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FROM THE FIELD

Meeting Women Where They Are: Integration of Care As the Foundation of Treatment for At-Risk Pregnant and Postpartum Women

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Abstract *Purpose* In these times of rapidly changing health care policies, those involved in the health care of women, especially during the reproductive years, have a unique and daunting opportunity. There is great potential to positively impact women's health through focus on prevention, attention to addressing disparities, and new focus on the integration of behavioral health care in primary care settings. *Description* In this report from the field, we suggest that the integration of mental health care into other health services and addressing underlying social needs by partnering with community-based organizations should be a top priority for all settings seeking to provide excellent health care for women. *Assessment* We describe our experience in a diverse, urban, safety net system to draw attention to four areas of innovation that others might adapt in their own systems: (1) addressing social support and other social determinants of health; (2) tailoring services to the specific needs of a population; (3) developing integrated and intensive cross-disciplinary services for high-risk pregnant women; and (4) bridging the divide between prenatal and postpartum care. *Conclusion* Women are more likely to be engaged with healthcare during their pregnancy. This engagement, however limited, may be a unique "window of opportunity" to help them address mental health concerns and implement positive behavior change. Future work should include research and program evaluation of innovative programs designed to serve the entire family and meeting at-risk women where they are.

Keywords Integration of care · Perinatal mental health · Health disparities · Maternal depression

Significance

The adverse acute and long-term effects of maternal stress and depression for both mother and her children are now well established. However, our programs and policies have not kept pace with the science. More effectively addressing the psychosocial needs of at-risk women to ameliorate ongoing maternal child health disparities is a major public health issue in the U.S. This report from the field provides a case example of integrating mental health and social services for at-risk women within a safety net setting.

Introduction

Women of color in the U.S., including those who self-identify as Black/African American or Latin American, have worse outcomes across almost every category of maternal and child outcomes when compared to White counterparts (Bryant et al. 2010). These disparities have been inadequately accounted for by studies exploring SES, genetics, prenatal care, maternal health behaviors, illness, or stressful events during pregnancy (Lu and Halfon 2003). Evidence is mounting that stress across the life course, pregnancy-specific anxiety, and the prevalent mental health conditions of depression and PTSD may contribute to adverse pregnancy,

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birth, and early child outcomes (Lu and Halfon 2003; Dunkel Schetter and Tanner 2012; Kahn et al. 2005). For Black and Hispanic women in particular, the relationship between social disadvantage and accompanying maternal stressors may at least in part account for increased prevalence of maternal depression when compared to White women (Liu and Tronick 2013).

Integrating mental health services with prenatal and postpartum care in accessible and patient-centered ways and partnering with existing community-based resources may be a promising avenue for addressing disparities. Although providers may recognize the significance of the relationship between maternal mental health and maternal and child health disparities, the internal and external barriers women face in getting the help they need are extensive (Freed 2012). By describing our experience in this report from the field, we hope to inspire others to develop their own systems of integrated care and leverage existing resources to better address perinatal psychosocial risk. We focus on four areas of systems change: (1) addressing social support and other social determinants of health; (2) tailoring services to the specific needs of a population; (3) developing integrated and intensive cross-disciplinary services for high-risk pregnant women; and (4) bridging the divide between prenatal and postpartum care. Figure 1 conceptually illustrates our approach of stepped-care tailored to the specific psychosocial needs of the women we serve. Where possible, we describe both the history and "how to" of our collaborative efforts, including how we leveraged both leadership and fiscal support. A common theme in our endeavors, and one attainable by all, is intentional efforts to break down silos and build relationships across sectors with the shared mission of better service for vulnerable pregnant and postpartum women.

Addressing Social Support and Other Social Determinants of Health: Embedding Centering Pregnancy® in a Community-Based Organization

Pregnant women with high psychosocial risk can have their needs addressed in many ways, and successfully aligning care with the goals of each woman is paramount. Many at-risk pregnant women experience social isolation, reduced self-efficacy, and a lack of basic resources that are fundamental to their experience of stress and mental illness. Evidence that social support and other social determinants of health can positively impact pregnancy outcomes and early child development is growing steadily, providing impetus to align best practices of holistic perinatal care with how women perceive their own needs. The critical importance of social determinants of health rests at the intersection of public health and healthcare and is often paramount in the mission of safety net settings. At the heart of our field report is one such setting: Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG), a safety net hospital with a long history of health care for a high risk and vulnerable patient population. This public hospital has been a part of the San Francisco County health care system since 1872, is owned and operated by the City and County of San

