

The Impact of Extreme Emotional Distance in the Mother-Child Relationship on the Offspring's Future Risk of Maltreatment Perpetration

Yuko Okado · Sandra T. Azar

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Abstract Emotional qualities of the parent-child relationship are thought to influence the offspring's risk for perpetrating child maltreatment in adulthood. The current study examined whether having grown up in an enmeshed or disengaged mother-child relationship, hence a relationship characterized by extremes on the continuum of emotional distance, increased the offspring's risk of child maltreatment perpetration in a sample of 178 undergraduate students attending a large rural public university. A history of extreme emotional distance experienced with mothers significantly increased the grown offspring's risk of maltreatment perpetration, as measured by two risk indicators. Emotional reactivity, but not empathy, mediated this effect for the offspring's child abuse potential. Extreme amounts of emotional distance within the mother-child relationship also predicted the offspring's child abuse potential over and above maltreatment occurring in that relationship, whereas maltreatment rather than emotional distance predicted the offspring's unrealistic expectations of children. Clinical implications are discussed.

Keywords Child maltreatment · Mother-child relationship · Emotional distance · Emotional reactivity

Introduction

Child maltreatment affects almost 800,000 U.S. children annually (U.S. Department of Health and Human Services

2010) and has been associated with such sequelae as internalizing and externalizing disorders, problems with peers, increased risk of substance abuse, decreased academic performance, and adult psychopathology (Azar and Bober 1999; Collinshaw et al. 2007). Understanding its origins is essential for targeted intervention and prevention efforts (Azar and Wolfe 1998; Guterman 1997; Whitaker et al. 2005).

Parent-child relationship patterns in one's family of origin may be potential sources of risk (Belsky 1993; Black et al. 2001a, b, c; Stith et al. 2009). Parenting practices and behavior are often thought to be transmitted across generations (Azar et al. 2008a; Belsky et al. 2005; Serbin and Karp 2003), and survivors of childhood abuse are four times more likely than those without such a history to abuse their children in the first thirteen months of the child's life (Dixon et al. 2005). Overall, it has been estimated that 25% to 35% of parent-child dyads show intergenerational transmission of maltreatment (Kaufman and Zigler 1987). However, not all perpetrators of child maltreatment were themselves maltreated in childhood, and more fine grained links between the quality of parenting experienced and the emergence of child maltreatment risk within the offspring need to be explored.

The family system has been seen as a source of intergenerational difficulties (Cox and Paley 1997), and family systems that are overly close (enmeshed) or overly distant (disengaged) have been suggested as contributors to disorder in the next generation (Bowen 1978; Minuchin 1974). Such relationships represent extremes in what we will label emotional distance between the parent and the child and may affect the capacities necessary in healthy parenting within the offspring, most crucial of which may be emotion regulation and empathy. These capacities have been thought to develop within the parent-child relationship

Y. Okado (✉) · S. T. Azar
Department of Psychology, Pennsylvania State University,
115C Moore Building,
University Park, PA 16802, USA
e-mail: okado@psu.edu

(Eisenberg et al. 1998; Keenan 2000; Kiang et al. 2004). Parent-child relationships that are supportive, responsive, and warm (Siegelman 1966) and contingently responsive (Tronick 1989) help the offspring to manage emotional experiences and develop the capacities necessary for prosocial behavior, including emotion regulation and empathy (Cole et al. 2004; Davidov and Grusec 2006). Such parent-child relationships are characterized by moderate amounts of emotional distance and are characterized by appropriate boundaries (Olson et al. 1979), acceptance of child behaviors that are due to developmental immaturity and without expectation of adult-like responses (Azar 1989; Azar and Weinzierl 2005), and provision of a secure base from which to explore the world without overprotecting or neglecting the child (Ainsworth 1979; Levy 2005).

On the other hand, when there is an extreme amount of emotional distance, the parent is much less likely to be able to notice or appropriately interpret cues from the child and respond to them accordingly. At low emotional distance, overprotection, role reversal, or mind-reading may be seen, whereas at high emotional distance, inadequate emotional responsiveness or care may be exhibited towards the child (Crittenden 2006; Rudy and Grusec 2006). Parent-child relationships with extremely low and extremely high emotional distance can be expected to pose a risk for the child's psychosocial development, in particular the development of emotion regulation and empathy (Soenens et al. 2007; Zhou et al. 2002). In an enmeshed parent-child relationship, individuals react to emotional disturbances within the relationship "with excessive speed and intensity" (Minuchin 1974, p. 55), thus the parent would neither model nor provide contingent, sensitive, and modulated emotional responses to stressors that are important for the development of emotion regulation (Morris et al. 2007) and empathy (Zahn-Waxler and Radke-Yarrow 1990). On the other hand, in a disengaged parent-child relationship, the child fails to be exposed to the affective communication necessary to practice and develop strong emotion regulation skills. An example of disengagement is seen in depressed parents, who are found to provide less emotional scaffolding and model less emotion regulation for their children (Hoffman et al. 2006a). These parents are also providing less modeling of empathy such as discriminating affective cues in others, assuming the perspective and role of another person, and being emotionally responsive (Feshbach 1989). These examples suggest that extremely low or high emotional distance in the parent-child relationship might interfere with the development of emotion regulation and empathy in the child.

