Postpartum Depression: Literature Review

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Perinatal depression, better known as postpartum depression (PPD), is a mental health condition affecting over 500,000 women in the United States annually (Guintivano et al., 2018). Although there have been studies conducted on this mental health phenomenon, there are still many unknowns about this mental health condition. Furthermore, the lack of proper screening, knowledge and treatment options puts mothers and their families at risk (Guintivano et al., 2018). Therefore, it is paramount for health care professions to undergo extensive research on this topic to provide a better quality of life for new and existing mothers.

A literature review is one of the best ways to discover what is known and what is still missing regarding postpartum depression (Houser, 2022). Therefore, it is essential to utilize scholarly works published no later than five years before the current year when conducting a literature review. In addition, literature reviews add credence to the topic and reveal appropriate theoretical frameworks (Houser, 2022).

Predictors of Postpartum Depression: A Comprehensive Review of The Last Decade of Evidence

The prevalence of postpartum depression in the United States is approximately 10-15% (Guintivano et al., 2018). PPD is the most common complication of childbirth and is associated with many bleak outcomes for both mother and baby. These risks include maternal mortality and morbidity, increased risk for infanticide, inadequate maternal-infant attachment, and poor parenting behaviors (Guintivano et al., 2018). Unfortunately, there is a lack of preconception screening to identify women at risk for PPD, highlighting a need for more research in healthcare.

The study conducted in this quantitative article examined molecular and clinical risk factors of PPD. There are two sets of risk factors: inherent or pre-pregnancy risk factors and perinatal risk factors. The genetic studies that have been conducted were unreliable on large sample sizes, but epigenetic studies showed to be slightly more promising (Guintivano et al., 2018). Most literature about PPD focuses on DNA methylation because it can be altered by stress, medication, and reproductive hormones (Guintivano et al., 2018). Testing for DNA methylation can be quickly performed during routine blood draws, and in doing, so physicians can predict susceptibility to PPD with 96% accuracy (Guintivano et al., 2018). The biomarkers used for this study were initially identified in a small sample of women (n=52) but have been replicated in two other cohorts with 81% accuracy (Guintivano et al., 2018). These studies can help guide us in the right direction, but larger-scale clinical trials should be performed before coming to that assumption. Studies have been performed observing the reproductive hormones BDNF, GABA, and ghrelin; however, these report on cross-sectional associations and should not be used when predicting PPD without more longitudinal follow-up (Guintivano et al., 2018). Other studies testing allopregnanolone, beta-endorphins, cortisol levels still needed many of their studies replicated before coming to an absolute conclusion.

Psychiatric history before or during pregnancy can be a great predictor of PPD with a very high level of certainty (Guintivano et al., 2018). Literature shows that having a history of MDD, anxiety, PPD, PMS/PMDD, and other mood and personality disorders increases the risk for PPD onset significantly (Guintivano et al., 2018). The literature that represents these findings was taken from women of all different genetic and cultural backgrounds. Unfortunately, patients without prior psychiatric history can have a more challenging time getting diagnosed through this method. Therefore, diagnostic testing such as interviews, chart reviews, and self-reporting

such be encouraged or performed when testing for PPD (Guintivano et al., 2018). Adding these diagnostic tests to every prenatal screening can drastically improve the quality of care for PPD.

Adverse life events also play a role in detecting a women's vulnerability to PPD. Studies show that, across multiple populations of women that physical, psychological, and sexual abuse significantly increase a woman's risk of postpartum depression (Guintivano et al., 2018). Women who have experienced intimate partner violence also risk developing this type of depression, although one study contradicted these findings (Guintivano et al., 2018); This could be due to the assessment conducted at one month postpartum is uncertain. Overall, current studies show that certain adverse life events, including intimate partner violence and childhood trauma, increase the risk for PPD (Guintivano et al., 2018). Adverse life events not reported in this study, including divorce, financial hardship, death of a loved one, natural disasters, and mass conflict, also play a role in predicting PPD (Guintivano et al., 2018).

Although there are many inherent and pre-pregnancy factors involved in PPD, there are several perinatal factors. One study had shown a U-shaped curve of increased risk as maternal age is increased. This study claimed that PPD is higher among women under 24, decreasing between 24-35 and steadily increasing again after 35 (Guintivano et al., 2018). Women with poor education, low income, no employment, and question insurance status are at risk for postpartum depression (Guintivano et al., 2018). Some researchers found that lower literacy rates can increase risk, but some findings suggest that higher levels of education increase PPD risk (Guintivano et al., 2018). PPD not only affects mothers, but it affects obstetrical outcomes too. A systematic review of 14 studies including 25,663 women discovered that those with untreated

depression during pregnancy have a substantially higher risk for preterm birth than women without depression (Guintivano et al., 2018).

Key Points

Postpartum depression is a mental health condition that affects over 500,000 annually in the United States (Guintivano et al., 2018). Unfortunately, there is a lack of preconception screening to help identify those at risk for PPD. The risk of postpartum depression is maternal mortality and morbidity, increased risk for infanticide, inadequate maternal-infant attachment, and poor parenting behaviors (Guintivano et al., 2018). Prior psychiatric history was one of the main predictors when assessing for PPD (Guintivano et al., 2018).

