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Understanding the Impact of a Perinatal Mood And Anxiety Disorders Phone Support Line

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Abstract

Postpartum depression affects one in every seven women and anxiety is estimated to range from 13-21% in new mothers. Risk factors include prior diagnosis of depression, family history of depression, having medical complications during childbirth including a premature baby and a lack of social, emotional support. The purpose of this evidenced-based practice project was to increase the amount of data gathered by a local perinatal support organization by analyzing the callers' demographics through phoneline surveys and use the information to expand resources and access to care for mothers with perinatal mood and anxiety disorders (PMADs). The project was guided by the John Hopkin's Model. The volunteers screened callers' on how they heard about the perinatal support organization's phoneline resource, language, insurance, zip code, ethnicity, age range of mothers calling, the number of children the mother has and if applicable, if the mother had any symptoms of PMADs with prior children. Individuals claiming to have the state's low-income government insurance was identified as one of the highest groups in need of PMADs resources. Most reported age ranges were in the typical birthing range, 25-34. Out of the women who reported that they had more than 1 child and had a previous experience with PMADs, only half reported that they sought help at the time for their symptoms. More studies on the use of a telephone support service is needed to address the gaps for understanding maternal health. Telephone helplines can play an important role in helping to overcome barriers to care and provides accessible mental health support resources to families in need.

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Clinical Problem

Perinatal mood and anxiety disorders (PMADs) are a growing public health problem for families. In general, there are fewer resources for mental health conditions in the United States healthcare system as compared to common physical health conditions. PMADs present even further challenges due to a shortage of clinicians specializing in these conditions (Dennis & Chung &Lee, 2006). . Symptoms and diagnoses identified under PMADs include depression, anxiety, obsessive-compulsive disorder, post-traumatic stress disorder, bipolar disorder and psychosis. Symptoms of PMADs may present anytime during the first year after childbirth. Symptoms may include depressive or anxious features such as sadness, feeling overwhelmed or "empty," crying episodes, chronic fatigue, anhedonia, avoidant behaviors, self-doubt, changes in sleeping and/or eating patterns, feelings of hopelessness, helplessness, guilt, experiencing irritable and/or angry moods, fear of being alone or separated from baby and problems with concentration or making simple decisions (Woolhouse, Gartland, Mensah, & Brown, 2015). Depression affects women of reproductive age at rates twice as high as men in the same age range. Postpartum depression, the most common complication after childbirth, affects one in every seven women (Wisner et al., 2013). Prenatal anxiety is estimated to range from 13-21% and 11-17% in postpartum mothers (Fairbrother, Young, Janssen, Antony, & Tucker, 2015). According to the Centers for Disease Control (CDC), these

rates are expected to rise given that 50% of mothers fail to seek mental health treatment for symptoms of PMADs (CDC, 2008). Biological known risk factors for PMADs have the highest incidence rates and include having a past history of depression, past episode of PMADs and family history of psychiatric disorders (Ahmed, Feng, Bowen, & Muhajarine, 2018). Other risk factors of PMADs include difficulty breastfeeding, difficulty recovering from childbirth, i.e. pain and psychosocial factors such as life stressors during pregnancy, lack of support, domestic violence, unplanned pregnancy, being significantly younger or older than the common age for giving birth, having multiples (twins or more) and obstetric complications (Baron, Bass, Murray, Schneider, & Lund, 2017). Demographic factors (educational attainment, income, marital status and occupation), were also significant in a study of perinatal depression. Educational attainment significantly increased the risk of postpartum depression at 6 months by up to five times. These findings are consistent with studies among Latinas and among women in other developing countries. Educational attainment is a strong predictor of health, as it determines employment and income, which translates into resources for health; educational experience is related to knowledge, analytical abilities, cognitive skills and a person's ability to cope with stress (Lara, Navarrete, & Nieto, 2016). PMADs are associated with increased risks of maternal and infant mortality and morbidity. Infants of mothers with prenatal and postnatal depression had 1.44 greater risk of hospitalization, and infants of mothers with postpartum depression had 1.93 greater risk of death before one year of age than those whose mothers did not have the disorder (Jacques, de Mola,

Joseph, Mesenburg, & da Silveira, 2019). The effects of PMADs on women, children, and their families can cause long lasting damages to their physical and emotional health. These disorders can significantly impair the relationship and attachment between parents and their babies affecting their development (Jacques et al., 2019). These findings are significant public health concerns and should influence regular screening for prenatal and postpartum depression, so that adequate care can be provided for families.

The research and data related to PMADs among women has improved over the past decade, however for same sex couples, foster parents or adoptive parents, the studies are lacking. The few studies completed have shown that fathers, partners, and foster or adoptive parents may also experience PMADs. The highest rates of depression for partners occur during the 3-6-month postpartum period. Research shows that U.S. fathers demonstrated a greater rate of depression than fathers in other countries (Paulson & Bazemore, 2010). Various explanations point to the lack of paternity leave in most states for American fathers, socioeconomic factors such as income, education and external factors related to lack of emotional and physical support. About 10% of fathers experience depression and anxiety during the perinatal period. Fathers' symptoms differ from mothers, ranging from irritability, isolation, overworking, substance abuse and hopelessness. The most significant risk factor for prenatal and postpartum depression in fathers is maternal depression. (need citation here). More research and data are needed to examine the effects of PMADs on all individuals affected by these disorders.

Purpose

The purpose of this evidenced-based practice project is to increase the amount of data gathered by a phoneline service provided by a community based maternal mental health support organization by analyzing callers' demographics through phoneline surveys and using the information to expand resources and access to care for mothers with perinatal mood and anxiety disorders.