Indeed, there is some evidence suggesting that extreme amounts of emotional distance experienced with one's parents are associated with psychopathology that is marked by emotional dysregulation and interpersonal problems, often persisting into adolescence and even adulthood (e.g.,

Berg-Nielsen et al. 2002; Halligan et al. 2007). For instance, parenting characterized by such indicators of low emotional distance as intrusiveness, overprotection, and role-reversal, has been linked to psychosocial maladjustment in the child, including anxiety (Wood et al. 2003), schizoaffective disorder (Willinger et al. 2002), and narcissistic and masochistic personality features (Jones and Wells 1996). Parenting characterized by high emotional distance, including low responsiveness and care, has also been linked to the child's difficulties with emotion regulation (Silk et al. 2006), emotional awareness (Edwards et al. 2005), and long-term psychopathology such as depression and substance abuse (Enns et al. 2002). Thus, the child's psychosocial difficulties arising from both extremes of emotional distance with the parent, if they persist, may be expected to negatively affect the grown child's parenting capacities (Gross and John 2003; Miller and Eisenberg 1988). The capacity to regulate and use emotion in interacting with the child is necessary for effective parenting (Dix 1991). Emotional dysregulation in the parent, reactivity in particular, may be associated with parenting difficulties and has been associated with risk of child maltreatment perpetration (Milner et al. 1995; Skowron and Platt 2005; Trickett and Kuczynski 1986).

In addition to emotion regulation capacities, empathy also plays an important role in parenting (Azar et al. 2008c; Saarni et al. 1998). Empathy has been found to be negatively correlated with measures of risk of violence and aggression (Mehrabian 1997; Miller and Eisenberg 1988). Deficits in empathy are also thought to contribute to child maltreatment through minimization of the child's emotional states (Rudy and Grusec 2006) or difficulties inhibiting aggression (Feshbach 1989). Some studies, although not all (De Paúl et al. 2008), have shown a link between low empathy and abuse (Frodi and Lamb 1980; Letourneau 1981) or risk for abuse (Pérez-Albéniz and de Paúl 2003). A deficit in empathy may thus account for the association between history of extremes of emotional distance and the offspring's risk of child maltreatment perpetration.

In sum, extreme amounts of emotional distance in the parent-child relationship are likely to interfere with the development of child emotion regulation and empathy, potentially creating long-term psychosocial risk for the child that could persist into adulthood. Included in such risk may be the risk to perpetrate child maltreatment towards the next generation, which has been found to be associated with emotional reactivity and low empathy in existing research.

Present Study

The present study sought to examine whether extreme amounts of emotional distance experienced with parents

during childhood increased the offspring's long-term risk of perpetrating child maltreatment, and whether emotional reactivity and empathy mediate this effect. Participants' risk of perpetrating child maltreatment was assessed using two measures, one focusing on global distress and the other focusing on social information processing difficulties associated with child maltreatment, in order to capture both affective and cognitive risk associated with maltreatment perpetration. The study focused on mother-child relationships in the family of origin because more is known about this dyad, whereas much less is currently known about the nature and impact of the father-child relationship on child risk (Azar et al. 2008b). The study also examined whether extremes in emotional distance explained risk for child maltreatment perpetration over and above one's history of childhood maltreatment, to examine whether emotional distance captures risk that is not accounted for by maltreatment history alone.

Methods

Participants and Procedures

A sample of 178 non-parent college students (aged 18 to 23) taking an introductory psychology course was recruited at a large public university (see Table 1 for demographic information). Participants completed study instruments anonymously in a single session online through a survey hosted on a research website (PsychData) and received research credit for participation. Demographic data was collected first, and measures were administered in this order: Child Abuse Potential Inventory, Parent Opinion Questionnaire, Parental Bonding Instrument, Relationship with Parents Scale, Differentiation of Self Inventory-Revised, Affect Dysregulation Subscale of the Inventory of Altered Self-Capacities, Questionnaire Measure of Emotional Empathy, and Assessing Environments III-Adaptation. Dependent measures were first administered in order to ensure that they were not influenced by the administration of the other measures, which involved recalling one's familial history and affective tendencies.

Measures

Dependent Variable: Risk of Child Maltreatment Perpetration

Child Abuse Potential Inventory (CAP; Milner 1986) is a self-report measure assessing risk of perpetrating child physical abuse. Respondents completed 160 items in an agree/disagree format (e.g., "Children are pests"; "Children should be seen and not heard"). The continuous Abuse

Scale score was used to measure risk of child maltreatment perpetration. The CAP also has three validity scales, and respondents with scores above the designated cut-off on any of these validity scales (Milner 1986) were excluded from analyses because their responses appeared to be random or faking good / bad.¹ The internal consistency of the CAP Abuse Scale has been reported to range between .92–.96, and the CAP has been shown to have high sensitivity and specificity in classifying parents who are physically abusive or non-abusive (Milner 1986; Milner and Wimberley 1980). Cronbach's alpha for the measure in this sample was .91.

