example, though many African American parents with lower socioeconomics do choose to defer decisions about marriage, African American mothers nonetheless endeavor to help keep children's fathers engaged in their children's lives over time even through episodic absences (Roy and Burton 2007). African American fathers also find joy in learning of their impending fatherhood and are present not only during the pregnancy but also in the early weeks and months following the baby's arrival, frequently providing material supports to assist their child and child's mother (Edin 2000). Indeed, compared with nonresidential white and Hispanic fathers, nonresidential African American fathers have the highest rates of visitation or provision of some caretaking or in-kind support (more than formal child support; Lerman and Sorenson 2000; Mott 1994). Moreover, Carlson and McLanahan (2002) documented that 44% of non-cohabiting African American fathers visited their child, compared to only 17% of white and 26% of Hispanic fathers. These studies also suggested that black nonresident fathers tended to maintain their level of involvement over time longer than did white and Hispanic nonresident fathers (Coley and Chase-Lansdale 1999; Danziger and Radin 1990; Seltzer 1991; Stier and Tienda 1993).

Hence, programming helping unmarried and uncoupled African American parents to coordinate effectively to *coparent* their baby, decoupled from the watchful eye of child support enforcement and concerned only with promoting healthy child and family bonding and development, is not only feasible but wholly consistent with dynamics and cultural norms already present in the African American community. FIOC's approach was perceived as a refreshing palliative by the community. It evoked both interest and support from community leaders whose sole, unfettered concern was the support of young families and thriving of African American infants and children.

Pilot Implementation of FIOC in the Community

As the FIOC program found its way into the community through a pilot and feasibility program funded by the Brady Education program, staff encountered another barrier. In retrospect, given all that has been learned about the matricentric bias in

service delivery systems, it was a barrier that should have been anticipated. It concerned the readiness of agency-based frontline personnel to fully embrace the new father-mother model being brought forward. Not uncommonly, providers in programs that had long served mothers and only mothers looked with skepticism on an initiative that brought fathers and mothers together. Perhaps the most commonly cited objection was safety concerns; overwhelmingly, providers called to mind recollections of past cases they had served in which they had come upon concerning levels of intimate partner violence (IPV) and feared that they might be unwittingly bringing harm into the family by reaching out to and inviting fathers into a privileged space that had been created for pregnant mothers. A referral to fatherhood services for a father who expressed a desire to be active in his baby's life was acceptable, as men would be with other men in services led by men. But a scenario in which fathers and mothers were brought together, with the expressed purpose of helping to resolve child-related differences, somehow seemed concerning and unwise.

There are multiple commentaries that can be offered on this perspective, and space considerations do not permit a thorough discussion of them all. Certainly, there is wisdom in bringing caution to any decision made about engaging in couples work if there have been concerning levels of IPV involving power and control. Conventional wisdom has long been that bringing such couples together for dyadic therapies is contraindicated, and this caution is especially warranted during pregnancies where a repeat offense could place not only the mother but fetus at risk (for a review of relevant literature on interventions for intimate partner violence, see, e.g., Karakurt et al. 2016; Stover et al. 2009a, b). Equally, bringing this lens of wariness and skepticism born of particularly problematic cases to the conceptualization and case planning for all fathers and all cases served does an injustice to most other children and families. Statistics regarding prevalence of dangerous levels of acute and intractable IPV are difficult to pin down. However, moderate rather than severe levels of aggression between partners and situational violence are likely to be far more prevalent in families where aggression exists at all, hence offering important openings for engagement, conflict resolution, and problem-solving.

Arguably, it would be particularly important for any families where conflict, with or without accompanying aggression, was ongoing to receive helpful supports before the baby's arrival. Because most unmarried fathers are present during their baby's infant and toddler years, failure to intervene meaningfully during pregnancy to help equip mothers and fathers with additional new skills misses out on an opportunity to strengthen families before babies' arrival. This frame or reasoning was among the factors that interested the Brady Education Foundation – whose mission is to close opportunity gaps between children living in under-resourced and/or underrepresented communities and other children – to invest in a program examining the support and strengthening of families before the child ever even arrived on the scene.

These things said, the reality was that concessions acknowledging provider concerns did initially need to be made in the service community, and so providers were invited to refer families to the FIOC intervention if there were no known concerns

with IPV that had been shared by the mother during their work together. They were also assured that the intervention itself would be delivered by a male-female co-interventionist pair and that interventionists were individuals already skilled in work with young mothers and fathers. The interventionists were called “Mentors” and were chosen intentionally from the existing service delivery system in Pinellas County from programs where they had served as home visitors, health educators, and father services personnel. That is, though not licensed mental health professionals, all were skilled at working with young parents and at reaching past seeming resistance and other impediments to engagement if parents fell out of touch or did not respond to outreach efforts. Such dedication, tenacity, cultural competence, and wisdom about the community served were essential ingredients in Mentor choice, and all Mentors were supervised weekly by one of the authors (McKay), a licensed clinical psychologist who assisted them with challenges encountered in their delivery of the manualized FIOC curriculum. Formal independent detailed analyses of these Mentors’ fidelity to the curriculum documented that both male and female Mentors were able to deliver the intervention with good adherence and levels of competence (Salman-Engin et al. 2016).

It is important here to provide some background regarding the community in which the work took place, as African Americans in St. Petersburg face realities shared by many black families in urban US communities. Disparities between maternal and infant health of white and black populations are substantial. Black infants are 2.6 times more likely to die before age 1 than white babies and twice as likely as white babies to be born with clinically low birth weights. Forty-five percent of black children under 18 live below the poverty level compared with 9.7% of white children. Besides having the region’s greatest racial disparity in healthcare, disparities are also found in rates of cancer, diabetes, and HIV/AIDs. Over the course of the feasibility project’s recruitment year, 61 eligible pregnant mothers were successfully contacted by the project, and of these, 38 (62%) expressed interest.

Given an interested mother, successful recruitment of the father was made in 32 of the 38 cases (84%). Overall recruitment success for the pilot was 52%, with progressively improving referral and recruitment rates as the study became better known in the community. We note here that the recruitment process started with mothers, not fathers. This strategy allowed us to make initial inquiries before proceeding further about the mother’s comfort and safety in taking part in an intervention with her baby’s father. The challenging and demanding work of outreach to fathers then commenced. This means of bringing parents into programming is the opposite of that of most responsible fatherhood programs, which seek to reengage mothers given an already situated father. Such outreach to mothers given already-engaged fathers is far less likely to deliver on wished-for yields, according to expert analyses of such programs (Martinson and Nightingale 2008).

Following recruitment, parents completed intensive intake sessions in which they contributed both individual interviews and a videotaped, dyadic, couple relationship assessment based on a problem-solving discussion. Attrition of families in the pilot was greatest between this intensive intake assessment and the first FIOC

session, which included the complete Fragile Families and Child Well-Being (FFWB) interview, embedded surveys assessing constructs of interest, and the couple interaction session. We have come to believe that the intensive family assessment at the point of intake placed inordinate burden on fathers. Paring of the FFWB protocol midway through the feasibility study did reduce dropout between the intake and first FIOC session at least some in the second half-year of pilot enrollment.

We believe this issue is worthy of reflection. It is somewhat ironic that the mother-father discussions about factors that might impair their coparenting – discussions which gave rise to the very set of indicators that were the most sensitive to intervention effects (i.e., elements of the parents' interactions with one another) – may have themselves placed inordinate burden on families and prevented at least some from participating in the intervention. Historically, couple interactions have always been mainstays of observational family research on transitions to new parenthood, and they are obviously one of the evaluations of particular interest in this volume on prenatal family dynamics. Alternatively, it may not have been the couple evaluation per se but rather its administration before adequate rapport and trust had been built with families in advance of the intake that may have created spoken or unspoken parental concerns about what the later program itself might entail. Similar issues sometimes surfaced in the randomized controlled trial that came later, though the team's familiarity with the strains of intake assessments did lead to some important adjustments, including fuller disclosures to families about the specific nature of the assessments and emphases on families' right to refuse partaking of them. We believe that this issue regarding the building-in of a sufficiently extended period for rapport and trust building before assessments, which is decidedly *not* typical for most research studies of transitions to parenthood, is nonetheless of tremendous significance to family researchers seeking to obtain valid assessments of couple processes in unmarried African American families.

In the end, 20 families (of the 61 initially referred) went on to complete the FIOC intervention and take part in 3-month postpartum family assessments. Twenty families were the number that was targeted for the pilot, and the referral-to-yield ratio (three referrals for one enrolled participant family) has been remarkably similar in the current NIH-supported randomized controlled trial, to be discussed shortly. Reasons for nonengagement of families following referral are important to understand. The reasons are numerous, but the most common of these has been difficulty initially engaging either parent at all because of unreliable or often shifting contact information. In addition, some pilot study parents referred by agencies or other community sources appeared to have misunderstood the thrust of the pilot program and so declined after having been contacted. In still other families, one parent was interested in taking part while the other was not. But mostly, a failure to connect initially following referral stood as the largest barrier to engagement and enrollment.

Prenatal Couple Interactions: Normative Findings Perhaps not surprisingly, observational evidence based on couples' interactions and exchanges during the prenatal observational assessment (drawing upon a paradigm utilized in prior coparenting studies from our center; e.g., Baker et al. 2010; McHale and Rotman 2007)

indicated some challenges in communication and problem-solving at the point of intake. After fathers and mothers were videotaped discussing areas of current or potential future child-related disagreement or hesitation (e.g., housing, residence, and overnights; paternal provision of support; childcare and involvement of other kin caregivers; complications of children from prior unions), trained coders rated the discussions using Lindahl and Malik's (2001) System for Coding Interactions in Dyads (SCID). The SCID was a sensible choice for the questions of interest in this study as it assesses numerous dimensions of both relationship strengths and relationship conflicts in couples, including (on the positive side) problem-solving communication, support, and cohesiveness as well as (on the negative side) power, control, and verbal aggression in couple interactions. Analyses of the videotaped interactions revealed relatively few acrimonious clashes but numerous instances of disconnection and inability to engage deeply in extended conflict discussions. Some couples did indeed exhibit more significant signs of distress than others; a few couples also showed signs of adaptive and successful communication skills and strategies.

Postnatal Couple Interactions: Evidence of Change While normatively, challenges were observed at prenatal intake, by 3 months postpartum, nearly all couple interaction processes had shown marked improvement (McHale et al. 2015). Statistically significant changes were documented on dimensions of (increased) problem-solving communication, (increased) mother-father cohesion, and (decreased) coerciveness. In fact, *all* coparenting communication variables examined save for two (withdrawal, pursuit-withdrawal) showed cross-time changes in predicted directions, with effect sizes as follows: two variables (coerciveness, $d = 0.97$; cohesiveness, $d = 0.82$) had large effects, five (conflict, negative escalation, attempts to control, verbal aggression, and problem-solving communication) had moderate effects (d ranging from 0.55 to 0.76), and three (support, dysphoric affect, positive affect) had small effects (d ranging from 0.38 to 0.40). Only withdrawal and pursuit-withdrawal had estimates of no effect. Relevant findings are outlined in greater detail by Mchale et al. (2015).

Postnatal Triangular Dynamics With respect to postnatal family interactions between mother, father, and baby, the pilot study documented numerous important indicators of impact. It is first worth noting that prior to this study, there had been virtually no, and perhaps even no, systematic observational studies of unmarried co-residential and non-co-residential African American mother-father-infant triads during the early postpartum months. In some part, this is because the field itself is still expanding, though there are now well over 100 published coparenting studies that have relied on the field's emerging observational methods and on the especially evocative Lausanne Trilogue Play (LTP) paradigm (McHale et al. 2018), including several in this volume. In larger part, the absence of data on triangles in prior published studies is because the field has rarely conceptualized unmarried mothers and fathers and their babies *as* a triangular system, particularly when they do not share the same residence. Rather, the field has seen only a "2 + 1" system where the "fam-

ily” is comprised of mother and baby, with the father (if he happened to be accessible) construed as an additional support in the mother’s and baby’s life, but not as a vital, indispensable coparental partner. Recognizing the existence and importance of the mother-father-baby triangle, for *every child in every family in every case* is a new paradigm for most family researchers and clinicians. Hence, concrete imagery of such families at work and play, and characterizations of their family’s dynamics, are vitally important to advance understanding, advocacy, and family policy.

In 2014, McHale and Coates published the results of LTP analyses from 19 of the participant families from this pilot study for whom LTP data had been obtained. At 3 months postpartum, only 9 of the 19 families were co-residential. But in all 19, fathers had remained engaged with their children and children’s mothers, and all reported episodic to regular father contact with the baby. Formal coding of coparenting during the LTP was completed using the 3-month version of the Coparenting and Family Rating System (CFRS; McHale et al. 2000; McHale et al. 2004). The CFRS 3-month version has been validated for working class samples and allows for assessment of micro-events as well as for coding of global coparenting processes capturing cooperation, warmth, sensitivity, competitiveness, verbal sparring, overstimulation, and disengagement. The CFRS system has been among the most widely used coparenting rating systems around the world and was first introduced as an observational tool for assessing coparenting in the 1990s. The 3-month version has been described in extensive detail elsewhere (McHale and Coates 2014; McHale et al. 2004; McHale 2007b); given this volume’s central focus on family dynamics, we will also briefly summarize the key codes here.

Cooperation captures the degree to which coparents support one another’s interactions with their infant. Common indicators are shows of affection, use of humor, benign or active support, and (during LTP Part 3) active coaction between parents (when parents synchronize their activities with the infant). A high rating signifies coparents who cooperate, affirm, and support one another at multiple points during the play. A low rating indicates coparents who fail to show mutual coordination and cooperation in their activities.

Family warmth captures the overall pleasure and positive regard. Parents demonstrating high warmth smile at and touch the baby and use playful, gentle, and/or affectionate voice tones; with respect to the coparent, parents may smile, use touch, make eye contact, and/or laugh together. A high rating indicates multiple moments of positive affective connection, while a low score signifies no demonstrations of warmth between the parents and a somber or reserved engagement with the baby.

Coparents’ sensitivity toward the baby captures the extent to which the coparents sensitively tend to and respond contingently and appropriately to signals from the baby. A high rating signifies that both parents are attuned to the child’s signals and do not misread or ignore cues. Low ratings signify that one or both partners misread or misinterpret the infant’s signals and comfort level.

Competition captures the degree to which parents intrude upon and interfere with one another’s interactions with their infant. Examples include distracting the baby when the baby was engaged with the other partner, flirting or talking when in the

role of third-party during Parts 1 and 2 of the LTP, and making comparative comments. High ratings describe families showing numerous clear instances of competitive behavior. Low ratings signify absence of comparative, antagonistic, or competitive remarks.

Verbal sparring captures the frequency of verbal jabs between partners. “Sparring” involves a sequence of one partner making a remark and the other evening the score. A low rating signifies little to no evidence of any back-and-forth sparring at any time. A high rating indicates multiple instances that are unquestionably hostile.

Degree of overstimulation captures the extent to which the parents’ level of activity exceeds infant comfort levels and comes to overwhelm and/or disorganize the baby. Low ratings signify that both parents’ activity is tolerable, modulated, and never unexpected. A high rating indicates overstimulation that is too intensive throughout the session.

Disconnection/disengagement captures the degree to which the family interaction is characterized by twoness, non-threeness, or (less often) separateness. A low score signifies no disinclination to engage by either partner at any point, while a high score signifies repeated disconnection from the partner-baby interaction.

Ratings were completed by two seasoned family researchers familiar with use of the CFRS in diverse samples. McHale and Coates (2014) reported that for approximately half of the families, interactions were characterized by high levels of cooperation and warmth and comparatively low levels of competitiveness and disengagement. In the remaining families, competitiveness (verbal sparring, interference) and/or disengagement (repeated, episodic absenting by one or both parents from the ongoing interaction) was evident during the triadic exchanges, though several of these families also showed indications of positive resources. This latter finding is important to emphasize, because even in those families where some signs of coparental competition or disengagement were in evidence, there were also visible family strengths that could be nurtured and enriched with the right levels of care and attention. Perhaps most importantly, co-residence versus non-co-residence of the parents did *not* distinguish the cooperative from the less cooperative families.

Subsequently, Coates and McHale (2018) reported detailed microanalyses of the triangular exchanges, revealing several other formidable and initially undetected strengths that were embedded within the sequences of interaction. Among these were signs of intuitive parenting by fathers, particularly in response to infant bids. Over three quarters of infants’ bids to fathers were matched by the father in an attuned manner, whether affectively, behaviorally, or both. Moreover, in response to instances of father-baby connection, mothers overwhelmingly reacted themselves with affirmation and pleasure rather than with prohibitions. Given the negative focus in much of the literature on early family dynamics invoking the metaphor of maternal “gatekeeping” (see McHale and Phares 2015, for commentary on this issue), these direct observational data revealing connection and harmony in the triad rather than dissonance and disturbance provide additional, important information to family scholars interested in understanding culture-bound dynamics of families.

Parents' Sentiments About the Intervention An important element of the pilot work was determining whether participating families found the intervention acceptable and relevant to their family situations. The answer to this question was a decisive "yes." Satisfaction ratings for completer families overwhelmingly signified that both parents had had positive experiences (Salman-Engin et al. 2016). Independently, mothers and fathers were interviewed within a month of the intervention's conclusion. Embedded in these interviews were 11 questions that parents were asked to rate on a scale of 1 (strongly disagree) to 6 (strongly agree). The questions included items such as: "FIOC is a good way to handle our baby's needs"; "I am willing to use what we learned in FIOC with my coparent." For mothers who completed the intervention, satisfaction ratings on the 6-point scale ranged from a low of 5.43 for "FIOC will help to change our baby's life chances" to a high of 6.0 (all respondents providing ratings of 6) for "I liked FIOC." Satisfaction ratings for fathers who completed the intervention (on a 6-point scale) ranged from 5.62 for "Overall, FIOC should help our baby" to 5.92 for "I liked FIOC." A final indicator of appeal and relevance was that nearly 20% of completer families provided personal referrals of friends and acquaintances to the project following their own participation. These data are especially important, demonstrating that FIOC did indeed have interest and appeal to the target population of both expectant unmarried co-residential and expectant unmarried non-co-residential African American parents.

The intriguing leads provided by the pilot project prompted the undertaking of a larger scale randomized controlled trial to test the efficacy of the FIOC intervention for lower socioeconomic African American mothers and fathers having a first baby together. Though white middle-class families have long benefitted from family-strengthening interventions at the transition to new parenthood (Cowan and Cowan 1995; Feinberg and Kan 2008; Pinquart and Teubert 2010), such opportunities remain rare in African American communities. More to the point, prenatal interventions promoting positive coparenting alliances in unmarried families are still very much needed on the national landscape. Unfortunately, few interventions – even well regarded ones that address both couple and parenting issues before the baby arrives – focus on working with both parents together to create a positive and sustained coparenting alliance. Feinberg and Kan (2008) have offered one of the lone exceptions, but theirs was a coparenting intervention developed for and tested with committed (mostly white) residential couples. Coparenting interventions designed by Adler-Baeder and Higginbotham (2004), Cox and Shirer (2010), and Fagan (2008) enrolling lower-income parents and somewhat greater numbers of African American participants delivered interventions to just one parent, not both. And one study by Florsheim et al. (2012; also see Chap. 13 in this volume) that did successfully connect with young expectant couples around coparenting enrolled Hispanic youth. In short, on the landscape of interventions for unmarried families transitioning to parenthood, the FIOC framework stood as unique. At its point of inception, there existed no evidence-based coparenting interventions based on programming studies specifically designed to support unmarried co-resident or non-co-resident African American parents.

Ongoing Efforts: A Randomized Controlled Trial of the FIOC Intervention

Having established the acceptability and promise of the FIOC intervention for strengthening the coparental alliance between unmarried African American parents (among whom there was often conflict but without expressed concerns about ongoing intimate partner violence), we then set out to test two additional important questions: (1) Does participation in FIOC improve coparenting and infant and family health outcomes *when compared to treatment as usual* in the community? (2) Do mothers and fathers who may have been experiencing some levels of interpersonal aggression – beyond verbal arguments – benefit from FIOC? Understanding who can benefit from FIOC is vitally important, and exploration of this question must be approached cautiously and knowledgeably.

The BSF study had found increases in IPV at one of its eight performance sites (Wood and Tarrier 2010), particularly for couples in on again off again relationships. While the reasons were not entirely clear, it is certainly possible that BSF may have unwittingly placed such participants in potentially harmful circumstances by emphasizing couple relationship issues rather than focusing on cooperative coparenting. Pregnancy can be a particularly stressful time for couples, and it is a time of increased risk for IPV onset (Painter and Dutton 1985). Moreover, among those who already have a prior history of IPV, pregnancy is associated with significantly higher rates of IPV (Helton and Snodgrass 1987; Martin et al. 2004; Stewart and Cecutti 1993). Violence during pregnancy also strongly predicts violence after pregnancy (Charles and Perreira 2007), and IPV is especially common in families with young children (Slep and O’Leary 2005). Exposure to IPV, especially very early in life, increases child risk for exposure to other types of trauma and violence, as well as psychosocial and psychiatric difficulties (Kitzmann et al. 2003; Stover et al. 2019a, b).

Despite these sobering data, families stand to benefit from services that prevent a pattern of violence during pregnancy and the transition to parenthood, as the parenthood transition can also consolidate positive psychological changes for men involved in parenting (Palkovitz 2002). One of the coauthors (Stover) has focused her research on evaluating interventions for families impacted by violence (Stover et al. 2010; Stover et al. 2009a, b; Stover et al. 2008). Fathers for Change (Stover 2015) is a fatherhood-focused intervention for men with co-occurring IPV and substance misuse, targeting their father role to build motivation for change related to IPV and coparenting communication. Findings indicate that engaging with men *as fathers* may motivate them to engage in interventions to help prevent prenatal and early emergence of IPV (Stover 2013; Stover et al. 2013; Stover 2015; Stover et al. 2017; Stover et al. 2019a, b). Based on this work, there was reason to explore the possibility that FIOC may benefit not just families with low to no aggression occurring at home but also families reporting mild to moderate levels of aggression (but without significant coercive controlling behaviors or intense safety issues that accompany dangerous levels of violence and serve as a strong contraindication to

conjoint work). That is, the RCT methodology provided opportunity to test the preventive benefit of the FIOC coparenting intervention not only for reducing father disengagement but also for mitigating the emergence or continuation of intimate partner violence.

The ongoing RCT study is enrolling 150 families with random assignment to either a treatment-as-usual (TAU) county services for pregnant parents condition, supported by the assistance of the resource and referral navigator in pursuit of referrals to desired services, or to the same TAU services with navigator aid, augmented (if the family wishes) by the six-session prenatal FIOC intervention with a postnatal booster session. Families are eligible to take part if the pregnancy is the mother's first with the baby's father, the mother and father are unmarried, and either mother, father, or both are African American. If participants disclose a prior history of IPV, they are still eligible to participate depending upon assessment performed by trained project staff using the Conflict Tactics Scale Revised (CTS2) and the Danger Assessment Scale (DAS; Campbell et al. 2003, administered to mothers only). Families are excluded if they (1) demonstrate evidence of psychotic symptoms or suicidal ideation on the Brief Symptom Inventory or (2) are deemed high risk or in need of more intensive intervention. The project's definition of "in need of more intensive intervention" is operationalized as DAS scores of 10 or higher or endorsement of any of the following items: (1) she has required medical care because of significant injuries due to his violence, (2) fear for her life, (3) threats with a weapon, and (4) threats to kill her. Inclusion and exclusion criteria respond to the crucial public health value of evaluating interventions like FIOC for families in which fathers have some contact with their children even as IPV is present.

Since the FIOC intervention appeals to parents' motivation to create healthy early family environments for their shared children, any and every man who aspires to be actively involved in his child's life stands as an important, essential partner in promoting the baby's health. Only if major psychiatric impediments such as psychotic symptoms or significant suicidal ideation actively interfere might the father (and/or mother, if she is the one communicating such needs) be excluded from participation – until he or she can benefit first from mental health intervention that properly attends to current levels of acute psychological need. In such instances, connection with mental health services must take priority, though the eventual goal always remains to work with both father and mother together as a coparenting team, as soon as is clearly safe for both parents and baby to come together for such family-strengthening activities.

The RCT study is utilizing best practices for recruitment of high-risk families into family-based prevention intervention and prevention research (Hogue et al. 1999) and has devoted considerable time and resources to engagement efforts. Direct community outreach has been a core recruiting strategy. In-home recruitment visits are scheduled for families who express some interest during phone calls but remain unsure if FIOC is a good fit. Both female and male team members, as indicated, are available to visit and talk directly with potential clients in the community. Visits are scheduled at the mother's and father's convenience to facilitate the initiation of trust and a working alliance with the parents and demonstrate the program's

commitment to serving families and flexibility in meeting families' needs (Hogue et al. 1999). Such outreach strategies, advocated by the Administration for Children and Families' BSF programs (c.f. Dion et al. 2003), and drawing on experiences of the African American Healthy Marriage Initiative, have been successful adjuncts to direct referrals received from prenatal healthcare partners.

If a parent is interested but is a minor, a staffer travels to the minor's parent's/guardian's residence to explain the study and seek caregiver consent. Legally emancipated minors can take part in the study without parental consent if they elect to do so. During recruitment visits, parents are told the purpose of the study (to understand factors that promote early infant and family adjustment) and that participation will involve pre- and postnatal assessments. They also learn of the six FIOC mentoring sessions available to a subset of families in the study and that they will discover whether they will be offered an opportunity to partake of the six FIOC sessions after they've completed their intake visit. All mothers and fathers, regardless of their group assignment, receive a \$25 gift card for completing intake assessments, a \$50 card for 3-month postnatal assessments, and a \$75 card for 12-month postnatal assessments. Transportation is made available via Uber whenever needed.

To increase the likelihood that treatment groups are balanced with respect to demographic variables (presence or absence of children from prior unions), current services (whether or not father is currently enrolled in a fatherhood program), and prognostic variables (presence or absence of reported IPV), the 150 enrolled participants are being assigned to treatment conditions through urn randomization, using a Microsoft Access-based program. In urn randomization, an algorithm modifies ongoing randomization probabilities based on prior composition of treatment groups and maximizes multivariate equivalence of treatment groups (Stout et al. 1994). Thus, urn randomization offers the benefits of balancing allocation of important prognostic variables in treatment groups while still retaining other benefits of random assignment (Wei 1978).

The prenatal intake (prior to the intervention) and 3- and 12-month postpartum assessments evaluate parents' beliefs about fatherhood, extent of depressive symptomatology, and quality of the mother-father partnership. Mother-father and mother-father-child coparenting interactions along with observations of infants' triangular capacity (evaluated during the LTP) are completed at 3- and 12-month postpartum follow-up. Also, at 3 and 12 months, parents report on levels of parenting stress, perceived coparenting support, father engagement, and infant socioemotional adjustment (12 months only). The study is testing the hypotheses that FIOC will result in significantly greater (a) cooperation and communication among coparents; (b) infant regulatory, socioemotional, and triangular capacity; and (c) father involvement. The study will also provide important new data concerning (a) whether children of more involved fathers will show greater regulatory and socioemotional competence at 12 months postpartum and (b) whether IPV is likely to be more prevalent during the child's first year among TAU families than among families who complete the FIOC intervention.

All scales and measures used to assess the key constructs possess acceptable psychometric properties and have been used in prior studies of parenting and coparenting.

renting with related samples and related study aims. Individual self-report scales and measures are embedded within the FFWB interview protocol, and response keys are used for parents with poorer reading levels. Details of the instruments and measures follow:

Predictor Variables: Measures Taken at Pregnancy Only

Risk Histories are reported by both mother and by father: The FFWB scale assessing background degree of family risk is administered at intake along with the Adverse Childhood Experiences questionnaire.

Outcome Variables: Changes in Measures from Pregnancy to 3 and 12 Months Postpartum

1. Beliefs About Fathering. Positive beliefs about importance of father involvement rated by mother and by father on a six-item set from the FFWB protocol.
2. Depressive Symptoms of Mother and of Father. The Edinburgh Depression Scale (EDS; Cox et al. 1987), ten statements rated on a scale of 0 to 3 (never to always), yields a score ranging from 0 to 30. The EDS has satisfactory sensitivity and specificity for both women (Murray and Carothers 1990) and men (Edmondson et al. 2010) and is sensitive to changes in severity of depression over time (Cox et al. 1987).
3. Overall Quality of Relationships as Reported by Mother and by Father. Positive and Negative Quality in Relationships Scale (PANQIRS; Fincham and Linfield 1997), a six-item global assessment of positive and negative relationship quality valid for use with unmarried partners (Mattson et al. 2007).

Outcome Variables: Coparenting Indicators at 3 and 12 Months Postpartum

4. Mother-Father Conflict and Collaboration During Coparenting Discussions. Evaluated from couple problem-solving discussions as described earlier, using the SCID.
5. Felt Coparenting Support. Assessed using Abidin and Konold's (1999) 20-item Parenting Alliance Measure (PAM), on a five-point self-report scale (1 = strongly disagree; 5 = strongly agree), each parent rates how cooperative, communicative, and mutually respectful the coparent is with regard to caring for the baby.
6. Observed Coparenting Behavior During Trilogue Interaction. All families are observed in Fivaz-Depeursinge and Corboz-Warnery's (1999) four-part Lausanne Trilogue Play: (a) first one parent plays with baby, while the other parent is just present; (b) parents switch roles; (c) all three family members play together; (d) parents are active, and baby is placed in the third-party position (for further details, see Chap. 3 in this volume). Coparenting during the LTP is evaluated using the 3-month version of the Coparenting and Family Rating System (CFRS; McHale et al. 2000), as described above.

Outcome Variables: Other Family Adaptation Measures (at 3 and 12 Months Only)

1. Degree of Parenting Stress. Assessed by the 36-item Parenting Stress Index-Short Form (PSI-SF), validated in a low-income African American population (Reitman et al. 2002). The PSI-SF's 36 items come from the original 120-item

PSI. Items are identical and yield scores on three subscales: (1) parental distress, (2) parent-child dysfunctional interaction, and (3) difficult child.

2. Father Engagement. Using an internally consistent and valid scale from the Early Head Start father study (Cabrera et al. 2004), parents rate three types of activities (verbal stimulation, caregiving, and physical play). For the *verbal stimulation* subscale, respondents rate how frequently (four-point Likert scale) in a typical week the father engaged with the infant by reading books, telling stories, and singing songs. For the *caregiving* subscale (six-point Likert), respondents rate how frequently in the past month the father changed diapers, prepared meals or bottles, fed the baby, put the baby to sleep, washed or bathed the baby, and dressed the baby. For the *physical play* subscale, respondents rate, on a six-point Likert scale, how often in the past month they tickled the baby, blew on the baby's belly, and held the baby to play with him.

