The Factors Associated with Accelerating and Reducing Postpartum Depression

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Many new mothers rejoice in learning that they are with child. This is a life changing event that will give a woman a new role, and many new responsibilities to adhere to. One of the things that many women give little thought to is how hormones will be interacting within their body. This influx of hormones can cause a dramatic change in their behavior and in their mood. One of the consequences of this is postpartum depression (PPD).

There is scarce research that has been conducted to understand this mental ailment and how it pertains to new mothers, and what factors cause a new mother to experience PPD. One troubling aspect about this illness is that there is no real knowledge about how many people are afflicted by this each year. The best estimate is that 1.9% to 82.1% women are infected each year (Norhayati, et al., 2015). This is a huge gap that informs researchers that almost no females to almost every female worldwide is plagued by PPD. Even more alarming than this wide range is that little knowledge is available about what factors cause PPD but some of the likely contributing factors are race, socioeconomic status (SES), and family support.

The primary variables in this study will be biological females who have given birth within the past year. This research aims to address what factors lead a mother to be tormented by PPD and if SES contributes to these factors. Another goal this research hopes to address is if emotional support systems can act as a buffer to deter the activation of PPD.

Literature Review

PPD and SES

In this study by Goyal, Gay, & Lee (2010) the researchers claim that all mothers typically experience similar hormones and physical symptoms postpartum. However, the experience of

shifting to the new role of mother can differ greatly especially if SES is low. Having a low SES makes the mother more at risk for being a single parent, lacking job security, and developing PPD. A majority of the research concerning PPD showcases women from an affluent background. The researchers hypothesised a low SES would make women at a greater risk for developing PPD. The second part of this study set out to examine if one of the four aspects of SES (income, education, relationship status, employment) elevated the risk for PPD (Goyal, et al., 2010).

The participants for this study were all females that were expecting their first child. This accounted for internal validity because the researchers controlled for the amount of children the mother could have. The researchers recruited for the control group by finding first time mothers in a paid class for prenatal education. The way that the independent variable was found was by recruiting women in free prenatal clinics whose income was low enough to qualify. All of the participants were at least 18 years of age, could read and write in english, and were willing to participate in a longitudinal study. All participants were financially compensated (Goyal, et al., 2010). By limiting the sample to only mothers that could read and write in English the researchers diminishing some of their external validity.

The researchers had participants provide information on their income, race, method of delivery, employment status, and gender of the infant. Then the mothers were given the CES-D to screen for depressive symptoms, before and after childbirth. The CES-D ask questions describing how often you felt or behaved a certain way within the past week. The answers range from 0 never, to 3 often. The scores are then tallied up and a score of 16 or higher indicates that depressive symptoms are present (Goyal, et al., 2010).

The results of this study were that all new mothers are at a heightened risk for PPD. However low SES puts the mother at greater risk for developing PPD when the big four are in play. Women with low SES experienced more depressive symptoms in the last few months of pregnancy than those with no SES issues. Also those women who scored high in the big four were 11 times more likely to have PPD three months postpartum than their counterparts with no SES factors (Goyal, et al., 2010) .

One of the limitations was a lack of information about the social groups within their findings. Another limitation was that they only used partnered participants which was limiting because there was no way to tell the researchers how much support the partner gave the new mother. Another aspect of this research was that it was conducted in San Francisco where the cutoff line for poverty is \$3,000 monthly. This financial situation is not relatable for the rest of the country, thus lacking external validity (Goyal, et al., 2010). Another limitation was the researchers only used self report data and no biomarkers. A strength of this research is that little research up until this time had been conducted to understand PPD with low SES.