Literature Review

Upon finding research articles for this evidenced based Doctor of Nursing (DNP) project, certain filters were used on EBSCO host and PubMed. The following articles of research were narrowed down by key words. Key words included: perinatal mood and anxiety disorders, postpartum depression (PPD) and risk factors for PPD. Filters on search items were placed and limited to Systematic Reviews, Meta-Analysis, Randomized Control Trials and Practice Guidelines. Other search criteria included publication dates within 5 years to keep information current. Overall, the PubMed and EBSCO host search engines yielded 50 articles after narrowing results. From the results, the most relevant articles for this project were selected.

Description of EBP Project, Facilitators and Barriers

The proposal for the project began with identifying the need for more information being gathered by the phoneline service. One of the major functions of this community based maternal mental health organization is to provide PMAD related education and

information as well as helping phoneline callers find practitioners that are specifically trained or have a background with PMADs. In addition, local support groups and other resources such as a newsletter and recommended readings, etc are identified on their website. The organization ensures that all practitioners who are on their list of resources go through extensive interviewing before being added to the organization's list of providers that offer services. The organization runs a phoneline service that offers a non-emergent voicemail service in which callers can receive resources on PMADs. The phoneline requires education/training of volunteers and consisted of an in-person training session that included the information and steps to answering and returning phone calls on the phoneline. Volunteers complete a google document after completing a call that includes details such as: the caller's first name and contact details (although a caller may choose to remain anonymous); zip code, reason for call, insurance, referral, if the caller is pregnant and/or has children; age; ethnicity and if there are any safety risks. These calls are returned within 48 hours and logged. Data was collected from the maternal mental health support organization's phone line service by trained volunteers who interact with the callers. The callers are typically mothers and spouses or family members who utilize the phone line on behalf of someone they know with PMADs. The volunteers will ask an additional five questions that will be added to the pre-existing survey used to collect caller information. The questions being added to the survey address how callers heard about the perinatal support organization's phone line resource, preferred language, age range of mothers calling, the number of children the mother has and if applicable, if the

mother had any symptoms of PMADs with prior children. The demographic data collected will provide a better understanding of the population utilizing local phone line resources.

The facilitators in the project began with support from my faculty advisor, Dr. Semira Semino-Asaro. We met to discuss the DNP project in the beginning of March 2018. In April 2018, I attended the organization's training for volunteers to get a better understanding of the service they provide. After the training, I continued to volunteer my time with the organization by working on the phoneline service. In July 2018, I met alongside my faculty advisor, with one of the organization's Board members to discuss questions to incorporate as a survey and to focus on submitting my requirements for the University of San Diego (USD)'s Institutional Review Board (IRB) approval. Support from the Board members of the organization was necessary to start data collection. IRB approval was only necessary through USD and it was granted in August 2018. Another advantage was that this DNP project would help this nonprofit organization with grant funding. The project would give insight into the phoneline service data and potentially present a need for funding in certain areas.

Unfortunately, one of my many barriers was waiting for all the organization's Board members to agree on the inclusion of extra questions for the phoneline. It took a month and a half before the Board members could meet and make a unanimous decision to go forward with the questions. I could not start the data collection until it was approved by all. Emails went back and forth during this time and it was a little frustrating

to wait on everyone. I understood that the Board members had their regular jobs and volunteered during their personal time, so it took a while before they could meet. Approval from the organization's Board was granted in mid-November to go ahead and start data collection and analysis. Barriers to implementation of the EBP project included time involved, training, patient participation and accurate data collection. The volunteers had to be trained on data collection and some may have forgotten to ask all or any of the new questions. Other barriers included the callers opting-out of answering survey questions. Some callers were uncomfortable with answering certain questions and did not participate with the survey.

Timeline and Poster Presentation

During this time, my abstract was accepted by the Western Institute of Nursing (WIN) conference in December of 2018. Data collection wrapped up at the end of January, 2019 and data analysis and results were discussed in February, 2019. In mid-February, I presented my presentation of the DNP project to the stakeholders of the organization. The results were well received, and they wanted feedback regarding the process. Near the end of February, my DNP project was completed and presented for DNP presentation day at USD. Finally, my DNP poster was presented at the WIN conference in April.

Model Framework

The goal of the John Hopkin's Model (JHM) model is to ensure that the latest research findings and best practices are quickly and appropriately incorporated into

patient care (Melnyk, Fineout-Overholt, Stillwell, & Williamson, 2010). The JHM has a systematic, step-by-step process for researching and collecting evidence. The tool that searches for internal and external evidence and evaluates the level of quality of each piece of evidence gathered for the EBP project will be used to identify the higher levels of evidence such as meta-analysis and meta-synthesis articles to include and helps identify lower levels of evidence to possibly exclude from the references (Dang & Dearholt, 2018).

Results

The first type of data that was analyzed was call volume for the warmline with retroactive data starting at the end of May 2018. The number of calls per month averaged around 19 from May 2018 to January 2019. In *Figure 1*, the month of May is an outlier since the data collection did not start until the end of the month. There is also a spike in phone calls in June and the reason could be that May is designated as World *Maternal Mental Health* month. On *World Maternal Mental Health Day*, organizations from the United States, Canada, United Kingdom, Turkey, Australia, Argentina, Malta, New Zealand, South Africa, Spain, Germany, Nigeria are leading efforts to raise awareness about maternal mental health through a collective social media push and in-country events (Davis, Raines, Indman, Meyer, & Smith, 2018).

The next data set that was analyzed was the reason that callers utilized the phoneline resource. In *Figure 2*, the callers were categorized into three sections. They were calling about their PMADs symptoms, looking for a group or looking for

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practitioner (doctor, therapist, doula or a specialized and licensed provider in PMADs.)