Outcome Variables: Individual Differences in Babies' Adaptation

- (a) Infants' Triangular Capacities. Because coparenting is a triangular construct, it is extremely important to take stock on the *infant's contribution* to the evolving family dynamic. Within the context of the LTP, the baby's contribution can be estimated, in part, by an assessment of the child's emerging triangular capacity or capacity to share interest and attention back-and-forth with both the mother and father. Three-month-olds' deployment of attention and affect during the LTP interactions with their parents in this RCT are rated for *gaze frequency* and *duration* (at mother's face, at father's face, elsewhere); *affective configurations* during periods of gaze at either parent (social engagement, social monitoring, tense monitoring, active protest, and nonengagement); and *triangular bids* (i.e., the infant's response to parental solicitations as well as initiative by the infant, as either triangular engagement, triangular monitoring, triangular tension, or triangular protest).
- (b) Social and Emotional Competencies and Challenges. The 42-item Brief Infant Toddler Social Emotional Assessment (BITSEA; Briggs-Gowan et al. 2006), a screening test for children ages 12–36 months, is completed by parents to estimate the one-year-old's social-emotional competencies and behavioral issues within four domains: competence, internalizing, externalizing, and dysregulation. It has excellent test-retest and inter-rater reliability, criterion, and discriminant validity (Carter et al. 2003).

Outcome Variables: Intimate Partner Violence. IPV is estimated using the 78-item Conflict Tactics Scale-Revised (CTS2). There are 39 behaviors or experiences, each of which is asked once for the respondent and once for the partner. Hence, both mothers and fathers self-report their own as well as their partner's behaviors. Response categories query the frequency with which acts were used during conflict with a partner in the past year and for the lifetime of their relationship. They also include options of "Never in the last year, but it did happen before that" and "This has never happened." The CTS2 is comprised of five subscales: negotiation, psychological aggression, physical assault, injury, and sexual coercion (Straus et al. 1996).

To reduce response burden, the negotiation scale was eliminated for this study. The CTS2 has consistently been shown to have good reliability and validity. At follow-up, participants responded to a query about the number of times each incident had occurred since their last interview.

Out of an abundance of caution, at each interview point, the CTS2 is administered to the father only at the end of his interview (whereas for mothers, the DAS and CTS2 are administered at the start of the interview, to gauge present levels of safety). If a mother were to disclose an active safety concern (this has happened only once in over 400 sessions), the assessor moves to engage in safety planning with the mother instead of completing the remainder of the interview protocol. She would also alert the male assessor through a prearranged convention (delivery of a folder) that he should not ask the CTS2 questions to the father at all. In this way the father would not be alerted that the mother had even been asked about IPV. We decided we wanted to query fathers as well as mothers about IPV (albeit only once it was determined safe to do so), not just to obtain fathers' perspectives on their own aggressive behavior but also because we felt it important to hear from fathers about any aggression or violence they themselves may be encountering. Men also experience IPV at high rates; estimates are that one in four men will experience IPV in their lifetime (Breiding et al. 2014).

Among the new grounds being broken by this study, it promises to provide some of the first data assembled regarding prevalence of different levels of IPV in a community sample of expectant lower socioeconomic co-residential and non-co-residential African American parents. At the time of this chapter's writing, only about 15% of the 150 families who had completed intakes could not be safely randomized given levels of concern with IPV or other significant mental health concerns.

Summary and Conclusions

In this chapter, we have summarized what we have learned in pilot work to date about important prenatal and postnatal indicators of coparental and family functioning among lower socioeconomic unmarried African American families expecting a first child together and detailed the emergence of a new intervention specifically designed to bring a coparenting-strengthening program to such families. The community-designed and community-based intervention had shown promise of strengthening early coparental relationships in a pilot feasibility study and is now being tested in a randomized controlled trial sponsored by the National Institutes of Health. Findings to date indicate that most families referred from health and human service agencies serving pregnant mothers, and from community outreach, can be safely randomized to the intervention.

We emphasize the importance of completing research studies such as this within a culturally grounded framework that acknowledges mother-father coparenting as traditionally valued and normative, from a lens that does not proceed from a deficit

perspective, in a manner that addresses families' own perceived needs first (prior to summoning their participation in an intervention others believe will be helpful to them), and utilizing a family science framework that calls upon observational measures using both global and microanalyses to document family strengths. Finally, we advocate that whenever faced with circumstances in which African American parents are not showing up to take part in family-strengthening interventions that have been designed by well-meaning others, there is value in asking whether there might be potential deficits and shortcomings of the programming and programmers rather than concluding that the deficits lie within the families themselves. When circumstances are right, families do attend, invest, and benefit from such interventions in much the same ways as families in majority cultures do – when programming suits their needs. The design of programs honoring the sensibilities of diverse families continues to be an area of great importance, and when such programming can be cocreated with the communities it is intended to serve, maximal benefit is possible.

Acknowledgments Acknowledgements of funding: Work described in this chapter has been supported by the National Institute of Child Health and Development R01 HD082211.

“Randomized Controlled Trial of Prenatal Coparenting Intervention for African American Fragile Families” and by Brady Education Foundation Early Childhood Grant “Figuring It Out for the Child: Promoting coparenting alliances of expectant unmarried African American parents”

The authors thank Vikki Gaskin-Butler, Gypsy Gallardo, Yana Sirotkin, Michael Coovert, Kimberly Brown-Williams, Mari Kittle, Serina Lewis, Linda Kraus, Christopher Warren, Carole Alexander, Ray Hensley, Erica Coates, Selin Salman-Engin, Caylen Holmes, Florence Guillet, Pierre Guillet, Chris Davis, Laverne Feaster, Eric Armstrong, Rashid Mizell, Michael Watkins, Thomas Riggins, Shavon Gibson, Amber Tellis, Naisha Reid, Princess Denise Wright, James Oliver, Teresa Girard, Lisa Zawistowski, Tara Earle, Kyle DePalma, Boris Wooden, Latoya Jordan, and Jessica Peterson for their assistance with various phases of the work described in this chapter.

References

- Abidin, R. R., & Konold, T. R. (1999). *Parenting Alliance measure professional manual*. Odessa, Psychological Assessment Resources.
- Adler-Baeder, F., & Higginbotham, B. (2004). Implications of remarriage and stepfamily formation for marriage education. *Family Relations*, 53, 448–458. <https://doi.org/10.1111/j.0197-6664.2004.00053.x>.
- Baker, J., McHale, J., Strozier, A., & Cecil, D. (2010). The nature of mother-grandmother coparenting alliances in families with incarcerated mothers: A pilot study. *Family Process*, 49, 165–184. <https://doi.org/10.1111/j.1545-5300.2010.01316.x>.
- Blankenhorn, D. (1995). *Fatherless America: Confronting our most urgent social problem*. New York: Basic Books.
- Boyd-Franklin, N. (1995). Therapy with African American inner-city families. In R. H. Mikesell (Ed.), *Integrating family therapy: Handbook of family psychology and systems theory* (pp. 357–371). American Psychological Association.
- Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014, September 5). Prevalence and characteristics of sexual violence, stalking, and intimate partner

- violence victimization: National Intimate Partner and Sexual Violence Survey, United States, 2011. *Morbidity and Mortality Weekly Report, Surveillance Summaries*, 63, 1–18.
- Briggs-Gowan, M. J., Carter, A. S., Bosson-Heenan, J., Guyer, A. E., & Horwitz, S. M. (2006). Are infant toddlers social-emotional and behavior problems transient? *Journal of the American Academy of Child and Adolescent Psychiatry*, 45, 849–858. <https://doi.org/10.1097/01.chi.0000220849.48650.59>.
- Cabrera, N. J., Ryan, R. M., Shannon, J. D., Brooks-Gunn, J., Vogel, C., Raikes, H., et al. (2004). Low-income fathers' involvement in their toddlers' lives: Biological fathers from the Early Head Start Research and Evaluation Study. *Fathering*, 2, 5–30. <https://doi.org/10.3149/fth.0201.5>.
- Campbell, J. C., Webster, D., Koziol-McLain, J., Block, C., Campbell, D., Curry, M. A., et al. (2003). Risk factors for femicide in abusive relationships: Results from a multisite case control study. *American Journal of Public Health*, 93(7), 1089–1097. <https://doi.org/10.2105/ajph.93.7.1089>.
- Carlson, M., & McLanahan, S. S. (2002). Father involvement, fragile families, and public policy. In C. Tamis-LeMonda & N. Cabrera (Eds.), *Handbook of father involvement* (pp. 461–488). Mahwah: Erlbaum.
- Carlson, M. J., McLanahan, S. S., & Brooks-Gunn, J. (2008). Coparenting and nonresident fathers' involvement with young children after a nonmarital birth. *Demography*, 45(2), 461–488. <https://doi.org/10.1353/dem.0.0007>.
- Carter, A. S., Briggs-Gowan, M. J., Jones, S. M., & Little, T. D. (2003). The Infant-Toddler Social and Emotional Assessment (ITSEA): factor structure, reliability, and validity. *Journal of Abnormal Child Psychology*, 31, 495–514. <https://doi.org/10.1023/a:1025449031360>.
- Cassiman, S. A. (2008). Resisting the neo-liberal poverty discourse: On constructing Deadbeat Dads and Welfare Queens. *Sociology Compass*, 2, 1690–1700. <https://doi.org/10.1111/j.1751-9020.2008.00159.x>.
- Charles, P., & Perreira, K. M. (2007). Intimate Partner Violence during pregnancy and 1-year postpartum. *Journal of Family Violence*, 22, 609–619. <https://doi.org/10.1007/s10896-007-9112-0>.
- Coates, E., & McHale, J. (2018). Triangular interactions of unmarried African American mothers and fathers with their 3-month-old infants. *Journal of Child and Family Studies*, 27, 3096–3106. <https://doi.org/10.1007/s10826-018-1082-8>.
- Coley, R. L., & Chase-Lansdale, P. L. (1999). Stability and change in paternal involvement among urban African American fathers. *Journal of Family Psychology*, 13(3), 416–435. <https://doi.org/10.1037/0893-3200.13.3.416>.
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to ease the transition to parenthood: Why they are needed and what they can do. *Family Relations: Journal of Applied Family & Child Studies*, 44, 412–423. <https://doi.org/10.2307/584997>.
- Cox, R., & Shirer, K. (2010). Caring for my family: A pilot study of a relationship and marriage education program for low-income unmarried parents. *Journal of Couple & Relationship Therapy*, 8, 343–364. <https://doi.org/10.1080/15332690903246127>.
- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782–786. <https://doi.org/10.1192/bjp.150.6.782>.
- Danziger, S., & Radin, N. (1990). Absent does not equal uninvolved: Predictors of fathering in teen mother families. *Journal of Marriage and Family*, 52(3), 636–642. <https://doi.org/10.2307/352930>.
- Dion, M. R., Devaney, B., McConnell, S., Ford, M., Hill, H., & Winston, P. (2003). *Helping unwed parents build strong and healthy marriages: A conceptual framework for interventions* (Report no. 8785-401 to the U.S). Washington, DC: Department of Health and Human Services. Mathematica Policy Research.
- Dion, M. R., Avellar, S. A., Zaveri, H. H., & Hershey, A. M. (2006). *Implementing healthy marriage programs for unmarried couples with children: Early lessons from the Building Strong*

- Families Project*. Washington, DC: Mathematica Policy Research, Inc. <https://doi.org/10.1037/e565622012-001>.
- Doherty, W. J., Erickson, M. F., & LaRossa, R. (2006). An intervention to increase father involvement and skills with infants during the transition to parenthood. *Journal of Family Psychology*, 20(3), 438–447. <https://doi.org/10.1037/0893-3200.20.3.438>.
- Edin, K. (2000). What do low-income single mothers say about marriage? *Social Problems*, 47(1), 112–133. <https://doi.org/10.1525/sp.2000.47.1.03x0282v>.
- Edmondson, O. J., Psychogiou, L., Vlachos, H., Netsi, E., & Ramchandani, P. G. (2010). Depression in fathers in the postnatal period: assessment of the Edinburgh Postnatal Depression Scale as a screening measure. *Journal of Affective Disorders*, 125(1–3), 365–368. <https://doi.org/10.1016/j.jad.2010.01.069>.
- Fagan, J. (2008). Randomized study of a prebirth coparenting intervention with adolescent and young fathers. *Family Relations*, 57(3), 309–323.
- Feinberg, M. E., & Kan, M. L. (2008). Establishing family foundations: Intervention effects on coparenting, parent/infant well-being, and parent-child relations. *Journal of Family Psychology*, 22(2), 253–263. <https://doi.org/10.1037/0893-3200.22.2.253>.
- Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriage? *Journal of Family Psychology*, 11, 489–502. <https://doi.org/10.1037/0893-3200.11.4.489-502>.
- Fivaz-Depeursinge, E., & Corboz-Warnery, A. (1999). *The primary triangle: A developmental systems view of mothers, fathers, and infants*. New York: Basic Books.
- Florsheim, P., Burrow-Sanchez, J., Minami, T., McArthur, L., Heavin, S., & Hudak, C. (2012). Young Parenthood Program: Supporting positive paternal engagement through coparenting counseling. *American Journal of Public Health*, 102(10), 1886–1892.
- Garfinkel, I., McLanahan, S., & Harknett, K. (2001). Fragile families and welfare reform. *Children and Youth Services Review*, 23(1), 110–110.
- Gaskin-Butler, V. T., McKay, K., Gallardo, G., Salman-Engin, S., Little, T., & McHale, J. P. (2015). Thinking 3 rather than 2 + 1: How a coparenting framework can transform infant mental health efforts with unmarried African American parents. *Zero to Three*, 35(5), 49–58.
- Helton, A. S., & Snodgrass, F. G. (1987). Battering during pregnancy: Intervention strategies. *Birth Issues in Prenatal Care*, 14(3), 142–147. <https://doi.org/10.1111/j.1523-536x.1987.tb01476.x>.
- Hogue, A., Johnson-Leckrone, J., & Liddle, H. A. (1999). Recruiting high-risk families into family-based prevention and prevention research. *Journal of Mental Health Counseling*, 21, 337–351.
- Karakurt, G., Whiting, K., Esch, C., Bolen, S. D., & Calabrese, J. R. (2016). Couples therapy for intimate partner violence: A systematic review and meta-analysis. *Journal of Marital and Family Therapy*, 42(4), 567–583. <https://doi.org/10.1111/jmft.12178>.
- Kitzmann, K. M., Gaylord, N. K., Holt, A. R., & Kenny, E. D. (2003). Child witnesses to domestic violence: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 71(2), 339–352. <https://doi.org/10.1037/0022-006x.71.2.339>.
- Lerman, R., & Sorenson, E. (2000). Father involvement with their nonmarital children: Patterns, determinants, and effects on their earnings. *Marriage and Family Review*, 29, 137–158. https://doi.org/10.1300/j002v29n02_09.
- Lindahl, K. M., & Malik, N. M. (2001). The system for coding interactions and family functioning. In P. K. Kerig & K. M. Lindahl (Eds.), *Family observational coding systems: Resources for systemic research* (pp. 77–91). Mahwah: Erlbaum.
- Lu, M. C., Kotelchuck, M., Hogan, V., Jones, L., Wright, K., & Halfon, N. (2010). Closing the black-white gap in birth outcomes: A life-course approach. *Ethnicity & Disease*, 20(1 Suppl 2), S2-62–S2-76.
- Martin, S. L., Mackie, L., Kupper, L. L., Buescher, P. A., & Moracco, K. E. (2004). Physical abuse of women before, during, and after pregnancy. *JAMA*, 285(12), 1581–1584. <https://doi.org/10.1001/jama.285.12.1581>.

- Martinson, K., & Nightingale, D. (2008). *Ten key findings from responsible fatherhood initiatives*. Washington, DC: The Urban Institute. <https://doi.org/10.1037/e724162011-001>.
- Mattson, R. E., Paldino, D., & Johnson, M. D. (2007). The increased construct validity and clinical utility of assessing relationship quality using separate positive and negative dimensions. *Psychological Assessment*, *19*(1), 146–151. <https://doi.org/10.1037/1040-3590.19.1.146>.
- McHale, J. P. (2007). When infants grow up in multiperson relationship systems. *Infant Mental Health Journal*, *28*, 370–392. <https://doi.org/10.1002/imhj.20142>.
- McHale, J. (2007b). Coparenting difficulties: Effects on infants and toddlers. *ZERO TO THREE Journal*, *27*, 57–61.
- McHale, J. P. (2009). Shared child-rearing in nuclear, fragile, and kinship family systems: Evolution, dilemmas, and promise of a coparenting framework. In M. Schulz, M. Pruett, P. Kerig, & R. Parke (Eds.), *Strengthening couple relationships for optimal child development: Lessons from research and intervention* (pp. 77–94). Washington, D.C: American Psychological Association.
- McHale, J., & Carter, D. (2012). Applications of Focused Coparenting Consultation with unmarried and divorced families. *Independent Practitioner*, *32*, 106–110.
- McHale, J. P., & Coates, E. E. (2014). Observed coparenting and triadic dynamics in African American fragile families at 3 months' postpartum. *Infant Mental Health Journal*, *35*(5), 435–451. <https://doi.org/10.1002/imhj.21473>.
- McHale, J. P., & Irace, K. (2011). Coparenting in diverse family systems. In J. P. McHale & K. M. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems* (pp. 15–37). Washington, DC: American Psychological Association. <https://doi.org/10.1037/12328-001>.
- McHale, J., & Lindahl, K. (2011). Introduction: What is coparenting? In J. P. McHale & K. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems* (pp. 3–12). Washington, DC: American Psychological Association Press.
- McHale, J., & Phares, V. (2015). From dyads to family systems: A bold new direction for Infant Mental Health practice. *ZERO TO THREE Journal*, *35*, 1–8.
- McHale, J. P., & Rotman, T. (2007). Is seeing believing? Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior and Development*, *30*, 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J. P., Kuersten-Hogan, R., Lauretti, A., & Rasmussen, J. L. (2000). Parental reports of coparenting and observed coparenting behavior during the toddler period. *Journal of Family Psychology*, *14*, 220–236. <https://doi.org/10.1037/0893-3200.14.2.220>.
- McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Liebersohn, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology*, *16*, 711–733. <https://doi.org/10.1017/s0954579404004742>.
- McHale, J., Waller, M., & Pearson, J. (2012). Coparenting interventions for fragile families: What do we know and where do we need to go next? *Family Process*, *51*, 284–306. <https://doi.org/10.1111/j.1545-5300.2012.01402.x>.
- McHale, J., Gaskin-Butler, V., McKay, K., & Gallardo, G. (2013). Figuring it out for the child: Fostering coparenting in unmarried expectant African American parents. *ZERO TO THREE Journal*, *33*, 17–22.
- McHale, J. P., Salman, E. S., & Coovert, M. D. (2015). Improvements in unmarried African American parents' rapport, communication, and problem-solving following a prenatal coparenting intervention. *Family Process*, *54*(4), 619–629. <https://doi.org/10.1111/famp.12147>.
- McHale, J., Favez, N., & Fivaz-Depeursinge, E. (2018). The Lausanne Trilogue Play paradigm: Breaking discoveries in family process and therapy. *Journal of Child and Family Studies*, *27*, 3063–3072. <https://doi.org/10.1007/s10826-018-1209-y>.
- McLanahan, S., & Carlson, M. (2003). Fathers in Fragile families *The Role of the Father in Child Development*, *4*, 368–396. New York: Wiley.

- Mixon. (1999). Deadbeat dads: Undeserving of the Right to inherit from their illegitimate children and undeserving of equal protection. *Georgia Law Review*, 34, 1773.
- Mott, F. (1994). Sons, daughters and fathers' absence: Differentials in father-leaving probabilities and in home environments. *Journal of Family Issues*, 15(1), 97–128. <https://doi.org/10.1177/019251394015001005>.
- Murray, L., & Carothers, A. (1990). The validation of the Edinburgh Post-natal Depression Scale on a community sample. *British Journal of Psychiatry*, 157(2), 288–290. <https://doi.org/10.1192/bjp.157.2.288>.
- Ooms, T. (2002). Marriage plus. *American prospect*. Retrieved from <http://prospect.org/article/marriage-plus>
- Ooms, T., & Wilson, P. (2004). The challenges of offering relationship and marriage education to low-income populations. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 53(5), 440–447. <https://doi.org/10.1111/j.0197-6664.2004.00052.x>.
- Painter, S. L., & Dutton, D. (1985). Patterns of emotional bonding in battered women: Traumatic bonding. *International Journal of Women's Studies*, 8(4), 363–375.
- Palkovitz, R. (2002). Involved fathering and child development: Advancing our understanding of good fathering. In C. S. Tamis-LeMonda & N. Cabrera (Eds.), *Handbook of father involvement: Multidisciplinary perspectives* (pp. 119–140). Mahwah: Erlbaum.
- Pinquart, M., & Teubert, D. (2010). Effects of parenting education with expectant and new parents: A meta-analysis. *Journal of Family Psychology*, 24(3), 316–327. <https://doi.org/10.1037/a0019691>.
- Reitman, D., Currier, R. O., & Stickle, T. R. (2002). A critical evaluation of the Parenting Stress Index—Short Form (PSI-SF) in a Head Start population. *Journal of Clinical Child and Adolescent Psychology*, 31(3), 384–392. https://doi.org/10.1207/s15374424jccp3103_10.
- Roy, K., & Burton, L. (2007). Mothering through recruitment: Kinscription of nonresidential fathers and father figures in low-income families. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 56(1), 24–39. <https://doi.org/10.1111/j.1741-3729.2007.00437.x>.
- Salman-Engin, S., Little, T., Gaskin-Butler, V., & McHale, J. (2016). A prenatal coparenting intervention with unmarried father-mother dyads: Fidelity of intervention delivery by male-female community mentor teams. *Journal of Nursing Research*, 25(3), 240–250. <https://doi.org/10.1097/jnr.000000000000168>.
- Seltzer, J. A. (1991). Relationships between fathers and children who live apart: The father's role after separation. *Journal of Marriage and the Family*, 53, 79–101. <https://doi.org/10.2307/353135>.
- Slep, A. M. S., & O'Leary, S. G. (2005). Parent and partner violence in families with young children: Rates, patterns, and connections. *Journal of Consulting and Clinical Psychology*, 73(3), 435–444. <https://doi.org/10.1037/0022-006x.73.3.435>.
- Sorensen, E., Mincy, R., & Halpern, A. (2000). *Redirecting welfare policy toward building strong families*. Washington, DC: The Urban Institute. <https://doi.org/10.1037/e725122011-001>.
- Stewart, D. E., & Cecutti, A. (1993). Physical abuse in pregnancy. *Canadian Medical Association Journal*, 149(9), 1257–1263. <https://doi.org/10.1097/00006254-199407000-00007>.
- Stier, H., & Tienda, M. (1993). Are men marginal to the family? Insights from Chicago's inner city. In J. C. Hood (Ed.), *Men, work, and family* (pp. 23–44). Newbury Park: Sage.
- Stout, R. L., Wirtz, P. W., Carbonari, J. P., & Del Boca, F. K. (1994). Ensuring balanced distribution of prognostic factors in treatment outcome research. *Journal of Studies on Alcohol*, 12, 70–75. <https://doi.org/10.15288/jsas.1994.s12.70>.
- Stover, C. S. (2013). Fathers for change: A new approach to working with fathers who perpetrate intimate partner violence. *Journal of the American Academy of Psychiatry and Law*, 41(1), 65–71. <https://doi.org/10.1037/e621642012-197>.
- Stover, C. S. (2015). Fathers for Change for intimate partner violence and substance abuse: Initial community pilot. *Family Process*, 54(4), 600–609. <https://doi.org/10.1111/famp.12136>.
- Stover, C. S., Rainey, A., Berkman, M., & Marans, S. (2008). Factors associated with engagement in a domestic violence home-visit intervention. *Violence Against Women*, 14, 1430–1450. <https://doi.org/10.1177/1077801208327019>.

- Stover, C. S., Meadows, A., & Kaufman, J. (2009a). Interventions for intimate partner violence: Review and directions for evidence based practice. *Professional Psychology: Research and Practice*, 40, 223–233. <https://doi.org/10.1037/a0012718>.
- Stover, C. S., Poole, G., & Marans, S. (2009b). The Domestic Violence Home Visit Intervention: Impact on recidivism. *Violence and Victims*, 24, 591–607. <https://doi.org/10.1891/0886-6708.24.5.591>.
- Stover, C. S., Berkman, M., Desai, R., & Marans, S. (2010). The efficacy of a police-advocacy intervention for victims of domestic violence: 12-month follow-up data. *Violence Against Women*, 16(4), 410–425. <https://doi.org/10.1177/1077801210364046>.
- Stover, C. S., Easton, C., & McMahon, T. (2013). Parenting of fathers with co-occurring intimate partner violence and substance abuse. *Journal of Interpersonal Violence*, 28(11), 2290–2314. <https://doi.org/10.1177/0886260512475312>.
- Stover, C. S., Carlson, M., & Patel, S. (2017). Integrating intimate partner violence and parenting intervention into residential substance abuse treatment for fathers. *Journal of Substance Abuse Treatment*, 81, 35–43. <https://doi.org/10.1016/j.jsat.2017.07.013>.
- Stover, C. S., Ghosh Ippen, C. G., Liang, L.-J., Briggs, E. C., & Berkowitz, S. J. (2019a). An examination of partner violence, polyexposure, and mental health functioning in a sample of clinically referred youth. *Psychology of Violence*, 9(3), 359–369. <https://doi.org/10.1037/vio0000131>.
- Stover, C. S., McMahon, T. J., & Moore, K. (2019b). A randomized pilot trial of two parenting interventions for fathers in residential substance use disorder treatment. *Journal of substance abuse treatment*, 104, 116–127. <https://doi.org/10.1016/j.jsat.2019.07.003>.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17, 283–316. <https://doi.org/10.1177/019251396017003001>.
- Talbot, J. A., Baker, J. K., & McHale, J. P. (2009). Sharing the love: Prebirth adult attachment status and coparenting adjustment during early infancy. *Parenting: Science and Practice*, 9, 56–77. <https://doi.org/10.1080/15295190802656760>.
- Verpa, J., Lewis, J. M., & Kreider, R. M. (2013). *America's Families and Living Arrangements: 2012 (Publication No. P20-570)*. U.S. Department of Commerce.
- Wei, L. J. (1978). An application of an urn model to the design of sequential controlled clinical trials. *Journal of the American Statistical Association*, 73(363), 559–563. <https://doi.org/10.1080/01621459.1978.10480054>.
- Wood, A. M., & Tarrier, N. (2010). Positive clinical psychology: A new vision and strategy for integrated research and practice. *Clinical Psychology Review*, 30, 819–829. <https://doi.org/10.1016/j.cpr.2010.06.003>.
- Wood, R. G., McConnell, S., Moore, Q., Clarkwest, A., & Hsueh, J. (2012). The effects of building strong families: A healthy marriage and relationship skills education program for unmarried parents. *Journal of Policy Analysis and Management*, 31(2), 228–252. <https://doi.org/10.1002/pam.216>.

Chapter 15

Continuity in Early Caregiving Experiences and the Transition to Parenthood: Role of Emotion Regulation and Coregulation as Family-Level Processes



Blair Paley and Nastassia J. Hajal

Introduction

Over the last several decades, multiple lines of research have converged to highlight the critical role that early parent-child relationships play in creating a foundation for individuals to develop close relationships throughout life, as well as elucidate the processes that may underlie the capacity for such relationships. An extensive literature suggests there is considerable continuity between caregiving experiences in childhood (i.e., family of origin caregiving) and the quality of intimate adult relationships later in life (Roisman et al. 2005; Salvatore et al. 2011). In turn, patterns of interactions established in these adult relationships are often carried into the next generation across the transition to parenthood (Raby et al. 2015). Specifically, functioning in adult intimate relationships has been linked to the quality of interactions in multiple family subsystems that impact children's development during both the prenatal and postnatal periods (Paley et al. 2005; Talbot et al. 2009).

This chapter will explore the intergenerational linkages among family of origin caregiving experiences, adult intimate relationships, coparenting, parent-child relationships, and whole family interactions across the transition to parenthood, with a focus on emotion regulation and coregulation as key processes that underlie such linkages. In particular, we examine the transition to parenthood as an important developmental stage for the emergence of emotional regulation and coregulation as *family level* processes. Moreover, we consider some of the psychological changes that adults experience during this transition and how such changes may converge with both their own and their partner's family of origin experiences to shape

B. Paley (✉) · N. J. Hajal

Division of Population Behavioral Health, Department of Psychiatry and Biobehavioral Sciences, Jane and Terry Semel Institute for Neuroscience and Human Behavior, University of California, Los Angeles, CA, USA
e-mail: BPaley@mednet.ucla.edu

© Springer Nature Switzerland AG 2021

R. Kuersten-Hogan, J. P. McHale (eds.), *Prenatal Family Dynamics*,
https://doi.org/10.1007/978-3-030-51988-9_15

321

relationships into the next generation. Understanding such processes can inform prevention and early intervention efforts during prenatal and postnatal periods that support parents' capacity to regulate their own emotions as well as provide coregulation for other family members, including their partner and child.

Attachment as a Framework for Understanding Intergenerational Continuity in Relationships

John Bowlby's seminal attachment theory has been a highly useful framework for understanding intergenerational continuity in relationships across the life course and into the next generation. Bowlby (1978) observed that "there is a strong causal relationship between an individual's experiences with his parents and his later capacity to make affectional bonds" (p. 11). Bowlby further proposed that continuity between early caregiving experiences and functioning in close relationships later in life is shaped by children's beliefs or "working models" about the reliability and responsiveness of attachment figures (i.e., parents and other important caregivers). These working models are hypothesized to lay the foundation for the nature of infants' attachment security, with secure attachments arising from interactions with consistent, sensitively responding caregivers and insecure attachments arising from interactions with inconsistent or actively rejecting caregivers. Multiple studies have demonstrated that a secure attachment, assessed in early childhood, is predictive of more harmonious romantic relationships in adulthood, as indexed by more coherent accounts of current romantic relationships and more positive interactions with romantic partners (Roisman et al. 2005), and less negative emotions in observed interactions with romantic partners (Simpson et al. 2007).

A separate but convergent line of research has found that adults' narrative accounts of earlier attachment experiences predict functioning in both romantic and parent-child relationships. A secure attachment history is associated with better affect regulation during marital problem-solving discussions prenatally (Paley et al. 1999), and smaller declines in positive marital perceptions across the transition to parenthood (Paley et al. 2002). Other studies have documented linkages between secure adult attachment and sensitive parenting in dyadic parent-child interactions (Cohn et al. 1992; Verhage et al. 2016).

Emotion Regulation and Coregulation as Key Processes That Underlie Intergenerational Continuity in Attachment Relationships

Attachment figures are thought to play a key role in shaping children's self-regulatory capacities (i.e., their ability to modulate their physiological states, behavior, emotions, and thinking processes) by providing "coregulation," that is, serving as an external source of regulation for the child. Sroufe (1996) characterized attachment as entailing the dyadic regulation of emotion, and Cassidy (1994) has noted that when a "parent is sensitive to the child's signals, affects will be experienced as useful, alerting the parent during times of distress. A parent's sensitive response will in turn enhance

the child's sense of efficacy in modulating her feeling states." (p. 233). Conversely, when attachment figures are unavailable or unresponsive when the child is distressed, children's physiological stress response systems may become chronically activated as they develop expectations that their attachment figures cannot be relied on to regain their emotional equilibrium (Cassidy et al. 2013). There is ample evidence that a secure attachment in infancy bodes well for children's development of self-regulation skills, including the ability to read facial expressions of emotion (Steele, et al. 2008), tolerate and manage frustration (Gilliom et al. 2002), and modulate physiological responses to stress (Gander and Buchheim 2015).