Parent Opinion Questionnaire (POQ; Twentyman et al. 1981) is an 80-item questionnaire that assesses unrealistic expectations regarding children and was also used to measure risk of child maltreatment perpetration. The POQ has good discriminant validity in classifying mothers who are abusive towards their children from mothers whose partners are abusive towards their children (Azar and Rohrbeck 1986). Scores on the POQ have been found to be correlated with negative attributions toward children, greater usage of punishment and discipline by the parent (Haskett et al. 2006), and punishment ratings assigned to hypothetical child behavior among at-risk adolescents who are not yet parents (Azar 1990; Azar et al. 2008b). Respondents indicated their agreement or disagreement with age-specific statements regarding children and parenting (e.g., "If a baby really loved her mother and father, the baby would be well behaved"). Cronbach's alpha for the measure in this sample was .91.

Independent Variables: Emotional Distance in the Family of Origin and Maltreatment History

Relationship with Parents Scale (RPSM; Alexander 2003) is a 42-item, retrospective measure assessing the presence of role reversal with one's mother that was used to assess the level of low emotional distance. Respondents rated items regarding their mother's behavior (e.g., "My mother relied on me for advice") as well as their reactions toward her (e.g., "I felt responsible for how my mother felt") during childhood and adolescence on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The measure has been validated with measures of family alliance patterns and has test-retest reliability ranging from .70–.88 and Cronbach's alpha of .86 (Alexander 2003). The alpha was .93 in the present study.

The Parent Bonding Instrument (PBI; Parker et al. 1979) is a 25-item, retrospective measure of respondents' perception of their parents' behavior and attitude towards them

¹ Exclusion of these participants did not change the findings with CAP.

Table 1 Sample demographic characteristics, by gender

Variable	Male (n=76)	Female (n=102)
	Mean (SD)	Mean (SD)
Age ¹	19.43 (1.25)	19.07 (1.13)
Education (in years) ²	12.44 (0.85)	12.34 (0.69)
Mother		
Age ³	49.35 (4.94)	48.93 (4.68)
Education (in years) ⁴	14.40 (2.52)	14.76 (2.50)
Father		
Age ⁵	51.48 (6.52)	51.04 (6.04)
Education (in years) ⁶	15.15 (4.94)	14.47 (2.64)
Family Income ⁷	121,836 (98,658)	127,514 (129,845)
Race ⁸	n (% of males)	n (% of females)
Caucasian	69 (90.8%)	80 (78.4%)
African-American	1 (1.3%)	5 (4.9%)
Hispanic	1 (1.3%)	3 (2.9%)
Asian-American	2 (2.6%)	8 (7.8%)
Native American	0	2 (2.0%)
Other	2 (2.6%)	4 (3.9%)
No Response	1 (1.3%)	0
Parent Marital Status ⁹		
Single	2 (2.6%)	1 (1.0%)
Married	63 (82.9%)	75 (73.5%)
Separated	3 (3.9%)	5 (4.9%)
Divorced	6 (7.9%)	14 (13.7%)
Remarried	1 (1.3%)	5 (4.9%)
Other	1 (1.3%)	2 (2.0%)

¹ $F(1, 176)=4.18, p<.05$

² $F(1, 168)=0.69, p=ns$

³ $F(1, 173)=0.32, p=ns$

⁴ $F(1, 164)=0.88, p=ns$

⁵ $F(1, 169)=0.21, p=ns$

⁶ $F(1, 162)=1.30, p=ns$

⁷ $F(1, 132)=0.08, p=ns$

⁸ $\chi^2(5, N=176)=8.46, p=ns$

⁹ $\chi^2(5, N=178)=4.37, p=ns$

through age 16. The overprotection subscale (containing such items as the mother “did not want me to grow up”; “tried to control everything I did”) was used to measure low emotional distance, and the reverse-scored care subscale (with items such as, “Did not seem to understand what I needed or wanted,” “Made me feel I wasn’t wanted”) was used to measure high emotional distance. The PBI has been validated in both clinical and non-clinical samples as a predictor of psychopathology (Lancaster et al. 2007), and its reliability has ranged from .78–.90 for responses regarding the mother in a college sample (Murphy et al. 1997). In this study, the alphas were .83 for the Overprotection subscale and .92 for the Care subscale.

Assessing Environments III-Adaptation (AE-III-A; Berger and Knutson 1984; Gauthier et al. 1996) is a 75-item, retrospective questionnaire that assesses for childhood maltreatment occurring before age 18 or before the respondent moved out of the house, adapted from the original version by Berger and Knutson (1984) to assess child neglect. Respondents rated each item on a 4-point Likert scale ranging from 1 (Never occurred or strongly disagree) to 4 (Frequently occurred or strongly agree), and items

measuring parental rejection (7 items) and non-responsiveness (11 items) were used to assess for high emotional distance in the parent-child relationship (e.g., “I felt rejected by my mother”; “My mother was unresponsive to me”). Scores on physical punishment, neglect, age-inappropriate demands, perception of discipline, negative family atmosphere, and verbal abuse subscales were summed to create a score indicating the level of childhood maltreatment perpetrated by the respondent’s mother. Previous studies have found an association between this measure and relational anger, self-complexity, and aggression (Grande 2004; Olsen 2000), with alphas ranging from .79–.85 (Gauthier et al. 1996). In the present study, alphas were .93 for items concerning high emotional distance and .96 for items concerning childhood maltreatment.

