CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

Social Support and Perinatal Mental Health Outcomes in New Mothers

A graduate project submitted in partial fulfillment of the requirements

For the degree of Master of Social Work

By

Meghan Krasnoff

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The graduate project of Meghan Krasnoff is approved:

_____	_____
Dr. Susan Love	Date
_____	_____
Dr. Jodi Brown	Date
_____	_____
Dr. Hyun-Sun Park, Chair	Date

California State University, Northridge

Dedication

This project is dedicated to women/birthing people around the world who venture into mother/parenthood. It truly takes a village to raise a child, and my wish is that every birthing person feels supported and cared for, including emotionally, as they do the most important work of caring for their new baby.

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Abstract

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The purpose of this research is to study how level of social support impacts perinatal depression and anxiety symptoms in new mothers. The current study attempts to answer the specific research question: Does increased social support during the postpartum period decrease symptoms of perinatal depression and anxiety in women who have given birth within the last 12 months? The current study uses a convenience sample (N= 67), comprised of mothers ages 18 and older. Data was collected entirely by anonymous survey whereby prospective participants were invited to participate through Facebook and Instagram invitation posts. The research survey was comprised of four sections including demographics, questions about depressive symptoms, questions about anxiety symptoms, and questions pertaining to social support. Data was analyzed using SPSS for frequency analysis of demographic variables, and bivariate correlations of anxiety, depression, social support, and number of sources of social support. This study's findings were consistent with previous literature, and supported the researcher's hypothesis that increased social support in the postpartum period is associated with decreased symptoms of perinatal depression and anxiety in women who have given birth

within the last 12 months. The findings of this study suggest that increasing support for mothers during the postpartum period may have positive impacts on mental health outcomes, which in turn could have positive short and long term effects on maternal and infant health outcomes.

Search terms: perinatal mental health, postpartum depression, postpartum anxiety, postpartum support, maternal mental health

Introduction

In American culture, new mothers are expected to be joyful, and to adapt easily to their new role and responsibilities. The reality, however, is that new mothers face many challenges. These challenges may be due to physical healing and changes from labor and birth, and may include physical limitations which necessitate assistance with ordinary tasks. Emotionally, new mothers may be processing trauma surrounding their birth experience, or adapting to their new role as (typically) the primary care-giver to their newborn. New mothers may also be faced with challenges in breastfeeding. These challenges, among others, may lead to perinatal mood and anxiety symptoms. People often hear of postpartum depression, but postpartum anxiety, and less commonly postpartum Obsessive Compulsive Disorder, and Postpartum Psychosis can also impact women who have recently given birth. Schwab-Reece, Schafer and Ashida (2017), report that,

> "The Centers for Disease Control and Prevention (CDC) estimated that about 10%–15% of women experience postpartum depressive symptoms, including feelings of hopelessness, lack of interest, or dysphoria, with onset during the first year after delivery (CDC 2008). Postpartum anxiety symptoms, including increased autonomic arousal (racing heart, dry mouth, or perspiration) and subjective experiences of anxious feelings, also often occur among new mothers, with an estimated 18% of women experiencing anxiety symptoms during the first 3 months postpartum" (Schwab-Reece, Shafer & Ashida, 2017, p.725).

Despite so many women experiencing depression and anxiety symptoms after giving birth, there is a relatively small body of research into the factors that mitigate such symptoms. There are multiple studies that list social support as a preventative measure for decreasing symptoms, but more specific research is needed in this area. Schwab-Reece et al. (2017), states that "social support may be key to maternal mental well-being and recovery" (p.725).

The purpose of this study is to look at how level of social support impacts symptoms of perinatal mood and anxiety disorders. The current study attempts to answer the specific research question: Does increased social support during the postpartum period decrease symptoms of perinatal depression and anxiety in women who have given birth within the last 12 months?

This research is significant to social work because it will expand on the knowledge base that already exists. Previous studies have looked at possible preventative factors for postpartum depression, or have implemented postpartum support interventions using either peers or paraprofessionals (Razurel, Kaiser, Sellenet, & Epiney, 2013). This research seeks to specifically study the connection between the overall level of social support a new mother has, and any perinatal mood and anxiety symptoms experienced. This study has a greater emphasis on anxiety symptoms than on depression symptoms, which is a much less researched area.