Attachment security is associated with an enhanced capacity for emotion regulation in adulthood as well (Bouthillier et al. 2002). Salvatore et al. (2011) found that infant attachment security was predictive of a young adult's own ability and of their partner's ability to de-escalate in couple interactions approximately 20 years later. Such findings suggest that early caregiving that is responsive to a child's emotional needs may confer to the child an enduring capacity to "down-regulate" from heightened negative affect during conflicts with romantic partners in adulthood that impacts not only their own functioning but their partner's as well. The link between attachment and emotion regulation in adulthood is also evident into the next generation of parenting. Compared to mothers with insecure attachment histories, secure mothers are more accurate in recognizing infant emotion (Leyh et al. 2016), demonstrate greater sensitivity when their child becomes distressed (Leerkes et al. 2015), and provide better coregulation for their infants (Crugnola et al. 2013).

A Family Systems Perspective on Attachment and Emotion Regulation

Research on intergenerational continuity from early caregiving experiences to multiple relationship subsystems across multiple developmental periods within families has set the stage for work that examines how such continuity extends to the larger family system. Ecological and family systems perspectives have highlighted individual family members and relationship dyads as embedded within the larger family system (Bronfenbrenner 1979; Cox and Paley 1997), and such perspectives converge with considerations of how attachment-related processes may play out at the family level (Cowan 1997) during key developmental transitions, including the transition to parenthood. Paley et al. (2005) demonstrated that fathers' insecure attachment stance in the presence of negative marital escalation (assessed prenatally) was predictive of less positive and more negative whole family interactions postnatally. Talbot et al. (2009) found that parents' attachment stances assessed prenatally were associated with coparenting during postnatal triadic interactions, with mothers' insecure attachment stance predicting more coparenting conflict, and fathers' insecure attachment stance predicting lower coparenting cohesion.

As a transition that requires adults to venture into unknown territory, take risks, and develop and test out new competencies, parenthood has been characterized as a highly emotionally evocative experience (Hajal et al. 2019). Research examining the transition to parenthood has increasingly focused on how parents' navigation of this critical developmental period impacts and is impacted by their own self-regulatory capacities (van Scheppingen et al. 2018), and furthermore, how such capacities are carried into the newly formed family system. Morris et al. (2007) have noted that "children's [emotion regulation] and familial influences are bidirectional processes..., supporting a family systems view where children and families mutually influence one another throughout development." (p. 364).

A systems perspective highlights emotion regulation and coregulation as important family level processes, but we would advocate for a greater focus on how emotion regulation and coregulation begin to unfold in the context of the coparenting relationship prior to the birth of the child. As part of this discussion, we would propose a broader lens is needed in considering the transformations that parents undergo during the prenatal period and how such experiences may converge with developing patterns of emotion regulation in the emerging family unit. Research on the transition to parenthood often focuses on each partner's experiences as separate processes, but each parent is likely to also shape and be shaped by the changes their partner is experiencing during this developmental transition.

Parental-Fetal Attachment

While there is a wealth of research on parenting and the development of attachment during infancy, a much less studied phenomenon in the literature is the parental bonding that occurs even before a child is born. Yet, expectant parents' attachment to their fetuses is a worthy construct of study, as it is associated with a variety of prenatal and postnatal factors related to parent, child, and family health. Parental-fetal attachment (or, fetal attachment) comprises parents' thoughts, feelings, and behaviors related to their fetus that facilitate affiliation, attachment, and bonding (see review by Brandon et al. 2009). Fetal attachment is often measured via questionnaires assessing the quality of parents' attachment to their fetuses, as well as the intensity or frequency of attachment-related thoughts and behaviors (Condon 1993; Muller 1993). Another approach is to categorize expectant parents based on their narrative accounts of their expectations of their childhood and impending parenthood. A prenatal version of the semistructured Working Model of the Child interview (e.g., WMCI; Benoit et al. 1997) asks parents to envision their relationship with their child including how they might feel and respond when their child is dysregulated, particularly during times when the child's attachment needs are heightened. *Balanced* representations reflect warmth and acceptance and parents' expectation of responding sensitively to the infant's needs. *Disengaged* representations suggest parents may deactivate their emotions and distance themselves from their infant's emotional needs. *Distorted* representations reflect responses that

suggest parents may become overactivated and dysregulated themselves by their infant's emotional dysregulation.

Recent adaptations of measures to include fathers have resulted in growing research on paternal fetal attachment, with some studies showing differences in maternal versus paternal fetal attachment (e.g., Kaur and Mamta 2017). For example, several studies show that, for healthy pregnant women, attachment increases from the first to the second, and then again from the second to the third trimesters of pregnancy (e.g., van Bussel et al. 2010), but then remains stable from the third trimester to the postpartum period (Vreeswijk et al. 2012). For fathers, however, the proportion of those with balanced representations of the fetus was lower than for mothers during the third trimester, but increased during the postpartum period to be on par with mothers (Vreeswijk et al. 2012; Vreeswijk et al. 2014). Such findings may suggest that fetal attachment develops more slowly for fathers than for mothers, which may lead to different emotional trajectories for mothers and fathers as they prepare for parenthood.

Family of Origin Influences on Fetal Attachment One of the early conceptualizations of maternal-fetal attachment delineated how a woman's capacity for healthy maternal-fetal attachment is influenced by her experiences in close relationships, including her own early caregiving experiences (Handelzalts et al. 2018). This notion is supported by work showing that maternal-fetal attachment is affected by history of interpersonal trauma (e.g., sexual abuse, neglect), but not non-interpersonal trauma (e.g., natural disasters, car accidents) (Schwerdtfeger and Goff 2007). Providing further support for this perspective, research has demonstrated concordance between expectant parents' attachment security and balanced representations of the unborn child on the WMCI (Madigan et al. 2015). Such findings suggest that expectant parents' own early attachment-related experiences may shape their views of how they might feel about and respond to their future child's attachment needs, particularly during times when their child is emotionally dysregulated.

Fetal Attachment and Prenatal Family Health and Functioning A number of studies have examined the impact of the relationship with the other parent on fetal attachment, with the majority of studies suggesting that when expectant parents are in a harmonious relationship with a romantic partner, they are more likely to report positive fetal attachment (Walsh et al. 2014; Wilson et al. 2000). A healthy, secure romantic relationship may contribute to the general well-being of the expectant parent or may free up a parent to focus their emotional resources on their developing relationship with the fetus. It is also possible that each parent's own early attachment experiences contribute to both romantic relationship quality and prenatal attachment. In a study examining the associations between prenatal family functioning and fetal attachment, mothers' and fathers' fetal attachment was associated with the dimension of functioning that reflected emotional closeness, but not dimensions such as stability or communication (Wilson et al. 2000). This suggests that, consistent with an attachment framework, it may be specifically the *emotional* aspects of adult partner relationships that are associated with the development of fetal attachment representations.

On the other end of the spectrum, there is evidence that significant marital conflict and trauma has a deleterious effect on fetal attachment. Women who have experienced domestic violence are more likely to have unbalanced representations of their unborn infants. Huth-Bocks et al. (2004) found that women who experienced domestic violence concurrent with their pregnancies provided narratives on the WMCI that reflected less joy, caregiving sensitivity, and acceptance of the child, and more anger, anxiety, and greater perceived infant difficulty. Furthermore, while most women with unbalanced prenatal representations shifted to balanced representations in the postpartum, this shift was less likely to happen for women who experienced domestic violence during pregnancy (Theran et al. 2005).

Fetal Attachment and Postnatal Family Health and Functioning Research indicates that fetal attachment is associated with a variety of postnatal parenting and child outcomes. Maternal-fetal attachment predicted infant attachment classifications 12 months postpartum (Benoit et al. 1997), suggesting that prenatal attachment may reliably forecast parenting behaviors that give rise to predictable patterns of infant attachment security. Indeed, more positive or secure maternal-fetal attachment was found to predict more emotionally positive, sensitive, and stimulating parenting behaviors (Taffazolli et al. 2015). In a study utilizing the WMCI prenatally, Dayton et al. (2010) found that mothers with *balanced* representations exhibited more positive parenting relative to mothers with *disengaged* (affectively deactivated) representations who exhibited more controlling caregiving behaviors and mothers with *distorted* (affectively overactivated) representations who displayed more hostile caregiving behaviors when their infants were 12 months old. Crawford and Benoit (2009) utilized a new WMCI-Disrupted scale to capture disorganization in parents' representations of their child as characterized (among other dimensions) by an anticipated lack of responding or inappropriate responding (e.g., laughing) to their infant's distress. Disorganization in attachment-related narratives is often seen among adults who have experienced trauma (Main and Hesse 1990) and thus has particular relevance for later caregiving behavior. Findings indicated that this classification during pregnancy was predictive of the infant's own disorganized attachment at 12 months and the mother's disrupted caregiving behavior (e.g., not responding to the infant's distress or responding inappropriately) (Crawford and Benoit 2009).

Research suggests that parental-fetal attachment may be shaped by contextual factors that impact the parents' emotional environment, and moreover, that parental-fetal attachment may in turn forecast patterns of emotion regulation in the newly constituted family environment postpartum. These findings also highlight several important areas for further inquiry. One question that arises is how parents' own early attachment experiences may impact their experience of and response to fetal behavior. For example, mothers appear to differ in their awareness of fetal movement and view of fetal behavior as interactive (Brandon et al. 2009), and it seems possible that mothers' own attachment experiences might play a role in such differences. There is also evidence that mothers may attribute various emotions to their infants in utero (Brandon et al. 2009; also see Ammaniti and Menozzi's Chap. 5 in this book on mothers' and fathers' attributions of their fetuses' emotions and

behaviors while viewing 4D ultrasound videos). A compelling line of inquiry would be whether maternal and paternal adult attachment influences how parents interpret fetal emotions. For a parent with a secure attachment history, the prospect of responding to an infant's emotional needs may be regarded as a welcome opportunity, and thus, fetal behavior may further enhance parental fetal attachment. However, for a parent with an insecure attachment history, fetal behavior may feel alarming or threatening if it is interpreted as signaling the infant's impending attachment needs that the parent feels ill-equipped to handle.

A related topic is how partners' attachment histories might mutually influence each other's fetal attachment. For example, an insecure parent might exhibit more positive fetal attachment if they are paired with a secure partner rather than an insecure partner. It is also possible that a partner's attachment history will moderate the relationship between parental fetal attachment and later caregiving behavior. Some evidence for this notion is provided by findings that insecure wives with secure husbands exhibited more positive parenting than insecure wives with insecure husbands (Cohn et al. 1992). If secure partners typically provide a more emotionally regulating environment, an insecure parent's anticipatory concerns about the difficulty they might have in responding to a distressed child might be attenuated once the child is born.

Another area for future research on parental fetal attachment would be to broaden the lens with regards to who is included in such studies. Clearly, more research is needed on fathers' fetal attachment. Kaur and Mamta (2017) found that maternal fetal attachment was related to the quality of the marital relationship, whereas paternal fetal attachment was related to the duration of the marriage, suggesting there may be differences in how expectant mothers' and fathers' fetal attachment might be influenced by their partner. However, fathers' fetal attachment remains an understudied area both with regards to the contextual processes, such as emotion regulation dynamics in the parents' romantic relationship, that might impact the quality of paternal fetal attachment, as well as with regards to how fathers' and mothers' fetal attachment might mutually influence one another. Furthermore, expanding the lens beyond heterosexual couples to reflect the diverse landscape of family constellations is an important next step, as research on fetal attachment in same-sex couples appears to be nonexistent (for recent findings on attachment matching in same-sex couples planning parenthood, see Miscioscia et al. Chap. 8 in this book). Finally, a broader scope of inquiry should include how extended family members might impact parental fetal attachment, especially given that parents' attachment histories relate to fetal attachment. Such associations may be heightened in intergenerational households and extended family members may fundamentally shape how expectant parents bond with their unborn child and how they anticipate they will function as parents themselves.

Emergence of the Coparenting Relationship

The coparenting relationship has been well established as a critically important subsystem in shaping the trajectories of children, parents, and families across the transition to parenthood (McHale et al. 2012). More recently, increased attention has been

devoted to examining the ways in which features of the coparenting relationship begin to develop well before the birth of a child. Among most (albeit certainly not all) expectant couples, there is a pre-existing romantic relationship with established patterns of interactions. Romantic partners can play a critical role in supporting (or not supporting) one another as they navigate emotional experiences, and their capacity to do so may rest partly on the caregiving they received in their family of origin. Thus, as adults establish themselves in romantic relationships, each partner's self-regulation and coregulation skills have likely been shaped by their own early experiences with important caregivers and then carried into intimate relationships. Their individual regulatory capacities then serve to create a coregulating environment for both one another and ultimately for their child. These combined capacities begin to lay the foundation for the establishment of the coparenting relationship even before a child's arrival and may serve to create a climate in which family members help regulate or, conversely, dysregulate one another. Aligned with this view, Gallegos et al. (2017) have observed that "even before a child is born, emotional expressivity in the marital relationship sets the tone for the family emotional climate that a child will experience" (p. 294) (also see Chap. 12 in this book by Hazen et al.).

Various methodologies have been developed to examine the coparenting relationship as it emerges during the prenatal period, including self-report questionnaires (e.g., Pinto et al. 2019), narrative interviews (McHale et al. 2004), and experimental paradigms (Carneiro et al. 2006; Shai 2019) to elicit coparenting representations and behaviors. McHale et al. (2004) found an association between marital satisfaction and expectations about the coparenting relationship for mothers and fathers during the prenatal period. Marital satisfaction has also been linked to prenatal coparenting behavior. The Lausanne Trilogue Play (LTP; Fivaz-Depeursinge et al. 1996) procedure, originally developed to assess new parents' efforts to coordinate their caregiving behavior during interactions with their infant, was adapted for use with expectant parents to examine their coparenting behavior in response to a doll. Carneiro et al. (2006; see also Chap. 3 in this book by Fivaz-Depeursinge et al.) found that the prenatal coparenting alliance, assessed utilizing the Prenatal LTP, was associated with fathers' marital satisfaction. Such findings suggest that processes in couples' romantic relationships may shape their views and expectations of the coparenting relationship as well as anticipatory coparenting behavior.

Other potential influences on the emerging coparenting relationship may lie in expectant parents' own childhood caregiving experiences, although the link between early attachment experiences and prenatal coparenting behavior remains understudied. In a sample of parents of children aged 2–9 years, Psouni (2019) found associations between parents' insecure attachment stance and representations of the coparenting relationship characterized by high levels of anger. In considering such potential linkages, Psouni noted that "coparent influences also involve attachment-related features such as expectations in close relationships, and strategies for processing and regulating emotion and relationship-related conflict. These features may, for instance, influence one's capacity and willingness to act supportively to the other parent and collaboratively manage interactions and conflicts with the child." (p. 488). Although this study was conducted with families well after the birth of

their child, it highlights the link between parents' attachment histories and their views of their coparenting relationship with their partner and suggests examining these linkages during the prenatal period may be fruitful.

Continuity in Coparenting Across the Transition to Parenthood

A growing number of studies provide evidence that the prenatal coparenting relationship has import for family functioning postnatally. Coparenting representations that emerge prenatally appear to be carried forth into the newly formed family system, as suggested by findings of linkages between prenatal and postnatal assessments of partners' representations of harmonious and antagonistic coparenting, respectively (Kuersten-Hogan 2017). McHale and Rotman (2007) similarly found for both expectant mothers and fathers, prenatal negative expectations about their coparenting relationship were linked to less positive coparenting behavior during postnatal family interactions. Other studies have documented continuity between prenatal and postpartum coparenting behavior (Carneiro et al. 2006; Favez et al. 2013; McHale et al. 2004). Kuersten-Hogan (2017), for example, found that expectant couples exhibiting more positive coparenting behaviors (e.g., cooperation, warmth) similarly displayed more harmonious coparenting at 3 months postpartum, whereas expectant couples exhibiting more coparenting antagonism (e.g., competition, verbal sparring) prenatally showed similar coparenting behaviors postnatally.

Other research has found prenatal coparenting behavior to be a predictor of various child outcomes, including infant-father attachment security (Witte et al. 2019). Another recent study employed a new experimental paradigm to examine nascent patterns of prenatal coparenting behavior that might have import for postnatal child outcomes. Utilizing the Inconsolable Doll paradigm, a procedure designed to elicit some stress in expectant parents, Shai (2019; see also Chap. 6 in this book) found that higher rates of negative escalation in coparenting interactions prenatally were predictive of children's lower scores on an early learning composite, even after controlling for postnatal coparenting behavior. These results may suggest that prenatal negative escalation can forecast a postnatal environment in which children's cognitive resources are diverted away from learning and shifted to concerns about the safety of the family emotional climate.

Emotion Regulation and Coregulation as Important Features of the Coparenting Relationship

The research on prenatal coparenting provides compelling evidence that the seeds of coparenting dynamics have already been planted prior to the arrival of a couple's first child and continue to exert their influence in the newly formed family unit. One

set of questions that arises concerns the ways in which emotion regulation and coregulation processes might play a critical role in the development of the coparenting relationship across the transition to parenthood. As expectant parents begin to form a coparenting relationship, they may expand the focus of their coregulation efforts during the prenatal period from their partner to their child, albeit in an anticipatory way. Expectant parents may begin considering how they will respond to the emotional needs of their child, reflecting on what they believe their capacity will be to respond to their child's distress. Studies utilizing the WMCI to assess expectant parents' representations of their unborn child, including their anticipated capacity for responding to their child's emotional distress, suggest that such reflections are important for later coparenting behaviors in the post-partum period (Crawford and Benoit 2009; Dayton et al. 2010). An important avenue for further research might include examining expectant parents' representations about their *partner's* capacity to manage their future child's distress and whether positive expectations of their partner may attenuate prenatal concerns about their own coregulation skills. Parents who anticipate having an ally in coregulation in the face of infant distress may be able to respond more positively despite prenatal apprehension about whether they will be able to meet their child's emotional needs.

During the prenatal period, partners may begin to explicitly discuss with one another their beliefs, worries, and expectations about parenting and parental roles (both their own and each other's) in helping a child self-regulate. For example, coparents may have conversations about whether a baby should be left to "cry it out," in the middle of the night, whether responding promptly to a distressed baby will "spoil" them, or how they envision dealing with tantrums. As partners begin communicating about these issues, shared and divergent perspectives may emerge and such perspectives may contribute to the foundation for coparenting patterns of coregulation. Partners may invoke references to their own experiences of how their parents responded to their emotional needs during childhood (e.g., "that's how I was raised") as either a model of what they might want to emulate, or alternatively, what they want to actively avoid. Such discussions may also include communication about how they anticipate one another will (or should) parent, further shaping positive or negative expectations for the quality of their coparenting. Indeed, McHale and Rotman (2007) found that discrepancies in mothers' and fathers' beliefs about childrearing practices, assessed prenatally, were associated with less solidarity in the coparenting relationship postpartum (also see Hazen et al. in Chap. 12 of this book for findings regarding associations between partners' prenatal perceptions of their spouses' parenting and postpartum family dynamics). Future studies that examine mothers' and fathers' prenatal perspectives about how to best manage their child's emotion dysregulation, both individually and as a team, may elucidate how parents begin to navigate differing views on their future roles in responding to their children's emotional needs.

When parents welcome their infant into the family, they are quickly faced with having to manage a dramatically increased complexity in the emotional terrain of their family. Prenatal communication about how they might respond to their child moves from the abstract to the concrete, and differences between coparents may be

quickly brought into stark relief. Moreover, with the arrival of a child, new parents are faced with having to navigate the potential dysregulation of multiple people—their own, their partner's, and their child's. These multiple (and often simultaneous) demands may give rise to parents' heightened sensitivity to and awareness of how their own emotional needs are being met and how effectively they are responding to other family members' needs. Family dynamics may emerge in which parents feel competitive with their child if they feel the child's emotional needs are being prioritized by their partner over their own when they have previously taken precedence in their partner's life. How parents navigate this shift in priorities from the prenatal to the postnatal period may depend on their own attachment experiences in early childhood and the quality of their relationship as a couple. A parent with a secure attachment may be more adept at supporting both a distressed infant and a distressed partner because they are less likely to be dysregulated by negative affect than a parent with an insecure attachment. Moreover, coparents who have a history of responding supportively to one another prior to parenthood may be better able to weather a more dysregulated family environment in the early stages of parenthood as they work together to understand and respond to their newborn's emotional needs.

Implications for Prevention and Intervention During the Transition to Parenthood

It is clear that the transition to parenthood is a critical juncture for the development of adult, child, and family emotion regulation. Thus, it is not surprising that there are numerous evidence-based prevention and intervention programs designed to prepare and support parents through the prenatal, perinatal, and/or postnatal periods with a broad array of treatment targets, including fetal attachment, parental mental health, parenting behavior, and children's well-being (Cowan and Cowan 1995). Here, we provide a brief overview of several approaches, highlighting suggestions for future work in this area that emphasizes coregulation at the family level.

Historically, many of the programs designed for expectant and/or new parents have focused on providing parent education, often addressing issues such as childbirth, infant care, and parenting skills (Gilmer et al. 2016). Some of these programs have utilized a home visiting approach in an effort to reach at-risk or high-risk mothers. One of the most well-validated home visiting programs, the Nurse Family Partnership (NFP), originally designed for low income, first-time mothers, has demonstrated positive effects on mothers' caregiving (Olds, 2006) and children's emotional well-being and academic functioning (Kitzman et al. 2010). Other interventions have targeted mothers experiencing specific mental health issues. For example, cognitive behavioral and interpersonal therapies have been effectively implemented to treat perinatal depressive symptoms (Sockol 2015, 2018). Attachment-based approaches implemented with high-risk mothers have been found effective in improving both mothers' and children's outcomes (e.g., Heinicke

et al. 2001; Slade et al. 2020). More recently, a number of interventions have been deployed to strengthen parental-fetal attachment by increasing mothers' awareness of her fetus, enhancing mothers' relaxation skills, or increasing psychological and social support for the mother (Cunen et al. 2017). These varying approaches highlight impending parenthood as a developmental transition ripe for prevention and intervention efforts, while also elucidating underleveraged avenues for promoting resilience and well-being in newly emerging family systems.

Focusing on the Coparenting Relationship as the Unit of Treatment Interventions aimed at optimizing the well-being of pregnant women and new mothers would likely be enhanced by a more robust engagement of the coparenting dyad. Surprisingly, there are relatively few interventions designed specifically for the transition to parenthood in which fathers are viewed as equally important participants in treatment and in which coparenting dynamics are the explicit focus of treatment (McHale and Negrini 2018). Moreover, even when mothers and fathers are included together in interventions, their experiences during the transition to parenthood are often treated as independent processes. While each parent undoubtedly undergoes their own unique transformation during this developmental transition, their shared and mutually interdependent experiences are also a worthy focus of intervention.

There are a limited but growing number of programs in which the primary focus is on preparing couples for changes in their relationship as they prepare for the birth of their child. Programs such as Bringing Baby Home Together (Shapiro et al. 2011) and the Becoming a Family Project (Schulz et al. 2006) have been successfully implemented with intact couples by focusing on fortifying the couples' relationship in the face of the normative stressors that often accompany the transition to parenthood (e.g., shifting of roles, differing beliefs about parenting and division of labor), as well as positive parenting and coparenting. In the Family Foundations program (Feinberg et al. 2014; Feinberg et al. 2009), one of the most well-established interventions in which coparenting is the central focus of treatment, couples participate in prenatal and postnatal sessions that focus on enhancing communication and problem-solving skills in the coparenting dyad. A randomized controlled study of Family Foundations demonstrated that treatment mothers were more inclusive and fathers exhibited more warmth with partners during triadic interactions with their baby, compared to parents in the control group (Feinberg et al. 2009). Furthermore, among treatment families, parents showed more warmth during dyadic couple interactions and more positivity in parenting behaviors, and children exhibited a greater capacity to self-soothe than parents and children, respectively, in control families. Such findings suggest that strengthening the coparenting relationship from pregnancy onward yields benefits that reverberate across the emotional climate of the entire family.

In line with recognizing that the coparenting system should be a priority in transition to parenthood interventions, researchers have increasingly emphasized the need for treatment approaches that focus on engaging partners who may be at risk for lower involvement in their children's lives, such as unmarried fathers, some of whom are also non-residential fathers. Despite their physical absence from the

household, non-residential fathers can play a vital role in facilitating positive developmental outcomes for children, yet they remain underserved by transition to parenthood interventions (McHale et al. 2012). One exception is the Minnesota Early Learning Design program, implemented prenatally with adolescent and young adult fathers, including non-residential fathers, which focuses on enhancing coparents' communication and problem-solving skills (Fagan 2008). Treatment effects were found for improvements in the coparenting alliance and communication from the prenatal to the postnatal period, and for father engagement at 3 months postpartum. Figuring It Out for the Child (McHale et al. 2015, see also Mchale et al. Chap. 14 in this volume) is a coparenting intervention program developed for unmarried African American parents expecting their first child together. Mchale et al. (2015) found that coparents improved from pre-test to post-test on several negative coparenting dynamics, including verbal aggression, coerciveness, and negativity and conflict, and showed marginally significant improvement on negative escalation. The E³ Teen Parenting Program is another prenatal intervention program described in Chap. 16 of this volume by Jamison and Feistman and focusses on connecting pregnant teenage partners to social service programs.

Although not all non-cohabitating dyads will be characterized by high levels of emotional dysregulation, given that in many cases their non-cohabitating status has followed the dissolution of a previous relationship, they would be an especially important population to shore up with the goal of creating a harmonious emotional environment for the child. Triadic interactions may be brief but impactful on children and thus offer important opportunities for non-cohabitating coparents to model collaborative approaches to coregulation with their child. Moreover, with effective intervention, even coparents who do not live together may serve as powerful allies and supportive sounding boards in helping one another process, understand, and navigate emotional interactions with their child.

Emotion Regulation and Coregulation as Family Level Processes Many interventions designed for prospective parents address the transition that each coparent makes as separate processes (or often omitting the involvement of one parent altogether) when in fact the adjustments that new parents make often occur in the presence of or with the direct involvement of their partner. Interventions that explicitly focus on the coparenting system prenatally and postnatally would provide an opportunity to support the development of emotion regulation as a family level process. One key component of such interventions would include helping coparents anticipate the ways in which parenting can be emotionally dysregulating to them both as individuals and as a dyad, and how such dysregulation can compromise their ability to respond effectively to not only their newborn's emotional needs, but to their partner's as well. Understanding how each family member's dysregulation can ripple across the entire family system may help coparents to be mindful of the importance of managing both their own emotions as well as providing support for other family members, including both their child and their partner. Highlighting emotion regulation as a central feature of the family environment that can promote healthy development in young children and support the long-term well-being of both children

and parents may motivate parents to cultivate self-regulation and coregulation skills before the arrival of their child.

Although there are a number of parenting interventions that focus on teaching parents how to promote children's development of emotion regulation skills, there are surprisingly few that focus simultaneously on building parents' coregulation and self-regulation skills, despite the well-established linkages between parents' capacity to modulate their own emotional experiences and their ability to support their children in this task (Hajal and Paley 2020). Tuning into Kids (TIK; Havighurst and Kehoe 2017), a group intervention designed for parents of young children, teaches parents how to provide emotion coaching to their children and skills to increase their awareness of and ability to manage their own emotional states. Randomized controlled trials have demonstrated positive effects of TIK on parents' emotion coaching skills and children's emotion regulation skills (see Havighurst and Kehoe 2017). Although an adaptation has been developed for toddlers, this approach has not yet been implemented with expectant couples. Interventions that focus on enhancing parents' emotion coaching skills and their own self-regulation skills would have clear relevance for coparents during the transition to parenthood, but may also benefit from more of a systems approach by cultivating coregulation practices at the family level. Moreover, given the compelling evidence that patterns of coparenting behavior begin to be established prior to the birth of the child, such interventions may be most beneficial when implemented during the prenatal period.

Prenatal interventions that aim to enhance emotion regulation at the family level might include helping coparents identify linkages between patterns of coregulation in their relationship and their experiences of how their emotional needs were responded to in earlier attachment relationships. Coparents may also benefit from understanding how their respective attachment experiences might lead to different expectations about how they will respond as a team to their child's emotional distress, as well as create different sensitivities to emotionally challenging interactions with their child. Helping coparents anticipate these potential differences may mitigate negative reactions when discrepancies arise, particularly during triadic interactions.

Given that coparents may be impacted differentially by earlier attachment experiences, learning concrete strategies for regulating emotion in the family is likely to be a critical component of whole family perinatal interventions. Such practices might include teaching coparents to be attuned to each other's emotional states during stressful interactions with their child and offering to take over for one another when one of them feels emotionally overwhelmed and needs to "tap out" for a period of time. Coparents may also learn a shared set of coregulation strategies and how to use those strategies in a coordinated fashion so that they are not undermining one another's efforts to coach their child through periods of dysregulation. At the same time, coparents may need to learn to flexibly and smoothly change course together when one strategy is not working effectively.

Such coregulation strategies might be more easily learned during the prenatal period before parents are immersed in the 24-hour cycle of infant caregiving while

simultaneously trying to manage the emotional demands of being a new parent. Experimental paradigms such as Inconsolable Doll Task (Shai 2019, see Chap. 6 in this volume) might be utilized to simulate some of the stress that can be induced by a distressed infant, but also provide parents with opportunities to practice responding as a coregulating team in a less high-stakes environment. This approach could also be used in intervention programs to prepare coparents to process as a team emotionally charged parenting interactions after the fact. Coparenting dyads may become more resilient when they can help one another “deconstruct” these challenging parenting moments by validating the difficulty of the interaction, identify what went well and what didn’t go well, and develop a plan for how to manage similar interactions in the future. A more sensitive part of such deconstruction might include connecting their own and each other’s emotional responses to their own childhood attachment experiences. Clearly, such discussions require a reservoir of positive emotional exchanges in the couple’s relationship so that coparents feel supported rather than criticized, further highlighting the benefit of initiating such discussions during the prenatal period. In essence, the kinds of intervention strategies we are proposing here would allow parents to learn how to serve as emotion coaches not only for their child but for one another as well.

Enhancing Emotion Regulation and Coregulation in Diverse Family Systems In moving toward prenatal and postnatal intervention approaches that more explicitly target emotion regulation processes within coparenting and whole family relationships, we would also advocate for broadening the focus beyond mother-father coparents to include other caregivers who might be engaged in caring for children as part of the coparenting team. A significant number of families are headed by gay or lesbian coparents, and such families likely deal with additional stressors including discrimination and possible lack of support from extended family members, which may make managing the emotional dysregulation that can often accompany the transition to parenthood even more challenging. Although gay, lesbian, and heterosexual couples exhibit similar levels of positive and negative emotions in their relationship interactions (Roisman et al. 2008) and similar patterns of anticipatory coparenting (Miscioscia et al. 2017; also see Chap. 8 in this volume), gay and lesbian parents may have to deal with extra scrutiny of their parenting, or even judgments from others about their decision to become parents, which may heighten the general stress of parenting.