Mediation Variables: Emotional Reactivity and Empathy

Differentiation of Self Inventory-Revised (DSI-R; Skowron and Schmitt 2003; Skowron and Friedlander 1998) is a 46-item, self-report instrument that measures emotional reactivity as a component of the respondent’s level of self-

differentiation. Respondents endorsed items on a 6-point Likert scale ranging from 1 (Not at all true of me) to 6 (Very true of me), and the emotional reactivity subscale (e.g., “At times my feelings get the best of me and I have trouble thinking clearly”; “If someone is upset with me, I can’t seem to let it go easily”) was used. A previous study by Skowron and Platt (2005) has linked the emotional reactivity subscale to child abuse potential, and internal consistency for the subscale has been found to be .89 (Skowron and Schmitt 2003). The alpha was .90 in this study.

Affective Regulation Subscale of the Inventory of Altered Self-Capacities (IASC; Briere and Runtz 2002) is a 9-item measure that assesses for disturbances in affect regulation and was also used to measure emotional reactivity. Respondents rated the frequency of events indicated by items for the past half year, using a 5-point Likert scale ranging from 1 (Has never happened in the last six months) to 5 (Has happened very often in the last six months). Items included those focusing on dysregulation (e.g., “Not being able to calm yourself down”) and those focusing on affect instability (e.g., “Having many ups and downs in your feelings”). Validity studies with college, clinical, and community samples have shown a strong association between the IASC and self-report measures of depression, suicidality, and substance abuse (Briere and Runtz 2002). This subscale has adequate internal consistency ($\alpha = .93$).

The Questionnaire Measure of Emotional Empathy (QMEE; Mehrabian and Epstein 1972) is a 33-item self-report measure of recognition and sharing of others’ feelings and was used to measure affective empathy. Respondents rated items (e.g., “It makes me sad to see a lonely stranger in a group”; “Seeing people cry upsets me”) on a 9-point Likert scale ranging from -4 (Very strong disagreement) to 4 (Very strong agreement). The measure has shown links to both aggression and helping behavior (Chlopan et al. 1985) and has shown adequate reliability (e.g., split-half reliability of .84, Mehrabian and Epstein 1972; alpha in the present study of .80).

Analytic Procedures

Hierarchical regression was used to test the prediction of child abuse potential and unrealistic expectancies by indicators of emotional distance and childhood maltreatment. Mediation was tested using the Baron and Kenny (1986) method and the Sobel test (Preacher and Hayes 2004). For tests of mediation, emotional distance was coded as extreme if the score on any of the four measures of emotional distance was more than one standard deviation from the mean. This coding was used because extreme emotional distance could manifest in different forms, for instance overprotection and role reversal reflecting low emotional distance and lack of care, rejection, and non-

responsiveness reflecting high emotional distance. Any of these manifestations of extreme emotional distance was expected to contribute to risk. As such, an elevated score on any measure of emotional distance was conceptualized as indicating a form of extreme emotional distance, and it was not required for respondents to experience multiple forms of extreme emotional distance concurrently. Using this criterion, 39% of the sample ($n=70$) reported having experienced extreme amounts of emotional distance. Measures of low emotional distance and high emotional distance all contributed to the classification of extreme emotional distance at similar rates. Hypotheses were tested separately for the two dependent variables, the continuous CAP abuse score (indicating child abuse potential) and the POQ total score (indicating unrealistic expectations regarding children).

Results

Descriptive Analyses

Prior to testing the hypotheses, relationships among demographic and study variables were explored. Demographic variables were not significantly associated with study variables, with the exception of gender, which showed significant associations with the mediator and dependent variables (Table 2) and was entered into analysis as a control variable. Bivariate correlations for study variables are reported in Table 3.

Analytic Results

To test the hypotheses that both extremes of emotional distance experienced with the mother would increase risk for abuse, the CAP abuse score and the POQ total score were each regressed on continuous measures of low (RPSM and overprotection subscale of the PBI) and high (parental rejection and non-responsiveness subscales of the AE-III-A and the reverse-scored care subscale of the PBI) emotional distance, controlling for gender. Separate regressions were computed for low and high emotional distance in order to test the hypotheses that each type of extremes in the spectrum of emotional distance predicted risk. Because measures of high emotional distance were found to be highly collinear, only the reverse-scored care subscale of the PBI was entered into analysis for high emotional distance. Models for low and high emotional distance both explained significant portions of the variance in CAP abuse scores (Table 4; for low emotional distance, $R^2=.23$, $F(3, 132)=12.93$, $p<.001$; for high emotional distance, $R^2=.19$, $F(2, 141)=16.69$, $p<.001$). When POQ was used as the criterion, again the two models were