These categories had overlapping data since some callers were looking for a practitioner for PMADs.

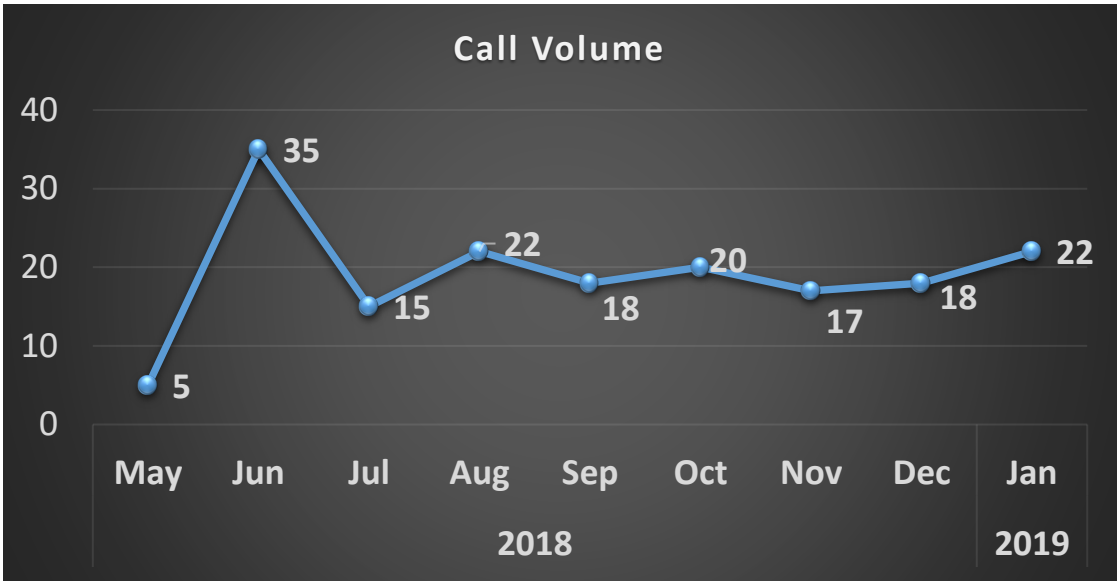

Figure 1. Phoneline call volume for the months of May 2018 to January 2019

Figure 2. Phoneline callers' reasons for utilizing the service

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In *Figure 3*, callers were surveyed on how they found out information about the Warmline. Several categories were looked at and the data showed that most callers were referred by their primary care doctor. The next highest metric showed that one local outpatient maternal mental health clinic was second highest. This clinic is one of the few outpatient clinics to accept most insurances, including Medi-Cal and Medicare.

Callers using the Warmline gave information about their location in San Diego. Zip code was analyzed to see which areas of San Diego had the most outreach. *Figure 4* is a map of San Diego and the respective zip codes, showcasing areas where callers reside. The more data that is analyzed, the more the phoneline can learn about certain gaps in areas of San Diego County.