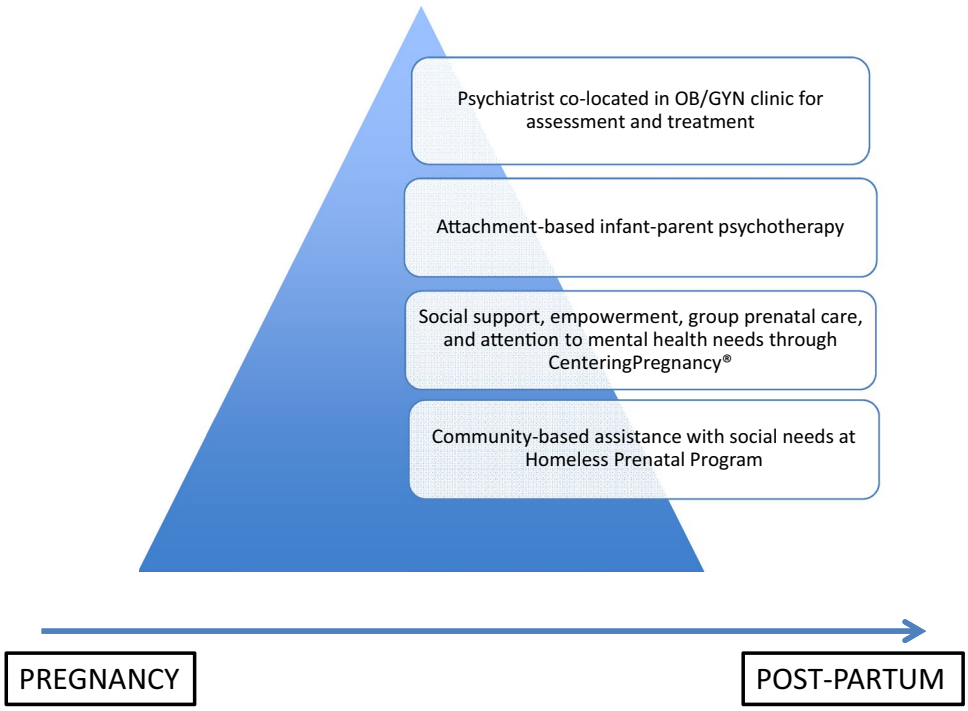

Fig. 1 Conceptual model of stepped-care to address the psychosocial needs and provide enhanced treatment for at-risk pregnant and post-partum women

Francisco Department of Public Health, and is part of the larger San Francisco Health Network. The primary mission of the hospital includes providing quality health care to the indigent, underinsured, and multicultural residents of San Francisco with compassion and respect.

To better address the psychosocial needs of our patients, we developed a partnership among the existing services of: (1) the Nurse-Midwives of Zuckerberg San Francisco General Hospital (NMZSFG): (2) the Homeless Prenatal Program (HPP), and (3) the Infant Parent Program (IPP). The NMZSFG is one of the country's pioneer CenteringPregnancy (CP) programs, currently serving approximately 200 women each year. The HPP is an award-winning Family Resource Center that serves roughly 500 pregnant women annually with the mission of empowering women and families to recognize their own capacity to transform their lives. The IPP is an infant and early childhood mental health program focusing on the relationship between young children and their adult caregivers.

CenteringPregnancy (CP) is a well-established, evidence-based model of prenatal care demonstrating high participant satisfaction and improvements in health outcomes such as preterm birth and breastfeeding (Ickovics et al. 2007; Picklesimer et al. 2012). Fewer studies have addressed the impact of CP on psychosocial needs and mental health, but one study showed improvement in self-esteem, stress, social conflict and depression among women with high baseline stress (Ickovics et al. 2011). In 2005, ZSFG CP groups moved to HPP and started co-facilitation by a NMZSFG midwife and an HPP community health worker (CHW), often a former HPP client. Most women who participate in CP at HPP also become HPP clients, thereby gaining access to many social services. The third partner in this collaborative, the Infant Parent Program (IPP), was brought on board to provide mental health consultation for the ZSFG midwives and HPP staff.