Table 2 Means and standard deviations of the study variables

	Variable	Gender		Full Sample
		Male	Female	
¹ $F(1, 170)=0.00, p=ns$	Overprotection (PBI) ¹	27.21 (6.19)	27.17 (6.45)	27.19 (6.33)
² $F(1, 165)=0.00, p=ns$	Role Reversal (RPSM) ²	39.23 (14.27)	39.18 (16.33)	39.20 (15.44)
³ $F(1, 171)=0.00, p=ns$	Lack of Care (PBI) ³	18.74 (5.80)	18.81 (6.67)	18.78 (6.30)
⁴ $F(1, 153)=1.60, p=ns$	High Emotional Distance (AE-III) ⁴	28.77 (9.16)	26.87 (9.31)	27.66 (9.27)
⁵ $F(1, 176)=1.26, p=ns$	CAP Abuse Score ⁵	110.84 (94.46)	126.77 (93.31)	120 (93.89)
⁶ $F(1, 176)=17.19, p<.001$	Unrealistic Expectations (POQ) ⁶	10.89 (10.50)	5.91 (5.26)	8.04 (8.29)
⁷ $F(1, 157)=37.17, p<.001$	Empathy (QMEE) ⁷	17.54 (22.29)	39.64 (23.00)	29.91 (25.15)
⁸ $F(1, 176)=26.35, p<.001$	Emotional Reactivity (DSI) ⁸	2.98 (.89)	3.73 (1.02)	3.41 (1.03)
⁹ $F(1, 171)=7.58, p<.01$	Affective Dysregulation (IASC) ⁹	17.27 (7.29)	20.36 (7.27)	19.06 (7.42)
¹⁰ $F(1, 169)=0.73, p=ns$	Maltreatment History (AE-III) ¹⁰	83.01 (24.47)	79.78 (24.64)	81.16 (24.55)

significant (Table 5; for low emotional distance, $R^2=.21$, $F(3, 158)=13.80$, $p<.001$; for high emotional distance, $R^2=.25$, $F(2, 170)=28.22$, $p<.001$).

Mediation by emotional reactivity was examined with both child maltreatment risk measures, using a dichotomous indicator for extreme emotional distance as described above (i.e., coded as extreme if score on any emotional distance measure was more than one standard deviation above the mean), so that both extremes of emotional distance could be examined simultaneously. Controlling for gender, extreme emotional distance and emotional reactivity both significantly predicted CAP abuse score, and criteria for the Baron and Kenny (1986) test of mediation were met (Fig. 1). The Sobel test showed a statistically significant effect of both the DSI score, $z=3.90$, $p<.001$, and IASC score, $z=3.45$, $p<.001$, as mediators of the relationship between extreme emotional distance and CAP abuse score. When mediation was examined with the POQ score as criterion, emotional reactivity as measured by the DSI did not predict POQ score, and thus mediation could not be tested using the DSI. However, emotional reactivity as

measured by the IASC significantly predicted the POQ score after controlling for gender, and Baron and Kenny (1986) criteria were met (Fig. 2). However, the Sobel test did not show a statistically significant mediation by the IASC score. Thus, extreme emotional distance and emotional reactivity (as measured by the IASC) both uniquely predicted unrealistic expectations as measured by POQ, and emotional reactivity was not found to be a significant mediator linking extreme emotional distance and unrealistic expectations.

The mediating effect of empathy was also examined. As reported previously, after controlling for gender, extreme emotional distance significantly predicted CAP abuse score, $\beta=.27$, $t(135)=3.38$, $p<.01$, as well as POQ score, $\beta=.33$, $t(175)=4.80$, $p<.001$. However, extreme emotional distance did not significantly predict empathy as measured by the QMEE, and thus criteria for mediation were not met.

Finally, emotional distance's association to risk of child maltreatment perpetration after accounting for history of childhood maltreatment as measured by the AE-III-A was examined. After controlling for gender, history of child-

Table 3 Intercorrelations between the study variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Overprotection (PBI)	–	.30**	.40**	.38**	.32**	.26**	–.16	.20**	.20**	.37**
2. Role Reversal (RPSM)		–	.47**	.45**	.47**	.29**	–.06	.37**	.46**	.46**
3. Lack of Care (PBI)			–	.82**	.48**	.39**	–.12	.15*	.31**	.70**
4. High Emotional Distance (AE-III)				–	.46**	.46**	–.33**	.10	.31**	.83**
5. CAP Abuse Score					–	.48**	.06	.56**	.72**	.39**
6. Unrealistic Expectations (POQ)						–	–.28**	–.08	.19*	.37**
7. Empathy (QMEE)							–	.36**	.11	–.21*
8. Emotional Reactivity (DSI)								–	.63**	.14
9. Affective Dysregulation (IASC)									–	.33**
10. Maltreatment History (AE-III)										–

* $p<.05$. ** $p<.01$

Table 4 Hierarchical multiple regression analyses predicting child abuse potential from low and high emotional distance

Predictor	Emotional Distance			
	Low		High	
	ΔR^2	β	ΔR^2	β
Step 1	.07**		.04*	
Gender		.26**		.21*
Step 2	.16***		.15***	
Gender		.26**		.19*
Overprotection (PBI)		.15		
Role Reversal (RPSM)		.34**		
Lack of Care (PBI)				.39**
Total R^2	.23***		.19***	
n	136		144	