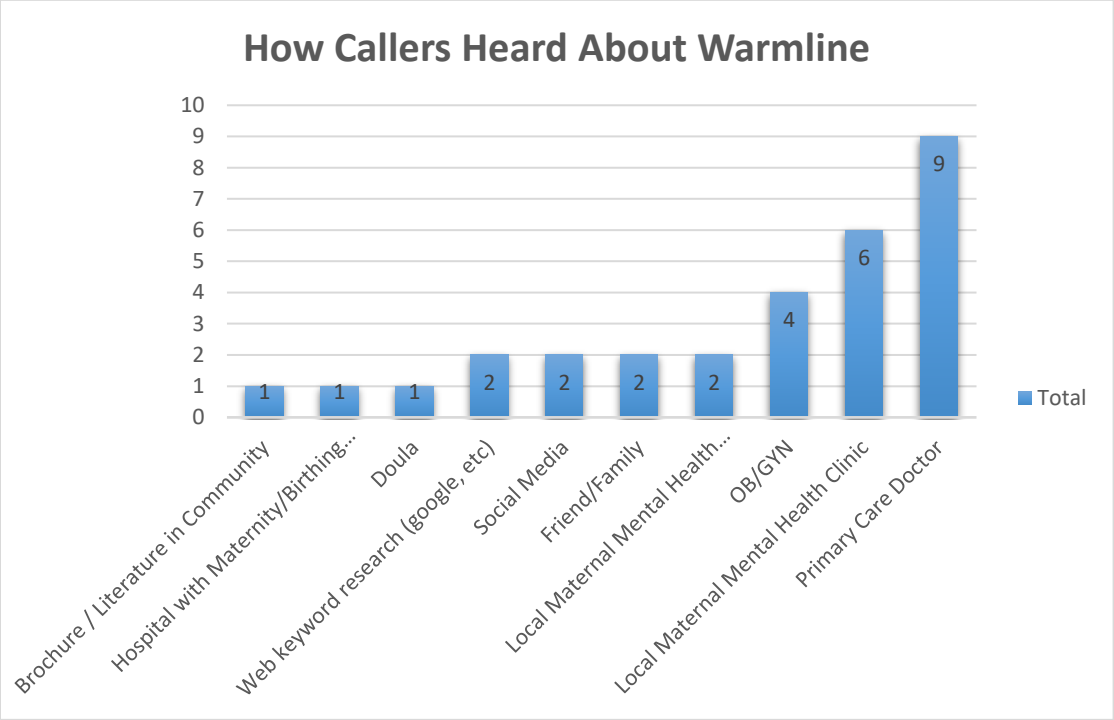

Figure 3. How callers heard about the Warmline

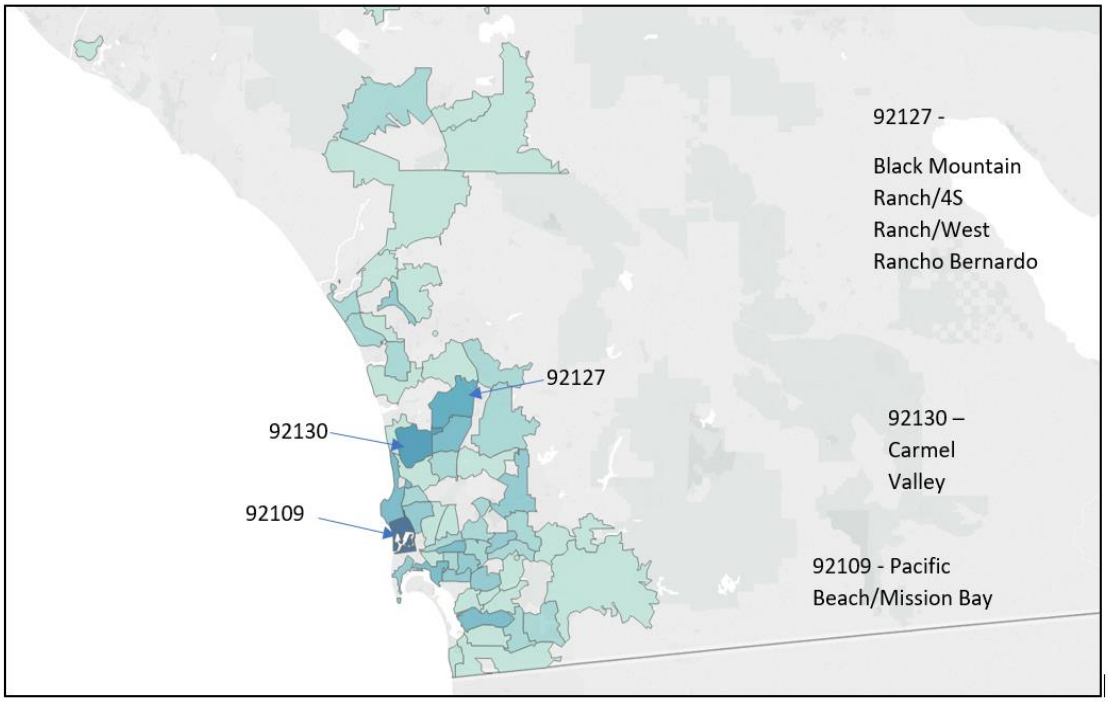

Figure 4. Zip codes of callers in San Diego County

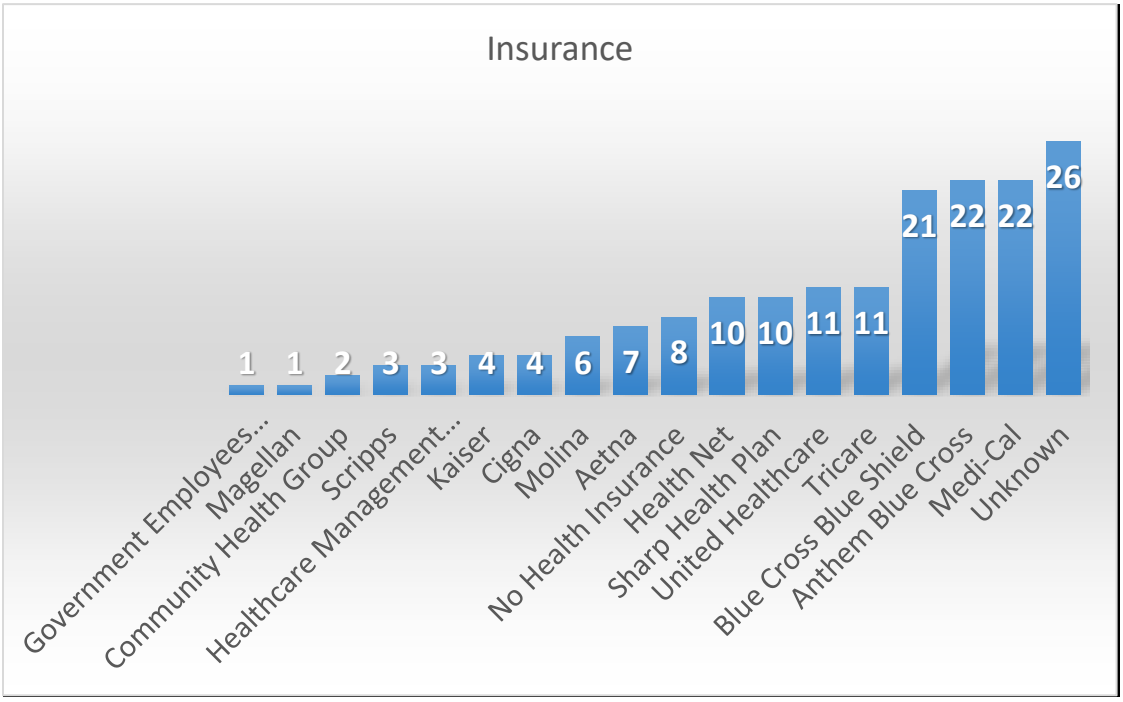

Figure 5. Health insurances of Warmline callers

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In *Figure 5*, callers' health insurance coverage is organized from least to most. Unknown health insurances mean no insurance was given, as it was up to callers' discretion to share the information. The highest insurance that was surveyed was Medi-Cal. In California, Medicaid is organized under Medi-Cal and is a low cost or free health insurance provided through the state government for low income or disabled individuals and families ("Medi-Cal Program," n.d.). This information offers insight into more of the demographics and population that is utilizing the phoneline service for PMADs.