As illustrated in Fig. 1, CP and HPP services can provide a foundation of care for women, reserving higher levels of intervention for those with more specific or severe mental health needs. Several logistical details of how this collaboration developed and has been sustained are of interest: (1) Since CP is a billable medical service and case management was already in place at HPP, moving group prenatal care to the community-based organization did not require additional funding; (2) This collaboration was formalized by a Memorandum of Understanding (MOU) across institutions and has been fostered by mutual respect for each other's mission and vision; and (3) ongoing consultation to both the midwives and the HPP staff by the infant-parent mental health professionals of IPP has extended efforts beyond what a direct service model could provide.

Tailoring Services to the Specific Needs of a Specific Group: Caring for Latin American Women in HROB

Primarily Spanish- and Maya-speaking women from Latin America comprise approximately 45% of women seen by mental health providers in the HROB clinic, giving us a mandate to provide culturally informed care. To more directly meet the needs of these Latin American women, a bilingual and bicultural Clinical Psychologist from the UCSF-ZSFG Infant-Parent Program (IPP) joined the treatment team in 2007. Although women seen by the IPP therapist may also be seen by the psychiatrist, the IPP provider can serve as the sole mental health provider when medication is either not indicated or not desired, matching care to the level of patient need (see Fig. 1). The infant-parent psychotherapist provides culturally informed treatment including attachment-oriented interventions tailored toward pregnancy.

These services place special emphasis on women's needs as immigrants with an overall objective of supporting mothers in creating and cultivating a strong emotional bond with their babies, often in the context of significant trauma and social isolation (Collins et al. 2011; Pimentel and Eckardt 2014). Although immigrant women from Latin America and their infants have well-established robust birth outcomes (Page 2004), there is some evidence to suggest that these same healthy newborns fall behind in measures of motor skills, overall health, and cognition by the age of two (Fuller et al. 2009). Given this post-partum risk, our IPP therapist has established therapy groups and co-location in a high-risk pediatric clinic to continue treatment after birth. Services include ongoing attention to maternal mental health, amelioration of past trauma, focus on maternal-infant attachment, and assessment of infant development. These services may be particularly important given the higher risk of post-partum depression and social isolation for immigrant women (O'Mahony and Donnelly 2010).

Integrating Intensive Cross-Disciplinary Services for High-Risk Pregnant Women

Several decades ago, responding to patient needs within the safety net setting of ZSFG, the Psychiatry Department established the "Women's Issues Consultation Team." Collaborating closely, the Obstetrics and Gynecology (Ob/Gyn) and Psychiatry departments jointly developed protocols and procedures to optimize delivery outcomes for women with severe, chronic mental illness. What evolved, in parallel with the development of treatment algorithms, was a highly collegial, interdisciplinary and interdependent relationship among nurses, social workers, psychologists, and prenatal care providers (physicians and advanced practice clinicians) from across the Ob/Gyn, Pediatrics and

Psychiatry Departments. Collaborative treatment planning has improved services, training, and the understanding of priorities and contributions across the disciplines.

In 1990, treating women with severe mental illness *within* the prenatal clinic became a priority and a designated psychiatrist consultant was embedded in the High-Risk Obstetrics (HROB) clinic at ZSFG. In recent years, this co-located consultation and mental health treatment model has expanded the scope and number of patients served and has been enriched by the addition of a faculty psychologist and psychiatric and psychology trainees. Currently, we have a robust integrated clinic, serving approximately 15–20% of women who deliver at ZSFG each year. Women are referred by a variety of community-based prenatal providers to receive in-depth assessment and evidence-based treatment including therapy and medication, if warranted. The complexity of mental health issues in our population is highlighted using descriptive data for 277 women seen by mental health providers in our clinic from July 2012-December 2013. These women had an average baseline score of 13.1 on the 10-item Edinburgh Postpartum Depression Scale (EPDS), indicating that about half of our patients meet the standard cutoff of 12–13 used for a "probable" diagnosis of major depression (Gibson et al. 2009). The experience of trauma in our population is also high—27% of women reported experiencing some form of domestic violence after the age of 13, with 8% reporting current abuse. The majority of women, 51.6%, reported no prior psychiatric treatment, aligning with previous assertions that pregnancy is a "window of opportunity" for initiating mental health treatment and positive behavior change.