* $p < .05$. ** $p < .01$. *** $p < .001$

hood maltreatment was entered into the second step, and adding emotional distance as a predictor in the third step significantly improved the prediction of the CAP abuse score (Table 6). This model explained a significant portion of the variance in CAP abuse score, $R^2 = .16$, $F(3, 139) = 8.59$, $p < .001$. However, when using the POQ as the criterion, adding extreme distance as a predictor in the third step did not significantly improve the prediction of the POQ score (Table 7), though the model accounted for a significant amount of the variance in POQ score, $R^2 = .23$, $F(3, 167) = 16.96$, $p < .001$. Thus, extreme emotional distance predicted child abuse potential but not unrealistic expectations over and above childhood maltreatment, controlling for gender.

Discussion

The findings from this study support the idea that both lower and higher amounts of emotional distance experi-

enced with one’s mother are associated with higher levels of child abuse potential and unrealistic expectations of children in the grown offspring. Consistent with prior research showing that enmeshment and disengagement in the parent-child relationship increase the offspring’s risk of psychopathology (e.g., Heider et al. 2006; Levy 2005; Willinger et al. 2002; Zweig-Frank and Paris 1991), the findings in this study support the possibility that such extremes of emotional distance could pose long-term risk for the offspring. In addition, increased emotional reactivity was supported as a potential mechanism by which extreme amounts of emotional distance increased child abuse potential. This finding is consistent with other work in the child maltreatment literature suggesting that greater emotional reactivity is associated with increased risk of child maltreatment perpetration (e.g., Milner et al. 1995; Skowron and Platt 2005; Trickett and Kuczynski 1986).

In contrast with a global indicator of risk (child abuse potential), unrealistic expectations, which represent cognitive risk, were predicted by both history of extreme

Table 5 Hierarchical multiple regression analyses predicting unrealistic expectations from low and high emotional distance

Predictor	Emotional Distance			
	Low		High	
	ΔR^2	β	ΔR^2	β
Step 1	.10**		.10**	
Gender		-.32**		-.31**
Step 2	.11***		.15***	
Gender		-.31**		-.31**
Overprotection (PBI)		.19*		
Role Reversal (RPSM)		.22**		
Lack of Care (PBI)				.39**
Total R^2	.21***		.25***	
n	162		173	

** $p < .01$. *** $p < .001$

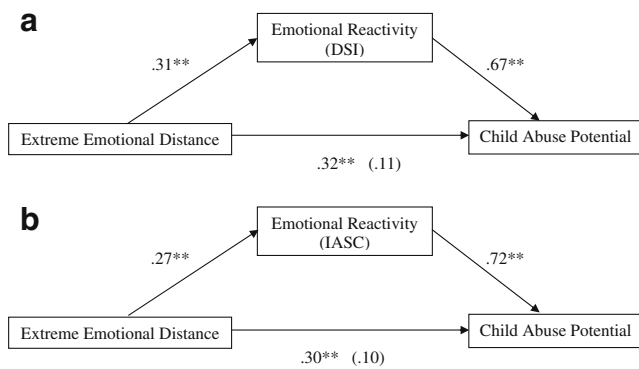


Fig. 1 Mediation of the relationship between extreme emotional distance and child abuse potential by emotional reactivity. Standardized regression coefficients show mediation by emotional reactivity, as measured by the DSI (a), $N=142$, and mediation by emotional reactivity, as measured by the IASC (b), $N=149$. Both analyses controlled for gender. Parentheses indicate the effect of extreme emotional distance on child abuse potential, after entering emotional reactivity into analysis. $**p<.01$

maternal emotional distance and offspring’s intraindividual emotional reactivity independently. It may be that there are two pathways to cognitively based risk for maltreatment. Mother-child relationships that are enmeshed or disengaged may not provide modeling or socialization experiences that allow the offspring to develop the capacity to accurately assess child behavior (Azar et al. 2005; Dattilio 2005). In addition, cognitive risk may develop in an offspring who is emotionally reactive through affective responses that interfere with social information processing (Lemerise and Arsenio 2000) or negative cognitive responses that are associated with negative affect (Berkowitz 1990), leading to inaccurate assessment of others, including children. It is important to note that emotional reactivity may not have accounted for the link between extreme emotional distance and the POQ because emotional constructs do not predict cognitive risk as strongly as the more global stress being captured by the CAP (Walker and Davies 2010).