The next data set that was examined was age range and number of children the mother had. Ages were surveyed by ranges from under 18, ages 25-34, and 35 and up. None of the callers stated that they were under the age of 18, so it was omitted on the graph. Most callers were between ages 25-34, (see *Figure 6)*. In *Figure 7*, the number of children that a mother gave birth to was surveyed. Many women that reported to the phoneline was reaching out for the first time. The women that reported having more then one child, were asked follow-up questions. The first question was *"If they had more than one child, did mom or parents previously experience PMADs?"* Most women answered "Yes", which is significant in that we know PMADs affects those who have experienced it in the past with other children (Ahmed et al., 2018). There was a second follow-up question that the volunteers would ask. They proceeded to ask, *"If Yes, did mom/parents receive support at that time?"*. About half of the women answered *"No."* indicating that even when these mothers struggled with PMADs in the past, they did not seek help for their symptoms.

The last data set analyzed was Ethnicity in *Figure 8*. Caucasians make up most of the callers, followed by people of Hispanic/Latino origin, then Asian and then those that reported being multi-race (2 or more races). This question was noted to have the least amount of data gathered since volunteers admitted that it was difficult to ask this question over the phone, or that callers did not want to answer this question.

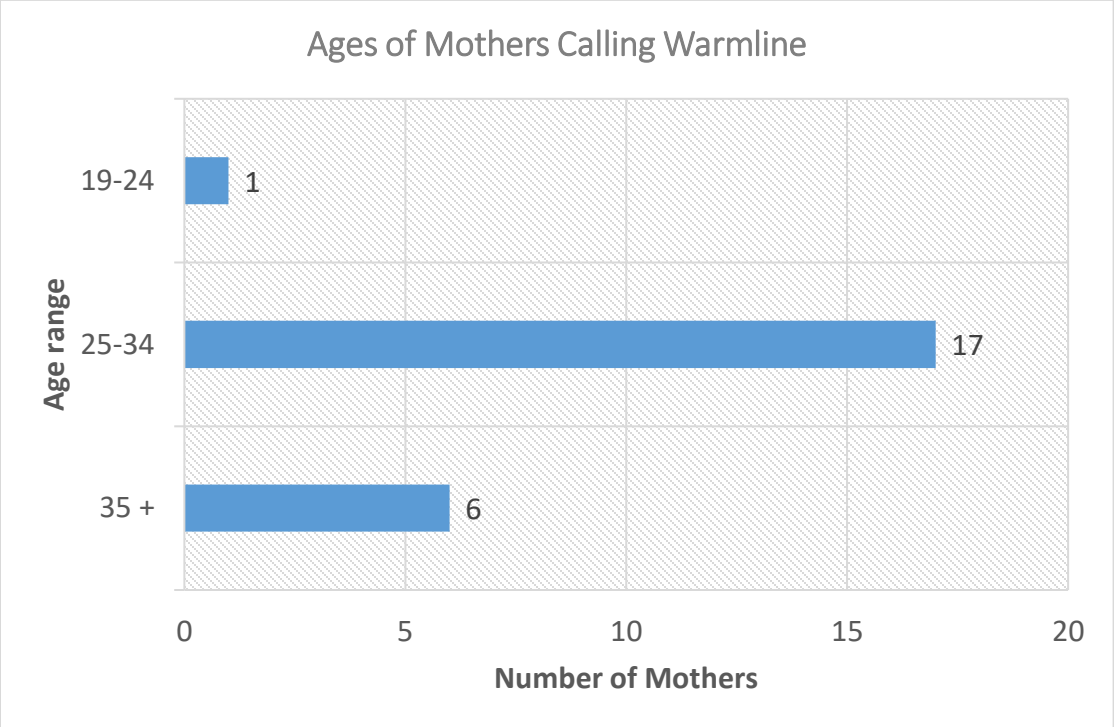

Figure 6. Ages of Mothers Calling the Warmline

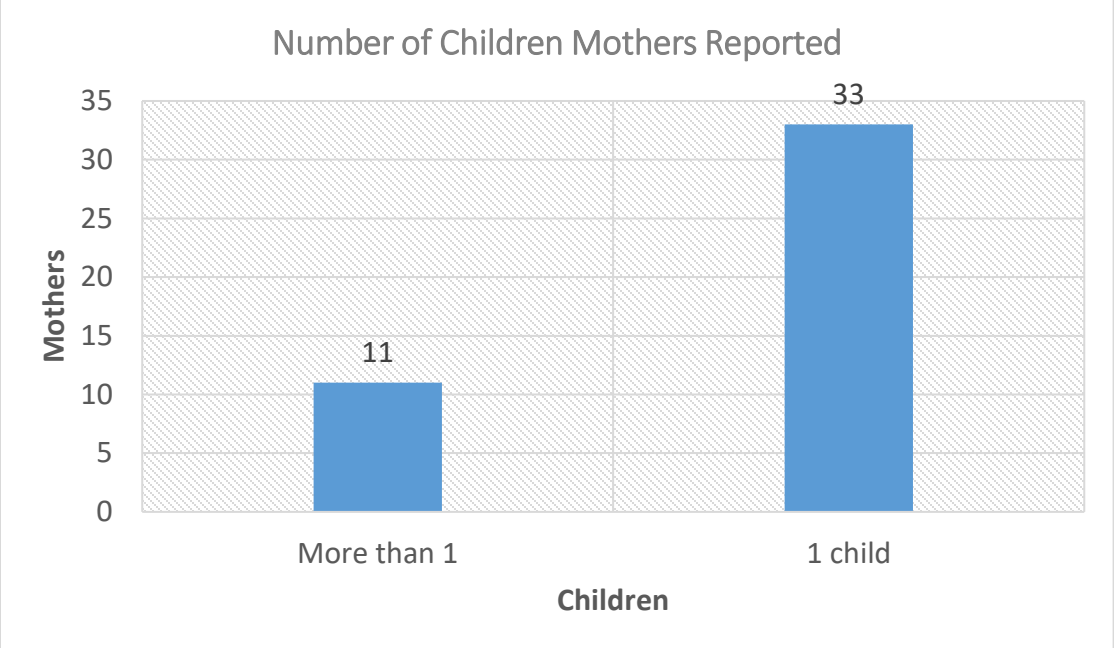

Figure 7. Number of Children Reported

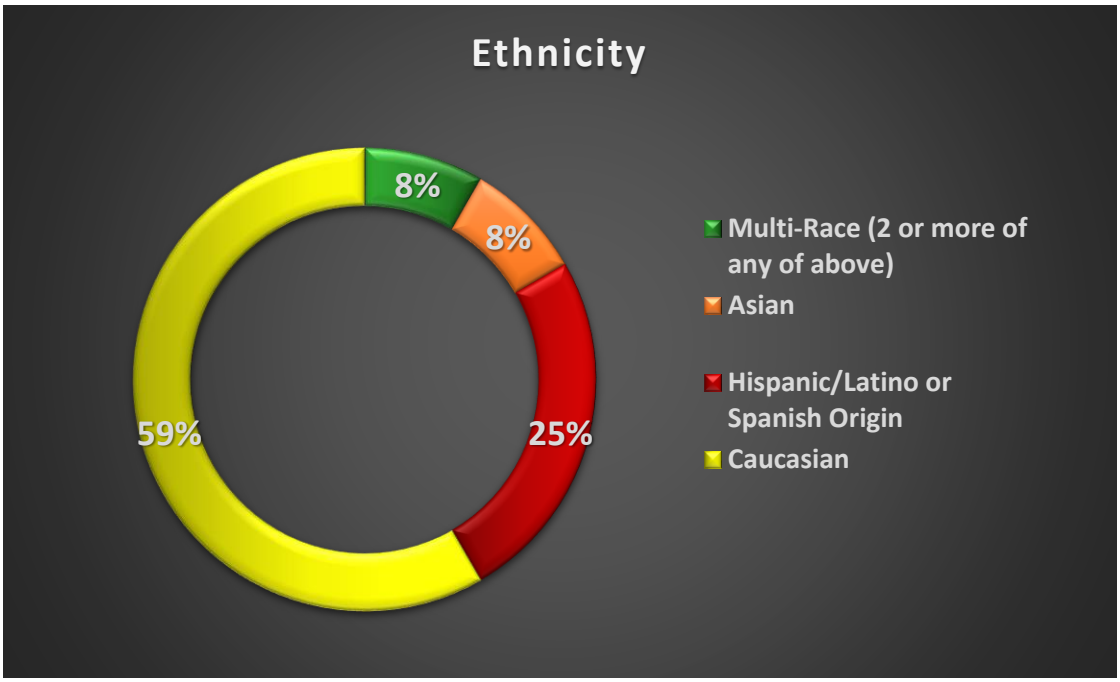

Figure 8. Ethnicity of Mothers with PMADs

Cost-Benefit Analysis

There was no cost for volunteer participation – volunteers provide all the support for the phoneline service. They are on "shift" for one week answering phone calls/returning phone calls on the voicemail system. One other volunteer will be on back up for that week. Benefits include improving care by providing these resources for women/parents with PMADs (See *Table 1*).

Resources	**Cost**	**Rationale**
Education and training support	$0	Volunteer participation