McHale and Negrini (2018) have emphasized that “the coparenting system in millions of American families involves a kin caregiver or someone else besides just mother and father... Coparenting is hence decidedly not a dynamic limited just to married or divorced heterosexual mother–father family systems; indeed, it can be argued that between birth and young adulthood, all children will be coparented” (p. 11). “Nontraditional” family constellations, while perhaps sometimes included in previous intervention efforts, are not typically engaged as a primary target of treatment, particularly during the prenatal period. It is important that intervention programs send a clear message that nontraditional partners are not just welcome to participate, but are in fact seen as an essential member of the coparenting team and

that their involvement is important in creating a healthy emotional environment for the entire family. In many families, extended family members play integral roles during the prenatal and postnatal periods (Perez-Brena et al. 2015; Strozier et al. 2011), and coparenting entails intergenerational teams (i.e., parents and grandparents), adding another layer of complexity to navigating the emotional terrain of the transition to parenthood. These intergenerational dyads navigate many of the same challenges as dyads comprised of romantic partners, including differing beliefs about childrearing and discipline, with some exhibiting high degrees of solidarity, whereas others showing high levels of conflict (Perez-Brena et al. 2015; Strozier et al. 2011).

Extended family members (often grandmothers) may be involved in preparations and decision making during the pregnancy in ways that may impact the expectant parents' capacity to modulate their emotional experiences during this potentially stressful period, and dysregulation in these dyads may then have relevance for later coparenting. Perez-Brena et al. (2015) found that prenatal conflict between pregnant adolescents and their mothers predicted more conflictual coparenting alliances postpartum. Grandparents may espouse their own expectations about parenting, including how emotions should be handled in families. Furthermore, intergenerational patterns of emotion regulation may be carried not only through the expectant parent's attachment history, but eventually re-enacted in the moment during child-parent-grandparent interactions. The birth of a child often elicits new parents' recollections of their own caregiving histories (Cowan et al. 1991), and for insecure parents, it may be a reminder of ways in which their emotional needs were unmet in childhood. Thus, depending on the quality of the parent's own attachment experiences, the presence of and/or direct involvement of the grandparent during the parent's efforts to provide coregulation to an emotionally distressed child may be helpful or highly disruptive. Given that there may be well-established histories of maladaptive coregulation in many families of origin, it would seem imperative to provide interventions during the prenatal period that promote more positive intergenerational coparenting alliances and create a more emotionally regulated environment both during the pregnancy and following the child's birth.

Conclusion

In this chapter, we have focused on emotion regulation and coregulation as key processes that may provide for the continuity observed in parenting and family interactions across generations. Numerous studies have examined the ways in which parents shape their infants' development of self-regulatory capacities in the context of parent-child dyadic relationships. However, our focus in this chapter has been on a more expansive examination of emotion regulation and coregulation as family level processes that likely have their precedent in other relational contexts prior to the birth of the child. In particular, we have considered how linkages among early attachment experiences, adult intimate relationships, and coparenting relationships

may give rise to patterns of emotion regulation during the prenatal period that lay the foundation for how emotions will be navigated in the newly constituted family. This perspective suggests that the prenatal period may offer an opportune therapeutic window in which to support expectant parents in developing a collaborative approach to managing and responding to the emotional needs of the entire family as they undertake this major life transition.

Acknowledgments The authors gratefully acknowledge the assistance of Regina Brodell in the preparation of this chapter.

References

- Benoit, D., Parker, K. C. H., & Zeanah, C. H. (1997). Mothers' representations of their infants assessed prenatally: Stability and association with infants' attachment classifications. *Journal of Child Psychology and Psychiatry*, *38*(3), 307–313. <https://doi.org/10.1111/j.1469-7610.1997.tb01515.x>.
- Bouthillier, D., Julien, D., Dubé, M., Bélanger, I., & Hamelin, M. (2002). Predictive validity of adult attachment measures in relation to emotion regulation behaviors in marital interactions. *Journal of Adult Development*, *9*, 291–305. <https://doi.org/10.1023/A:102029101>.
- Bowlby, J. (1978). Attachment theory and its therapeutic implications. In S. C. Feinstein & P. L. Giovacchini (Eds.), *Adolescent psychiatry: Development and clinical studies* (Vol. VI, pp. 5–33). Chicago: University of Chicago Press.
- Brandon, A. R., Pitts, S., Denton, W. H., Stringer, C. A., & Evans, H. M. (2009). A history of the theory of prenatal attachment. *Journal of Prenatal & Perinatal Psychology & Health: APPPAH*, *23*(4), 201–222.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Carneiro, C., Corboz-Warnery, A., & Fivaz-Depeursinge, E. (2006). The Prenatal Lausanne Trilogue Play: A new observational assessment tool of the prenatal co-parenting alliance. *Infant Mental Health Journal*, *27*(2), 207–228. <https://doi.org/10.1002/imhj.20089>.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, *59*(2–3), 228–249. <https://doi.org/10.1111/j.1540-5834.1994.tb01287.x>.
- Cassidy, J., Jones, J. D., & Shaver, P. R. (2013). Contributions of attachment theory and research: A framework for future research, translation, and policy. *Development and Psychopathology*, *25*, 1415–1434. <https://doi.org/10.1017/S0954579413000692>.
- Cohn, D. A., Cowan, P. A., Cowan, C. P., & Pearson, J. (1992). Mothers' and fathers' working models of childhood attachment relationships, parenting styles, and child behavior. *Development and Psychopathology*, *4*, 417–431.
- Condon, J. T. (1993). The assessment of antenatal emotional attachment: Development of a questionnaire instrument. *British Journal of Medical Psychology*, *66*(2), 167–183. <https://doi.org/10.1111/j.2044-8341.1993.tb01739.x>.
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to ease the transition to parenthood: Why they are needed and what they can do. *Family Relations*, *44*, 412–423.
- Cowan, C. P., Cowan, P. A., Heming, G., & Miller, N. B. (1991). Becoming a family: Marriage, parenting, and child development. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 79–109). Hillsdale: Erlbaum.
- Cowan, P. (1997). Beyond meta-analysis: A plea for a family systems perspective on attachment. *Child Development*, *68*, 600–603.

- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, *48*(1), 243–267.
- Crawford, A., & Benoit, D. (2009). Caregivers' disrupted representations of the unborn child predict later infant–caregiver disorganized attachment and disrupted interactions. *Infant Mental Health Journal*, *30*(2), 124–144. <https://doi.org/10.1002/imhj.20207>.
- Crugnola, C. R., Gazzotti, S., Spinelli, M., Ierardi, E., Caprin, C., & Albizzati, A. (2013). Maternal attachment influences mother–infant styles of regulation and play with objects at nine months. *Attachment & Human Development*, *15*(2), 107–131. <https://doi.org/10.1080/14616734.2013.745712>.
- Cunen, N. B., Jomeen, J., Xuereb, R. B., & Poat, A. (2017). A narrative review of interventions addressing the parental–fetal relationship. *Women and Birth*, *30*, e141–e151. <https://doi.org/10.1016/j.wombi.2016.11.005>.
- Dayton, C. J., Levendosky, A. A., Davidson, W. S., & Bogat, G. A. (2010). The child as held in the mind of the mother: The influence of prenatal maternal representations on parenting behaviors. *Infant Mental Health Journal*, *31*(2), 220–241.
- Fagan, J. (2008). Randomized study of a prebirth coparenting intervention with adolescent and young fathers. *Family Relations*, *57*(3), 309–323.
- Favez, N., Frascarolo, F., Lavanchy Scaiola, C., & Corboz-Warnery, A. (2013). Prenatal representations of family in parents and coparental interactions as predictors of triadic interactions during infancy. *Infant Mental Health Journal*, *34*, 25–36. <https://doi.org/10.1002/imhj.21372>.
- Feinberg, M. E., Jones, D. E., Roettger, M. E., Solmeyer, A., & Hostetler, M. L. (2014). Long-term follow-up of a randomized trial of family foundations: Effects on children's emotional, behavioral, and school adjustment. *Journal of Family Psychology*, *28*, 821–831. <https://doi.org/10.1037/fam0000037>.
- Feinberg, M. E., Kan, M. L., & Goslin, M. C. (2009). Enhancing coparenting, parenting, and child self-regulation: Effects of family foundations 1 year after birth. *Prevention Science*, *10*, 276–285. <https://doi.org/10.1007/s11121-009-0142-0>.
- Fivaz-Depeursinge, E., Corboz-Warnery, A., & Frascarolo, F. (1996). Assessing the alliance between fathers, mothers, and infants at play. In J. P. McHale & P. Cowan (Eds.), *Understanding how family-level dynamics affect children's development: Studies of two-parent families* (pp. 27–44). San Francisco: Jossey-Bass.
- Gallegos, M. I., Murphy, S. E., Benner, A. D., Jacobvitz, D. B., & Hazan, N. L. (2017). Marital, parental, and whole-family predictors of toddlers' emotion regulation: The role of parental emotional withdrawal. *Journal of Family Psychology*, *31*, 294–303. <https://doi.org/10.1037/fam0000245>.
- Gander, M., & Buchheim, A. (2015). Attachment classification, psychophysiology and frontal EEG asymmetry across the lifespan: A review. *Frontiers in Human Neuroscience*, *79*, 1–16.
- Gilliom, M., Shaw, D. S., Beck, J. E., Schonberg, M. A., & Lukon, J. L. (2002). Anger regulation in disadvantaged preschool boys: Strategies, antecedents, and the development of self-control. *Development and Psychopathology*, *38*, 222–235. <https://doi.org/10.1037/0012-1649.38.2.222>.
- Gilmer, J., Buchan, J. L., Letourneau, N., Bennett, C. T., Shanker, S. G., Fenwick, S. A., & Smith-Chant, B. (2016). Parent education programs designed to support the transition to parenthood: A realistic review. *International Journal of Nursing Studies*, *59*, 118–133. <https://doi.org/10.1016/j.ijnurstu.2016.03.015>.
- Hajal, N. J., & Paley, B. (2020). Parent emotion and emotion regulation: A critical target of study for research and intervention to promote child emotion socialization. *Developmental Psychology*, *56*(3), 403–417.
- Hajal, N. J., Teti, D. M., Cole, P. M., & Ram, N. (2019). Maternal emotion, motivation, and regulation during real-world parenting challenges. *Journal of Family Psychology*, *33*, 109–120. <https://doi.org/10.1037/fam0000475>.
- Handelzalts, J. E., Preis, H., Rosenbaum, M., Gozlan, M., & Benyamini, Y. (2018). Pregnant women's recollections of early maternal bonding: Associations with maternal–fetal attachment and birth choices. *Infant Mental Health Journal*, *39*, 511–521. <https://doi.org/10.1002/imhj.21731>.

- Havighurst, S., & Kehoe, C. (2017). The role of parental emotion regulation in parent emotion socialization: Implications for intervention. In K. Deater-Deckard & R. Panneton (Eds.), *Parental stress and early child development: Adaptive and maladaptive outcomes* (pp. 285–307). https://doi.org/10.1007/978-3-319-55376-4_12.
- Heinicke, C. M., Fineman, N. R., Ponce, V. A., & Guthrie, D. (2001). Relation-based intervention with at-risk mothers: Outcome in the second year of life. *Infant Mental Health Journal*, 22(4), 431–462.
- Huth-Bocks, A. C., Levendosky, A. A., Theran, S. A., & Bogat, G. A. (2004). The impact of domestic violence on mothers' prenatal representations of their infants. *Infant Mental Health Journal*, 25, 79–98. <https://doi.org/10.1002/imhj.100>.
- Kaur, S., & Mamta, N. (2017). Comparative study to assess the maternal and paternal fetal attachment among the expectant mothers and fathers. *International Journal of Reproduction, Contraception, Obstetrics, and Gynecology*, 6, 3134–3137.
- Kitzman, H., Olds, D. L., Cole, R., et al. (2010). Enduring effects of prenatal and infancy home visiting by nurses on children: Follow-up of a randomized trial among children at age 12 years. *Archives of Pediatric and Adolescent Medicine*, 164, 412–418. <https://doi.org/10.1001/archpediatrics.2010.76>.
- Kuersten-Hogan, R. (2017). Bridging the gap across the transition to coparenthood: Triadic interactions and coparenting representations from pregnancy through 12 months postpartum. *Frontiers in Psychology*, 8, 1–17. <https://doi.org/10.3389/fpsyg.2017.00475>.
- Leerkes, E. M., Supple, A. J., O'Brien, M., Calkins, S. D., Haltigan, J. D., Wong, M. S., & Fortuna, K. (2015). Antecedents of maternal sensitivity during distressing tasks: Integrating attachment, social information processing, and psychobiological perspectives. *Child Development*, 86, 94–111. <https://doi.org/10.1111/cdev.12288>.
- Leyh, R., Heinisch, C., Behringer, J., Reiner, I., & Spangler, G. (2016). Maternal attachment representation and neurophysiological processing during the perception of infants' emotional expressions. *PLoS One*, 11(2), e0147294. <https://doi.org/10.1371/journal.pone.0147294>.
- Madigan, S., Hawkins, E., Plamondon, A., Moran, G., & Benoit, D. (2015). Maternal representations and infant attachment: Examination of the prototype hypothesis. *Infant Mental Health Journal*, 36, 459–468. <https://doi.org/10.1002/imhj.21527>.
- Main, M., & Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening parental behavior the linking mechanism? In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *The John D. and Catherine T. MacArthur Foundation series on mental health and development. Attachment in the preschool years: Theory, research, and intervention* (pp. 161–182). Chicago: University of Chicago Press.
- McHale, J., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberman, R. (2004). The transition to co-parenthood: Parents' pre-birth expectations and early coparental adjustment at three months post-partum. *Development and Psychopathology*, 16, 711–733.
- McHale, J. P., & Negrini, L. S. (2018). How the assumption of a coparenting frame will transform social work practice with men and fathers. *Social Work Research*, 42, 9–21. <https://doi.org/10.1093/swr/svx024>.
- McHale, J. P., & Rotman, T. (2007). Is seeing believing?: Expectant parents' outlooks on coparenting and later coparenting solidarity. *Infant Behavior and Development*, 30(1), 63–81. <https://doi.org/10.1016/j.infbeh.2006.11.007>.
- McHale, J. P., Salman-Engin, S., & Coovert, M. D. (2015). Improvements in unmarried African American parents' rapport, communication, and problem solving following a prenatal coparenting intervention. *Family Process*, 54, 619–629. <https://doi.org/10.1111/famp.12147>.
- McHale, J. P., Waller, M. R., & Pearson, J. (2012). Coparenting interventions for fragile families: What do we know and where do we need to go next. *Family Process*, 51, 284–306. <https://doi.org/10.1111/j.1545-5300.2012.01402.x>.
- Miscioscia, M., Blaver, A., Pagone, P. R., & Simonelli, A. (2017). The desire of parenthood: Intuitive co-parental behaviors and quality of couple relationship among Italian and Belgian

- same-sex and opposite-sex couples. *Frontiers in Psychology*, 8, 1–9. 110. <https://doi.org/10.3389/fpsyg.2017.00110>.
- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, 16(2), 361–388. <https://doi.org/10.1111/j.1467-9507.2007.00389.x>.
- Muller, M. E. (1993). Development of the prenatal attachment inventory. *Western Journal of Nursing Research*, 15(2), 199–215. <https://doi.org/10.1177/019394599301500205>.
- Olds, D. L. (2006). The nurse-family partnership: An evidence-based preventive intervention. *Infant Mental Health Journal*, 27(1), 5–25. <https://doi.org/10.1002/imhj.20077>.
- Paley, B., Cox, M. J., Burchinal, M. R., & Payne, C. C. (1999). Attachment and marital functioning: Comparisons of spouses with continuous-secure, earned-secure, dismissing, and preoccupied stances towards attachment. *Journal of Family Psychology*, 13, 580–597.
- Paley, B., Cox, M. J., Harter, K. S. M., & Margand, N. A. (2002). Adult attachment stance and spouses' marital perceptions during the transition to parenthood. *Attachment and Human Development*, 4, 340–360.
- Paley, B., Cox, M. J., Kanoy, K. W., Harter, K. S. M., Burchinal, M. R., & Margand, N. A. (2005). Adult attachment and marital interaction as predictors of whole family interactions during the transition to parenthood. *Journal of Family Psychology*, 19, 420–429.
- Perez-Brena, N. J., Updegraff, K. A., Umaña-Taylor, A. J., Johromi, L., & Guidmond, A. (2015). Coparenting profiles in the context of Mexican-origin teen pregnancy: Links to mother-daughter relationship quality and adjustment. *Family Process*, 54, 263–279. <https://doi.org/10.1111/famp.12115>.
- Pinto, T. M., Figueiredo, B., & Feinberg, M. E. (2019). The Coparenting Relationship Scale—Father's prenatal version. *Journal of Adult Development*, 26(3), 201–208. <https://doi.org/10.1007/s10804-018-9308-y>.
- Psouni, E. (2019). The influence of attachment representations and co-parents' scripted knowledge of attachment on fathers' and mothers' caregiving representations. *Attachment & Human Development*, 21, 485–509. <https://doi.org/10.1080/14616734.2019.1582598>.
- Raby, K. L., Lawler, J. M., Shlafer, R. J., Hesemeyer, P. S., Collins, W. A., & Sroufe, L. A. (2015). The interpersonal antecedents of supportive parenting: A prospective, longitudinal study from infancy to adulthood. *Developmental Psychology*, 51(1), 115–123. <https://doi.org/10.1037/a0038336>.
- Roisman, G., Clausell, E., Holland, A., Fortuna, K., & Elieff, C. (2008). Adult romantic relationships as contexts of human development: A multimethod comparison of same-sex couples with opposite-sex dating, engaged, and married dyads. *Developmental Psychology*, 44, 91–101. <https://doi.org/10.1037/0012-1649.44.1.91>.
- Roisman, G. I., Collins, W. A., Sroufe, L. A., & Egeland, B. (2005). Predictors of young adults' representations of and behavior in their current romantic relationship: Prospective tests of the prototype hypothesis. *Attachment & Human Development*, 7, 105–121. <https://doi.org/10.1080/14616730500134928>.
- Salvatore, J. E., Kuo, S. I., Steele, R. D., Simpson, J. A., & Collins, W. A. (2011). Recovering from conflict in romantic relationships: A developmental perspective. *Psychological Science*, 22, 376–383. <https://doi.org/10.1177/0956797610397055>.
- Schulz, M. S., Cowan, C. P., & Cowan, P. A. (2006). Promoting healthy beginnings: A randomized controlled trial of a preventive intervention to preserve marital quality during the transition to parenthood. *Journal of Consulting and Clinical Psychology*, 74, 20–31. <https://doi.org/10.1037/0022-006X.74.1.20>.
- Schwerdtfeger, K. L., & Goff, B. S. N. (2007). Intergenerational transmission of trauma: Exploring mother–infant prenatal attachment. *Journal of Traumatic Stress*, 20(1), 39–51. <https://doi.org/10.1002/jts.20179>.
- Shai, D. (2019). The Inconsolable Doll Task: Prenatal coparenting behavioral dynamics under stress predicting child cognitive development at 18 months. *Infant Behavior and Development*, 56, 101254. <https://doi.org/10.1016/j.infbeh.2018.04.003>.

- Shapiro, A. F., Nahm, E. Y., Gottman, J. M., & Content, K. (2011). Bringing baby home together: Examining the impact of a couple-focused intervention on the dynamics within family play. *American Journal of Orthopsychiatry*, *81*, 337–350. <https://doi.org/10.1111/j.1939-0025.2011.01102.x>.
- Simpson, J. A., Collins, W. A., Tran, S., & Haydon, K. C. (2007). Attachment and the experience and expression of emotions in romantic relationships: A developmental perspective. *Journal of Personality and Social Psychology*, *92*, 355–367. <https://doi.org/10.1037/0022-3514.92.2.355>.
- Slade, A., Holland, M. L., Ordway, M. R., Carlson, E. A., Jeon, S., Close, N., et al. (2020). Minding the Baby®: Enhancing parental reflective functioning and infant attachment in an attachment-based, interdisciplinary home visiting program. *Development and Psychopathology*, *32*(1), 123–137. <https://doi.org/10.1017/S0954579418001463>.
- Sockol, L. E. (2015). A systematic review of the efficacy of cognitive behavioral therapy for treating and preventing perinatal depression. *Journal of Affective Disorders*, *177*, 7–21. <https://doi.org/10.1016/j.jad.2015.01.052>.
- Sockol, L. E. (2018). A systematic review and meta-analysis of interpersonal psychotherapy for perinatal women. *Journal of Affective Disorders*, *232*, 316–328. <https://doi.org/10.1016/j.jad.2018.01.018>.
- Sroufe, L. A. (1996). *Emotional development: The organization of emotional life in the early years*. New York: Cambridge University Press.
- Steele, H., Steele, M., & Croft, C. (2008). Early attachment predicts emotion recognition at 6 and 11 years old. *Attachment & Human Development*, *10*(4), 379–393. <https://doi.org/10.1080/14616730802461409>.
- Strozier, A., Armstrong, M., Skuza, S., Cecil, D., & McHale, J. (2011). Coparenting in kinship families with an incarcerated mother: A qualitative study. *Families in Society*, *92*, 55–61. <https://doi.org/10.1606/1044-3894.4064>.
- Taffazoli, M., Asadi, M. M., Aminyazdi, S. A., & Shakeri, M. T. (2015). The relationship between maternal-fetal attachment and mother-infant attachment behaviors in primiparous women referring to Mashhad Health Care Centers. *Attachment Behavior*, *10*. <https://doi.org/10.22038/JMRH.2015.3949>.
- Talbot, J., Baker, J., & McHale, J. (2009). Sharing the love: Prebirth adult attachment status and coparenting adjustment during early infancy. *Parenting, Science and Practice*, *9*, 56–77. <https://doi.org/10.1080/15295190802656760>.
- Theran, S. A., Levendosky, A. A., Bogat, G. A., & Huth-Bocks, A. C. (2005). Stability and change in mothers' internal representations of their infants over time. *Attachment & Human Development*, *7*(3), 253–268. <https://doi.org/10.1080/14616730500245609>.
- van Bussel, J. C. H., Spitz, B., & Demyttenaere, K. (2010). Reliability and validity of the Dutch version of the Maternal Antenatal Attachment Scale. *Archives of Women's Mental Health*, *13*(3), 267–277. <https://doi.org/10.1007/s00737-009-0127-9>.
- van Scheppingen, M. A., Denissen, J. J. A., & Bleidorn, W. (2018). Stability and change in self-control during the transition to parenthood. *European Journal of Personality*, *32*, 690–704. <https://doi.org/10.1002/per.2172>.
- Verhage, M. L., Schuengel, C., Madigan, S., Fearon, R. M. P., Oosterman, M., Cassibba, R., et al. (2016). Narrowing the transmission gap: A synthesis of three decades of research on inter-generational transmission of attachment. *Psychological Bulletin*, *142*(4), 337–366. <https://doi.org/10.1037/bul0000038>.
- Vreeswijk, C. M. J. M., Maas, A. J. B. M., & Bakel, H. J. A. v. (2012). Parental representations: A systematic review of the working model of the child interview. *Infant Mental Health Journal*, *33*(3), 314–328. <https://doi.org/10.1002/imhj.20337>.
- Vreeswijk, C. M. J. M., Maas, A. J. B. M., Rijk, C. H. A. M., Braeken, J., & Bakel, H. J. A. v. (2014). Stability of fathers' representations of their infants during the transition to parenthood. *Attachment & Human Development*, *16*(3), 292–306. <https://doi.org/10.1080/14616734.2014.900095>.

- Walsh, J., Hepper, E. G., & Marshall, B. J. (2014). Investigating attachment, caregiving, and mental health: A model of maternal-fetal relationships. *BMC Pregnancy and Childbirth*, *14*(1), 383. <https://doi.org/10.1186/s12884-014-0383-1>.
- Wilson, M. E., White, M. A., Cobb, B., Curry, R., Greene, D., & Popovich, D. (2000). Family dynamics, parental-fetal attachment and infant temperament. *Journal of Advanced Nursing*, *31*(1), 204–210. <https://doi.org/10.1046/j.1365-2648.2000.01245.x>.
- Witte, A. M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Szepeswol, O., & Shai, D. (2019). Predicting infant–father attachment: The role of pre- and postnatal triadic family alliance and paternal testosterone levels. *Attachment & Human Development*, 1–15. <https://doi.org/10.1080/14616734.2019.1680713>.

Chapter 16

Understanding Teen Parents in a Modern Context: Prenatal Hopes and Postnatal Realities



Tyler B. Jamison and Richard E. Feistman

In 2017, the teen birth rate for women aged 15–19 years was 18.8 per 1,000 women, which translated into 194,377 babies being born to teen mothers that year (Centers for Disease Control 2019). This number reflected another drop in rapidly declining teen birth rates in the United States. Between 1991 and 2015, the teen birth rate dropped by 64% (Centers for Disease Control). Because teen parenthood puts both parents and children at a greater risk of negative outcomes (e.g., chronic poverty, depression, substance abuse, and incarceration; Kiselica 2008), these declines are a positive development. However, the changing social context surrounding teen parenting, including its much lower incidence, has created unique challenges for teens who find themselves navigating the transition to parenthood.

In response to the ongoing needs of teen parents, the Office of Adolescent Health (OAH) has continued to fund programs that aim to prevent teen pregnancy and support teens who become parents. One such program was the Education, Employment, and Engagement (E³) Teen Parenting Program, which was run through the New Hampshire Department of Education between 2016 and 2018. The mission of E³ was to link existing social service programs into a coordinated network to support teen parents and their families. The program was originally designed to serve teen fathers, because they have so few available resources as they transition to parenthood. However, in 2018, the program was expanded to mothers as well.

The three “E’s” of the program (Education, Employment, Engagement) were based on research highlighting the unique needs of teen fathers. Young fathers often feel significant pressure to financially support their children, which leads many to

T. B. Jamison (✉)
Department of Human Development and Family Studies, University of New Hampshire,
Durham, NH, USA
e-mail: tyler.jamison@unh.edu

R. E. Feistman
Teach Plus, Boston, MA, USA
e-mail: rfeistman@teachplus.org

drop out of high school in favor of full-time employment. However, job prospects without a high school diploma are limited, and the decision to drop out can have lifelong consequences for both career development and lifetime earnings (Benson et al. 1999; Fagan and Lee 2013). Thus, the E³ program was designed to give teen fathers alternative routes to complete their high school education, while also working. This was accomplished by connecting teen parents to competency-based programs, adult education centers, and alternative schools with more flexible hours. Along with balancing work and education, the employment component of E³ included connections to skilled jobs when possible (e.g., flooring installation, plumbing) and provided supplements (i.e., an additional \$3/hr.) to parents' hourly wages to bring them closer to a living wage. Finally, E³ promoted family engagement through parenting classes and activities designed to enhance positive parent-child interactions. The network of programs that provided these services included state agencies, university partners, nonprofits, mental health providers, and parent educators.

Working with families in the context of this program revealed some important insights about the experience of navigating social systems as a teen parent. The tension between parents' prenatal hopes and postnatal realities was especially salient, as many parents began the program during the pregnancy and remained engaged following the birth of their child. In this chapter, we aim to articulate what we learned about teen parents. It became apparent in looking at our data and reflecting on our experiences as program developers that the broader social and political contexts of teen parenthood were reflected in the day-to-day interactions between teen parents, their partners, their families, and stakeholders in the programs designed to serve their needs. Thus, we organized our discussion with Bronfenbrenner's Ecological Model in mind, first explaining the data we collected about teen parents in the E³ program and then exploring what we learned about macrosystem, exosystem, microsystem, and mesosystem influences in pre- and postnatal teen families (Bronfenbrenner 1979).

Data About E³ Parents

Eligibility for the E³ Teen Parenting Program included becoming a parent before the age of 20 and being less than 24 years old at the time of enrollment. Pregnant teens and their partners were also eligible to enroll in the program. When the program ended in 2018, it had served 167 teen fathers (43%) and mothers (57%) over 3 years. The average age of the parents enrolled in the E³ program was 21.0 with a range of 16–31 years of age. Because only one parent needed to be a teen, some older partners of teen mothers were also enrolled in the program. This is consistent with research demonstrating that the majority of teen mothers have partners who are older than 20 (Kiselica 2008). E³ participants were predominantly White (78%), but the program also included parents that identified as Hispanic (9%), Black (7%), Biracial (3%), American Indian (2%), and Asian (< 1%). Among those enrolled in

the program, 106 participants (59 mothers and 47 fathers) provided data about their lives and experiences through screening and intake interviews. This subsample included mothers who ranged in age from 16 to 26 years ($m = 19.87$) and fathers who ranged in age from 16 to 31 years ($m = 21.3$). For the sake of clarity, we will refer to all teen parents who participated in E³ as “program participants” and all parents for whom we have data as members of the “sample of teen parents.”

Just under half of the teen parents in the sample ($n = 50$) were connected to each other through a shared child, though some were no longer romantically involved. Almost half (47%) of the participants reported their relationship status as, “We are committed to staying together.” The sample was somewhat racially diverse for New Hampshire; 73.6% were White, 19.8% were non-White, and 6.6% did not report race and/or ethnicity. Only 6.6% of participants reported having graduated high school or attending a postsecondary school that required a high school degree or General Educational Development (GED) certificate).

Many participants were pregnant with their first child when they enrolled in the program, including 38.3% of fathers and 20.3% of mothers. Among teens who were already parents, most had only one child at the time of enrollment, though mothers were three times as likely to report having more than one child (13.6%) compared to fathers (4.3%). More than half of participants reported being employed (55.7%), including 65.9% of fathers and 47.5% of mothers. More than one-third of participants reported that at least one of their parents had given birth to a child as a teen themselves.

Data Sources

When teen parents were referred to the program, the E³ Program Director conducted an intake interview including questions about the teen’s background, current educational status, and thoughts about parenthood. In addition to data from the intake interviews, an external evaluation team consisting of university researchers and independent consultants gathered data from a broad range of stakeholders as part of the federal reporting process. These data were collected through a combination of interviews and focus groups of program participants, program staff, and staff working in the network of organizations that provided services to teen parents (e.g., school administrators, parent educators). The following insights about teen parenting are based on data from across these sources.

Some intake interviews were audio recorded, providing opportunities to document verbatim quotes from participants, while other interviews were recorded more informally through the interviewers’ notes. This lack of consistency is a by-product of running a program for young parents. Intake interviews were often done in the field or in the moment when a referral came in. If another time was scheduled to complete the intake, we often lost touch with the parent. Thus, in the sections below, we provide examples based both on practitioners’ notes from intake interviews as well as direct quotes from parents (indicated by quotation marks).

Prenatal Hopes

Before their children were born, E³ teens' ideas about parenthood were rooted in their hopes, expectations, emotions, and reflections on their own childhoods. Thus, like many new parents, the prenatal experiences of teen parents were largely abstract. At the time of their intake interviews, most teens knew they wanted to be good parents and had ideas about what that meant to them, but the reality of how to accomplish their parenting goals was not fully formed. Early in the program, we discovered that one of our most challenging and important goals was helping parents clarify the steps that would lead from where they were in the present to where they wanted to be in the future both personally and professionally.

Consistent with other investigations of young, unmarried parents (see Edin and Kefalas 2005; Edin and Nelson 2013), our sample of expectant teen parents met the news about their pregnancies with a mixture of enthusiasm and trepidation. During the intake interviews, teens were given a list of 15 emotions and asked to note which ones they felt when they learned they were going to become parents. Happy and scared were the most commonly endorsed emotions, followed by surprised, excited, and panicked. This mix of emotions is important, because it highlights the hopefulness that professionals working with teen parents can capitalize upon as they work with young parents to reach their goals. However, it also reveals the fear of becoming a young parent, which may need to be addressed along with the practical aspects of preparing for the arrival of a baby.