In contrast to emotional reactivity, empathy did not mediate the relationship between history of extreme emotional distance in the mother-child relationship and

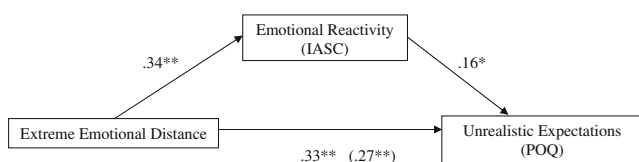


Fig. 2 Mediation of the relationship between extreme emotional distance and unrealistic expectations by emotional reactivity. Standardized regression coefficients show mediation by emotional reactivity, as measured by the IASC, $N=173$. The analysis controlled for gender. Parentheses indicate the effect of extreme emotional distance on unrealistic expectations, after entering emotional reactivity into analysis. $*p<.05$. $**p<.01$

Table 6 Hierarchical regression analysis for prediction of child abuse potential from maltreatment history and extreme emotional distance

Predictor	ΔR^2	β
Step 1	.06**	
Gender		.24**
Step 2	.07*	
Gender		.24**
Maltreatment History		.27**
Step 3	.03*	
Gender		.23**
Maltreatment History		.17
Extreme Emotional Distance		.19*

$N=143$

* $p<.05$. ** $p<.01$

the offspring’s risk of child maltreatment perpetration. Lack of findings could be due partially to the difficulties of measuring empathy, which has been an ongoing problem in child maltreatment research (Kilpatrick 2005). Also, the QMEE is a measure of affective empathy. Cognitive empathy or perspective-taking, which was not assessed in this study, may still show an association with extreme emotional distance, for instance via inadequate modeling of perspective-taking skills (Zahn-Waxler and Radke-Yarrow 1990) and may be examined in future studies. However, it may also be the case that empathy is not affected by emotional distance and is influenced by other factors such as socialization of moral reasoning by the parent or the child’s tendencies to feel more socially oriented emotions such as guilt and shame (Eisenberg 2000).

Finally, there was limited support for the argument that extreme amounts of emotional distance experienced with

Table 7 Hierarchical regression analysis for prediction of unrealistic expectations from maltreatment history and extreme emotional distance

Predictor	ΔR^2	β
Step 1	.09**	
Gender		-.30**
Step 2	.13***	
Gender		-.28**
Maltreatment History		.36**
Step 3	.02†	
Gender		-.28**
Maltreatment History		.26**
Extreme Emotional Distance		.17†

$N=171$

† $p<.10$. ** $p<.01$. *** $p<.001$

the mother increase the offspring's risk over and above maltreatment occurring in the mother-child relationship. Extreme emotional distance experienced with the mother significantly added to the prediction of child abuse potential, but not unrealistic expectancies, after controlling for gender and maltreatment history. This suggests that the degree to which maltreatment had occurred in the mother-child relationship has a significant effect on the offspring's unrealistic expectations of children, and this effect is not accounted for by emotional distance in the mother-child relationship. It may be that the history of childhood maltreatment reflects some of the worst parenting that participants had experienced as children and that the more subtle problems in the emotional qualities of the mother-child relationship are not as impactful on the child's unrealistic expectations. Future research might examine potential factors that explain these processes. For instance, research has shown that childhood maltreatment can adversely affect cognitive functioning (including executive functioning; Watts-English et al. 2006) as well as contribute to negative cognitive styles (Gibb 2002), possibly also giving rise to executive functioning deficits and negative intent attributions associated with unrealistic expectations and increased risk of child maltreatment perpetration (e.g., Azar et al. 2008b; Azar and Robinson 2008). Additionally, unrealistic expectations regarding children may be affected by an individual's developmental stage and entrance into parenthood, which entails a new set of developmental tasks and experiences (Azar 2003). It may be that studying individuals who are already parents would yield different results, as their experience with their own parents, including emotional distance, might become more salient and influence expectations regarding their children.

Overall, results from the study point to importance of monitoring the amount of emotional distance in the mother-child relationship for assessing the relative degree to which the offspring is at risk for child maltreatment perpetration. Furthermore, emotional reactivity has been identified as a potential mechanism by which risk is transmitted across generations and deserves attention as an area of intervention for reducing the child's long-term risk. Second, the findings suggest that risk of child maltreatment perpetration may be produced through a developmental process, providing ample opportunities and avenues for prevention. Existing interventions targeting mother-child relationships or children may be used to prevent child maltreatment occurring in the next generation, for instance by promoting moderate amounts of emotional distance in parenting interventions (e.g., Circle of Security Intervention for insecure attachment; Hoffman et al. 2006b) or teaching emotion regulation to the child (e.g., the Turtle Technique for children; Schneider and Robin 1978).

Some interesting additional findings emerged from the study. Enmeshment and disengagement were found to be positively correlated in this sample, suggesting that both extremes in emotional distance may occur within the same relationship. This is consistent with work of attachment researchers who argue that parents can experience intense and contradictory states in parenting, such as those that are "hostile/helpless" (Lyons-Ruth and Spielman 2004) or "frightened/frightening" (Hesse and Main 2006). As such, it may be useful to conceptualize low and high emotional distance as indicators of dysfunction in the parent-child relationship more generally rather than mutually exclusive ends of a spectrum.

Limitations and Future Directions

The study has several limitations. The study has measured the grown child's perception of emotional distance and maltreatment occurring in the mother-child relationship retrospectively. Although some research suggests that retrospective self-reports adequately capture aversive childhood events such as abuse (Brewin et al. 1993; McGee et al. 1995) and predict psychological symptoms (Briere and Runtz 1988; McGee et al. 1995; Wind and Silvern 1992), there may be inaccuracies in retrospective reports, such as failure to recognize and report childhood abuse (Berger et al. 1988; Hemenway et al. 1994; Rausch and Knutson 1991). Obtaining parent-report of the study constructs would strengthen future studies. Moreover, prospective studies are needed to fully establish the impact of emotional distance on the offspring's later functioning.