This research is also significant because perinatal mood and anxiety symptoms during postpartum may have short or long-term implications for maternal health. Maternal mood and anxiety symptoms during the postpartum period also have important implications for the health and development of children and the well-being of families

(Schwab-Reece et al., 2017). According to Guyon-Harris, Huth-Bocks, Lauterbach, and Janisse (2016), maternal depression can impact maternal sensitivity, responsibility, and engagement with the infant. In turn, this could affect attachment, which can have long-term impacts on cognitive, emotional, and behavioral outcomes for children. Perinatal mood and anxiety symptoms have far-reaching consequences not only for mothers, but also for children, and families. This makes it in the best interest for public health that we understand the ways in which we can decrease the prevalence of these symptoms in new mothers. This is precisely what this study aims to do.

Depressive/Mood Symptoms

Postpartum Depression has been linked to unfavorable health outcomes for women (Asselman, Wittchen, Erler, & Martini, 2016). Postpartum Depression has also been shown to have implications for cognitive, emotional, and behavioral outcomes for children; largely due to attachment issues (Rogers, 2013). Many studies have found that social support is associated with depression symptoms in postpartum women. "For women in the postpartum period, perceptions of sufficient social support from their partners have been associated with decreased maternal and infant distress (Stapleton et al. 2012). This is consistent with research by Schwab-Reece et al. (2017), who found that low levels of social support during the postpartum period have been associated with an increased risk of postpartum depressive symptoms. Longitudinal research by Mccall-Hosenfield, Phiri, Schaefer, Zhu and Kjerulff (2016), also found that women with lower social support scale scores had significantly higher higher scores on the Edinburgh Postnatal Depression Scale at one, six, and 12 months postpartum than at baseline.

Similarly, Muzik, Umarji, Sexton and Davis (2017), found that high family social support, in particular, predicted a powerful protective effect on postpartum depression symptoms in the context of low income, in a way that high income but low social support did not (p. 1022-1023).

Anxiety Symptoms

While low levels of social support are evidenced to be associated with elevated anxiety symptoms during pregnancy and postpartum (Asselman et al., 2016), assessment and research on postpartum mental health has mainly focused on postpartum depression. "However, recent research suggests anxiety and adjustment disorders may be as prevalent" (Coates, de Visser & Ayers, 2015, p.114). Coates et al. (2015) conducted a small qualitative study with 17 women in southeast England with babies under 1-year old to explore new mothers' mental health concerns. These interviews showed a common theme that some women may not identify with many of the "traditional" symptoms of postpartum depression, and had more anxiety symptoms which are not captured with the most commonly used screening tools (Coates et al., 2015).

Culture

Many of the studies that have previously looked at risk factors for Postpartum Depression have been largely done with participants who were Caucasian. Liu and Tronick (2013), state that, "surprisingly little is known about the extent to which postpartum depression varies by race and ethnicity, given the effects of culture on the experiences and manifestations of depression" (p. 1599). There may also be group-specific differences in the ways that social support impacts new mothers' mental health across cultures (Liu & Tronick, 2013). Lara, Navarrete and Nieto (2016), however,

conducted a longitudinal study of Postpartum Depression in Mexican mothers, and found that psychosocial factors of social support, marital satisfaction, life events, history of suicidality were strong predictors of PPD. They state that these findings are consistent with those of more "developed countries" (Lara et al., 2016, p. 831).