We also asked parents what being a good father or mother meant to them. Although providing financial and instrumental support was mentioned by nearly every parent, parents in the sample also expressed the importance of being warm and supportive figures in their children's lives. Sometimes, they articulated these values directly. For example, in an intake interview, one father described a *good father* as someone who is there, physically and mentally involved, and does not abandon the child. Other times, program participants' ideas about being a good parent were drawn in contrast to their own parents. For example, another father said that he wanted his daughter to say that he tried and that he did better than his own father by being there rather than disappearing and by giving her things she needs. In the absence of good role models themselves, being a good parent meant teaching their children about life; as one father put it: "Pretty much giving him life lessons that you didn't have from your past from your father." There was a strong sense of aspiration in parents' explanations of what it meant to be a good mother or father. One father described this goal as being a person, even a friend, his son can go to who provides financial support and bonds with his son, which he felt was especially important. Another parent listed as parental aspirations: paying attention, showing his love for his child, teaching his child, and not getting frustrated with him. Perhaps because they were so close to their own experiences in childhood, teen parents seemed to feel particularly accountable to their children, "I [want my daughter to think] that I did a good job raising her." Another parent said, "I want my daughter to see me as a role model." Beneath these aspirations were hints about the fear of not living up to their hopes for themselves or

their children. One parent talked about “knowing that you did your best to raise your child and owning up to your responsibilities”. He went on to say, “Depending on how you raise him, he can grow up to be a good person or a troubled kid and it’s never good to know that you were the reason why someone else had difficult problems.” Another parent said, “I hope [my son] will say I did my best and that I can make him be successful. Won’t say I wasn’t there, deadbeat.”

Along with more individual hopes for themselves as parents, they also reported on their expectations for building a family with their child’s other parent. In our sample, nearly half of teen parents (47%) said they were committed to staying with their partners and another 47% described themselves as either “on good terms” or “planning to coparent” with their child’s other parent. Again, similar to other studies of unmarried parents, the expectations during the pregnancy and immediately postpartum are to maintain strong family relationships, even in the absence of a romantic relationship between parents (Edin and Nelson 2013). The parents in the E³ program faced considerable barriers to meeting their prenatal goals for their families, but the desire to build a stable life for their children provided an important foundation for programming efforts.

Postnatal Realities

In order to successfully transition to adult roles, teen parents must negotiate complex family relationships, while navigating school, economic, and political systems that are not always designed to meet their needs (Sarri and Phillips 2004). Despite their optimism about the transition to parenthood, the realities of managing multiple systems proved stressful and challenging for parents in the E³ program. In the remainder of the chapter, we use an Ecological Systems approach to understand the opportunities and challenges faced by teens after their children were born.

Macrosystem: Social Structures and Expectations

In the ecological model, the macrosystem represents the cultural norms, values, and policies that influence individuals’ expectations and experiences indirectly (Bronfenbrenner 1979). This broader context shapes teen parenting in at least two important ways. First, the expectations for when and how young people transition to adulthood has shifted, occurring later than in previous generations (Arnett 2015). Consequently, teen parents may take on adult roles a decade or more before their peers without children. Second, as the rate of unmarried births continues to climb, there is less pressure for couples to marry in response to a pregnancy. Thus, teens often become parents in the context of precarious romantic relationships (Edin and Nelson 2013). These macrolevel influences shape both the expectations others have for teen parents and also the expectations teen parents have for themselves.

Transition to Adulthood The legal age of majority in the United States is 18, yet many 18–29-year-olds are considered *emerging adults* – individuals who experience a moratorium on adult responsibilities in order to explore identity, career opportunities, and romantic relationships (Arnett 2015). In line with this change, most individuals do not marry until their late twenties or early thirties (Hemez 2018), and the average age of first birth for women is 26.8 years (Guzzo and Payne 2018). Teen parents lose access to this prolonged transition into adulthood when they take on the social and legal responsibilities that parenthood entails. Thus, in a modern context, having a child early in life can be experienced as an abrupt and premature transition into adulthood (Kiselica 2008). Although they have the responsibilities of adulthood, research suggests that this group also must negotiate some of the tasks associated with emerging adulthood such as completing their education, securing stable employment, and solidifying their identities (Gee and Rhoades 2003; Kirby 2007; Kiselica 2008; Lemay et al. 2010). The tension between these demands creates ongoing stress for teen parents (Benson et al. 1999; Fagan and Lee 2013), which has been linked to some of the negative outcomes often observed among this population (Kiselica 2008).

The laws that govern teen parents create a problematic mismatch between what is expected (e.g., completing an education, coparenting, financially supporting the child) and the freedoms and supports available for minors (Sarri and Phillips 2004). When teen parents are under 18 years of age, they are unable to sign legal documents such as leases, applications for benefits, or consent forms for healthcare without their parents' involvement. Systems and services are often designed with the assumption that there is a supportive relationship between teen parents and their own parents. For example, in 1996, the reauthorization of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) limited eligibility for services to teen parents who live full-time with a parent or supervising adult and remain enrolled in school full-time (Sarri and Phillips 2004). This policy rests on the assumption that teen parents have consistent and supportive family relationships, which many do not (Kiselica 2008). Thus, some teens who are trying to survive independently may find themselves unable to meet their child's basic needs, not because they are unmotivated, but because they cannot access the same supportive resources as adults can (e.g., food stamps, housing assistance, cash assistance; Sarri and Phillips 2004).

Socially and legally, teen parents are expected to maintain the same stable and healthy home environments for their children as adult parents, yet the modern context of teen parenting makes it particularly difficult to access services that would help them achieve those goals. The E³ program staff and stakeholders noted their role in clearing barriers for teens to achieve their school, employment, and parenting goals. One parent educator said, "The most impactful services we were able to provide with the E³ funds were supportive services, or those services provided to remove a barrier to education, employment, and/or engagement." For example, programmers mentioned helping participants with rent, transportation, tuition,

childcare, utilities, groceries, and student debt repayment so that they could engage in other aspects of the program. The program director summarized the outcome of these ancillary services, “Many participants have expressed a dramatic reduction in anxiety and increase in overall quality of life without having to constantly worry about housing, transportation, or debt.” Participants in the program also expressed this directly to the program evaluators:

I just wanted to reach out and say a big “THANK YOU” for helping me out with the student loan payment! That is the last bit of debt I was trying to clean up prior to buying a house and now I’m almost there. (...) Not too long ago, we were faced with so many challenges because we got pregnant at a young age. Thank you so very much!

Without help to secure their basic needs, teens would have had much more difficulty reaching the higher-order goals of the program to finish high school, gain skilled work experience, and practice being engaged parents. Although the E³ program was not designed to address basic needs like rent and transportation, it quickly became clear that the program could not function without a broader approach to helping teens transition to both parenthood and adulthood.

Family Formation Expectations Historically, unmarried couples who conceived a child were expected to marry in order to legitimize the pregnancy (Coontz 2005). Although the long-term outcomes of these marriages were not always positive, they may have provided young families with social status and structure that were beneficial as they transitioned into their roles as parents. Today, there is little expectation that teen parents will marry, yet they are still responsible for coordinating the instrumental and financial support of their child. Although many young couples are romantically involved at the time of their child’s birth, most break up by the child’s first birthday (Reed 2007). When their relationships dissolve, teen parents must either negotiate shared parenting informally or pursue a legally binding parenting plan through the court system.

Outside of the context of marriage, there is no structured process for shared parenting unless the family actively seeks it. This gap was especially evident in our data about teen parents’ coparenting arrangements. We asked about whether they had a legal parenting plan that would establish a structure and schedule for shared parenting. We also asked if they had informal agreements about how they would share responsibilities for their child. We found that many parents were unclear about whether they had a legal parenting plan. Some reported that they had a parenting plan in writing (11%), but they could not provide details about the nature of the agreement or the legal process that had produced it. Informal agreements were more common (89%), yet many relied on having an ongoing positive relationship with each other. Without a legal plan, there was no recourse for parents who could no longer agree on how to coparent their child. The parents in the sample made informal agreements with the hope and expectation that their relationships would remain positive, but the stressful realities of parenthood often challenged their earnest desire to remain a family.

Microsystem: Daily Relational and Institutional Negotiations

The microsystem consists of the activities, roles, and relationships that an individual engages with directly and regularly (Bronfenbrenner 1979). One of the challenges we observed in teen parents is that their microsystems expanded quickly when their babies were born. In addition to their school and home lives, they had new activities (e.g., caregiving), relationships (e.g., parent-child, coparenting, relationships with their partner's family), and settings (e.g., childcare, work, social services agencies) to manage. In the interest of parsimony, we will focus on one microsystem change for each of the main components of the E³ program: new family relationships (engagement), school challenges (education), and the workplace (employment).

New Family Relationships Most E³ participants were romantically involved when they became pregnant with their shared child, but the transition to parenthood brought about significant changes to their relationships with their partners and added new relationships: coparental and parent-child relationships. In many ways, the pregnancy itself started the transformation of their couple relationship (see Chap. 13 in this book by Florsheim and Burrow-Sanchez for more information on young couples' prenatal communication patterns in relation to their postpartum adjustment). We will first discuss the coparental microsystem and then the parent-child microsystem.

The coparenting relationships between teens were often fraught because of stressors surrounding the pregnancy and the teen parents' difficulty in creating a stable and sustainable adult life following the birth of their child (e.g., having a home and a job). An E³ practitioner who has worked with teen parents for 10 years explained that young women often default to cutting fathers out of the situation when they find out they are pregnant. Part of her role as an educator and mentor has been to show them different paths that honor fathers' rights and provide their children with meaningful access to both parents. Sometimes that involves formalizing a parenting plan through the court system so that they have a roadmap for parenting in place if and when they cannot effectively coparent.

When parents have an ongoing relationship that may provide opportunities for coparenting, they have to overcome significant challenges related to both the transition to parenting and their experiences of living in poverty. For example, one couple in our sample, Ava and Dave, became part of the E³ program when they were pregnant with their first child together, though Ava had custody of two children from a previous relationship and Dave had custody of one child from a previous relationship. They were around age 20 and living in their respective parents' basements as they prepared to welcome the fourth child to their combined family. One of the E³ practitioners described how she coached them about coparenting in a difficult situation:

I always say, right, you can either be you against them or the two of you against the problem and [Ava and Dave] really shifted to doing that especially with baby number 4 (...) They are coparenting literally the new baby, but then watching that bleed out into how now they're dealing with the other three kids has been awesome.

The barriers to coparenting in this population are considerable, so engaging alternatives that maintain civility and provide opportunities for each parent to be involved with the child are important. Anna and Justin provide an example of success in this kind of “parallel” parenting. Anna’s parents separated when she was three but lived on separate floors of her home throughout her childhood. Despite their close proximity, they did not have ongoing communication, so their parenting was very separate. When Anna became pregnant at 16 with Justin (15), she had a framework for parenting effectively with someone without having a great deal of contact. For example, she led the process of making a parenting plan before the baby was born. A practitioner described this relationship as, “the most undramatic, anticlimactic teen parenting relationship ever. They just sat down and figured it out and went on with their lives.” These examples demonstrate the need to reconsider what successful coparenting looks like to include models of parenting that do not require ongoing communication or consensus. It may particularly benefit teen parents who are unlikely to remain romantically involved or who have strong negative feelings toward one another to seek opportunities for parallel parenting rather than traditional coparenting relationships as they have historically been conceptualized in coparenting studies of married, two-parent families.

Although they were sometimes surprised by the demands of parenting, E³ parents expressed a lot of joy and a keen sense of responsibility toward their children. Some were candid about their lack of preparation for the parenting role. One father said, “Nothing that can prepare you to being a parent. Just happens and have to do your best to prepare yourself.” Another said, “I was a nervous wreck with the baby coming. I didn’t know what to expect.” Yet, parents in the E³ sample took pleasure in the daily tasks of caring for their children. One father stated that the best part of being a dad was playing with his daughter and spending time with her, while another explained: “Taking [my daughter] on small hikes and nature walks is like exhilarating. To bring what I love from my childhood into her childhood. It’s the simple things.” They talked about playing with their babies and showing them the world. For example, one father said that he liked to play with his daughter and make her laugh and smile. Even when resources were limited, parents found ways to meaningfully engage with their children. A father commented on how tight money was, and that this affected how much he could do with his daughter, but he also described that he read to her and went for walks.

The positive experience of watching their children grow was evident across parents in the program. Yet, they often experienced stressors related to their roles as parents. Between school and work, some parents expressed a lack of time with their children. One parent explained a common challenge, “finding time really to do things with her because of my schedule and she is in daycare.” For others, shouldering much of the burden of childcare brought its own stressors:

For me, there is a lot. Her mom is at school, so I am doing everything. I don’t care, but it’s a lot. It’s hard. (...) First couple of months it was a lot on my plate. Getting up in the middle of the night. Sometimes I feel like I am doing it all.

Other parents faced unique challenges to building a relationship with their child, like one father who was in foster placement when his child was born and stated that he did not have a chance to bond with his son over the past 8 months, since he only saw him a couple of days during the week and on weekends. These experiences of both joy and stress in engagement with their new family roles are common for the transition to parenthood among any population. What seemed to set teen parents apart was that their other microsystems, primarily school and work, were not set up to accommodate their needs as new, young parents. This intensified their stress and made it more likely that parents would retreat from school, work, or both. This is one reason why E³ placed a strong emphasis on supporting teens in their school and work environments.

School and Work All E³ participants under the age of 22 had access to a free and public education, yet many had lost touch with their local schools once they became parents. School personnel reported losing contact with teen parents because their phone numbers and living situations changed frequently and they could not keep contact information updated. The educational sites that had the most success with young parents (e.g., earning credits or graduating) were those that provided the most flexibility in terms of attendance and curriculum requirements. Programmers reported that schools with rigid credit-hour and attendance policies left little room to support teen parents, who were often far behind in their education. Interestingly, many teens in the program were experiencing academic challenges before becoming parents. For example, 25.4% of parents in the E³ sample had an Independent Education Plan (IEP), (6.6%) had a 504 plan (i.e., accommodations for disabilities), and 2.8% had both. Parenthood simply added another level of complication to their educational needs and schools were rarely equipped to accommodate them.

The workplace microsystem presented yet another set of challenges. Parents often reported that they were employed (66%), but they worked mostly in part-time, low-wage jobs. Parents generally knew they needed more education to reach their goals. One father said, “[I] need to get an education because I am so far behind and [need to] learn about driving.” Another explained, “[I] cannot be hired full time without a high school diploma or GED.” Yet another expressed a common sentiment about the future, “I want my GED, want my education...I want to get somewhere further down the road.” In addition to a formal education, programmers noted a host of “soft skills” that teen parents required to be successful on a jobsite (e.g., communication, conflict management, and self-regulation). Yet, the rapid transition to adulthood left little time to develop and practice these skills. Additionally, even though New Hampshire is a state with labor shortages and the program would pay for part of their wages, program staff could not always convince employers to hire young parents. Employers were wary of teen parents’ lack of a high school degree and their limited access to reliable transportation. Unlike the education system, even strong advocacy from E³ staff could not always overcome these barriers to meaningful employment. As a consequence, the program focused more on skills training and increasing the wages of the jobs participants already had.

Mesosystem: Loose Ties Between Systems

The mesosystem is made up of the linkages between elements of the microsystem, or all the settings that are directly related to the developing person (Bronfenbrenner 1979). When teens transition to parenthood, they experience an ecological transition, which involves a shift in a person's role, setting, or both (Shelton 2019). A consequence of this shift in microsystem components is that the mesosystem (the links between microsystems) for E³ teens was somewhat disorganized during the transition to parenthood. For example, most E³ parents had contact with a school during the pregnancy and for some time after their babies were born, but their schools were not equipped to serve young parents. Schools had experience working with teens and with the adult parents of those teens. Yet, when their students became parents, there were no obvious linkages between the school and other services the students now needed (e.g., employers, social service agencies, childcare providers for the new baby). The lack of connections between these emerging systems created additional stress for new parents. Thus, one of the most important contributions E³ made for teen parents was helping them build and navigate the relationships between their microsystems following the birth of their child.

E³ helped to build up the mesosystem linkages for teen parents in two ways. First, the program sometimes directed parents to alternative educational settings with teachers and administrators who had more capacity to work with teen parents. Several parents attended an alternative high school that ran classes for only half of the average school day so that parents could work or take care of their children without incurring additional childcare costs. Participation in the E³ program also created lines of communication between employers and the program's stakeholders, because the program was supplementing teen parents' pay. By linking employers with the E³ program, they became more sensitive to the needs of teen parents and there was a dialogue between the employer and stakeholders working directly with teen parents.

The mesosystems of E³ parents were also shaped by specific members of the stakeholder team (e.g., program manager, parent educators, and advocates) who acted as regular contacts with parents throughout the process. The demands of communicating with many different service providers and maintaining personal relationships with their children, partners, and families was difficult for young parents. Teens who had already become parents explained during their intake interviews that their stress was due to their age, their busy schedules, and not knowing what to do. As the E³ program evolved, it became clear that a key to helping teen parents succeed was providing warm, experienced adults to shepherd them through the systems they needed to navigate. As one practitioner described:

It's like imagine standing on the top of a mountain and all you know is that you have to get down. If you have at least somebody who's kind of a Sherpa being like, "No really, come this way. Here's some boots and a hot cocoa. And we're fine, let's sing a song where everyone has to get down the mountain." And that's part of it. You have to be an unrelentingly cheerful muppet of a human being [so] that even if, and I have had it happen, even if they screw up and get arrested they still will come put their face in your face because they know you're gonna say, "Well you shouldn't have done that, but what can we do next time?" And it's not the end of their world.

E³ participants who gained the most from the program formed strong bonds with either a school official or the central E³ personnel who could link them to services. For example, one of the first E³ participants had a very involved educator from his school who was constantly scanning the state for resources. She would seek out the participant at home, find methods for him to talk with E³ personnel, and then ensure the connection between the program and this young man. Though our sample of teen parents often reported challenging relationships with their own parents and distant relationships with most school personnel, they reported very positive relationships with E³ personnel. One teen father said:

There is a staff person here. He has helped me a lot recently. Helped me get connected with myself. I have conversations with him about my son sometimes and how I want to be there for him more. He told me a lot of good advice.

The advocates and educators that became connected to the program acted as bridges across the many systems and services that parents encountered during the transition to parenthood.

Exosystem: Process Evaluation Findings from E³

In the ecological model, the exosystem includes settings, events, and individuals that are indirectly related to the developing person (Bronfenbrenner 1979). Thus, the exosystem may not have any contact with the developing person, but it shapes their experiences in important ways. In the context of the E³ program, the behind-the-scenes workings of the program itself served as an exosystem for teen parents. The nature and strength of relationships between stakeholders and the process involved in satisfying the requirements of the grant imposed both opportunities and limitations on the type of services teen parents were provided through the program. The external evaluation team conducted a rigorous process evaluation of E³, including interviews and focus groups with the program manager, members of the stakeholder group, and consultants working directly with fathers. The data from those interviews highlight a few important mechanisms through which the functioning of the program shaped teen parents' experiences.

First, although the eligibility criteria for the program were clear, the first few referrals raised questions about who the program could effectively serve. For example, the first referral was for a father who lived far away from most of the providers in the original stakeholder group. Including him in the program meant making connections with new stakeholders in his area to satisfy his need for alternative education, meaningful employment, and family engagement activities. As the program leaders worked to make these connections, there was a lag in what the program could provide to that father. Similar barriers were encountered with stakeholders' ability to provide services in languages other than English and their expertise in helping parents with complex legal needs (e.g., loss of child custody, parents in foster placement, or parents involved in the criminal justice system).

Despite these challenges, the flexible design of the program allowed for positive developments as E³ grew to include more teen parents. The grant application included an initial set of stakeholders that represented the three main components of the program (education, employment, and engagement), but the goal was always to expand to service providers across the state to reach as many teen parents as possible. By using the professional networks of initial stakeholders, the program found service providers with knowledge and experience that greatly enhanced the program's approach and offerings. Dedicated new providers became a regular touch-point for some teen parents in the program, but all of the participants benefited from what those providers brought to the table behind the scenes. For example, based on feedback from a parent educator, E³ adopted a menu approach to the family engagement portion of the program. Rather than asking E³ participants to attend scheduled parenting classes, we generated a list of activities that counted as family engagement (e.g., getting a library card, attending a birthing class, completing online modules about child development) and encouraged parents to participate in them using a financial incentive structure. This provided parents with the flexibility to engage in activities that made sense for their families, and also provided small amounts of money to ease financial stress during the transition to parenting.

These examples demonstrate the importance of looking beyond teen parents to see what is happening with the service providers working with them. Particularly for individuals who need support across domains, the functioning of the agencies that serve them may have an important, if indirect, influence on their experiences and outcomes.

Scaffolding Successful Transitions to Parenthood and Adulthood

Among the most defining features of teen parenthood is that it is temporary. Eventually, teen parents become adults, but their experiences transitioning to parenthood and adulthood at the same time have a lasting effect on their development and their children's development (Kiselica 2008). This is why, despite declining numbers of teen parents, this population remains an important target for interventions. When teen parents are provided with the type and level of support they need, the benefits ripple through two generations: young parents and their children.

The E³ program was originally created to address teen fathers' academic, professional, and family engagement needs, but in the process, we gained broader insights about how to support young people who are learning how to be parents while they are still growing up themselves. Perhaps, the most important take-away lesson was that *who* the program provided for parents as resources was more important than *what* the program provided. E³ parents were under tremendous pressure to coordinate school, work, and family life. They felt overwhelmed even before their children were born. Thus, providing more services that required them to show up, sign up,

fill something out, or go somewhere to get what they needed only added to that burden. What helped them the most as they made their transition to parenthood was having an experienced adult who could help them work through the systems they were facing. E³ did that by coordinating a network of stakeholder agencies that already had staff working for the well-being of individuals experiencing a range of vulnerabilities. However, building a network is not the only way to provide access to supportive and community-connected adults. Sarri and Phillips (2004) identified a number of “gateway agencies” (e.g., schools and churches) that young mothers used to gain access to other services. Capitalizing on the resources of agencies that already come in regular contact with teens has great potential to connect them with much-needed services.

School-Based Interventions Based on our work with E³ parents, we would argue that schools are the gateway agencies with the most potential to help teens successfully transition to both parenthood and adulthood. When schools have the capacity to serve and accommodate young parents, those parents have the greatest likelihood of completing their education, which has a profound and lasting effect on their life chances in adulthood (Benson et al. 1999; Fagan and Lee 2013; Kiselica 2008). Also, because federal and state laws mandate that adolescents be enrolled in school, educators are a nearly universal resource for teens as they gain more independence from their families. Research indicates that positive teacher-adolescent relationships are associated with a host of positive outcomes for students, including increased student achievement (Eryilmaz 2014; Jekielek et al. 2002; Yildirim et al. 2008), improved coping behaviors (Zimmer-Gembeck and Locke 2007), and increased academic self-regulation (Raufelder et al. 2016). These relationships also improve teachers’ effectiveness, motivation, and job satisfaction. When teachers have strong relationships with students, they are better able to identify students’ learning gaps, gain knowledge about students’ needs, monitor students’ work, and personalize instruction (Drysdale et al. 2014). This evidence points to the potential benefits of engaging educators as advocates for young parents. However, the kind of work that E³ program staff and stakeholders did on behalf of teen parents is well beyond the scope of work for the average classroom teacher. Thus, we will focus our recommendations on how to build capacity in schools as a whole and in specialized teacher leaders to identify and connect young parents with external resources to meet their needs.

In the last 20 years, the education field has turned its focus to the importance of family and community engagement as a way to both boost the school’s presence in the community and improve student outcomes (Bryk et al. 2010; Henderson and Mapp 2002; Moles and Fege 2011). Family and community engagement initiatives are often required by state and federal law (Henderson and Mapp 2002). However, they tend to be narrowly focused on the parents of current students. We would argue for schools to broaden the target population for family and community engagement efforts to include the parents of students *and* students who have become parents. By viewing teen parents as part of family and community engagement, schools can grow their capacity to meet the emerging needs of their students. This is likely to

have a positive impact not only on the academic achievement of student-parents, but also to foster stronger connections with alumni who then become part of the broader community.

Another effort to improve the supports available in schools is through specialized teacher leaders, who are trained to shape the positive culture of their schools and influence education policy at the local, state, and federal levels. For example, Teach Plus is a national nonprofit that trains and funds nearly 1000 teacher leaders each year in American public schools. Teacher leaders have a role in their schools and communities that is especially conducive to advocacy for students who are going through any number of challenging transitions, including the transition to parenthood. Specifically, teacher leaders can help their peer teachers shift their focus from instruction and behavior management to view students as parents, partners, and family members who may need additional flexibility to succeed. Education systems can be very flexible once student needs are identified and documented. Promoting understanding and flexibility is essential when working with young parents, because we found that teen parents retreat from inflexible systems – only reappearing when they are older and likely facing far more complex problems. However, educators cannot do this work without support. They need training to help them understand the contextual factors that shape family life for teen parents, and they need readily accessible connections to agencies that can provide direct services to teens.

Relationship and Coparenting Education Efforts to improve the relationships between unmarried parents are well funded and widespread. Learning from those interventions is an important starting place for educating teen parents, but they do not provide a perfect template for helping young people transition to both parenthood and adulthood at the same time. Based on our work with the E³ program, we think that the three most important areas for program development are father involvement, program incentives, and mental health counseling.

E³ was originally designed to serve fathers, because there are so few resources available to them. We found that simply acknowledging fathers as family members with both rights and resources to contribute helped to shift conversations in the state about the value of serving fathers. As one practitioner noted, creating stable families cannot focus only on mothers and their children. Indeed, Cowan and Cowan (1987) emphasized how men experience the transition to parenthood differently from women; men's transitions to parenthood occurred more slowly and they were less involved in their newborns' care than were mothers. However, greater father involvement in the Cowans' sample was associated with benefits for mothers, fathers, babies, and the couple relationship (Cowan and Cowan 1987). Whether similar findings also apply to teen parents has not been investigated yet, but it is clear that treating fathers as allies in supporting the needs of families serves to welcome the positive influence fathers have to offer and creates another point of intervention for stabilizing young families. Another key to this process is engaging the court system to help fathers establish paternity and formalize a plan for fathers to be involved with their children. Though it may seem counterintuitive, going through the court to create a parenting plan reduced teens' anxiety about the future parenting

relationship, because it provided a road map for how they were going to work together. One of the challenges of E³ was helping young parents to plan for the long-term future. The demands of the present were so intense that it was difficult to think about how their families might change or the needs they may have in a year or two. Formalizing a parenting plan was a first step in planning for the future. In programming efforts, it is important to create space for both parents to be involved and parenting plans are one of the ways to formalize fathers' rights to parent their children.

Another key aspect of E³ was the incentive structure that we used to help parents financially while we delivered other services. Parents could submit pay stubs from their jobs and E³ would provide them with lump sum payments that rounded up their hourly wage to \$10 per hour. The program also provided a \$250 incentive once parents had completed 10 family engagement activities from our approved list. Ava and Dave in our sample demonstrated how powerful these incentives could be in creating a successful transition to family life. During the pregnancy, Ava and Dave lived separately with each of their parents. However, they each completed the family engagement courses and received a total of \$500 between them. They used that money as their contribution to a community program that helped with paying the deposit on an apartment. Around the time their child was born, the transmission in Dave's car failed. He used \$800 from the work incentives through E³ to fix his truck. This allowed him to keep his job, which was necessary for them to continue paying rent and supporting their four children. Almost 2 years after completing the E³ program Ava and Dave have an apartment, two jobs, and a vehicle. Without the financial support from E³, they may not have been able to move out of their parents' homes and build a life together as a family.

Another incentive that was added later in the program was paying for teens to get driver's education. For teens who no longer were matriculating at public high schools, getting the required classroom hours and supervised driving experience was cost prohibitive. By offering funds to pay for driver's education, E³ was able to keep parents engaged in the process and give them a tool that would help them get and keep a job. The value of these incentives went beyond encouraging teens to continue working toward program goals. The incentives themselves served to move parents toward the goals of improving education, employment, and engagement.

Finally, E³ provided free individual, couple, and family counseling to teen parents. This in-kind incentive was especially powerful, because it laid a foundation for wellness in parents that could improve their capacity to parent well. Counseling helped parents to address the stigma associated with being teen parents and provided tools for working through issues from their own childhoods. One of the marriage and family therapists who worked with the program explained the value of counseling for teen parents:

When teens are balancing finances, employment, school, family conflict, couple conflict, a newborn, and more, it is helpful to remind them that being self-critical is not helpful or ok. They are balancing so much they may as well have compassion and possibly even pride in themselves for all they do on a daily basis. Once there is an awareness of how much they do, the things that they would like to see as different or better feel a little possible.

By engaging counseling services alongside other education efforts, programs can better address the complexity of living as a young family in poverty.

Teachers and relationship educators should not be asked to replace the social safety net that is in place to support young families. This is where community-based advocates and services are indispensable. What we learned through E³ is that having services available is not enough when working with teen parents. They need adults to connect and guide them to service-providers. Adult mentors have the potential to provide teens with an access point to get them past particularly stressful postnatal realities and into a future that more closely resembles their prenatal hopes.

Acknowledgments The preparation of this chapter was aided by the efforts of Peter Durso and Amelia Hasbun, who were instrumental in the collection and management of program data, respectively. We would also like to acknowledge the contributions of Janis Lilly, whose insight about teen parents from a practitioner perspective informed the recommendations for interventions targeted toward teen parents.

This work was made possible by Grant Number SP1AH000027 from the HHS Office of Adolescent Health. Contents are the sole responsibility of the authors and do not necessarily represent the office views of the Department of Health and Human Services or the Office of Adolescent Health.

References

- Arnett, J. J. (2015). *Emerging adulthood: The winding road from the late teens through the twenties* (2nd ed.). New York: Oxford University Press.
- Benson, P., Scales, P., Leffert, N., & Roehlkepartain, E. (1999). *A fragile foundation: The state of developmental assets among American youth*. Retrieved from The Search Institute website: <https://www.search-institute.org/>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bryk, A., Sebring, P., Allensworth, E., Luppescu, S., & Easton, J. Q. (2010). *Organizing schools for improvement: Lessons from Chicago*. Chicago: University of Chicago Press.
- Centers for Disease Control. (2019). *Reproductive Health: Teen Pregnancy*. Division of Reproductive Health: National Center for Chronic Disease Prevention and Health Promotion. Retrieved from: <https://www.cdc.gov/teenpregnancy/about/index.htm>
- Coontz, S. (2005). *Marriage, a history: From obedience to intimacy, or how love conquered marriage*. New York: Viking Adult.
- Cowan, C., & Cowan, P. (1987). Men's involvement in parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Hillsdale: Lawrence Erlbaum Associates, Publishers.
- Drysdale, J. S., Graham, C. R., & Borup, J. (2014). An online high school “shepherding” program: Teacher roles and experiences mentoring online students. *Journal of Technology and Teacher Education*, 22(1), 9–32.
- Edin, K. J., & Kefalas, M. (2005). *Promises I can keep: Why poor women put motherhood before marriage*. Berkeley: University of California Press.
- Edin, K. J., & Nelson, T. J. (2013). *Doing the best I can: Fatherhood in the inner city*. Berkeley: University of California Press.
- Eryilmaz, A. (2014). Perceived personality traits and types of teachers and their relationship to the subjective well-being and academic achievements of adolescents. *Educational Sciences: Theory and Practice*, 14(6), 2049–2062.