Benefits	Cost	Rationale
Free Resources	$0	Callers receive free information from the phone line

Table 1: Cost-Benefit Analysis of DNP Project

Summary of the Evidence

The literature suggests that screening pregnant and postpartum women for depression may reduce depressive symptoms in women with depression and reduce the prevalence of depression in a given population. Evidence for pregnant women was sparser but was consistent with the evidence for postpartum women regarding the benefits of screening, the benefits of treatment, and screening instrument accuracy (O'Connor, Rossom, Henninger, Groom, & Burda, 2016). Over half of the sample size in a study reported PMAD symptoms, but one in five did not disclose to a healthcare

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provider. Approximately half of women reported at least one barrier that made help-seeking “extremely difficult” or “impossible.” Over one-third indicated they had less than adequate social support (Prevatt & Desmarais, 2018). Risk factors for perinatal depression in a study were assessed based on questionnaire data collected at 6 weeks after the delivery. In this period, they identified the following significant risk factors for developing depressive symptom: personal history of depression, family history of depression from both maternal and paternal sides, unintentional pregnancy, feelings of unhappiness about being pregnant, mothers living alone, and psychosocial stressors. The most frequent psychosocial stressors occurring at this period were disagreements with partner, specialized testing for congenital anomalies, and lowered income (Fiala, Švancara, Klánová, & Kašpárek, 2017). Study participants reported being uncomfortable with discussing mental health concerns as a barrier to seeking care. Women also expressed fears related to being negatively judged as a mother. The efficacy of integrated models of care for women with postpartum depression needs further studies. Implementation of strategies to improve care coordination and to bridge primary care and mental health services could enhance women’s care seeking and, ultimately, the likelihood that they will receive appropriate assessment and treatment (Sword, Busser, Ganann, McMillan, & Swinton, 2008).