Social Support as a Mediator of Mood/Anxiety Symptoms

It has not been determined whether social support acts as a buffer for mood and anxiety symptoms in new mothers. Research in this area is conflicting. This may also be different across cultures. In a study of 269 low-income Mexican American women living in Arizona, conducted by (Coburn, Gonzales, Luecken & Crnic, 2016, p. 1014), social support significantly buffered the effects of family stress but did not buffer the impact of other stress domains. Similarly, a prospective study of 297 pregnant women in Frankfurt, Germany conducted by Hain, Oddo-Sommerfield, Bahlmann, Louwen, & Schermelleh-Engel (2016) found that social support acts as a protective factor for mood and anxiety symptoms, but did not have a moderator effect. Alternatively, Razurel, Kaiser, Sellenet and Epiney's (2013) research which finds that "social support during the antenatal or postnatal period appeared to be a major factor related to mothers' psychological health. It may play a mediating role between family conflicts and postpartum depressive symptoms, and between antenatal anxiety and postpartum depressive symptoms" (p.94).

Dimensions of Social Support

Research suggests that the type of social support may influence how mental health symptoms are impacted in the postpartum period. Leger and Letourneau (2015) details the types of social support interventions, stating that "social support interventions

typically offer support along four dimensions, including informational, emotional, affirmational and instrumental support" (p. 345). Their study found that peer support was an important dimension of support. This research is connected to an article by Phillips and Kelly (2014), entitled "Social Work Should Embrace Doulas". Doulas are hired support who provide services across all four support dimensions Leger and Letourneau discuss. Evidence of doulas as effective intervention can be seen in greater rates of breastfeeding success in women who hire doulas. Breastfeeding success has been shown to decrease postpartum depression symptoms, so increasing efficacy in this area would be beneficial (Phillips & Kelly, 2014).

Aims and objectives

The current study aims to add to the body of knowledge about social support and perinatal mental health outcomes in new mothers. With data collection having a greater focus on anxiety symptoms than on depression symptoms, the current study will broaden the research in this particular area. The current study also includes social support across multiple dimensions. Based on previous research, this study hypothesizes that social support will be negatively correlated with mood and anxiety symptoms in new mothers with babies 12 months old or younger. That is, as social support increases, symptoms of depression and anxiety are expected to decrease.

Method

Research Design

This study used a correlational research design. Correlational design allowed examination of multiple variables, including depression symptoms, anxiety symptoms, and social support factors. Correlational design makes it possible to assess the relationship between these variables, but does not imply causality.

Participants

The current study used a convenience sample (N=67) of women who are mothers ages 18 and older, who have had their babies in the last twelve months. 67 participants were recruited online through posts on social media; specifically, through Facebook and Instagram platforms. The researcher shared the participation invitation post, including in several "online Mom's Groups" that gave permission, and asked that others continued to share with their networks during the recruitment period of nine weeks. The sample was made up of 83.6% Caucasian women, 6% Latinx or Hispanic, 3% Black or African American, 4.5% Biracial, and 3% Other. 82.1% of participants were Married, 1.5% Divorced, 7.5% in a Domestic Partnership, 7.5% were single mothers, and 1.5% reported "engaged" as their marital status. Ages of participants were as follows: 9% were ages 18-25, 62.7% were 26-34, 28.4% were 35-44.

Data Collection

Data was collected entirely by anonymous online survey using Qualtrics. Upon clicking the link in the participation invitation, prospective participants were taken to Qualtrics, where they viewed the Participant Information Form. After ample time, prospective participants could then choose to take part in the study, or not. If they opted

to participate they were taken to the Research Study Survey, also on Qualtrics. Data was collected through participants answering questions about demographics, mood/depression symptoms, anxiety symptoms, and social support. Participation was incentivized, as participants who completed the study were given the option to enter into a drawing for one (1) of three (3) emailed gift certificates for $30, to Target stores. Data collection allowed participants to remain anonymous, and still have opportunity to be rewarded for their time and effort.

Measurement

The online research survey was comprised of four sections, and one additional question that offered participation in the incentive drawing. The survey took approximately 15 minutes to complete.

Demographics. The first section asked seven demographic questions including Ethnicity, Marital Status, Age, Sex, Sexual Orientation, Household Income, and whether their baby is biological or adopted.