In addition, measurement of constructs posed some challenges. Because there was no pre-existing measure of emotional distance found in the literature, emotional distance was assessed using multiple measures capturing different manifestations of the construct. A decision was made to use elevation in any of the four measures as an indication of extreme emotional distance because the existing literature supported the notion that significant elevation in any form of emotional distance would increase risk for the child. In the current study, such operationalization of extreme emotional distance was found to be a useful indicator of risk. However, further work in developing a measure of emotional distance is warranted. This work may entail developing a unified measure for emotional distance as well as possibly assessing other facets of extreme emotional distance not included in this study. For instance, extreme low emotional distance may be characterized by other qualities in addition to role reversal and overprotection, such as dependence or emotional contagion. As such, more measures of low emotional distance may be needed in order to fully capture the construct. Furthermore, categorizing partic-

ipants into groups based on whether they reported extreme amounts of emotional distance may have led to some information being lost, though exploratory analyses using continuous measures of emotional distance produced results similar to those being reported.

Another limitation of our study was its usage of a college student sample. Because the sample was a relatively high-functioning young adult sample without children, the findings are generalizable to similar populations but possibly not to higher-risk samples or those who are already parents. Furthermore, the study constructs were assessed using only one reporter, which may have led to stronger relationships among constructs than might have been found otherwise. Finally, reports regarding mothers but not fathers were used in the study, and thus impact of another parental figure in the home could not be assessed.

There are several directions for future work. It would be important to see what factors contribute to sustained risk or resilience from growing up in a dysfunctional mother-child relationship, thus moderating the impact of extreme amounts of emotional distance on the offspring's risk. For instance, stress reactivity may affect the impact of extreme emotional distance differently depending on existing levels of other environmental stress (Ellis and Boyce 2008). Other factors, such as high cognitive functioning, strong self-esteem, internal locus of control, and access to a supportive adult, are also thought to help buffer individuals from the negative effects of child maltreatment (Heller et al. 1999). These factors might be investigated in a future study as potential moderators of the effects of extreme emotional distance and emotional reactivity.

Furthermore, this study focused on the mother-child relationship, but the father-child relationship is also important to examine in future work. There is evidence suggesting that mothers and fathers differ in the pattern of intergenerational transmission of parenting practices (Belsky et al. 2005). Fathers are understood to have relationships with children that differ from mothers, such as in emotion regulation strategies and attachment (Diener et al. 2002), as well as have a particular impact on their sons, such as socializing sex-role expectations (Emihovich et al. 1984) or father-son aggression (Nagashima 2008). In addition, future studies might examine the role of other significant individuals in the child's life, such as grandparents, siblings, or peers. Especially during times of high stress or transition, these individuals may provide important social support (Goslin 2007), and in the case of grandparents, may be called to provide kin care if the parents are unable to provide adequate care (Azar and Hill 2006).

Also, child characteristics may influence the emotional distance in the parent-child relationship. For instance, a child may be born with a more reactive temperament (Rothbart and Bates 2006), which may be associated with a

parent that is also reactive and provide controlling or withdrawn parenting as a result. Alternatively, an emotionally reactive child may evoke negative parental responses (Scaramella and Conger 2003), potentially in interaction with maternal personality (Clark et al. 2000) or in a bidirectional fashion (Lengua and Kovacs 2005). These effects may be examined in future studies.

Finally, the argument presented in this paper is far from being exhaustive in exploring the sources of risk for perpetrating child maltreatment, and other factors that affect parenting risk need to continue being examined. For instance, social information processing capacities of the parent, including expectancies regarding parenting, attribution style, and executive function, have been shown to differ between maltreating and non-maltreating parents (Azar 1986, 2002, 2003; Azar and Robinson 2008; Azar and Weinzierl 2005). Additionally, contextual factors are known to affect risk of child maltreatment (Belsky 1993; Black et al. 2001a, b, c). There may also be cultural influences that affect attitudes, behaviors, and norms in parenting (Ferrari 2002), and further attention to culture in child maltreatment research is needed (Behl et al. 2001; Korbin 2002).

Conclusions

Literatures from various theoretical traditions have viewed parent-child relationships that are either too close or too distant as increasing risk. However, despite acknowledgement in existing research of the importance of the family of origin in shaping parenting (Bandura 1986; Belsky et al. 2005; Serbin and Karp 2003), there is a dearth of empirical research on the impact of enmeshed or disengaged parent-child relationships on the offspring's adulthood risk for perpetrating maltreatment. This study sought to address this gap and found initial support for the argument that extreme amounts of emotional distance within the mother-child relationship increase the grown offspring's risk of perpetrating child maltreatment, with emotional reactivity mediating this effect. Moreover, there was limited support for the argument that emotional distance within the mother-child relationship is a stronger predictor of the offspring's child abuse potential than a history of childhood maltreatment. Thus, emotional distance in the mother-child relationship of origin may warrant further attention in research on risk of child maltreatment as well as in prevention efforts.

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