To best address the complex psychosocial needs that these highest risk women have, we hold weekly face-to-face interdisciplinary rounds including social work, psychiatry, psychology, OB/GYN and nursing. Individual labor and delivery plans are developed for each woman with the goals of a healthy pregnancy and delivery and to maximize the capacity for the woman to mother her child. A trauma and attachment informed care model provides the foundation of our therapeutic approach, with careful attention to cultural context and the individual preferences of each pregnant woman. This inter-disciplinary collaboration and inclusion of trainees allows for maximal extension of direct service by the most highly trained and most expensive mental health providers, a fiscal challenge that has been shared across both the Psychiatry and OB/GYN departments.

Bridging the Prenatal and Post-partum Divide

Children born to mothers with mental illness or other psychosocial challenges may suffer from adverse caregiving (Grupp-Phelan et al. 2003), which can influence health and development. Mothers often cite childcare challenges as a major barrier to attending health appointments for themselves. The current disciplinary and conceptual split between prenatal and postpartum care puts pregnant women and their infants at risk by fragmenting care around the most vulnerable and critical point in the gestational process, i.e., the delivery itself. The family medicine model of care is a noteworthy exception to this fragmentation, but is not universally accessible. An intervention that integrates mental healthcare across the prenatal and postpartum periods has broad implications: such a program may be less stigmatizing than other mental health interventions, may improve maternal-infant attachment and developmental outcomes, and can be adapted for implementation in a variety of settings.

In 2012 ZSFG pediatric and adult psychiatry providers embarked on a collaborative effort to bridge the prenatal and postpartum divide and to support mothers with mental illness. An adult psychiatrist was integrated into a high-risk pediatric clinic with the goal of providing on-site mental health treatment to mothers at the time of their children's pediatric appointments. This model seeks to engage mothers who would not otherwise access or follow up with mental health treatment. The co-located mental health team has grown to include a psychologist with expertise in infant-parent interactions and who is available for consultation with mothers of newborns in an effort to help strengthen the maternal-infant bond and create healthy attachment. The psychiatrist and psychologist collaborate closely with the pediatric providers, nutritionists, and social workers in the clinic, and through this integration of treatment, the entire family system can be considered. The mental health providers in the pediatric clinic are also present in the HROB clinic to allow for continuity of care throughout a high-risk time in a woman's life.

Discussion

By sharing the approach one safety net system has taken to address the psychosocial needs of at-risk women across the perinatal time period, we hope to encourage others to seek integration in their own systems of care. We recognize that not all safety net settings share this abundance of potential partnerships, and that extending services beyond the walls of our health facilities requires a paradigm shift and a commitment of resources. However, we hope our example might inspire collaborative innovations in other settings and seek to demonstrate the importance of thinking broadly about the psychological and social needs faced by high-risk pregnant women and the limitations of our traditional medical model to address these needs. Given the differences in available

clinical resources in various geographic areas and systems of care, we have described a stepped approach to care in which many psychosocial risks are effectively addressed by non-professionals. We believe this general approach could feasibly be adapted in many settings by increased partnership with existing community-based resources and across disciplines, rather than the unattainable and unsustainable approach of relegating all psychosocial risk to the realm of the licensed professional. Additionally, we have had success in obtaining both public and private sector funding to augment our programmatic efforts and share this to encourage others in such pursuits.

Other services devoted to improving maternal and child health are working toward similar goals in a variety of ways and different populations and systems will require uniquely tailored approaches. The national programs of Healthy Start with recent implementation of screening for maternal depression (Segre et al. 2012), the long-standing evidence-base for home nursing visitation (Peacock et al. 2013, Tschudy et al. 2013), and the newer Strong Start initiative (Krans and Davis 2014) provide excellent examples. Although reaching the most at-risk women may ultimately require efforts outside of the healthcare system, integrated efforts within existing systems are worthy endeavors given that pregnant women are more likely to be engaged with healthcare during their pregnancy. This engagement, however limited, may be a unique "window of opportunity" to help them address mental health concerns and implement positive behavior change.

We offer a case example of a model in which multiple departments and providers are mutually invested and work collaboratively to provide seamless transitions among different aspects of care. A limitation of this report and next steps for our group include more formal evaluation of our efforts with special attention to where women continue to fall through the cracks and measurement of health outcomes and health service utilization. The goal of accessible, family-centered care for at-risk women and their young children are aligned with a number of philanthropic missions and current health care policies (Lu 2014). Future work should include rigorous research and program evaluation of innovative programs designed to serve the entire family and meeting at-risk women where they are.