Depression. The next section measured depression symptoms by asking eight questions from the Edinburgh Postnatal Depression Scale (Cox, Holden, & Sagovsky, 1987). The researcher omitted two questions from the screening that pertain to self-harm, as the limitations of this study require that the risk to participants' psychological health be no more than mild discomfort. Because this survey was anonymous and online, any emotional discomfort greater than this would be unethical. The Edinburgh Postnatal Depression Scale is widely used and has been found to have sufficient reliability and validity as a screening tool for postnatal depression (Mcbride, Wiens, McDonald, Cox & Chan, 2014).

Anxiety. The third section of the survey measured anxiety symptoms by using 28 questions from the Perinatal Anxiety Screening Scale (PASS) (Somerville et al. 2014). Three questions were omitted from the questionnaire for the purpose of reducing any emotional risk to participants. According to Somerville et al. (2013), the PASS has excellent reliability (Cronbach's $\alpha = 0.96$) (p.450). The PASS global score was also correlated with other measures of anxiety such as the DASS Anxiety and Stress subscales, and the anxiety subscale of the Edinburgh Postnatal Depression Scale, as well as the Beck Depression Inventory, giving it adequate validity (Somerville et al., 2014).

Social Support. The fourth section sought to measure participants' level of social support by using 14 Questions from the MOS Social Support Survey (Sherbourne & Stewart 1993). Seven other questions were included that were adapted from the Social Skills Inventory by The Artemis Center for Guidance, LLC. (used with permission), and several created by the Researcher for exploratory purposes. This measurement was intended to include support across multiple dimensions. Questions about sources of support, and how many each participant had, were also included. Reliability coefficients for The MOS Social Support Survey have exceeded Cronbach's $\alpha = 0.70$ for every subscale, with half of them exceeding Cronbach's $\alpha = 0.90$ (Hays, Sherbourne, Mazel, 1995, p.32). Validity has also been adequate in measuring physical and mental health constructs using this instrument with patients with chronic health disorders (Hays, Sherbourne, Mazel, 1995).

Results

Descriptive Analysis

Data Analysis was performed using SPSS. Descriptive Statistics were run to find frequencies of demographic variables including age, ethnicity, household income, and marital status. As presented in Table 1, ages in the current study ranged from 18 to 44 years old. The majority of participants (71.7%) in the sample were young adults, (ages 18-34), and 28.4% (n=19) were middle-aged adults (35-44 years old). The sample in the current study was not very ethnically diverse, with 56 participants (83.6%, n=67) identifying as white, 6% Latinx/Hispanic, 3% Black/African American, 4.5% identified themselves as Biracial, and 3% as Other. The current sample was largely made up of upper middle class families. Of the current sample, 26.9% reported incomes of $100k-$149,999, followed by $60k-$80k (18%), more than $150k (17.9%), $80k-$100k (14.9%) $40k-$60K, (12%), and less than $40,000 (7.5%). Over half (55%) of the sample reported that they were married, 1.5% divorced, 7.5% domestic partnership, 7.5% single, and 1.5% engaged.

Descriptive analysis was performed to find the mean and standard deviation of depression scores, anxiety scores, and social support scores, as shown in Table 2. Depression scores ranged from 0-22 (M= 9.70, SD= 5.04). The Edinburgh Depression Scale scoring states that any score of 10 or greater could indicate possible depression (Cox, Holden, & Sagovsky, 1987). In the current sample (N=67), 46% (n=31) scored for possible depression. Anxiety Scores ranged from 2-79 (M= 28.30, SD= 17.58). The Perinatal Anxiety Screening Scale (PASS) scoring and interpretation guidelines state that recommended severity ranges are: 0-20 (Asymptomatic), 21-41 (Moderate-moderate

symptoms), and 41-93 (severe symptoms). In the current sample (N=67), 39% (n=26) scored Asymptomatic, 40% (n= 27) scored Mild-Moderate symptoms, and 21% (n=14) scored Severe symptoms. Social Support Scores ranged from 17-68 (M= 48.30, SD= 12.33), with higher scores indicating higher levels of support.