One study highlighted a similar functioning phone line service known as the PANDA (Perinatal Anxiety & Depression Australia National Helpline), which provides support for people affected by perinatal mental health issues. Calls between July 2010

and October 2013 were analyzed, and five thousand eight hundred eighteen women made an initial call to the Helpline. Most were between 25 and 40 years old (79%) and married/partnered (94%); 52% were having or had their first child; and 23% were pregnant. The study found that effective strategies are needed for early identification and support for women impacted by poor emotional health in the perinatal period. The number of women in the sample noted to have been receiving inadequate care also highlights the need to address barriers to women receiving adequate treatment, including access to high quality, specialist perinatal mental health services (Shafiei, Biggs, Small, McLachlan, & Forster, 2018).

Conclusions and Implications for Clinical Practice

Future research could possibly focus on a post survey through email (online) or phone call to continue data collection and continue to ask other questions and it may provide a higher response rate. Caller data suggested that Maternal Mental Health Awareness Day in May may have correlated with a spike of calls in June. Most callers were looking to seek help for PMADs and a practitioner. Callers were mostly referred by their PCP followed by those referred by a local maternal mental health outpatient clinic. Zip code data showed the dominant areas where callers reached out; outreach/awareness is possibly greater in those areas. Ages of mothers correlate with average age of childbearing mothers. Medi-Cal and its subtypes were one of the highest insurances for the phoneline. Some women/mothers experienced PMADs with their second and subsequent children and reportedly did not seek help with their first or other children.

Data collection needs to continue to see if there are any trends. Data collected consistency/interpretation could be affected by the volunteer entering the data. It would be beneficial to look more into callers' outcomes; including a post survey of what kind of resource they received, whether it was helpful and their thoughts on the service. More studies on the use of a telephone support service are needed to address the gaps for understanding maternal mental health.

As a volunteer of the phone line service, I found that there were some issues to be addressed. One finding identified Medi-Cal as an insurance that many callers had for coverage. There are different types of Medi-Cal and the organization providing the phoneline service has very few resources available to draw upon for callers with this type of insurance. It would be important for the organization in the future to expand training and outreach to the community of providers already in the settings that take insurances such as Medi-Cal or no insurance. (Federally Qualified Health Centers or FQHCs). In addition, it would be beneficial for the organization to emphasize the importance of screening for PMADs throughout the perinatal period from pregnancy onward and through the postpartum period since this would increase the opportunities for healthcare practitioners to interact with women and families regarding risk factors.

Throughout the process of data collection, several questions came to fruition during the project. I wondered how many of the individuals calling into the Warmline were fathers or other types of parents (same-sex, adoptive). I was also curious to see if any of the callers were currently pregnant or expecting a child and experiencing PMADs.

I believe that the data collected for my project allowed the organization to see more of the demographics of their callers and I was grateful that the volunteers were able to participate in surveying the callers. The data analyzed allows the organization to provide more information for grant funding and future projects and I am proud to have been a part of that. I appreciated the cooperation of the organization's Board in allowing me access to their data and also for involving me as a volunteer. I felt that through this DNP project, I have gained valuable knowledge and a better understanding of PMADs. After attending multiple trainings, it has certainly contributed to increasing my comfort and confidence with treating patients struggling with PMADs in the clinical setting as a nurse practitioner student.

There is a lot of room for improvement regarding data collection and I think the organization can make more changes to the survey questions going forward. I would like to see the organization survey callers with follow-up questions after they receive the resources from the service. It would be interesting to see the callers' responses to the referrals and information they received from the organization and to see whether or not they felt it was helpful. I also think it would be helpful for the organization to ask callers to identify symptoms and/or diagnoses for which they are seeking help. In the project, PMADs was a general category, but for future surveys, asking the callers if they were seeking help for depression or anxiety or another mood disorder can also point to what areas or resources the organization may need to focus on.

Often, I think the Medi-Cal population gets missed and there are already a lot of barriers to getting them care. This would be a good focus area for prevention of PMADs. Health care providers, such as PCPs, OB/GYNs should be assessing for PMADs during pregnancy and following birth, so that women in need of additional support are appropriately identified and cared for. This project was able to showcase more areas that the organization should focus on when it comes to resources for PMADs. My hope is that the data collection continues in order to better serve the community in the San Diego area. More questions could benefit the phoneline service and help improve PMADs awareness in the community. Overall, telephone helplines play an important role in helping to overcome barriers to care and provides accessible mental health support resources to families in need.

References

Ahmed, A., Feng, C., Bowen, A., & Muhajarine, N. (2018). Latent trajectory groups of perinatal depressive and anxiety symptoms from pregnancy to early postpartum and their antenatal risk factors. *ARCHIVES OF WOMENS MENTAL HEALTH*, *21*(6), 689–698. https://doi.org/10.1007/s00737-018-0845-y

Baron, E., Bass, J., Murray, S. M., Schneider, M., & Lund, C. (2017). A systematic review of growth curve mixture modelling literature investigating trajectories of perinatal depressive symptoms and associated risk factors. *Journal of Affective Disorders*, *223*, 194–208. https://doi.org/10.1016/j.jad.2017.07.046

Centers for Disease Control (CDC). (2008). Prevalence of self-reported postpartum depressive symptoms—17 states, 2004–2005. Morbidity and Mortality Weekly Report, 57(14), 361–366. (n.d.).

Dang, D., & Dearholt, S. (2017). Johns Hopkins nursing evidence-based practice: model and guidelines. 3rd ed. Indianapolis, IN: Sigma Theta Tau InternationalSample of Appendix A. (n.d.).