- Fagan, J., & Lee, Y. (2013). Do coparenting and social support have a greater effect on adolescent fathers than adult fathers? *Family Relations*, *60*, 247–258.
- Gee, C., & Rhoades, J. (2003). Adolescent mothers' relationships with their children's partners: Social support, social strain, and relationship continuity. *Journal of Family Psychology*, *17*, 370–383.
- Guzzo, K. B., & Payne, K. K. (2018). *Average age of first birth 1970–2017* (Family Profiles, FP-18-25). National Center for Family and Marriage Research. Retrieved from: <https://doi.org/10.25035/ncfmr/fp-18-25>.
- Hemez, P. (2018). *Young adulthood: Sequencing of union experiences relative to first birth* (Family Profiles FP-18-24). National Center for Family and Marriage Research. Retrieved from: <https://doi.org/10.25035/ncfmr/fp-18-24>.
- Henderson, A. T., & Mapp, K. L. (2002). *Annual report 2002: A new wave of evidence: The impact of school, family, and community connections on student achievement*. Retrieved from National Center for Family and Community Connections with Schools website: <https://www.sedl.org/connections/resources/evidence.pdf>
- Jekielek, S., Moore, K., & Hair, E. (2002). *Mentoring programs and youth development: Synthesis, child trends*. Washington, DC.
- Kirby, D. (2007). *Emerging answers: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases*. Retrieved from The National Campaign to Prevent Teen and Unplanned Pregnancy website: <https://powertodecide.org/sites/default/files/resources/primary-download/emerging-answers.pdf>
- Kiselica, M. (2008). *When boys become parents: Adolescent fatherhood in America*. New Brunswick: Rutgers University Press.
- Lemay, C., Cashman, S., Elfeinbein, D., & Felice, M. (2010). A qualitative study of the meaning of fatherhood among young urban fathers. *Public Health Nursing*, *27*, 221–2310.
- Moles, O., & Fege, A. (2011). New directions for Title I family engagement. In S. Redding, M. Murphy, & P. Sheley (Eds.), *Handbook on family and community engagement*. Lincoln: Academic Development Institute.
- Reed, J. (2007). Anatomy of the breakup: How and why do unmarried couples with children break up? In P. England & K. Edin (Eds.), *Unmarried couples with children* (pp. 133–156). New York: Russell Sage Foundation.
- Raufelder, D., Scherber, S., & Wood, M. A. (2016). The interplay between adolescents' perceptions of teacher-student relationships and their academic self-regulation: Does liking a specific teacher matter? *Psychology in the Schools*, *53*(7), 736–750.
- Sarri, R., & Phillips, A. (2004). Health and social services for pregnant and parenting high risk teens. *Children and Youth Services Review*, *26*(6), 537–560.
- Shelton, L. (2019). *The Bronfenbrenner primer: A guide to develecolology*. New York: Taylor & Francis.
- Yildirim, O., Acar, A. C., Bull, S., & Sevinc, L. (2008). Relationships between teachers' perceived leadership style, students' learning style, and academic achievement: A study on high school students. *Educational Psychology*, *28*(1), 73–81.
- Zimmer-Gembeck, M., & Locke, E. M. (2007). The socialization of adolescent coping behaviors: Relationships with families and teachers. *Journal of Adolescence*, *30*(1), 1–16.

Part V
Closing Chapter

Chapter 17

Growing Points in the Study of Prenatal Coparenting and Triangular Dynamics



James P. McHale and Regina Kuersten-Hogan

This chapter concludes a volume that has audaciously sought to investigate coparental and family dynamics during the prenatal period, while recognizing full well that coparenting itself is always, at a minimum, a triangular construct (McHale and Irace 2011). In suspending judgment and thinking three before the baby's arrival, the contributing authors have truly broken unprecedented ground. The extraordinary nature of the collective scholarship owes to the fact that the very existence of a triangular union between a mother, father, and fetus is at once inimitable, poetic, preposterous, and incontrovertible, depending on the lens one takes.

For starters, the triangular union can legitimately be said to be inimitable, because no other comparable phenomenon in family science – or in life – exists. Every child ever conceived, and every child ever born, possesses both a mother and father. There is always a primary triangle, whether the father is ever known to the child or not. Though the limits of this assertion have been challenged and pressed by donation and even cultivation of sperm and ova from not only known or unknown others, but even deceased family members for future fertilization (Smajdor 2018), in the end, every child will indeed always have two parents.

The prenatal triangular union is at the same time poetic and fanciful. The mother-father-child triangle holds symbolic meaning and significance to both mothers- and fathers-to-be during the pregnancy, long before the baby's arrival – even if the parents themselves find it challenging to access or articulate how they have begun to think about the threesome. Most readily consciously accessible will be each parent's whimsical and hopeful images of their own growing and future relationship as

J. P. McHale (✉)

Family Study Center, Department of Psychology, University of South Florida,
St. Petersburg campus, St. Petersburg, FL, USA

e-mail: jmchale@usf.edu

R. Kuersten-Hogan

Clinical Counseling Psychology Department, Assumption University, Worcester, MA, USA

e-mail: kuersten@assumption.edu

a father or mother to the child-to-be. However, parents will also establish visions involving a baby-coparent-coparent system, be they conscious or unconscious. This said, in certain cases, it is possible that prenatal imagery may in fact not incorporate the second parent ever and at all – and what limited data on this topic exist (e.g., von Wyl et al. 2004) suggest that this variant of the parent’s prenatal representational world is itself meaningful. Finally, in rarer but not uncommon cases, the essential nature of these visionings may be nihilistic, troubling, and deserving of clinical intervention (Sonne 2005).

The notion that a triangular union between mother, father, and fetus is already active during the pregnancy might also be considered preposterous, because after all, in the end, there is as-yet no materially separate third party individual who is capable of influencing the flow of family dynamics in the ways that every baby can and will do postbirth (through a giggle, goo, gasp, or eye gaze directed toward or away from the adults). Though the fetus can certainly be a topic of conversation and can even trigger (if not literally be drawn into) live interactional dynamics subsequent to a kick, movement or other signal of vitality and initiative, throughout the pregnancy, the fetus can truly only be an object of coparental impulses and activity, never a cocreator or transformer of operational behavioral exchanges by virtue of activities and expressions of their own. Instead, the focal point of all observations of behavioral exchanges within the “triangular” family system during pregnancy can always and only be two people, the mother-father dyad. A mother-father-infant triad will never be visible prenatally, though the triadic intentions of the mother-father, mother-mother or father-father coparental dyad can be steered (and according to the contributors to this volume, even estimated meaningfully) by an external prop such as a baby doll or an ultrasound image.

And yet, despite this stark reality, the triangular union during pregnancy is also incontrovertible. Once a baby is conceived – and even, as some of this volume’s contributors propose, in advance of conception – there will be hope, jealousy, dread, desire, energy, and ambivalence about the life that will bring mother and father together as lifelong coparents for their shared child. This shared psychological space, where adults envisage a triangle and come together to breathe life, substance, and body into the space securing their joint imaginings of the fetus and future child, undoubtedly holds meaning. It is this meaning that makes this evolving field of family science so intriguing and significant. In this closing chapter, we revisit major themes to surface from the collection of original research studies assembled for this volume, highlight several avenues of inquiry not pursued by any of the volume’s contributors, and comment on the promise and future of this field of scholarship itself.

Major Themes

One of the principal themes that the contributors to this volume converged upon – that there is indeed coherence and sometimes continuity seen in prenatal family dynamics across time, family membership, and interactional contexts – is certainly

not a newly discovered truth. The organization and interrelatedness of family systems and subsystems across parenthood traditions were first elucidated in the seminal research of Cowan and Cowan (1987), Lewis (1989), Goldberg and Michaels (1988), and other pioneers hailed throughout this volume. Nevertheless, the theme of coherence deserves reiteration here as the more recent work presented in our volume now also specifically focuses on the coparenting subsystem and on coparenting dynamics *observed* from pregnancy into the postpartum period. Contributors to this volume document a coherence within family systems and subsystems even before the child's arrival. There is a coming together of strengths, capacities, wisdom – and unfortunately too, prejudices, predispositions, and predilections – toward risk evident during the prenatal period. The findings regarding cross-time coherence are important, and they bolster a case made by several contributors that there is value in developing preventive and protective coparenting interventions for families during pregnancy – certainly for higher-risk families, but perhaps also more generally for all new parents.

Remarkably, several investigative teams argue convincingly from their data that even artificially staged, stressful, or contrived interactions observed during pregnancy capture meaningful dynamics that can forecast future family life, parental adjustment to parenthood, and child functioning. Whether it is the joint focus and affective sharing observed in what was coined by David Reiss (1981) as the prenatal “practicing family” or just particular elements of families’ interactions – such as certain behaviors exhibited by mothers while they are pretending to engage with their baby-to-be that are consistent with a “maternal gatekeeping” interpretation – prenatal family dynamics seem to offer previews of what is to come post birth. What makes this continuity even more striking is that in contrast to postpartum interactions, prenatal dynamics are based principally on dyadic representational activity and its coordination between partners. The research presented in this volume is consistent with what we learned about continuity in couples’ adaptation and functioning across the transition to parenthood several decades ago (Cowan and Cowan 1987; Lewis 1989; Pape Cowan and Cowan 1992) and suggests that such continuity may also extend to observations of prenatal coparenting behaviors.

Also emphasized in several chapters of this volume is the leitmotif of resilience in families; while couples frequently do face some form of hardship or stressor from within or outside the family during pregnancy, the capacities of mothers and fathers to address such stressors are commendable and even formidable, and the majority of families find ways to navigate adaptive transitions to parenthood. Contributors to this volume show, for example, that prenatal conflict in couple relationships does not unavoidably translate into poor coparenting relationships during pregnancy – particularly if the mother herself has experienced positive family-of-origin coparenting experiences. Other contributors demonstrate that distress about infertility or unsupportive, homophobic attitudes in the immediate or broader environments may not result in less supportive pre-pregnancy or prenatal coparenting alliances.

There is an indomitable spirit among many pregnant couples, invigorated by the promise of the child- and family-to-be, and the additional psychic energy and vitality that owe to the integrated threesome appear to provide an extra asset and boost

to mothers- and fathers-to-be, frequently allowing them to cope with unforeseen stressors. This is unfortunately not always the case, of course, and greater threat is often found within multiple-stressed, vulnerable populations – but even here, resilience is a familiar theme, and practitioners seeking to identify and develop family strengths can often find some stable bulwark from which to build. Now more than six decades ago after LeMasters' (1957) provocative contention that the transition to parenthood represents a crisis for first-time parents, we echo again what numerous scholars since that time have already concluded: For the vast majority of couples who deliver full-term and medically strong and capable newborns, the life-transforming event of a first child's birth in no way represents a form of crisis. Even for those families who have faced some challenges following (and even dating to before) conception, adaptive coping with, and often without, substantive family assistance is an expectable postpartum outcome.

Lastly, despite several intriguing leads presented in the chapters throughout this volume, the key issues concerning the exact timing and the unequivocal origins of the family's budding coparenting bond are still left unanswered. What is clear from several reports is that preconception coparenting inclinations are worth exploring further. Though Goldberg and Michaels (1988) advised researchers more than 30 years ago to consider conceptualizing and delivering family interventions prior to conception rather than waiting for a pregnancy, even today, surprisingly, few have approached their work from this vantage point. Reflecting a sign of the times in which they were carrying out their scholarship, Goldberg and Michaels developed their review of parenthood transitions by focusing principally on what had been learned about the transitions of married, heterosexual, coresidential two-parent families. They described *preconception* protective factors as including high marital quality, adequate social and economic resources, mental and physical wellness, partners' positive relationships with their own parents, and a strong motivation to become a parent. Conversely, risk factors prior to conception were portrayed as a low motivation to become a parent and role conflicts that added to risks stemming from partners' past or current mental or physical health problems and from lower socioeconomic status (SES). Goldberg and Michaels (1988) noted that challenges couples experienced prior to conception differed from those experienced during pregnancy and the postpartum period and so, consequently, interventions designed for different periods should be phase-specific.

Specifically, within the field of coparenting, we (McHale et al. 1996) first called attention to the potential importance of studying preconception *coparenting* inclinations a quarter century ago, in reviewing studies of that time showing that young adults had already begun planning their future families, sometimes even before actually being in relationships. One study had even revealed that the nature of college-aged students' representations of their origin family coparenting dynamics could be linked to the likelihood that they would have chosen names for their future children and to a bias toward desiring multiple male children in their future family (c.f. McHale et al. 1996).

Soaring forward 25 years to the chapters in this volume, contributors verify that individual characteristics of partners such as their attachment orientation prior to

the transition to parenthood do indeed play important contributory roles in determining the couple's adjustment to pregnancy itself, consistent with earlier research on marital satisfaction prior to pregnancy. Evidence hence converges to indicate that questions regarding the roots of coparenting solidarity and dissonance may in fact be worth searching for far earlier than was previously thought. This new scholarship serves to reinforce Goldberg and Michaels' (1988) hunch that there may indeed be value in thinking about men's and women's coparenting proclivities, intentions, and motivations even prior to conception.

Key Conceptual Issues Still Seeking Clarification and Voice

Innovative new work raises more questions than it answers. Such is certainly the case with the topics addressed in this volume. There is a ring of familiarity to the quests of this volume's contributors to define the broad outlines of what is unique and meaningful about the emerging coparenting system prior to the baby's arrival. Back in 1999, McHale and Fivaz-Depeursinge set out on a mission not unlike the one charted in this volume, seeking to identify and detail the foundations of the triangular (postnatal) alliances formed between mothers, fathers, and babies. They observed that pioneering family scientists of the time who were investigating coparenting and triangular dynamics were struggling to find ways to depict the new family group process without relying too extensively on – and even appropriating wholesale – prior and existing metaphors that had long been used to describe families of a different status (i.e., families in clinical distress). They also noted that these same family scientists were battling to counteract their biases toward describing families simply as collections of individuals or dyads. Decades later, these reflections harken true once more for the breaking field of work described in this volume. For despite the innovations of method and intent, the researchers who have broken ground in this new field do in fact rely heavily on existing coparenting constructs and metaphors that were founded in postpartum coparenting research, and on representational measures that at least so far, in the end, are most often characterizations of a single person's psychology rather than of the full family unit's distinctive, if as yet incomplete, personality.

And this present-day state of affairs is of course reasonable and to be expected. The ambitions of the innovators in this new field are to help illuminate how the family comes together as a system, and as such, the notions of cooperation, cohesion, conflict, and disconnection remain dominant metaphors. Researchers' eyes have been, and will continue to be, trained on the capacities of individuals to form healthy dyadic unions and the capacities of already-functioning dyads to effectively incorporate a third (and in the case of Volling's program of work, a fourth) member into their existing system. In their efforts to capture evolving behavioral dynamics, researchers have relied extensively on the concept of fetal attachment. Yet unlike research on attachments between infants and parents, by definition, a dyadic construct with both partners contributing to the nature of the relational bond (Sroufe

and Waters 1977), prenatal attachment of parent to fetus is an individual construct, with the parent carrying sole responsibility for the bond being formed (or not).

While work to date indicates that mothers and fathers can both develop fetal attachments, and that mothers and fathers interact differently with the developing fetus, researchers have failed to come to consensus on whether mothers exhibit greater fetal attachment than do their partners (Wilson et al. 2000). Some studies do draw this conclusion, while also noting that there is significant variability among families. For example, Schodt (1989) reported that in one of four families, fathers had higher fetal attachment than did mothers. Others, such as the investigation of White et al. (1994) with Swedish families, report that fathers reported higher fetal attachment than did mothers in most of the cases studied.

The question of interest, of course, is not whether men or women report more. Of interest is how expectant mothers and fathers support (or fail to support) one another's growing bond with the developing fetus – and whether and how the two of them come to develop mutual and cohesive patterns of fetus-relevant behavior that genuinely include and involve them both. The efforts to capture this emerging dynamic in the Prenatal Lausanne Trilogue Play have been well chronicled throughout this volume. Whether this brief and staged enactment – that does not in any way actually involve the animate fetus – taps into the behavioral interaction sequences and patterns that are evolving in real time between the parents vis-à-vis their fetus is a fascinating question that has yet to be satisfactorily addressed empirically.

What about the family threesome in fantasy? Here, the field does indeed have a great deal to offer. There is the promise of identifying and exploring the meaning of triangular symbolism as it is held individually by mothers and fathers. There is also triangular symbolism that will come to be shared mutually by the two of them as a budding coparental unit and alliance. And most intriguingly, there is the symbolism of the family's coparenting alliance as it will come to be known more broadly to a small supporting cast of preferred others – one or more of whom may themselves ultimately convert to become meaningful, consistent coparental figures for the child in their own right.

This latter notion of collective intersubjectivity within families was first artfully explained by Stern (2005). It has subsequently been advanced further in studies of triangular capacity (Fivaz-Depeursinge et al. 2005; McHale et al. 2008; Tremblay and Rovira 2007; Bradley and Smithson 2017; see also Chap. 3 in this volume). In his treatise on collective intersubjectivity, Stern (2005) proposed that in any cohesive group, individual members' knowledge of what lies in the minds of others can be observed and inferred from the group members' interactions – together. The amalgamation and crystallization of this mutual process is inevitably a very gradual one, as the relevant group members become increasingly familiar with one another's habits, propensities, and behavioral biases. Some of this familiarity comes to be acquired through each person's repeated dealings with the others' habitual response tendencies. Some of it is acquired through shared dialogues and group conversations, and some through corrective learning experiences at critical moments that then themselves create shared experiences that are subsequently carried forward collectively.

Just as a duo within a five-person basketball team collectively masters a set of plots and maneuvers owing to their shared experiences in repeatedly and successfully planning and executing plays and moves together in tandem – even as the team five-some simultaneously develops its own playbook, collective rhythm, tempo, habits, and “personality” – so too do emerging families create their own dyadic, triadic, and n-adic patterns, over time, with repetition, fits and starts, and ultimately shared knowledge and wisdom. The timing with which such interconnectivity and shared wisdom comes into being from the original initially held perspectives and biases of each of the individual “players” is what the contributors to this volume have collectively sought to identify.

Obviously, individual maternal and paternal fantasies invariably come first, later being shared with one another. Initially, these individual and jointly shared fantasies will have no or very limited connectivity to the actual fetus, but over time, the animate fetus will increasingly be enlisted into these individual and shared fantasies. The fetus may even minimally influence the individual and shared fantasies (some taking on the character of “scripts”; see Byng-Hall 1986) through occasional incidental provocations from within (e.g., becoming active at the same time each evening, hiccupping seemingly after a certain type of food has been ingested by the mother, sleeping for extended periods). The communally shared narrative or scripts between parents embracing the fetus will carry over to, and survive through, the birth process itself and even into the early hours, days, and weeks of life. From this point on, the child will then begin to play a more direct and potent role in affecting shared and recurrently practiced family behavior patterns or “procedures” (Reiss 1992). The process through which this consolidation occurs in different families has begun to be charted, though much, much work remains.

Further Growing Points: Family Collectives, Preferred Kinship Networks, and Coparenting Diversity

Among the many major growing points for this evolving field, perhaps, the most striking and key need we see is for family scientists to begin developing paradigms that can better accommodate the influences and impact of salient others beyond the mother-father dyad in shaping the collective coparenting and family-level perspectives that will take form. While it is reasonably easy for those who continue to be guided by archetypal albeit biased notions of “families” as containing two coresidential parents and a child to envisage the presumed dyadic “pillow talk” of these two coresidential parents-to-be as they reflect together on the fetus-related events of their day (and on any direct communications the fetus may be transmitting from within as they engage in this contemplation together), the potent shaping influences of other coresidential and/or close-by potential coparents-in-waiting are less apparent. Such influences almost inevitably will come in other forms, which can be both direct and indirect.

Directly, intimately involved grandparents and other favored family members can and do assist parents in interpreting and inferring meaning to fetal, and later to infant and child, signaling. Parents who are the recipients of this advice in turn may share, or fail to share, with their baby's other parent, the input they have received from their favored senior family members as a new, wider family system dynamic begins to take shape. At the broadest level, Stern's (2018) concept of the motherhood constellation provides a concrete example of the range of influences accessible to new mothers – but even within this constellation, it will be one favored person, or perhaps two, who ultimately come to have most pivotal and direct stable influence in shaping what will become the coparental unit's shared, collective narrative. Though several promising methodological leads already do exist for studying these family narratives or stories in two-parent families (Fiese and Spagnola 2005), no study has yet focused specifically on the child-centered narrative that will come to be adopted and shared by the three or more core members of a new coparental and family unit – mother, father, and one or more residential or close-at-hand grandparents or intimate kin (and in gay- and lesbian-headed families, the parenting partners along with those favored others endorsed as members of their core coparental alliance).

Oliveri and Reiss (1981), whose systematic study of family paradigms has a great deal to offer this developing discourse about the construction of coparental units, dubbed the small network of first- and second-degree relatives to whom the members of a particular family felt closest the family's "preferred kinship network" (see also Reiss and Oliveri 1983). To this conceptualization, we would add the commonplace choice and integration of "fictive kin" (Chatters et al. 1994) into children's coparenting collectives during the infant and toddler years. Though Reiss and Oliveri's empirical work focused most extensively on families of adolescents, its relevance to early family formation and development of coparental networks for individual children is largely untapped and boundless.

Relatedly, also not yet a subject of study in this emerging field are the "alternate" family narratives that get constructed by family members and close friends who sit "outside" this core inner circle of intimately interconnected coparents but who – based on their own observations of the cyclical patterns they see emerging and consolidating in the new family unit – develop views of their own about the dynamics transpiring in the new family. These narratives may closely match the shared narrative of the core family unit itself, but they may also contain interesting and important departures worthy of note.

Indirectly, mothers, fathers, and coparenting "others" also carry forward family legacies and "positions" that will come to be appointed to newborns and reinforced as children age (Boszormenyi-Nagy and Spark 1973). These historical roles that have long endured in the family ancestry may have little or nothing to do with the actual child, but nonetheless will come to be engraved upon – and later potentially even claimed by – the child, contingent on the corrective actions and interference (or the collusion) of other coparents with those adults who are aggressively seeking to preserve these roles in the new generation. A child's purported "happy-go-lucky", feisty, serious, responsible, or dramatic proclivities, especially during early infancy, may owe as much or more to known caricatures in the mother's and/or father's

family history than to the child him- or herself. Assigning specific children to uphold and embody these various known family positions is seldom executed in a calculated, deliberate manner, even though the archetypes for these roles may have long inhabited a coparent's imaginal world.

With respect to prenatal family dynamics and the transition to coparenthood, the process by which one parent acquiesces to or resists the legacy saved for the new baby by their partner (often by way of their partner's family) is a particularly important one to illuminate to better understand. Methodologies for such inquiries have yet to be developed, though even now, it is possible to look to and build upon gentle probes such as inquiring where the baby's chosen name came from, who selected it, and what thought, and symbolism, lay behind the choice. This inquiry will be meaningful for many to most families and can sometimes provide a beginning window into shared decision-making processes between the adults, though for a subset of families, it will prove to be more of a dead-end if there was no "history" behind last minute and even slapdash name selection. The point is that with carefully considered and constructed methods, it will be possible to find openings to probe and depict "legacy-making" even before the child is actually born – and most certainly – to document the process afterward.

The construction of the child's family world takes on particularly pointed and special meaning for families outside those most typically studied in investigations enrolling primarily white middle-class married couples. For example, the decision made by unmarried parents as to whether the baby will bear the father's last name and whether the father's name will appear on the baby's birth certificate is one that both embodies and enshrines the mother-father relationship dynamics with respect to their shared child in "fragile family" systems (Rebman et al. 2018). In many minority communities, the child's chosen name also has the power to connect them not just with extended family but with the broader ethnic community (Cila and LaLonde 2019; Robinson 2001). A kindred literature has begun to emerge on the significance of the choice of surnames given to children born within lesbian coparent families (Almack 2005).

Comparably, the decision-making process in bicultural families, where parents decide together whether to choose a mainstream name (i.e., one common in that country's "official" language) or a name that reflects the nonmajority parent's culture, language, and heritage, can reveal the extent of the coparents' shared commitment and motivation to ensure heritage cultural maintenance (Cila and LaLonde 2019). Though these questions relevant to ethnocultural continuity have been pursued in scholarship outside the family science lens brought to bear in this volume (e.g., Gezentsvey Lamy et al. 2013), they have yet to find their way into studies such as those detailed in this volume on coparenting and triangular relationships during the transition to new parenthood. They do, however, have much to teach and inform such studies, and promise to expand the relatively narrow cultural windows brought to bear in such work.

For the most part, this volume was relatively silent on the topic of religion and its influence on pregnancy, childbirth, and early family formation and dynamics. Depending upon the degree of orthodoxy of the child's two parents, religious mores and traditions can have a very powerful organizing influence on early coparental and

family-level dynamics (e.g., Choudhry 1997; De Sevo 1997), and expansion of this field to examine not just between-group but also within-group variability and differences as a function of religion and religiosity would further advance this realm of study.

Finally, we note the continuing Euro-centrism of the studies in this volume – while most researchers showed a sensitivity to ways that cultural factors may have played a role in their work, none of the studies in this volume truly fully embraced the varying global contexts in which parents and coparents routinely make parenthood transitions. At the most basic level, global data reveal that the percentage of women who became mothers by the age of 16 is nearly 3 times higher in low-income than in middle-income countries (National Research Council & Committee on Population 2005). Outside the United States and the European countries, most generally reflected in transition-to-parenthood studies, substantial percentages of women have a first birth before age 18 in most regions. This includes over 20% of women in Southern Asia, Central America and the Caribbean, and Eastern and Southern Africa and 16% in South America. Also of interest is the fact that the proportion of men aged 15–19 who report their having had a child is extremely low, averaging only 2–3% in regions for which data are available (and in contrast to the 6–21% of adolescent women ages 15–19 who have become mothers). Even between the ages of 20 and 24, young men outside the United States and Europe are much less likely to have transitioned to fatherhood than young women. For example, in Latin America, about 25% of men have transitioned to fatherhood compared with 50–60% of young women; in sub-Saharan Africa, young women are 3–5 times more likely to have transitioned to parenthood in their early 20s than young men (National Research Council & Committee on Population 2005). These data are also reflective on couple and marital unions and, of course, on the development of coparenting systems. We have not even begun yet to turn the page on conceptualizing and understanding family systems and coparenting collectives beyond those best known historically to family researchers, though some consideration was given to within-continent coparenting variability in Europe in a 2015 analysis presented by McHale. Appropriately broadening our perhaps unintentionally narrow and nationalistic lenses has been, and remains, an important growing point for this evolving field of family scholarship, one that would address Bronfenbrenner's macrosystem influences (Bronfenbrenner and Evans 2000) on prenatal family dynamics (see Chap. 1, this book). It is safe to say we are still far from having given serious thought to Goldberg and Michael's (1988) recommendation that family researchers should begin investigating normative transitions to parenthood across a more comprehensive range of diverse family systems.

Methodological Considerations

Indisputably, even within the communities and populations most widely studied by family researchers, there is a critical need to begin expanding the lens taken in this volume to build an adequate understanding of differences in prenatal and early family experiences across neighborhoods and communities – and across the racial and

ethnic identities that have been underrepresented in mainstream family research. Moreover, to fully achieve this aim, long overdue attention must be brought to bear on the methods and paradigms employed in studies of transitions to parenthood. Although tightly controlled and orchestrated one-off interview and observational assessments have, by and large, proven palatable to and navigable for the kinds of families who have historically elected to volunteer for university- and center-based research studies – and family science has been fortunate to have such families willing and open to contributing to the field’s evolving knowledge base – those very same assessments can seem foreign, unnatural, invasive, and even repellant to parents from many groups.

Completing interviews that delve into sensitive content about one’s own origin family, mental health concerns, or current relationship challenges, openly engaging in tense conflict discussions before the attentive lens of a video camera, or play-acting personal exchanges with an inanimate doll as strangers watch from nearby necessitates that families experience a certain level of trust in the researchers who are working with and observing them. This earning of trust in many ethnic minority communities where there is general suspicion about the research enterprise itself is a gradual process (George et al. 2014). Building trust takes time, energy, and authenticity and for families in the underclass, even when researchers do possess necessary degrees of sensitivity and cultural competence and humility, factors outside the family, such as poverty, economic uncertainty, residential instability, and other daunting obstacles, can influence family readiness and motivation to take part in research studies before, during, and after transitions to new parenthood (Furstenberg 2001).

In the ideal situation, significant time and investment would be invested by research teams in meeting families where they are, and addressing pressing material needs first (e.g., McHale et al. Chap. 14 this volume). For African-American families in particular – where there is righteous and historical distrust in research-related initiatives – but for other ethnic minority and immigrant families and communities as well (e.g., Katigbak et al. 2016), building rapport and earning trust in advance of any research-related assessments should be considered not just best practice, but a morally vital and needed component of the contemporary research process. Interview and observationally based evaluations may need to be adapted (e.g., Renjilian et al. 2018), and should be started only once trust and understanding have been built and families feel ready to provide meaningful and reliable information about their lives, circumstances, and relationships. Yet this gradual approach (Yancey et al. 2006) has only rarely been the tack taken in studies of the genre described in this volume, and hence validity of prenatal data – when prenatal family data are obtained at all from underrepresented families – undoubtedly suffers.

A final related methodological consideration first raised by Goldberg and Michaels (1988) concerns the very measures developed for use by researchers who conduct their work in cultures that emphasize the importance of the couple relationship during the transition to parenthood. Such instruments may not be appropriate or valid for use with families from cultural and ethnic groups who emphasize the extended family in the adjustment to parenthood. In this regard, even the very questions asked about prenatal family dynamics, including decisions who should be observed and interviewed

to obtain the most information about this transition, are biased by assumptions based on majority cultures that have been most commonly studied to date.

Underrepresented and Understudied Groups and All They Can Teach Us

Notwithstanding these legitimate challenges, there are at the same time numerous examples of important research innovations from related lines of scholarship with understudied families that can breathe new life into future studies of parenthood transitions. Stepping away from investigations framed as studies of coparenting *per se*, it is possible to see some beginning gains already having been made in efforts to understand the meaning of parenthood transitions for ethnic minority men and women within white majority nations – most commonly, in Europe. Relevant investigations have explored early parenthood among young parents of Muslim faith in Great Britain, where teenage pregnancy within marriage is a social norm (Higginbottom et al. 2006) as well as the delayed first pregnancies of Turkish and Moroccan second-generation women in Belgium when married to a Belgian partner (in contrast to the timing of pregnancies of women in endogamous marriages with both first- and second-generation partners; Van Landschoot et al. 2018).

Other scholars have undertaken broader-strokes analyses, including an illuminating examination of family formation and the domestic lifestyles of south Asian settlers to the United Kingdom (Ballard 2008). Ballard illustrates how such families, often in opposition to migration managers, maintain complex individual and collective reciprocities with kinship members and others in ethnic collectives, redefining the meaning of family and the social context of early infant and child development.