Bivariate Correlations

As can be seen in Table 3, this study found a very strong, positive correlation between depression score and anxiety score ($r=.88$, $N=67$, $p<.001$), indicating that these variables are largely co-occurring in this sample. There was a moderate negative correlation between social support and depression ($r=-.490$, $N=67$, $p<.001$), and a moderate to strong negative correlation between social support and anxiety ($r= -.546$, $N=67$, $p<.001$). The number of social support sources was analyzed, and results show a weak negative correlation between number of social support sources reported and depression score ($r=-.289$, $N=67$, $p<.05$). The current analysis found a moderate negative correlation with number of social support sources reported, and anxiety score ($r=-.359$, $N=67$, $p<.01$). This means those who used more social support sources tended to report lower levels of depression and anxiety.

Discussion

The purpose of this investigation was to look at the association between social support and perinatal mental health outcomes in new mothers. Findings of this study are consistent with previous literature, including Schwab-Reece et al. (2017), Stapleton et al. 2012 and Mccall-Hosenfield et al. (2016), all of which suggest that lower social support tends to be associated with increased depressive and anxiety symptoms in new mothers. The current researcher's hypothesis that increased social support during the first year after childbirth is correlated with decreased depressive and anxiety symptoms is supported by both the literature and by this study.

In the general population 10%–15% of women experience postpartum depressive symptoms, including feelings of hopelessness, lack of interest, or dysphoria, with onset during the first year after delivery (CDC, 2008, p.725). In the current sample (N=67), the percentage of women scoring as having possible depression was much higher (46%). According to the Center for Disease Control (2008) 18% of women experience anxiety symptoms within the first 3 months postpartum (CDC, 2008, p.725). In the current study (N=67), 61% of participants scored as having anxiety symptoms (including mild-moderate, and severe symptoms). Only 26% scored as being asymptomatic for anxiety. Possible reasons for this include that the study used a convenience sample, by inviting people via social media to participate. This could mean that people experiencing symptoms of perinatal mood and anxiety disorders (PMADS) disproportionately accepted the invitation to participate due to relevancy to their own lives. However, this data is also consistent with Coates, de Visser & Ayers' (2015) idea that anxiety disorders may be equally, if not more prevalent in the postpartum period than depressive disorders.

In this study, there was a slight to moderate negative correlation (depression r=-.490, p<.001, anxiety r=-.359, p<.01) between number of social supports reported, and mental health symptoms experienced. Taking this into consideration, varied types of social support may be significant. Expanding on the research of Leger and Letourneau (2015) on dimensions of social support, to determine which types of support are more impactful on mental health would be important for future study. Also to examine whether these various social supports aid in preventing symptoms from occurring, or if increasing social support once mental health symptoms arise could impact trajectory of these symptoms.

Implications

The findings of this study show a strong positive correlation between depression and anxiety (r=.88, N=67, p<.001). This result may indicate that a simple depression screening such as the Edinburgh Postnatal Depression Scale, which contains only three questions pertaining to anxiety, might not actually capture the extent of mental health symptoms new mothers are experiencing. In this study, there was a moderate negative correlation (r=-.490, N=67, p<.001) between social support and depression and a moderate to strong negative correlation between social support and anxiety (r= -.546, N=67, p<.001). These findings suggest that new mothers with lower social support may actually be experiencing more anxiety symptoms than depression symptoms. This may not be apparent in regularly used screenings performed by primary care providers, which mainly look for depression.

Mental health screenings typically fail to include questions of social support. This means that healthcare providers may treat the mental health symptoms without addressing some of the environmental factors that contribute to the symptoms in the first place. If, as this study suggests, social support plays a role in mental health symptoms, programs aimed at increasing social support would tend to decrease these symptoms. It would therefore be in the public health interest to create programs that better screen mothers in terms of the social supports they have in place before their babies are born. Solely screening for mental health symptoms and risk factors may not be enough. Screening for depression could lead to prescribed medication, etc. when increasing social support may be enough on it's own to prevent or "treat" depression or anxiety symptoms postpartum.