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Compliance with Ethical Standards

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References

Bryant, A. S., et al. (2010). Racial/ethnic disparities in obstetric outcomes and care: Prevalence and determinants. *American Journal of Obstetrics and Gynecology, 202*(4), 335–343.

Collins, C. H., Zimmerman, C., & Howard, L. M. (2011). Refugee, asylum seeker, immigrant women and postnatal depression: Rates and risk factors. *Archives of Women's Mental Health, 14*(1), 3–11.

Dunkel Schetter, C., & Tanner, L. (2012). Anxiety, depression and stress in pregnancy: Implications for mothers, children, research, and practice. *Current Opinion in Psychiatry, 25*(2), 141–148.

Freed, R.D., et al. (2012). Enhancing maternal depression recognition in health care settings: A review of strategies to improve detection, reduce barriers, and reach mothers in need. *Families Systems and Health: The Journal of Collaborative Family Healthcare, 30*(1), 1–18.

Fuller, B., et al. (2009). The health and cognitive growth of Latino toddlers: At risk or immigrant paradox? *Maternal and Child Health Journal, 13*(6), 755–768.

Gibson, J., et al. (2009). A systematic review of studies validating the edinburgh postnatal depression scale in antepartum and postpartum women. *Acta Psychiatrica Scandinavica, 119*(5), 350–364.

Grupp-Phelan, J., Whitaker, R. C., & Naish, A. B. (2003). Depression in mothers of children presenting for emergency and primary care: Impact on mothers' perceptions of caring for their children. *Ambulatory Pediatrics: The Official Journal of the Ambulatory Pediatric Association, 3*(3), 142–146.

Ickovics, J. R., et al. (2007). Group prenatal care and perinatal outcomes: A randomized controlled trial. *Obstetrics and Gynecology, 110*(2 Pt 1), 330–339.

Ickovics, J. R., et al. (2011). Effects of group prenatal care on psychosocial risk in pregnancy: Results from a randomised controlled trial. *Psychology and Health, 26*(2), 235–250.

Kahn, R. S., Wilson, K., & Wise, P. H. (2005). Intergenerational health disparities: Socioeconomic status, women's health conditions, and child behavior problems. *Public Health Reports (Washington, D. C.: 1974), 120*(4), 399–408.

Krans, E. E., & Davis, M. M. (2014). Strong start for mothers and newborns: Implications for prenatal care delivery. *Current Opinion in Obstetrics and Gynecology, 26*(6), 511–515.

Liu, C. H., & Tronick, E. (2013). Rates and predictors of postpartum depression by race and ethnicity: Results from the 2004 to 2007 New York City PRAMS survey (pregnancy risk assessment monitoring system). *Maternal and Child Health Journal, 17*(9), 1599–1610.

Lu, M. C. (2014). Improving maternal and child health across the life course: Where do we go from here? *Maternal and Child Health Journal, 18*(2), 339–343.

Lu, M. C., & Halfon, N. (2003). Racial and ethnic disparities in birth outcomes: A life-course perspective. *Maternal and Child Health Journal, 7*(1), 13–30.

O'Mahony, J., & Donnelly, T. (2010). Immigrant and refugee women's post-partum depression help-seeking experiences and access to care: A review and analysis of the literature. *Journal of Psychiatric and Mental Health Nursing, 17*(10), 917–928.

Page, R. L. (2004). Positive pregnancy outcomes in Mexican immigrants: What can we learn? *Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN/NAACOG, 33*(6), 783–790.

Peacock, S., et al. (2013). Effectiveness of home visiting programs on child outcomes: A systematic review. *BMC Public Health, 13*, 17.

Picklesimer, A. H., et al. (2012). The effect of centering pregnancy group prenatal care on preterm birth in a low-income population. *American Journal of Obstetrics and Gynecology, 206*(5), 415. e1-7.

Pimentel, V. M., & Eckardt, M. J. (2014). More than interpreters needed: The specialized care of the immigrant pregnant patient. *Obstetrical and Gynecological Survey, 69*(8), 490–500.

Segre, L. S., et al. (2012). Depression screening of perinatal women by the Des Moines Healthy Start Project: Program description and evaluation. *Psychiatric Services (Washington, D. C.), 63*(3), 250–255.

Tschudy, M. M., Toomey S. L., Cheng T. L., (2013). Merging systems: Integrating home visitation and the family-centered medical home. *Pediatrics, 132*(Suppl 2), S74–81.