Though the analyses from many of these seminal studies have been at molar, event-history levels, behind these analyses are the important decision-making processes and coparental and kinship determinations affecting children-to-be that are being made prior to and during transitions to parenthood. Such inquiries hence provide fertile provocations for the continuation and expansion of the lines of inquiry that are represented in this volume. Indeed, by taking the global lens advocated in the discussion above, it is already possible to see myriad opportunities to expand the field in needed ways.

Take, for example, the potential operation of cohort effects in prenatal planning and family transitions. Presently, a father's presence at childbirth is a common, if not universal, practice in nearly all industrialized nations. However, this concept is still new within the cultural values and norms of certain societies, such as in Nepal (Sapkota et al. 2012). Work is consequently underway to understand the cultural context surrounding the feelings and needs of Nepalese fathers in order to strengthen and boost prenatal education programs. As another example, parents who have transitioned to new parenthood in several middle Eastern nations now often find themselves navigating traditional versus modern perspectives on coparenting (Feldman

and Masalha 2007), especially with respect to filial ties during early infancy extending beyond the mother-father dyad (Mrayan et al. 2016; Salman-Engin et al. 2018).

To illustrate the value of such perspectives, data from most of the Jordanian parents who were the focus of Mrayan and colleagues' parenthood transition study depicted involvement by family members from marriage to pregnancy (and on through the arrival of their first child) as having been "too much." There were discrepant views of traditional child-care practices among older and younger generations of family members, leading to family conflict, resistance and reluctance, and stress and anxiety among young parents – often undermining healthful early parenting experiences. Perhaps most significantly, not all coparental support offered by well-meaning family members during early days of parenthood led to favorable health outcomes for mother and child. A similar finding had previously been reported by Sonuga-Barke et al. (1998) who documented negative effects of intergenerational parenting conflict on the mental health of Muslim mothers in extended families living in Britain.

In the Mrayan et al. (2016) study, a particular finding of note was that "social visiting" to hospital and home by elder relatives who held a vested interest in coparenting obstructed new parents' quests for privacy and family bonding immediately following the birth of their child. Certainly, there were different types of adjustments, some positive and some not, experienced in the development of family alliances; the field can hence look to this body of work as one valuable prototype for understanding multigenerational coparenting. It will be important in this and related studies to continue to take family-strengths frames of analyses (see, e.g., Salman-Engin et al. 2018). While it is instinctive for many researchers to be drawn to more problematic transitions, new parents and infants absolutely do derive benefits as well as experience strains in extended coparenting systems.

Finally, the role of culture itself is typically given insufficient credence in studies of multigenerational coparenting. Again, taking a global view, in Asian countries, grandparents normatively hold positions of respect and authority in families, typically reside with adult children, and, in over 50% of all families, provide care for one or more of their grandchildren (Knodel and Nguyen 2015). As Hoang and Kirby (2020) argue, in such family systems, parents are expected to obey their parents' opinions, in contrast with bilineal Western societies where family relationships are not obligatory. Yet, if there is one thing that has become clear, it is that monolithic assertions about between-culture differences should be viewed with both due respect and due caution, for the cohort differences alluded to above undoubtedly hold sway to varying degrees around the globe and impact coparenting and family dynamics from pregnancy forward.

Summary

We undertook this volume with the goal of collating the growing groundswell of studies concerning themselves with the consolidation of coparental and triangular dynamics during the prenatal period. Three decades ago, Krampe and Fairweather

(1993) informally jump-started this field of inquiry, proposing a ‘psychic parental coalition,’ which over time would come to reside intrapsychically in both parents and child. They posited that “father presence” and the very experience of triangularity began at the moment of conception, and was influenced by a variety of factors including the quality of father presence carried within the mother, the subjective involvement of the father with the mother, and even “sound resonances,” which through womb conditions would come to impact the child’s initial sense of father.

With some distance now, much of the initial conceptualization from the authors’ thesis had more mythical aplomb than scientific value. There have since also been valuable feminist critiques of how elements of this triadic view intersect with the historical patriarchal zeitgeist and with lingering concerns regarding power distribution in the family (Milstein and Baldwin 1997). Still, several of the concepts that emerged in Krampe and Fairweather’s rousing exposition have motivated studies of family triangles in the decades since and reverberate in the scholarly work of this volume. Wholes are indeed more than the sums of parts, and the formation of a family-level dynamics, if not a family-level personality, does not appear to need to await the actual delivery of the new child. Understanding the coparental processes that begin coming together in anticipation of the baby’s arrival, and that will continue to guide the child’s early life trajectory post-birth, is a noble and important enterprise for family scientists, one that we anticipate will gain increased traction in prenatal studies in the years ahead. As families diversify and children begin their lives in an increasingly varied but continually functional array of family systems, the efforts of the scholars working in this field, and those to come, promise to provide important new insights to help further and better the early human condition. We are enthusiastic about this line of scholarship and look forward to the road ahead.

References

- Almack, K. (2005). What’s in a name? The significance of the choice of surnames given to children born within lesbian-parent families. *Sexualities*, 8(2), 239–254. <https://doi.org/10.1177/1363460705050857>.
- Ballard, R. (2008). Inside and outside: Contrasting perspectives on the dynamics of kinship and marriage in contemporary South Asian transnational networks. In R. D. Grillo (Ed.), *The family in question: Immigrant and ethnic minorities in multicultural Europe* (pp. 37–70). Amsterdam: University Press.
- Boszormenyi-Nagy, I., & Spark, G. M. (1973). *Invisible loyalties: Reciprocity in intergenerational family therapy*. Hagerstown: Harper & Row.
- Bradley, B. S., & Smithson, M. (2017). Groupness in preverbal infants: Proof of concept. *Frontiers in Psychology*, 8, 385. <https://doi.org/10.3389/fpsyg.2017.00385>.
- Bronfenbrenner, U., & Evans, G. (2000). Developmental science in the 21st century: Emerging theoretical models, research designs, and empirical findings. *Social Development*, 9, 115–125. <https://doi.org/10.1111/1467-9507.00114>.
- Byng-Hall, J. (1986). Family scripts: A concept which can bridge child psychotherapy and family therapy thinking. *Journal of Child Psychotherapy*, 12(1), 3–13.
- Chatters, L. M., Taylor, R. J., & Jayakody, R. (1994). Fictive kinship relations in black extended families. *Journal of Comparative Family Studies*, 25(3), 297–312.

- Choudhry, U. K. (1997). Traditional practices of women from India: Pregnancy, childbirth, and newborn care. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 26(5), 533–539.
- Cila, J., & Lalonde, R. N. (2019). What's in a name? Motivations for baby-naming in multicultural contexts. In *Contemporary Language Motivation Theory: 60 Years Since Gardner and Lambert (1959)* (p. 130). Bristol: Multilingual Matters.
- Cowan, C., & Cowan, P. (1987). Men's Involvement in Parenthood. In P. W. Berman & F. A. Pedersen (Eds.), *Men's transition to parenthood* (pp. 145–174). Hillsdale: Lawrence Erlbaum Associates, Publishers.
- De Sevo, M. R. (1997). Jewish traditions in pregnancy & childbirth. *Nursing for Women's Health*, 1(4), 46–49.
- Feldman, R., & Masalha, S. (2007). The role of culture in moderating the links between early ecological risk and young children's adaptation. *Development and Psychopathology*, 19(1), 1–21. <https://doi.org/10.1017/S0954579407070010>.
- Fiese, B. H., & Spagnola, M. (2005). Narratives in and about families: An examination of coding schemes and a guide for family researchers. *Journal of Family Psychology*, 19(1), 51. <https://doi.org/10.1037/0893-3200.19.1.51>.
- Fivaz-Depeursinge, E., Favez, N., Lavanchy, S., De Noni, S., & Frascarolo, F. (2005). Four-month-olds make triangular bids to father and mother during triogue play with still-face. *Social Development*, 14, 361–378. <https://doi.org/10.1111/j.1467-9507.2005.00306.x>.
- Furstenberg, F. F., Jr. (2001). The fading dream: Prospects for marriage in the inner city. In E. Anderson & D. Massey (Eds.), *Problem of the century: Racial stratification in the United States* (pp. 224–246). New York: Russel Sage Foundation.
- George, S., Duran, N., & Norris, K. (2014). A systematic review of barriers and facilitators to minority research participation among African Americans, Latinos, Asian Americans, and Pacific Islanders. *American Journal of Public Health*, 104(2), e16–e31. <https://doi.org/10.2105/AJPH.2013.301706>.
- Gezentsvey Lamy, M. A., Ward, C., & Liu, J. H. (2013). Motivation for ethno-cultural continuity. *Journal of Cross-Cultural Psychology*, 44(7), 1047–1066.
- Goldberg, W., & Michaels, G. (1988). Conclusion: The transition to parenthood: Synthesis and future directions. In G. Michaels & W. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 342–360). Cambridge: Cambridge University Press.
- Higginbottom, G. M. A., Mathers, N., Marsh, P., Owen, J. M., & Serrant-Green, L. (2006). Young people of minority ethnic origin in England and early parenthood: Views from young parents and service providers. *Social Science & Medicine*, 63(4), 858–870. <https://doi.org/10.1016/j.socscimed.2006.03.011>.
- Hoang, N. P. T., & Kirby, J. N. (2020). A meta-ethnography synthesis of joint care practices between parents and grandparents from Asian cultural backgrounds: Benefits and challenges. *Journal of Child and Family Studies*, 29(3), 605–619. <https://doi.org/10.1007/s10826-019-01553-y>.
- Katigbak, C., Foley, M., Robert, L., & Hutchinson, M. K. (2016). Experiences and lessons learned in using community-based participatory research to recruit Asian American immigrant research participants. *Journal of Nursing Scholarship*, 48(2), 210–218. <https://doi.org/10.1111/jnu.12194>.
- Knodel, J., & Nguyen, M. D. (2015). Grandparents and grandchildren: Care and support in Myanmar, Thailand and Vietnam. *Ageing & Society*, 35(9), 1960–1988. <https://doi.org/10.1017/S0144686X14000786>.
- Krampe, E. M., & Fairweather, P. D. (1993). Father presence and family formation: A theoretical reformulation. *Journal of Family Issues*, 14(4), 572–591. <https://doi.org/10.1177/019251393014004006>.
- LeMasters, E. E. (1957). Parenthood as crisis. *Marriage and Family Living*, 19(4), 352–355. <https://www.jstor.org/stable/347802>.
- Lewis, J. (1989). *The birth of the family: An empirical inquiry*. New York: Brunner/Mazel.
- McHale, J. P. (2015). Coparenting in Europe, 2015: Celebrations of advances and cautions about misdirection. *Family Science*, 6(1), 229–239.

- McHale, J., Fivaz-Depeursinge, E., Dickstein, S., Robertson, J., & Daley, M. (2008). New evidence for the social embeddedness of infants' early triangular capacities. *Family Process, 47*, 445–463. <https://doi.org/10.1111/j.1545-5300.2008.00265.x>.
- McHale, J., & Fivaz-Depeursinge, E. (1999). Understanding triadic and family group process during infancy and early childhood. *Clinical Child and Family Psychology Review, 2*, 107–127. <https://doi.org/10.1023/a:1021847714749>.
- McHale, J., & Irace, K. (2011). Coparenting in diverse family systems. In J. McHale & K. Lindahl (Eds.), *Coparenting: A conceptual and clinical examination of family systems* (pp. 15–38). Washington, DC: American Psychological Association Press.
- McHale, J., Kuersten, R., & Lauretti, A. (1996). New directions in the study of family-level dynamics during infancy and early childhood. *New Directions for Child Development, 74*, 5–26.
- Milstein, K., & Baldwin, C. (1997). Coalitions in primary triads: Reexamining the theoretical constructs from a feminist perspective. *The Family Journal, 5*(2), 125–131.
- Mrayan, L., Cornish, F., Dhungana, N., & Parfitt, B. (2016). Transition to parenthood during the transition to modernity in Jordan: New parents' views on family and healthcare support systems. *Applied Nursing Research, 32*, 139–143.
- National Research Council & Committee on Population. (2005). *Growing up global: The changing transitions to adulthood in developing countries*. Washington, DC: National Academies Press.
- Oliveri, M. E., & Reiss, D. (1981). A theory-based empirical classification of family problem-solving behavior. *Family Process, 20*, 409–418.
- Pape Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Rebman, P. A., Caines, M. C., & Harrison, P. A. (2018). In-hospital paternity establishment: Experiences and meaning perceived by unmarried parents. *Journal of Health Care for the Poor and Underserved, 29*(1), 497–508.
- Reiss, D. (1981). *The family's construction of reality*. Cambridge: Harvard University Press.
- Reiss, D., & Oliveri, M. E. (1983). The family's construction of social reality and its ties to its kin network: An exploration of causal direction. *Journal of Marriage and the Family, 45*(1), 81–91.
- Reiss, D. (1992). The represented and practicing family: Contrasting visions of family continuity. In A. Sameroff & R. Emde (Eds.), *Relationship disturbances in early childhood: A developmental approach* (pp. 191–220). New York: Basic Books.
- Renjilian, C. B., Miller, V., & Ginsburg, K. (2018). Feasibility and face validity of a modified adverse childhood experiences (aces) inventory formatted to improve youth acceptance and confidence with participation in research. *Journal of Adolescent Health, 62*(2), S112.
- Robinson, J. (2001). *Pride and joy: African-American baby celebrations*. New York: Simon and Schuster.
- Salman-Engin, S., Sümer, N., Sağel, E., & McHale, J. (2018). Coparenting in the context of mother–father–infant versus mother–grandmother–infant triangular interactions in Turkey. *Journal of Child and Family Studies, 27*(10), 3085–3095. <https://doi.org/10.1007/s10826-018-1094-4>.
- Sapkota, S., Kobayashi, T., & Takase, M. (2012). Husbands' experiences of supporting their wives during childbirth in Nepal. *Midwifery, 28*(1), 45–51.
- Schodt, C. M. (1989). Parental-fetal attachment and couvade: A study of patterns of human-environment integrality. *Nursing Science Quarterly, 2*, 88–97.
- Smajdor, A. C. (2018). Your sperm is mine! Do artificial gametes change the ethics of posthumous sperm retrieval and conception? *Etica & Politica/Ethics & Politics, 20*(3), 53–72.
- Sonne, J. (2005). The varying behaviors of fathers in the prenatal experience of the unborn: Protecting, loving, and 'Welcoming with arms wide open,' vs. ignoring, unloving, competitive, abusive, abortion minded or aborting. *Association for Pre- and Perinatal Psychology and Health, 19*(4), 319–340.
- Sonuga-Barke, E., Mistry, M., & Qureshi, S. (1998). The mental health of Muslim mothers in extended families living in Britain: The impact of intergenerational disagreement on anxiety and depression. *British Journal of Clinical Psychology, 37*(4), 399–408. <https://doi.org/10.1111/j.2044-8260.1998.tb01397.x>.

- Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 48, 1184–1199.
- Stern, D. N. (2018). *The motherhood constellation: A unified view of parent-infant psychotherapy*. Routledge.
- Stern, D. (2005). Intersubjectivity. In E. S. Person, A. M. Cooper, & G. O. Gabbard (Eds.), *The American psychiatric publishing textbook of psychoanalysis* (pp. 77–92). Washington: American Psychiatric Publishing, Inc. <https://doi.org/10.3917/ctf.035.0029>.
- Tremblay, H., & Rovira, K. (2007). Joint visual and social triangular engagement at 3 and 6 months. *Infant Behavior & Development*, 30(2), 366–379. <https://doi.org/10.1016/j.infbeh.2006.10.004>.
- Van Landschoot, L., Willaert, D., de Valk, H. A., & Van Bavel, J. (2018). Partner choice and the transition to parenthood for second-generation women of Turkish and Moroccan origin in Belgium. *European Journal of Population*, 34(4), 579–608.
- von Wyl, A., von Klitzing, K., Perren, S., & Bürgin, D. (2004). The influence of prenatal triadic capacities on early mother-father-infant interaction patterns. *Journal of the American Psychoanalytic Association*, 52(2), 471–473.
- White, M. A., Wilson, M. E., Elander, G., & Persson, B. (1994). Family dynamics, parental-fetal attachment and infant temperament in Swedish families. In *Proceedings of the third international family nursing conference* (p. 77). Montreal: McGill University.
- Wilson, M. E., White, M. A., Cobb, B., Curry, R., Greene, D., & Popovich, D. (2000). Family dynamics, parental-fetal attachment and infant temperament. *Journal of Advanced Nursing*, 31(1), 204–210.
- Yancey, A. K., Ortega, A. N., & Kumanyika, S. K. (2006). Effective recruitment and retention of minority research participants. *Annual Review of Public Health*, 27, 1–28. <https://doi.org/10.1146/annurev.publhealth.27.021405.102113>.

Index

A

- Acoustic analysis, 90, 93
- Active participant, 8, 25, 68, 110
- Adaptive emotion regulation, 257, 259
- Adaptive functioning, 231
- Adjustment
 - to parenthood, 5, 11, 12, 16–17, 32, 130, 155, 229, 272, 365, 367, 373
- Adolescence, 28, 29, 41–46, 50–61, 228, 272
- Adolescents
 - teen pregnancy, 343
- Adoption, 156, 157, 269
- Adoptive parents, 136
- Adult attachment, 16, 159, 161, 163, 165, 253, 286, 322, 327
- Adult Attachment Interview (AAI), 80, 253, 257, 261, 263
- Adult-directed speech (ADS), 92–94
- Adult intimate relationships, 321, 336
- Affect
 - expressions, 43, 243, 244, 246
 - negative affect, 14, 33, 42, 43, 56, 57, 59, 85, 110, 113, 120, 154, 231, 234, 239, 243, 246, 255–257, 260, 323, 331
 - paradoxical affect, 59, 161
 - positive, 14, 42, 43, 46, 55–58, 120, 121, 154, 255
 - sharing, 29, 43, 51, 54, 57, 85, 120
- Affection, 49, 50, 55, 73, 85, 98, 182–184, 237, 251, 255, 264, 306
- Affective
 - regulation, 34, 92, 170
 - spillover, 231–233, 238, 244–246
- Affiliation, 90, 95, 96, 324
- Affiliation processes, 87, 89, 90, 92, 96
- African-American
 - communities, 297, 298, 301, 308
 - couples, 61, 287
 - families, 34, 295–315, 373
- African-American Healthy Marriage Initiative, 311
- Agreeableness, 256
- Allocation of child care responsibilities, 243
- Androgynous, 184, 190, 194
- Androgyny, 190, 192–194
- Anthropology, 183
- Anxiety, 15, 80, 100, 122, 129–131, 147, 158, 163, 170, 171, 181, 265, 271, 274, 277, 326, 349, 357, 375
- Assisted reproductive technology (ART), 80, 129–132, 138, 142, 144, 146–148
- At-risk, 16, 35, 112, 124, 161, 229, 230, 245, 266, 273, 284, 302, 331
- Attachment
 - anxious-ambivalent attachment, 159
 - anxious attachment, 16
 - attachment figures, 159, 160, 272, 322
 - attachment styles, 15, 30, 155, 158–161, 163–166, 170
 - attachment theory, 10, 159, 170, 253, 272, 322
 - avoidant attachments, 15, 16, 86, 159, 160
 - Bowlby, J., 10, 159, 272, 322
 - couple attachment style, 155, 159–161, 164–165, 169–170, 243–244
 - disorganized attachment, 58, 326
 - father-child attachment, 256

Attachment (*cont.*)

- fetal attachment, 243–244, 324–327, 368
- parent-fetus attachment, 87, 324–327, 368
- infant attachment, 322, 323, 326
- insecure attachments, 159, 171, 257, 266, 322, 323, 327, 328, 331
- mother-child attachment, 323
- parent-child attachment, 80, 154, 160, 253
- representations, 10, 154, 155, 159, 256, 257, 263, 266, 325
- romantic attachments, 160, 243, 244
- secure attachments, 159, 160, 170, 263, 266, 272, 322, 323, 327, 331
- similarity in attachment style, 159–161
- working models, 10, 69, 80, 243, 322, 324

Attachment Style Questionnaire

(ASQ), 163, 164

Attention Deficit-Hyperactivity Disorder

(ADHD), 259, 263

B

- Baby blues, 271
- Babyhood, 87, 102
- Baby's chosen name, 371
- Baby's sibling, 31, 205, 207, 218–220
- Baby talk, 29, 48, 90, 92–94, 114, 135, 188
- Beck Depression Inventory (BDI), 211, 274, 276, 277
- Becoming a Family Project*, 186, 332
- Beliefs
 - about fathering, 312
 - maternal beliefs, 185
- Bem Sex Role Inventory (BSRI), 189, 191, 197
- Bioecological systems theory
 - exosystem, 8, 344, 354, 355
 - macrosystem, 8
 - mesosystem, 8, 353–354
 - microsystem, 7, 8, 350–352
- Biological mother, 26
- Biological sex, 182, 183, 186, 189, 196
- Birth, 3–5, 8–11, 13–17, 29–32, 44, 47, 49, 59, 68–70, 72, 79, 86, 87, 91, 92, 95, 102, 110, 111, 122–125, 130, 131, 133, 147, 148, 154, 155, 161, 169, 182, 186–188, 194, 195, 203–206, 208, 209, 217, 218, 220, 227, 229, 230, 233, 234, 236, 239, 245, 253, 254, 273, 283, 284, 296, 297, 303, 324, 328, 332, 334–336, 343–345, 347–350, 353, 366, 369, 371, 372, 375

Boundaries

- blurred boundaries, 260, 265
- boundary disturbances, 260, 266
- enmeshed boundaries, 260, 264–266

Brady Education Foundation, 302, 315

Break-ups, 270, 282, 349

Brief Infant Toddler Social Emotional Assessment (BITSEA), 313

Bringing Baby Home Together, 332

Building Strong Families (BSF), 300, 309, 311

C

Caregivers

- rejecting caregivers, 322
- sensitive caregivers, 322

Caregiving

- caregiving task, 107, 111

Center for Epidemiological Studies

Depression Scale (CES-D), 88

Changes across the Transition to Parenthood

- in couple relationship, 7, 15–17, 34, 95, 97–99, 154, 157, 195, 204, 228, 229, 252, 255–257, 305, 309
- in fathers/husbands, 13–15, 31, 86, 87, 95, 97, 101, 252, 256, 305, 309
- hormonal changes during pregnancy, 13, 14
- in marriage/marital relationship, 12, 32, 148, 229, 254
- in mothers/wives, 13–15, 31, 86, 87, 95, 97–101, 158, 252, 255, 256

Child

- child attachment, 80, 154, 160, 322, 323
- children's behavior problems, 218
- children's difficult behavior, 219
- children's externalizing behaviors, 210
- cognitive development, 108, 118, 181
- developmental outcomes, 333
- gender, 15, 183, 185, 196, 211
- infants, 30, 33, 41, 60, 118, 183, 188, 203–205, 207, 218, 220, 221, 253, 256–258, 296, 301, 302, 323, 324, 326, 330, 334, 374
- preschoolers, 204
- self-regulation skills, 323
- social-emotional development, 206
- temperament, 110, 112, 117–119, 181, 220, 251, 257, 260
- theory of mind, 43
- toddlers, 108, 204, 257–259

Child Behavior Checklist (CBCL), 211, 259, 263

Child-Centered Interactions, 26, 204, 259

- Child-Parent-Grandparent Interaction, 336
 Child-rearing philosophy, 86
 Clinical implications, 124–125, 286, 287
 Collective intersubjectivity, 41–44, 58–60, 368
 Communication skills training, 287
 Communication style, 54, 243
 Community-based services, 298, 314, 359
 Community-grounded prenatal intervention, 295
 Community resources, 299
 Compensation hypothesis, 232, 233
 Complementarity roles, 50, 58
 Conception, natural, 80, 130–132, 146, 148
 Conflict
 conflict resolution, 160, 274, 297, 302
 Conflict Tactics Scale Revised (CTS2), 310, 313, 314
 Conjoint interviews, 88, 95
 Contextual
 factors, 245, 286, 326, 357
 influences, 245, 286, 327
 Continuity
 of coparenting behaviors, 28, 30, 110, 228, 329, 364–365
 of coparenting dynamics, 109
 of marital behaviors, 228
 Convergent validity, 116, 123
 Coparental playfulness, 28, 114, 135, 188
 Coparenthood, 3, 30, 95
 Coparenting
 antagonism, 235, 240, 242, 329
 child-specific, 204, 205
 cohesion, 69, 155, 220, 231, 234, 305, 323
 competition, 29, 142, 210, 236, 239, 306, 329
 cooperation, 29, 30, 58, 68, 70, 85, 143, 170, 185, 205, 210, 212, 231, 233, 236, 239, 306, 311, 329
 coparenting alliances, 25, 27, 34, 44, 58, 85, 99, 101, 130–132, 134, 148, 161–165, 169–171, 259, 295, 297, 300, 308, 315, 365
 coparenting behaviors, 10, 25, 27, 28, 67–81, 86, 109–111, 118, 123, 146, 155, 156, 158, 169, 170, 172, 228, 230, 233–236, 238–240, 242, 328–330, 334, 365
 coparenting conflict, 69, 110, 170, 211, 212, 234, 238, 259, 300, 323
 coparenting dynamics, 24–27, 29–31, 35, 68, 107, 109–111, 113, 118, 120, 122–125, 220, 227, 228, 230–236, 239, 240, 242, 329, 330, 332, 365, 366
 coparenting expectations, 154–155
 coparenting relationships, 3, 4, 9, 10, 18, 24, 26, 27, 29, 31, 32, 34, 35, 67, 69–75, 77–81, 86–88, 91, 95, 99, 100, 102, 107–110, 123, 124, 129, 147, 154, 158, 203–208, 218–220, 227, 228, 230–235, 238–240, 242–246, 266, 272, 274, 324, 327–332, 336, 350, 351, 365
 coparenting representations, 10, 24, 36, 60, 86–88, 95–96, 99–101, 109, 110, 116, 118, 123, 154–155, 220, 228, 245, 329
 disengagement, 307, 310
 divide and conquer, 219, 221
 overstimulation, 306
 perceptions of coparenting, 86, 116, 118, 207
 playfulness, 68, 70, 72–75, 120, 233
 supportive, 3, 9, 25, 68–71, 77, 78, 99, 123, 203–207, 210, 212, 228, 231, 266, 365
 undermining, 31, 69–71, 78, 79, 85, 110, 115, 205–210, 212, 214, 215, 217–220, 231, 259
 unsupportive, 25, 123, 230, 365
 warmth between partners, 239
 Coparenting and Family Rating System (CFRS), 29, 236, 259, 306, 307, 312
 Coparenting Interview, 80
 Coparenting Questionnaire, 210
 Coparenting Relationship Scale (CRS), 112, 114–119
 Couple
 control, 113, 274, 305, 332
 dissatisfaction, 161, 256
 emotional attunement, 254, 266
 expectations, 10, 99–101, 155, 203
 harmony, 242
 intimacy, 26, 160, 232, 233, 245, 260
 nonverbal behavior, 29
 power, 232, 274, 305
 problem-solving, 125, 229, 237, 245, 303, 305, 312, 332
 relationship
 relationship quality, 29, 70, 72–79, 186, 203, 230
 satisfaction, 4, 16, 157, 164–166, 168, 169
 types of couples
 coresidential, 366, 369
 gay, 156, 158, 162, 164, 165, 169, 172

- Couple (*cont.*)
- heterosexual couples, 61, 112, 156–158, 162, 165–169, 172, 327, 335
 - lesbians, 156, 158, 162, 164, 165, 169, 172
 - non-co-residential, 295, 314
 - same-sex couples, 30, 169
 - unmarried, 162, 270, 287, 304, 308
 - unwed, 33
 - young, 5, 33, 287, 308, 309, 323, 350, 372
 - warmth, 33, 237, 273–275, 277–280
 - withdrawal from partner, 239, 257
- Couple Affect Expression
- negative affect, 33, 42, 43, 56, 57, 59, 85, 110, 113, 120, 154, 228, 231, 234, 239, 243, 246, 254–258, 260, 261, 264, 323, 331
 - positive affect
 - positive affect dominance, 42, 55, 56, 58
- Couple-Average Attachment Security (CAAS), 164–168
- Couple-Centered Dynamic, 147
- Couple Difference in Attachment Security (CDAS), 164–168
- Couple interactions
- de-escalate, 323
 - postpartum interactions, 28, 231, 365
 - prenatal interactions, 5, 7, 12, 26, 29, 59, 229, 234, 235, 237, 246, 253, 263
- Couples' communication
- hostile communications, 33, 274–275, 277–283, 285–287
 - patterns, 266
 - warm communication, 271, 274, 275, 279, 280
- Cross-cultural coparenting, 9
- Crying, 77, 111, 113, 119–122, 157, 265
- Cultural
- changes, 34, 156, 184, 196
 - expectations, 347
 - meaning of pregnancy, 8
 - norms, 301, 347, 374
- Culturally competent coparenting
- intervention, 295
- Curriculum for Interventions/Prevention Programs, 18, 34
- D**
- Danger Assessment Scale (DAS), 310
- Decision process to parenthood, 161
- Delivery complications, 132, 133
- Depression
- dyadic, 31, 129, 218, 277
- Depressive symptoms, 14, 15, 206, 207, 211, 217–220, 229, 251, 257, 312, 331
- Desire for parenthood, to be Parents, 171
- Determinant of parenting, 153
- Developmental niche model
- ethnotheories, 8
 - Super & Harkness' model, 8
- Diathesis-Stress Process Model, 160
- Disadvantaged, 273, 286
- Disengagement, 33, 255, 262, 307
- Distribution of Power, 26, 243
- Division of labor
- inequitable, 220
- Divorce
- divorced families, 227, 263
- Doll simulator, 30, 125
- Domestic violence, 326
- Dyadic
- interactions, 5, 7, 12, 26, 27, 32, 60, 113, 116, 123, 155, 169, 170, 206, 209, 252–254, 257–261, 264, 266, 322, 365
 - relationships, 7, 24, 26, 90, 155, 163–165, 170, 208, 219, 221, 251, 253, 277, 322, 332, 336
 - therapies, 302
- Dyadic Adjustment Scale (DAS), 134, 163
- E**
- Ecological validity, 45, 110, 111
- Edinburgh Depression Scale (EDS), 312
- Education, 8, 35, 69, 71, 99–101, 112, 116, 182, 183, 211, 212, 214, 216, 275, 287, 301, 331, 343, 344, 348, 350, 352, 354, 356–359, 374
- Education, Employment, and Engagement (E³) Teen Parenting Program (Jamison & Feistman), 35, 343, 355, 358
- Efficacy
- dyadic, 207, 214, 215, 217, 219
- Egalitarian, 9, 50, 158, 169, 183, 186, 194–196
- Elective coparenthood, 156
- Embryo, 87, 138, 142, 144
- Emerging adulthood, 348
- Emotional climate, 161, 243, 255, 256, 328, 329, 332
- Emotion regulation
- children's emotion regulation, 108, 258, 334
 - couples' co-regulation, 34