The findings of this study that show a slight to moderate negative correlation between number of social support sources reported and mental health symptoms (depression $r=-.289$, $N=67$, $p<.05$, anxiety $r=-.359$, $N=67$, $p<.01$), suggest that increasing sources of support may reduce mental health symptoms in new mothers. Increasing sources of support could include community funding for programs that provide postpartum doulas, connect women with others who have recently given birth, or provide home visits by nurses. This is consistent with Phillips and Kelly's (2014) article on doulas being embraced by social work, due to their impact on postpartum mental health. These findings also suggest that programs such as increased paid family leave for partners may be beneficial to mental health outcomes in new mothers, as a means of increasing support.

Limitations

There are several limitations of this study. Due to small sample size, this study may not be representative of the general population. Because participants were recruited through social media, and a convenience sample was used, women who had experienced mental health symptoms may have been more likely to complete the survey. The sample was not very diverse in terms of race, sexual orientation, or marital status. The majority of the participants were those with higher income.

Another weakness of this study is that Social Support was measured with the MOS Social Support scale, which was developed for use with patients in the Medical Outcomes Study, with chronic conditions. This may have impacted the validity of the study. Similar scales are informally used by organizations to assess social support in perinatal patients, but the psychometric properties of such measures have not been tested.

Follow up studies could include a larger sample size, with wider recruitment than social media platforms allowed for. This would yield a more representative group of participants, and therefore results would be more generalizable. Focusing on obtaining a more diverse sample would also be beneficial, to see how these findings hold up across different demographics. Future studies could examine differing dimensions of social support and mental health implications for each dimension, including as a preventative intervention vs. as an intervention once mental health symptoms are already occurring.

Conclusion

Due to the possible impacts perinatal mood and anxiety disorders have on both short and long term maternal and infant health, perinatal mental health should be

considered a public health concern. In light of previous research as well as the current study, it is clear that there is a relationship between social support in the postpartum period and metal health outcomes for new mothers. The current study is consistent in its hypothesis and findings that as social support increases in the postpartum period, depressive and anxiety symptoms tend to decrease. While there were several limitations to this study, it has strong implications for the need for increased social support for new mothers. More research is needed to determine precisely how social support interacts with perinatal mental health, and the most impactful dimensions in which to increase support for this purpose. Public policies aimed at identifying pregnant women with low social support as well as increasing access to more types of support for all new mothers could promote decreased perinatal mental health symptoms. With combined research and implementation of such programs, overall perinatal mental health may improve which could have vast benefits not only for new mothers, but for their families and children as well.

References

Asselman, E., Wittchen, H.U., Erler, L. & Martini, J. (2016). Peripartum changes in social support among women with and without anxiety and depressive disorders prior to pregnancy: a prospective-longitudinal study. *Archives of Women's Mental Health, 19*, 943-952.

Coates, R., de Visser, R., & Ayers, S. (2015). Not identifying with postnatal depression: a qualitative study of women's postnatal symptoms of distress and need for support. *Journal of Psychosomatic Obstetrics & Gynecology, 36(3)*, 114-121.

Coburn, S., Gonzales, N.A., Luecken, L.J. & Crnic, K.A. (2016). Multiple domains of stress predict postpartum depressive symptoms in low-income Mexican American women: the moderating effect of social support. *Archive of Women's Mental Health, 19*, 1009-1018.

Cox, J. & Holden, J. & Sagovsky, R. (1987). Edinburgh Postnatal Depression Scale (EPDS), *British Journal of Psychiatry*, 150, 782-786.

Guyon-Harris K., Huth-Bocks A., Lauterbach D. & Janisse H. (2016). Trajectories of Maternal Depressive Symptoms Across the Birth of a Child: Associations with Toddler Emotional Development. *Archives of Women's Mental Health, 19(1)*, 153-165.

Hain, S., Oddo-Sommerfield, S., Bahlmann, F., Louwen, F. & Schermelleh-Engel, K. (2016). Risk and protective factors for antepartum and postpartum depression: a prospective study. *Journal of Psychosomatic Obstetrics & Gynecology, 37(4)*, 119-129.

Hays, R., Sherbourne, C. & Mazel, R. (1995). *User's Manual for the Medical Outcomes*

Study (MOS) Core Measures of Health Related Quality of Life. Santa Monica, CA: Rand.