Davis, W. N., Raines, C., Indman, P., Meyer, B. G., & Smith, A. (2018). History and Purpose of Postpartum Support International. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *47*(1), 75–83. https://doi.org/10.1016/j.jogn.2017.10.004

Dennis, C.-L., & Chung-Lee, L. (2006). Postpartum Depression Help-Seeking Barriers and Maternal Treatment Preferences: A Qualitative Systematic Review. *Birth*, *33*(4), 323–331. https://doi.org/10.1111/j.1523-536X.2006.00130.x

Fairbrother, N., Young, A. H., Janssen, P., Antony, M. M., & Tucker, E. (2015). Depression and anxiety during the perinatal period. *BMC Psychiatry*, *15*(1), 206. https://doi.org/10.1186/s12888-015-0526-6

Fiala, A., Švancara, J., Klánová, J., & Kašpárek, T. (2017). Sociodemographic and delivery risk factors for developing postpartum depression in a sample of 3233 mothers from the Czech ELSPAC study. *BMC Psychiatry, 17*(1), 104. https://doi.org/10.1186/s12888-017-1261-y

Gaynes, B., Gavin, N., Metzger-Brody, S., Lohr,K., Swinson, T., Gartlehner, G., et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evidence report/technology assessment no. 119. (Prepared by the RTI-University of North Carolina Evidenced-based Practice Center, under contract no. 290-02-0016). AHRQ publication no. 05- E006-2. Rockville, MD: Agency for Healthcare Research and Quality, 2005. (n.d.).

Jacques, N., de Mola, C. L., Joseph, G., Mesenburg, M. A., & da Silveira, M. F. (2019a). Prenatal and postnatal maternal depression and infant hospitalization and mortality in the first year of life: A systematic review and meta-analysis. *Journal of Affective Disorders, 243*, 201–208. https://doi.org/10.1016/j.jad.2018.09.055

Jacques, N., de Mola, C. L., Joseph, G., Mesenburg, M. A., & da Silveira, M. F. (2019b). Prenatal and postnatal maternal depression and infant hospitalization and mortality in the first year of life: A systematic review and meta-analysis. *Journal of Affective Disorders, 243*, 201–208. https://doi.org/10.1016/j.jad.2018.09.055

Lara, M. A., Navarrete, L., & Nieto, L. (2016). Prenatal predictors of postpartum depression and postpartum depressive symptoms in Mexican mothers: a longitudinal study. *Archives of Women's Mental Health*, *19*(5), 825–834. https://doi.org/10.1007/s00737-016-0623-7

Li, H., Bowen, A., Bowen, R., Balbuena, L., Feng, C., Bally, J., & Muhajarine, N. (2019). Mood instability during pregnancy and postpartum: a systematic review. *Archives of Women's Mental Health*. https://doi.org/10.1007/s00737-019-00956-6

Medi-Cal Program. (n.d.). Retrieved April 22, 2019, from https://www.sandiegocounty.gov/content/sdc/hhsa/programs/ssp/medi-cal_program.html

Melnyk, B. M., Fineout-Overholt, E., Stillwell, S. B., & Williamson, K. M. (2010). Evidence-based practice: step by step: the seven steps of evidence-based practice. *The American Journal of Nursing*, *110*(1), 51–53. https://doi.org/10.1097/01.NAJ.0000366056.06605.d2

O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary Care Screening for and Treatment of Depression in Pregnant and Postpartum Women: Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*, *315*(4), 388–406. https://doi.org/10.1001/jama.2015.18948

Paulson, J. F., & Bazemore, S. D. (2010). Prenatal and postpartum depression in fathers and its association with maternal depression: A meta-analysis. *JAMA: Journal of*

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the American Medical Association, *303*(19), 1961–1969. https://doi.org/10.1001/jama.2010.605

Prevatt, B.-S., & Desmarais, S. L. (2018). Facilitators and Barriers to Disclosure of Postpartum Mood Disorder Symptoms to a Healthcare Provider. *Maternal and Child Health Journal*, *22*(1), 120–129. https://doi.org/10.1007/s10995-017-2361-5

Shafiei, T., Biggs, L. J., Small, R., McLachlan, H. L., & Forster, D. A. (2018). Characteristics of women calling the PANDA Perinatal Anxiety & Depression Australia National Helpline: a cross-sectional study. *Archives of Women's Mental Health*, *21*(6), 801–812. https://doi.org/10.1007/s00737-018-0868-4

Sword, W., Busser, D., Ganann, R., McMillan, T., & Swinton, M. (2008). Women's care-seeking experiences after referral for postpartum depression. *Qualitative Health Research*, *18*(9), 1161–1173. https://doi.org/10.1177/1049732308321736

Wisner, K. L., Sit, D. K. Y., McShea, M. C., Rizzo, D. M., Zoretich, R. A., Hughes, C. L., … Hanusa, B. H. (2013). Onset Timing, Thoughts of Self-harm, and Diagnoses in Postpartum Women With Screen-Positive Depression Findings. *JAMA Psychiatry*, *70*(5), 490–498. https://doi.org/10.1001/jamapsychiatry.2013.87

Woolhouse, H, Gartland, D., Mensah, F., & Brown, S. (2015). Maternal depression from early pregnancy to 4 years postpartum in a prospective pregnancy cohort study: implications for primary health care. *BJOG: An International Journal of*

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Obstetrics & Gynaecology, *122*(3), 312–321. https://doi.org/10.1111/1471-0528.12837

Woolhouse, Hannah, Gartland, D., Mensah, F., Giallo, R., & Brown, S. (2016). Maternal depression from pregnancy to 4 years postpartum and emotional/behavioural difficulties in children: results from a prospective pregnancy cohort study. *Archives of Women's Mental Health*, *19*(1), 141–151. https://doi.org/10.1007/s00737-015-0562-8