PPD and family support

Researchers of this article, Jewell, Luecken, Gress-Smith, Crnic, K, & Gonzales, (2015), claim that Mexican American women score higher for systems of depression stemming from the fact that 25% of Mexican American women live below the poverty line (Jewell, et al., 2015). Because of this, many Mexican American women have limited access to health and prenatal care. Despite these hardships, many Mexican American women are able to transition from pregnancy to motherhood fairly smoothly. The authors attributes this success to the family support the women received. Mexican families emphasize the value of close relationships within

the family which acts as a buffer. The researchers hypothesized that women who reported having high levels of economic stress but also had high levels of family support would have lower levels of cortisol three months postpartum (Jewell, et al., 2015).

Participants were composed of 322 Mexican American women ranging in age from 18-42. The data was collected a total of three times: prenatal, six weeks, and 12 weeks postpartum. Participants of this study were recruited from low income prenatal clinics (Jewell, et al., 2015). Participants were read surveys in English or Spanish. By controlling the times the data was collected and offering the surveys in two languages the study's internal validity was enhanced. During the 12 week at home interview, participant's saliva samples were collected prior to them interacting with their child. During the child and mother interaction the mother would be recorded for two hours playing games such as peek-a-boo with their child. Cortisol samples were taken before the task and a few minutes after the final task. Cortisol levels can vary depending on the time of day, last meal, and many other factors so the researchers made sure to control these things (Jewell, et al., 2015). Because the researchers controlled for the time of day at which the cortisol levels were sampled, they had high internal validity.

The results of this study supported the researcher's hypothesis. Mothers who had high economic stress, and low family support had higher cortisol levels. Mothers who had high economic stress and high family support had low cortisol levels (Jewell, et al., 2015). These results suggest that family support can act as a buffer to relieve some of the stress associated with postpartum, being a mother, and lacking sufficient income.

Some limitations did arise from this study such as the researchers failed to obtain the cortisol levels of the mother while she was pregnant. Getting a baseline for their levels of cortisol

would have been beneficial. Another limitation is that it is not applicable to a majority of the public. The sample was of Mexican American women, many who were born outside of the US, and some who did not speak English (Jewell, et al., 2015). Due to the lack of generalizing, the study does receive low marks in external validity. This study also had some great contributions such as shining light on a group that is often marginalized. Also, many times these women have limited access to healthcare so just letting them know that they can come out on top despite these barriers is powerful in itself.

PPD and Social Media

Social media is changing the way that we interact with our fellow man. There is much research that needs to be done to catch up with the long term effects social media may play in our social interactions. In this study, researchers Teafor, Goyal, & McNeish (2015) set out to examine the roles that online support groups play in helping mothers with PPD. The researchers hypothesized that online support groups could be a useful tool in screening mothers for PPD. The second thing they hypothesized was that online support groups could help mothers get information to help them cope with a diagnosis or find the symptoms of PPD (Teafor, et al., 2015) . This is an extremely useful tool given that there are many limitations to the medical field within the us, and that it tends to cater to those of higher SES levels.

The researchers pooled their sample from nine online birth clubs that were designed to target new mothers. The participants of this study were 469 mothers that were mostly married and a vast majority of them were white (401). Out of all the participants, 433 reported having access to health insurance. Due to access to healthcare, marital status, and the lack of racial diversity, this research scores low internal validity. All of the participants had an infant between

the ages of 1 - 6 months (Teaford, et al., 2015). The researchers posted a thread to the online board to find their participants. Participants were given a ten item self-report survey to assess if they had any symptoms of PPD. Mothers who claimed that they had previously been diagnosed or had a history of PPD were then asked to complete a second survey (Teaford, et al., 2015).

The results showed that 16% of participants showed signs of being high risk for developing PPD. A total of 24% of those at risk admitted having thoughts of self harm. Another finding was that 76 of these mothers had a previous history of PPD. These results indicate that the healthcare services were not meeting these mothers expectations. Many of the participants cited limitations brought on by the lack of funding from their insurance providers as the reason why their needs were not met. Another reason mothers cited was that they felt like their healthcare provider was not understanding their needs and even spoke insensitively to them. These results were consistent with the number of women that report PPD through means of a healthcare provider (Teaford, et al., 2015).