Enactments, 7, 110, 228
 Engaged fathers, 184, 296
 Equifinality, 183, 196
 Ethnic minorities, 373
 Ethnotheories, 8
 Executive subsystem, 6, 108, 238
 Expectant parents
 couvade syndrome, 13
 hormones during pregnancy, 13, 271
 physiological changes during pregnancy, 13
 physiological symptoms during pregnancy, 13
 psychological changes during pregnancy, 13, 14, 31, 309, 321
 Experiences in Close Relationships- Revised (ECR-R), 274
 Extended families, 5, 6, 228, 327, 335, 336, 371, 373, 375

F

Family

continuity, 10, 17, 28–30, 43, 56, 57, 60, 86, 109, 147, 228–230, 235, 238, 240, 254, 255, 260, 286, 323, 329, 336, 364, 371
 development perspective, 11
 developments, 4, 7, 9, 10, 61, 69, 81, 86, 109, 129, 131, 171, 172, 181–197, 221, 232, 258, 270, 272, 296, 301, 324, 331, 333, 344, 370, 374, 375
 diversity, 61, 246, 369–372
 dynamics, 3–7, 9, 10, 12, 17, 24, 26, 28, 30, 42, 46, 52, 67, 85–87, 95, 112, 114, 116, 118, 129–132, 147, 181, 185, 203, 208, 220, 228–232, 234, 237, 251–266, 270, 301, 304, 306, 307, 327, 363, 364, 367, 370–373, 375, 376
 formation, 270, 272, 349, 370, 371, 374
 high-risk families, 310
 legacies, 370, 371
 nuclear families, 5, 6
 postpartum family, 6, 26, 29, 146, 227–246, 330
 practicing family, 365
 prenatal family, 4, 5, 7, 8, 12, 17, 25, 28, 30, 31, 35, 107, 109, 114, 116, 120, 122, 141, 185, 194, 234, 245, 246, 304, 325, 364, 365, 371–373
 problematic family interactions, 42
 single-mother families, 296

stability in families, 230, 252, 256, 270, 272
 structure
 flexible, 6, 11
 rigid, 6, 7, 43, 57
 subsystems in families
 spillover between subsystems, 32, 33, 231–233, 239, 244–246
 trajectories, 30, 31, 42, 60, 139, 234, 327, 376
 warmth, 24, 29, 43, 48, 49, 73–77, 85, 114, 120, 122, 135, 189, 231, 233, 239, 245, 259, 306, 307, 324, 329
 Family alliance assessment scale (FAAS)
 affect sharing, 29, 44, 51, 57, 85, 114
 child involvement, 114
 focalization, 85, 114
 organization, 114
 participation, 114
 Family alliances (FA), 25, 27–31, 42, 43, 109, 112, 114, 116, 118, 120, 122, 130–132, 135–139, 141, 143–148, 188, 189, 191, 193, 194, 228, 375
 Family alliance trajectories, 30, 129–148
 Family Foundations (Feinberg), 34, 68, 332
 Family-level processes, 321–337
 Family life course perspective, 9
 Family life cycle, 10, 11, 181, 252
 Family Narrative Consortium (FNC) Coding System, 134
 Family of four, 204, 220
 Family-of-origin
 caregiving, 4, 35, 85, 107, 111, 125, 158, 254, 256, 257, 260, 313, 321–337
 coparenting experiences in family of origin, 9, 68–70, 73, 78, 79, 243–244, 365
 recollections of family of origin coparenting, 29, 77–80, 254, 336
 marriages, 17
 Family stress perspectives, 10
 Family systems theory
 feedback loops, 6
 Van Bertalanffy, Ludwig, 6, 12
 Fantasies about Baby, 87, 88, 95, 99, 102, 369
 Father
 absence, 99, 296, 305, 311, 332
 emotional withdrawal of fathers, 33, 257–259
 fathers' beliefs, 330
 father involvement, 256, 296, 300, 311, 312, 357
 father presence, 376

- Father (*cont.*)
 fathers' roles, 79, 185
 fathers' sensitive engagement, 258
- Father-child
 connections, 296
 interactions, 253, 256–258
 relationships, 252
- Fatherhood, 9, 269, 283, 300–302, 311, 372
- Fathers For Change Intervention, 309
- Fear of intimacy, 159, 160
- Feinberg's ecological model of
 coparenting, 244
- Feminine, 184–187, 189, 190, 194, 196, 197
- Femininity, 184, 185, 187, 189–195
- Fertility Problem Inventory (FPI), 134
- Fetal
 behaviors, 29, 87, 91–92, 102, 324, 326, 327, 331
 emotions, 324, 326, 327
 images, 87–94, 102
 imitation of fetal movements, 92
 movements, 87, 92, 94, 95, 326
- Fetal attachment
 and family-of-origin influences, 325
 and marital conflict, 31, 207, 210–213, 215–218, 220, 232, 234, 237–242, 259, 326
 and parenting behaviors, 326, 331
 and prenatal family health, 325
- Working Model of Child Interview (WMCi)
balanced representations, 324, 326
disengaged representations, 324
 disorganization, 326
 disrupted scale, 326
distorted representations, 324
- Figuring It Out for the Child (FIOC) (McHale)
 enrollment in program, 303–304
 intake assessment/sessions, 303, 304, 311
 outreach, 299, 303, 310, 311, 314
 recruitment, 303, 310, 311
- Financial provider, 195
- Firstborn adjustment, 204–210, 215, 218–220
- Focused Coparenting Consultation (FCC)
 consciousness-raising, 297
 enactment, 7, 10, 28, 109, 110, 124, 228, 297
 skill-building, 297
- Fragile Families and Child Well-Being (FFWB) Interview, 304
- Fragile Families Study, 270, 286, 287
- Freudian perspective, 182
- Fundamental frequency (f_0) of dialogues, 93, 94
- G**
- Gatekeepers, 78
- Gatekeeping, 185, 193, 194, 256, 307
- Gaze
 fixation, 50
 orientations, 46
 sharing, 29, 43, 46
- Gender
 child gender, 31, 192
 differences, 15, 16, 31, 92, 138, 184, 185, 190, 192, 195, 196, 255
 expected gender of child, 185
 identities, 14, 182
 parental gender, 14, 16
 postgender attitudes, 196
 revolution, 183–184, 186, 195, 196
 role
 attitudes, 15, 31, 32, 157, 195, 251
 contemporaneous, 186, 194, 195
 contemporary, 183, 186, 194–196, 373
 theories, 182–184, 196
 traditional, 15, 31, 92, 157, 186, 194–196, 251
 stereotypes, 157, 185, 195
- Gender-role orientation
 androgynous, 184, 190, 194
 feminine, 184, 186, 187, 189–190, 194, 196, 197
 masculine, 189, 197
 by partners, 31, 189, 194
- Gender-schema theory, 184
- Grandmothers, 336
- Grandparent Marriage Interview (GMI), 253, 255
- Grandparents' expectations, 3, 270, 336, 370, 375
- H**
- Health outcome gaps, 296
- Healthy families programming, 299
- Heteronormative, 158
- Heteronormativity, 157
- Heterosexism*, 156
- Heterosexual couples, 61, 112, 156–158, 162, 165, 169, 172, 327, 335
- Hill's family stress model, 11
- Historical influences, 194, 372
- Homeostasis, 252
- Home visiting programs, 299, 331
- Homonegative attitudes, 156
- Homophobia, 156, 171

I

- Inconsolable Doll Task (IDT), 30, 111–113, 116–125, 335
- Infant cognitive development, 115
- Infant-directed speech (IDS), 92–94
- Infant sibling
 - care of infant sibling, 205–207, 218, 220
 - interest in infant sibling, 205–207, 218, 220
- Infant temperament, 257
- Infertility
 - problems, 30, 129, 130, 134, 145
 - Treatments, 129–132, 138, 142, 144, 148
- Infertility-related stress, 30, 131–134, 136–140, 142, 144, 146–148
- Institutional racial biases, 298
- Interactional Dimensions Coding System (IDCS)
 - negative dyadic coparental dynamics
 - dominance, 42, 55–58, 113
 - editing, 113
 - negative escalation, 113
 - positive dyadic coparental dynamics, 113
- Interactional synchrony, 30, 113
- Interactions
 - maladaptive, 43, 254, 259
 - normative, 57, 60, 332
 - problematic, 43, 57, 60, 124, 263
- Interactive coordination, 130, 131
- Intergenerational
 - continuity in relationships, 322–323
 - coparenting
 - coparenting alliances, 336
 - linkages, 321
 - patterns of emotion regulation, 336
- Intermediate Era, 195
- Internal dialogues, 93
- Internalized stigma, 169
- Interrelationship between marital and coparenting relationships, 230–235
- Intersubjectivity
 - collective intersubjectivity, 41–44, 59, 368
 - coparental intersubjectivity, 43
 - intersubjective communication, 41–62
- Intervention
 - coparenting interventions, 34, 124, 125, 308, 310, 315, 333
 - couple interventions, 331–333
 - prenatal interventions, 4, 27, 34, 35, 125, 245, 246, 266, 287, 295–315, 322, 331–336, 355–359
 - programs, 35, 124, 287, 296, 298–300, 303, 304, 310, 311, 314, 315, 331, 333

- Interview with Expecting Parents, 95
 - Intimate partner violence (IPV), 302, 303, 309–311, 313, 314
 - Intimate Relations Questionnaire (IRQ), 211
 - Intracytoplasmic injection (ICSI), 132, 133, 138, 144–146
 - Intrusive behaviors, 263
 - Intuitive coparenting behaviors, 59, 142, 172
 - Intuitive parenting behaviors, 43, 48, 49, 59, 85, 88–92, 94, 114, 120, 135, 141, 188
 - Investment
 - Maternal, 194, 236, 256
 - parental, 29, 194
 - paternal, 237
 - In vitro fertilization (IVF), 131–133, 142–144
 - Involvement
 - active, 195
 - husbands'/fathers' involvement, 78, 79
- J**
- Joint decision-making, 219
 - Joint problem-solving, 219
 - Joint representations, 266

K

- Kin
 - fictive kin, 370

L

- Latent dyad model (LDM), 208–210, 212–220
- Lausanne Trilogue Play (LTP), 30, 42–46, 50, 52, 54, 55, 57, 59, 61, 86, 92, 94, 112, 118, 119, 123, 132, 135, 144, 145, 164, 187–189, 191, 236, 237, 240–242, 305–307, 311–313, 328
 - three-way interaction, 41, 42, 60
- Legal, 67, 156–158, 169, 171, 348, 349, 354
- LGBT parents, 156
- LGBTQ community, 80
- Life Cycle Perspective, 10, 11, 181, 252
- Living arrangements, 273, 275, 278
- Living together, 5, 138, 142, 144, 164–165, 252, 275, 300
- Longitudinal, 14, 17, 29, 42–44, 60, 71, 86, 112, 131, 148, 155, 171, 172, 181, 186, 204, 205, 208, 210, 228–231, 252, 253, 256, 286
- Low arousal conditions, 118, 122, 123
- Low stress conditions, 109, 116, 123

M

Macro-systemic

factors, 286

risks, 286

Male infertility, 132, 138, 139

Marital

affect

negative, 23, 24, 130, 148, 219, 228,
231, 232, 234, 238, 244, 246, 254,
255, 257–259, 261, 263, 266, 323

positive, 69, 79, 130, 144, 161, 205,
231, 234, 243, 245, 246, 254–257,
264, 266, 322, 323, 366

behaviors, 27, 155, 205, 212, 215, 217,
218, 220, 228, 229, 231, 234, 236,
237, 239, 242, 245, 246, 251, 255,
257, 258, 261, 263, 266, 328

conflicts, 12, 16, 23, 31, 161, 207,
210–212, 215, 217, 218, 220,
232–235, 237–240, 242, 245, 252,
254, 255, 259, 326

discord, 77, 270

harmony, 235, 238–240, 242, 246

interactions, 24, 27, 33, 72, 138, 140, 206,
230, 231, 233–235, 237, 239, 242,
246, 254, 257, 258, 260, 262–264,
266, 323, 328

problem-solving, 230, 233, 237, 243, 322

qualities, 230–232, 234, 235, 243, 244,
252, 254–257, 327, 366

relationships, 16, 17, 24, 26, 27, 29, 31–33,
69, 72, 79, 144, 146, 147, 154, 155,
161, 163, 207, 211, 218, 220,
227–230, 232–235, 237–240,
242–244, 246, 253, 257, 259, 263,
266, 323, 327, 366

satisfaction, 12, 16, 17, 30, 130–134,
136–140, 142, 144, 147, 148, 155,
161, 163, 186, 203, 204, 228–230,
236, 240, 251, 252, 259, 328, 367

Marital Adjustment Task (MAT), 236, 237

Marital Agendas Protocol, 72

Marital discussion task, 32, 33, 237

Marital interaction tasks, 237, 253, 254

Marital Problem-Solving Task, 238, 245

Marriage Plus programs, 298

Marriages, 17, 141, 155, 162, 232, 234,
253–255, 258, 266, 270, 298, 300,
301, 327, 349, 358, 374, 375

Masculine, 184–186, 189, 190, 194, 196

Masculinity, 157, 184, 187, 189–192, 194, 195

Maternal, 9, 13, 78, 85–102, 185, 191–194,
206, 207, 210, 211, 213, 214, 234,
236, 274, 286, 303, 307, 325,
327, 369

Maternal gatekeeping, 78, 113, 185, 194, 256,
300, 365

Maternal intonation profiles, 93

Men, 14, 16, 92, 131, 133, 134, 136, 137, 139,
140, 142, 157, 158, 164, 171,
182–184, 186, 195, 257, 270, 271,
296, 298, 300, 302, 309, 312, 314,
357, 367, 368, 372, 374

Mentoring team, 297

Metacommunication, 94

Microanalysis, 42, 47, 90, 91

Micropatterns, 43, 44

Micro-systemic processes, 286

Minnesota Early Learning Design
Program, 333

Mother-child relationship, 79

Motherese, 92

Motherhood

constellations, 370

Mothers

beliefs, 8, 79, 157, 220, 256, 332

expectations, 9, 95, 157, 194, 196, 220,
272, 277, 285, 328, 329, 336

experiences in family of origin, 243, 244

gatekeeping, 78, 113, 185, 193, 194, 256,
300, 307, 365

roles, 8, 9, 14, 15, 69, 78, 92, 157, 158,
169, 194, 195, 220, 256, 258, 326,
332, 372

Mullen Scales of Early Learning (MSEL), 115

Multigenerational coparenting, 375

Multiple births, 130

Mutual Smiles Episodes (MSEs)

binding, 43, 46, 52, 349

confronting, 43, 46, 53, 54

sharing miseries, 43, 46, 54

N

Narrative quality, 132, 134, 136–138, 140,
142, 144, 147

National Black Child Development
Institute, 296

Neonatal, 93

Neuroticism, 256

Newborns, 14, 45, 93, 94, 110, 134, 236, 331,
333, 357, 358, 366, 370

Non-co-residence, 307

Nurse Family Partnership (NFP), 299, 331

O

Observations

direct observations, 24, 35, 85, 230, 234,
235, 245, 246

- longitudinal observations, 61
- postpartum, 4, 17, 27, 28, 30, 32, 33, 35, 109, 171, 172, 228–230, 235–237, 239, 240, 242, 246
- prenatal observations, 17, 23–36, 110, 228
- Onesie Task, 111
- Over-burden, 195
- P**
- Parental
 - competence, 206, 217–219
 - dialogues, 87, 89, 90, 93
 - discipline, 184, 218
 - education, 116, 211, 213, 216
 - efficacy, 209, 210, 212, 214, 215, 217–220
 - expectations, 95, 154, 186, 324, 330
 - identities, 14, 87, 90, 194
 - personality, 4, 154, 244
 - roles, 6, 7, 85–87, 89–92, 102, 108, 154, 183, 186, 187, 189, 192, 194, 196, 221, 330, 346
 - self-efficacy, 31, 206, 208, 211
- Parental Locus of Control Scale (PLOC), 211
- Parent-child
 - attachments, 154, 155
 - interaction
 - disengaged, 265, 324, 326
 - hostile, 33
 - negative, 181
 - qualities, 154
 - relationships, 45, 67, 71, 80, 110, 154, 181, 321
 - role-reversal, 258, 264–266
 - warmth, 154, 236
- Parenthood
 - identity, 101, 156, 157, 252, 259
 - self-esteem, 14, 130, 184, 229
- Parentification, 58, 260, 265
- Parenting
 - attitudes, 109, 130, 186, 243
 - insensitive, 262, 266
 - qualities, 89, 130, 155, 169, 184, 196, 206, 233, 254–256, 259, 311, 349
 - stress, 13, 31, 110, 111, 123, 124, 130, 153, 158, 206–210, 212, 214–218, 220, 251, 260, 266, 311, 312, 375
 - style, 99, 153, 243
- Parenting Alliance Measure (PAM), 312
- Parenting Daily Hassles (PDH) scale, 210
- Parenting Stress Index - Short Form (PSI-SF), 312
- Parent mental health, 206
- Parents-to-be, 25, 86, 87, 93–95, 99, 102, 131, 134, 193, 197, 297, 358, 369
- Partner choices, 159
- Partnerships, 27, 87, 161, 162, 171, 228, 243
- Perceptions
 - of partner's parenting, 115
 - postnatal perceptions, 254
 - prenatal perceptions, 330
- Perinatal
 - care, 148, 331
 - depression screenings, 269–288
- Personality of Partners, 4, 85
- Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), 348
- Phantasmatic baby, 95
- Physical aggression, 285
- Play
 - free-play, 210
- Positive and Negative Quality in Relationships Scale (PANQIRS), 312
- Postnatal
 - coparenting dynamics, 28, 85, 116, 118, 237, 238, 333
 - interactions, 24, 28, 34, 85–88, 109, 114, 135, 143, 145, 146, 154, 182, 186, 187, 194, 237, 261–265, 272, 275, 280–285, 288, 329
- Postpartum
 - adjustment difficulties, 16
 - anxiety, 15
 - coparenting, 32, 206, 230, 231, 239
 - dynamics, 4–6, 8, 17, 25, 26, 28–30, 32, 33, 107, 109, 123, 185, 227–246, 330, 364, 365
 - functioning, 4, 5, 16, 17, 33, 34, 123, 124, 169, 229, 230, 235, 245, 272, 286, 365
- Postpartum depression (PPD)
 - maternal PPD, 14–15, 206–207, 211, 214–220, 271, 278–282
 - paternal PPD, 271, 280
- Poverty, 252, 286, 300, 303, 343, 350, 359, 373
- Pre-conception
 - coparenting, 30, 155, 161
 - coparenting alliances, 162, 165, 167, 168, 171
 - couple interaction, 27, 30, 245
 - representations, 154, 155
- Predictive validity, 79, 111, 112, 116, 123
- Preferred Kinship Networks, 369–372
- Pregnancy
 - cultural meaning of/cultural beliefs, 8, 9
 - intentions, 16, 155, 171, 367
 - plans, 16, 172, 260, 269
 - with second child, 25, 31, 32, 204, 205, 207–209, 217–220

Prenatal

communication, 25, 26, 33, 77, 120, 237, 251, 255, 269–288, 297, 305, 309, 311, 325, 330, 332, 333, 350

coparenting, 4, 5, 7, 10, 17, 23–26, 28–30, 32–34, 43, 56, 59, 60, 68, 70, 73–75, 77, 78, 85–87, 89, 90, 102, 107, 109, 111–117, 120, 123, 131, 145, 154, 164, 182, 185, 186, 205, 207, 209, 210, 219, 220, 227–246, 253, 254, 259, 263, 265, 272, 274, 277, 283, 287, 295–315, 329, 330, 332, 335, 363–376

couple relationships, 4, 5, 10, 12, 15, 16, 29, 36, 69–75, 77–79, 136, 148, 182, 186, 228, 243, 245, 246, 251–266, 350, 365, 373

developments, 3, 8, 42, 56, 59, 60, 67, 70, 78, 80, 86–88, 102, 107, 112, 123–125, 130, 132, 186, 194, 258, 270, 272, 273, 283, 287, 295, 321, 325, 330, 372

expectations, 4, 154, 155, 185, 227, 243, 330, 346, 347

hormones, 13, 271

interactions, 4, 5, 10, 12, 17, 24, 28–30, 33, 35, 59, 69, 73–75, 77, 79, 87, 89, 102, 110, 114, 120, 124, 125, 133, 134, 143, 145, 154, 155, 185, 187, 206, 210, 219, 220, 233, 236, 238–240, 242, 245, 246, 252–261, 263–266, 272, 275, 279, 304, 305, 311

intervention programs, 4, 27, 34, 35

interventions, 17, 34, 68, 87, 124, 245, 246, 270, 287, 295–297, 300, 304, 308–311, 314, 322, 332, 335, 364, 365

marital interactions, 23, 26, 33, 228, 234, 236, 237, 239, 240, 245, 254–258, 261, 263, 266

observations, 4, 5, 10, 27–30, 33, 35, 88, 107, 109, 111, 114, 125, 147, 188, 210, 219, 220, 229, 234, 236–240, 242, 245, 246, 255, 311, 365

precursors, 67, 186

predictors, 4, 68, 70, 73, 78, 85, 181, 208, 220, 230, 239, 242, 245, 254, 255, 257, 259, 261, 270, 283, 288

prevention programs, 18, 34

representations, 28, 29, 32, 36, 60, 86–88, 90, 102, 109, 110, 114, 116, 118, 123, 154, 185, 227, 253–255, 257, 260, 261, 266, 325, 328, 329

risk factors, 4, 14, 17, 30, 33, 34, 123

Prenatal Coparenting Interview, 80

Prenatal intuitive coparenting behaviors, 31, 86, 141, 143, 145

Prenatal intuitive parenting behaviors, 43, 48, 49, 59, 85, 88–92, 94, 114, 120, 135, 141, 163, 166, 188

Prenatal Lausanne Trilogue Play (PLTP), 7, 28, 42–50, 56, 57, 59, 60, 68–70, 72, 77, 79, 80, 85, 86, 88, 89, 92, 93, 107, 109, 110, 114, 116–118, 120, 122, 123, 133, 134, 162, 166, 228, 236, 238–240, 242, 253, 260, 368

Pretreatment predictors, 131, 138

Primary triangle, 363

Protective factors, 24, 33, 123, 147, 155, 161, 273, 285, 366

Proximity, 160, 351

Pseudo-mutuality, 54, 58

Psychic parental coalition, 25, 376

Psychological well-being, 162, 212, 272

Public health strategies, 296

Q

Qualitative interviews, 220

Qualities of Subsystems
shared, 243–245
unshared, 243–245

R

Randomized controlled trial (RCT) of FIOC treatment-as-usual (TAU), 298, 309–311

Reaction to Infertility Interview (RII), 133

RealCare Baby® II-Plus, 111, 125

Relationship
qualities, 16, 17, 24, 31, 33, 67, 69, 70, 78, 79, 86, 87, 102, 107–110, 123, 130, 144, 155, 158, 161, 164, 165, 169, 171, 181, 197, 205, 207, 211, 218, 220, 228, 229, 232, 234, 245, 253, 254, 257, 259, 261, 270, 272, 273, 286, 287, 312, 325, 331
security, 33, 160, 161, 163–165, 169, 170, 269–288

Relationship and Marriage Enhancement (RME) program, 300

Religion, 371, 372

Representations
attachments, 257, 261, 266
of children, 328
coparenting, 85–102

- during pregnancies, 10, 24, 35, 85–102, 109, 110, 114, 116, 123, 182, 196, 197, 220, 228, 234
 - of fetus, 368
 - of future coparenting, 10, 102, 109, 155, 220, 260
 - of future family, 155
 - of future relationship, 32, 100
 - of parents' marriage, 253–255, 266
 - Reproductive techniques, 129
 - Resilience, 24, 296, 332, 365, 366
 - Resource and referral navigator, 310
 - Responsible fatherhood programs, 300, 303
 - Risk factors, 17, 266
 - Risks, 9, 17, 23, 33, 34, 130, 143, 144, 148, 161, 251, 254, 266, 270, 273, 286, 296, 309, 310, 312, 324, 332, 343, 365, 366
 - Role fulfillment, 189
 - Role specialization, 158
 - Romantic relationships, 4, 15–17, 27, 67, 68, 70, 77, 79, 80, 101, 108, 159–161, 170, 171, 227, 234, 239, 243, 245, 272, 283, 322, 325, 327, 328, 347, 348
- S**
- Safe haven, 160
 - Same-sex couples, 156–158, 171, 327
 - School-based interventions, 356
 - Second-time parents, 205
 - Secure base, 160
 - Self-esteem, 14, 130, 184, 229
 - Self-Reports of Coparenting, 78, 208
 - Sexual identity, 189
 - Sexual orientations, 34, 161, 164, 167, 169, 172
 - Shared narratives, 369, 370
 - Siblings, 3, 6, 26, 31, 32, 45, 53, 204–207, 218–220, 251
 - Simulator doll, 27, 28
 - Slot couple, 170
 - Smiles, 43, 46, 48–54, 90–92, 102, 119–122, 145, 263, 306, 351
 - Social
 - contexts, 4, 8, 43, 44, 46, 154, 157, 158, 171, 181, 184, 194, 313, 343, 374
 - environments, 195, 196
 - networks, 154, 171, 343
 - norms, 8, 184, 196, 270, 374
 - representations, 184, 185, 189, 195, 196
 - stigma, 156, 171
 - supports, 9, 16, 35, 154, 157, 158, 171, 196, 296, 332, 349, 359
 - Social-emotional functioning, 67, 313
 - Socialization, 8, 195, 259
 - Social-learning theory (Bandura), 10
 - Socio-constructivist theory, 184, 186
 - Sociocultural theory, 7
 - Socioeconomic status (SES), 61, 80, 112, 116–119, 366
 - Spillover
 - effects, 231–234, 239, 245
 - hypotheses, 232, 238, 260
 - Spousification, 260
 - Stereotypes, 185, 195
 - Stonewalling, 49, 55
 - Strength, 24, 44, 48–50, 79, 80, 131, 141, 148, 232, 264, 296, 301, 305, 307, 315, 354, 365, 366
 - Strength-based prenatal program, 296, 297, 314–315
 - Stress, 11, 12, 15–17, 30, 80, 110, 111, 124, 130, 134, 136, 138, 140, 153, 158, 160, 170, 204, 207, 208, 210, 212, 214–218, 229, 252, 257, 271, 312, 323, 329, 335, 348, 352, 353
 - Stressors, 11, 12, 17, 30, 34, 110, 124, 157, 160, 172, 217, 231, 245, 255, 332, 335, 350, 351, 365, 366
 - Structural Analysis of Social Behavior (SASB), 274, 275, 277
 - Structural family theory
 - alignments, 6, 7
 - alliances, 7
 - boundaries, 7
 - boundary violation, 7
 - detouring coalition, 44, 50, 54, 58
 - enmeshed boundaries, 260
 - Minuchin, S., 6, 7, 10
 - triangulation, 7, 210
 - Surrogacy, 156–158
 - Symbolic
 - play enactment, 7
 - Symbolized child, 228
 - System for Coding Interactions among New Parents, 72
 - System for Coding Interactions in Dyads (SCID), 72, 305, 312
- T**
- Teach Plus, 357
 - Teen
 - birth rate in teens, 343
 - coparenting in teen parents, 348–359

- Teen (*cont.*)
- education of teen parents, 343–345, 348, 350, 352–359
 - employment in teen parents, 343, 344, 348, 350, 352, 354, 355, 358
 - families of teens, 344
 - fathers, 55, 288, 343–345, 350, 354, 355
 - financial support for teen parents, 346, 349, 358
 - high schools, 269, 273, 345
 - legal documents, 348
 - legal parenting plan, 349
 - mothers, 53, 55, 288, 343–345, 356, 357
 - new family relationships, 350
 - parenthood
 - social and political contexts, 344
 - partners, 24, 33, 287, 344, 347, 350, 353, 357
 - pregnancy in teens, 343
 - prenatal goals, 347
 - school-based interventions, 356
 - stakeholders, 344, 345, 348, 356
 - stress of teen parents, 347–353, 355, 359
 - work for teen parents, 344–346, 348–359
- Temperament, 87, 112, 118, 181, 251, 260
- Tetradic
- context, 204, 220
 - family interaction, 204
 - interactions, 205, 206, 219
 - observations, 205
- Toddlers
- emotion regulation, 108, 234, 257–259, 263, 265, 286
 - externalizing behavior problems, 108, 207, 215, 217, 219, 231
- Transactional theory, 7
- Transactional models, 110
- Transformations, 12, 17, 26, 155, 157, 252, 324, 332, 350
- Transition to adulthood, 347–349, 352
- Transition to coparenthood, 23, 60, 101, 146, 234, 371
- Transition to fatherhood, 87
- Transition to parenthood, 3–18, 24, 28, 31–36, 61, 67–81, 86–88, 91, 92, 95, 101, 102, 124, 129–131, 147, 148, 153–158, 170, 172, 186, 191–192, 194–197, 203, 206, 207, 227–231, 235–246, 251–256, 259, 261, 265, 266, 269–288, 321–337, 343, 347, 350, 352–354, 356, 357, 365–367, 372, 373
- continuity, 229
 - cultural, 8
 - ethnic backgrounds, 252
- Transition to siblinghood, 205–207
- Treatments, 5, 129–133, 137, 138, 141, 144, 146–148, 309, 311, 331–333, 335
- Triadic
- capacity, 86, 134, 243
 - constructs, 25, 148, 204
 - interactions, 25, 26, 29, 68, 120, 148, 204, 205, 243, 259–261, 265, 307, 333, 334
 - stance, 96, 323
 - systems, 6, 7, 25, 26, 28, 86, 91, 96, 135, 155, 220, 243, 259, 260, 376
- Triadic Family Boundary Disturbance Coding System, 260
- Triangular
- capacities, 59, 368
 - communications, 34, 42, 43, 52, 54, 57
 - intersubjectivity, 29
 - negative intersubjectivity, 59
 - triangular bids, 42, 58
 - unions, 363, 364
- Triangulation, 7, 50, 210, 234
- Trimester of pregnancy
- first, 148, 182, 235, 252
 - second, 13, 182, 252
 - third, 13, 252
- Tuning into Kids (TIK), 334
- U**
- Ultrasounds, 26–30, 87–95, 102, 364
- Unbalanced family interaction patterns, 261
- Unborn child, 4, 7, 25–27, 87, 92, 94, 228, 234, 236, 243, 287, 325, 327, 330
- Under-represented groups, 156
- V**
- Verbal Sparring, 29, 85, 236, 237, 239, 259, 260, 263, 306, 307, 329
- Violated expectations, 109
- Violation
- gender roles, 186
- Violence during pregnancy, 309, 326
- Vocal stimulation, 183
- W**
- Welfare, 196
- Western societies, 183, 184, 375
- Whole-family
- context, 266
 - dynamics, 24, 220

- interaction, 253, 254, 261, 265, 321, 323
 - observations, 24, 252
 - Withdrawal
 - emotional, 33, 257–259
 - Women, 8, 9, 13–16, 92, 130, 131, 133, 134, 136–140, 142, 157, 182–184, 186, 195, 257, 259, 270, 271, 273, 274, 298, 299, 312, 325, 326, 332, 343, 348, 350, 357, 367, 368, 372, 374
 - Workforce, 183, 186, 195
 - Working models, 69, 227, 228, 322
 - Workshop, 297, 299
- Y**
- Young parents, 33, 110, 272, 286, 303, 345, 346, 352, 353, 355–358, 374, 375