Lara, M., Navarrete, L. & Nieto, L. (2016). Prenatal predictors of postpartum depression and postpartum depressive symptoms in Mexican mothers: a longitudinal study. *Archive of Women's Mental Health, 19,* 825-834.

Leger, J. & Letourneau, N. (2015). New mothers and postpartum depression: a narrative review of peer support intervention studies. *Health and Social Care in the Community, 23(4)*, 337-348.

Liu, C. and 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 Child Health, 17*, 1599-1610.

McCall-Hosenfield, J., Phiri, K., Schaefer, E., Zhu, J. & Kjerulff, K. (2016). Trajectories of Depressive Symptoms Throughout the Peri- and Postpartum Period: Results from the First Baby Study. *Journal of Women's Health, 25(11)*, 1112-1121.

Muzik, M., Umarji, R., Sexton, M. & Davis, M. (2017). Family Social Support Modifies the Relationships Between Childhood Maltreatment Severity, Economic Adversity and Postpartum Depressive Symptoms. *Maternal Child Health, 21*, 1018-1025.

Phillips, D. and Kelly, C. (2014). Social work should embrace doulas. *Health & Social Work, 39(2)*, 117-120.

Razurel, C., Kaiser, B., Sellenet, C., & Epiney, M. (2013). Relation Between Perceived Stress, Social Support, and Coping Strategies and Maternal Well-Being: A

Review of the Literature, *Women & Health*, 53(1), 74-99.

Rogers, A.T. (2013). Human Behavior in the Social Environment, 3rd Ed. New York: Routledge

Schwab-Reese, L. M., Schafer, E. J., & Ashida, S. (2017) Associations of social support and stress with postpartum maternal mental health symptoms: Main effects, moderation, and mediation, *Women & Health*, 57(6), 723-740.

Sherbourne, C. & Stewart, A. (1993). The MOS Social Support Survey. Santa Monica, CA: Rand Corporation. Retrieved from: https://www.rand.org/pubs/reprints/RP218.html

Somerville, S., Dedman, K. Hagan, R., Oxnam, E., Wettinger, M., Byrne, S., Coo, S., Doherty, D. & Page, A. (2014). The Perinatal Anxiety Screening Scale: development and preliminary validation. *Archives of Women's Mental Health*, 17, 443-454.

Appendix A

Findings Tables

Table 1: Descriptive Statistics

Variables	n	%	*M*	*SD*
Ethnicity				
White	56	83.6		
Latinx/Hispanic	4	6.0		
Black/African American	2	3.0		
Biracial	3	4.5		
Other	2	3.0		
Marital Status				
Married	55	82.1		
Divorced	1	1.5		
Domestic Partner	5	7.5		
Single	5	7.5		
Engaged	1	1.5		
Age				
18-25	6	9.0		
26-34	42	62.7		
35-44	19	28.4		
Annual Household Income (Before taxes, USD)				
Less than $10,000	1	1.5		
$20,000-$29,999	4	6.0		
$30,000-$39,999	2	3.0		
$40,000-$49,000	2	3.0		
$50,000-$59,000	6	9.0		
$60,000-$69,000	6	9.0		
$70,000-$79,000	6	9.0		
$80,000-$89,000	3	4.5		
$90,000-$99,000	7	10.4		
$100,000-$149,999	18	26.9		
More than $150,000	12	17.9		
Number of Sources of Social Support				
2	6	9.0		
3	24	35.8		
4	21	31.3		
5	9	13.4		

6	5	7.5	
7	2	3.0	

Table 2: Mean and Standard Deviation

Depression Score	9.70	5.04
Anxiety Score	28.30	17.58
Social Support Score	48.3	12.33

Table 3: Bivariate Correlations

Demographic variables	Depression	Anxiety	Social Support	Income	Number of SS
1. Depression	___				
2. Anxiety	.884**	___			
3. Social Support (SS)	-.490**	-.546**	___		
5. Number of SS	-.286*	-.359**	.356**	.21	___

**. Significant at the .01 level
*. Significant at the .05 level