Some limitations did arise from this study. The demographic of the sampling size was limited; primarily the participants were white, married women, who had health insurance, and on average a yearly income greater than 50,000 (Teaford, et al., 2015). One positive component from this study is that it highlights that social media might be a successful platform for receiving healthcare especially for individuals who might be skeptical about seeking help or the stigma associated with mental illness. It is possible that social media can be used as a tool to break the ice and bring to a mother's attention that there is support and it might be time to seek out

professional help. This study was high in external validity because people living in developed countries have access to the internet, so it is generalizable.

PPD Around the World

There is a lot of conflicting data about how many mothers experience PPD. Many believe this is due to the stigma surrounding mental illness, and new mothers unwillingness or lack of ability to seek out help. This study aims to get a better estimate of how many mothers are plagued by this illness. Researchers Norhayati, Hazlina, Arene, & Emilin, (2015) also wanted to learn about what factors cause a mother to become susceptible to PPD. It is estimated that PPD occurs worldwide from 0.5% to 60.8%

The researchers gathered their data from examining 191 self report questionnaires in 42 countries. Another tool that was used was 21 clinical interviews. The results were a bit surprising; the researchers discovered that PPD rates are higher than what had been previously thought. They found that the new rates range anywhere from 1.9% to 82.1% world wide. In developed countries, the results were that women experience PPD 5.2 to 74% of the time. They also found that some of the risk factors for developing the illness include anxiety, previous mental illness, lacking supportive relationships, traumatic life event, and a poor attitude towards their pregnancy (Norhayati, et al., 2015).

There were some limitations that arose such as all of the studies are generalizable. One of the studies showcased women whose custom was to be separated from society for an entire month postpartum. Because the research was conducted world wide, some of the customs do not generalize to other areas of the world, thus lacking external validity. Also, it is a limitation that

the authors did not conduct their own research (Norhayati, et al., 2015). By using many different studies, the researchers were unable to control for internal validity. One benefit from this research is that there is now a more precise number to the amount of women that are afflicted with PPD. However, the margin for the amount of women who are affected is still outrageous, and it would be nice for there to be a more accurate number.

PPD and the Risk Factors

In this study, researchers Rich-Edwards, Kleinman, Abrams, Harlow, McLaughlin, Joffe, & Gillman (2006) examined if there were risk factors that made someone more susceptible to developing PPD. The study investigated what roles race, relationship status, and income played in the development of PPD. The researchers claim that there is more arguing on the topic than actual data, and set out to see if sociodemographic predictors are linked to PPD (Rich-Edwards, et al., 2006).

The researchers gave their participants a 10 item Edinburgh postpartum depressive symptoms scale self report survey. They were able to get a large sample size of 1662 by obtaining participants from eight doctor's offices in large cities on the east coast. The researchers also conducted an interview with participants that asked questions about their education level, finances, relationships, and history of depression (Rich-Edwards, et al., 2006).

They found that African American and Hispanic mothers were at higher risk for developing PPD. They attributed these findings to lower income and a higher chance of complications during pregnancy (Rich-Edwards, et al., 2006). Once they controlled for those two variables, increasing their internal validity, they found that race is not a predictor for PPD.

The study also found that young age was a factor in predicting PPD. Young mothers experienced financial hardships, likelihood of being a single mother, and possibly an undesired pregnancy. The most distinct indicator of whether or not a mother would succumb to PPD was whether they experienced depressive symptoms while pregnant and if they had a history of depression (Rich-Edwards, et al., 2006).

This study did have some limitations, for starters they only used a self report survey to assess PPD instead of a clinician diagnosis. Another was that the stigma of mental illness leads many minorities to underreport their symptoms (Rich-Edwards, et al., 2006). One strength of this study was that there was a very large and diverse sample, which led to high external validity. Also it was a contribution to science because it gives the scientific community vital information on an epidemic that troubles numerous lives each year.

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