Assumptions

Several studies still need future research and testing, but there are several things we know to be true about postpartum depression. First, present-day evidence shows that prior psychiatric history can be a huge predictor in diagnosing PPD. Many studies show that a history of major depressive disorder, anxiety, postpartum depression, premenstrual syndrome, premenstrual dysphoric disorder, and other mood and personality disorders significantly increases the risk for PPD onset (Guintivano et al., 2018). Second, a systematic review discovered that women with untreated depression during pregnancy ran a high risk of developing PPD (Guintivano et al., 2018). Third, studies have shown that adverse life events such as physical, psychological, and sexual abuse significantly increase women's risk of postpartum depression (Guintivano et al., 2018). Genetic testing still has a far way to go before the scientist can use that as a predictor of PPD, but epigenetic studies have shown to be promising. The epigenetic studies focus on DNA

methylation, an epigenetic mechanism affected by stress, medication, and reproductive hormones (Guintivano et al., 2018). Physicians can test for DNA methylation during an in-office blood draw, which was 96% accurate when testing for susceptibility of PPD (Guintivano et al., 2018). Finally, women under the ages of 24 and over 35 were at a higher risk of postpartum depression (Guintivano et al., 2018).

Deficit/Conclusion

In conclusion, there is an overall lack of knowledge surrounding PPD. Depression is a significant public health crisis, and it is crucial to patient satisfaction and safety that more research is conducted on this issue. In addition, there is a significant lack of information surrounding genetic testing when assessing the risk of PPD. When assessing women for PPD, it is essential to know that initial mental health conditions will be the best indicator, but this does not mean another testing, such as genetic testing, should be pushed to the wayside.

Pharmacotherapy of Postpartum Depression: Current Approaches and Novel Drug Development

Postpartum depression (PPD) is one of the most common childbirth complications, affecting 20% of women during and after pregnancy (Frieder et al., 2019). There are several treatment options for PPD, such as pharmacotherapy, psychotherapy, neuromodulation, and hormonal therapies (Frieder et al., 2019). Most of the treatment plans for PPD have been adapted from treating the major depressive disorder (MDD) outside of the peripartum period (Frieder et al., 2019). The evidence behind the use of antidepressants for PPD is limited due to the lack of randomized clinical trials, underpowered samples, and long-term follow-up (Frieder et al., 2019).

Postpartum depression is underdiagnosed and undertreated due to the lack of understanding of PPD pathophysiology (Frieder et al., 2019). Currently, there are no approved pharmacotherapies for PPD (Frieder et al., 2019). Researchers conducted randomized controlled trials of antidepressants to study the effects these drugs had on women with postpartum depression. The drug Fluoxetine and a placebo were taken in conjunction with groups going to either one or six counseling sessions over 12 weeks (Frieder et al., 2019). The researchers discovered additional benefits from six counseling sessions or added Fluoxetine, but no detected advantage to adding both counseling sessions (Frieder et al., 2019). A 12-week clinical trial of Paroxetine alone and Paroxetine plus cognitive-behavioral therapy (CBT) concluded that the Paroxetine monotherapy group and the Paroxetine plus CBT were efficacious. There were no additional benefits from the addition of CBT (Frieder et al., 2019). When studying the drugs Sertraline and Nortriptyline over an eight-week comparative with a 16-week continuation phase, there were no significant differences in response or remission between the two antidepressants at 4, 8, and 24 weeks postpartum (Frieder et al., 2019). Another study of the drug Paroxetine and placebo was tested during an eight-week trial. This study concluded that Paroxetine showed significantly higher remission rates versus the placebo (37%-15%). The Paroxetine group did not show significantly higher response rates than placebo 43% compared to 31%) (Frieder et al., 2019). In an 18-week study observing the effects of various antidepressants, primarily selected serotonin reuptake inhibitors (SSRIs) and supportive counseling discovered at four weeks, postpartum participants receiving antidepressants showed significant symptom resolution (Frieder et al., 2019). However, 18 weeks postpartum, there was no significant difference between those receiving antidepressants and those receiving supportive consoling (Frieder et al., 2019). A 6-week study of Sertraline and a placebo found that the benefits were more pronounced

when PPD onset was within four weeks of childbirth (Frieder et al., 2019). A 12-week study of Sertraline and specialized CBT programs concluded that the specialized CBT program for PPD was superior to monotherapy compared with Sertraline (Frieder et al., 2019). A 6-week study of Fluoxetine and Saffron showed that the rates were not significantly different between the two groups (Frieder et al., 2019).

Women with previous episodes of PPD have a 25% risk for developing it in future pregnancies (Frieder et al., 2019). Although researchers are making advancements in the treatment of PPD, more research needs to be conducted to prevent it. A 20-week randomized clinical trial with a sample size of 56 tested the drug Nortriptyline and a placebo. The studies found no significant differences in reoccurrence rates or time to relapse between women receiving Nortriptyline and women receiving placebo (Frieder et al., 2019). Another 17 weeks randomized clinical trial with a sample size of 25 concluded that treatment with Sertraline was associated with fewer depressive relapses and a significantly longer time to relapse (Frieder et al., 2019). A prospective cohort with a sample size of 778 with a variable time frame and various interventions found no apparent difference in risk of a depressive episode in pregnancy between women who took antidepressants and women who did not (Frieder et al., 2019). A 6-week randomized clinical trial with a sample size of 54 tested the effects of Diphenhydramine and Trazodone to prevent postpartum depression symptoms at 2 and 6 weeks after delivery (Frieder et al., 2019). There were no differences noted in depressive symptoms when observing Trazadone and Diphenhydramine groups (Frieder et al., 2019). A 6-week randomized clinical trial with a sample size of 330 tested single intra-operative low dose intravenous Ketamine and placebo. These studies found significant differences in the prevalence of PPD between the two groups at three days and six weeks post-delivery (Frieder et al., 2019).

Many women struggle to start antidepressants during pregnancy and typically find psychotherapies more acceptable than pharmacotherapies (Frieder et al., 2019). On a global scale, between 25-76% of pregnant women use complementary health practices (Frieder et al., 2019). Women also consider neuromodulation therapies with PPD. Electroconvulsive therapy (ECT) is a vital neuromodulator choice in severe PPD and refractory cases of PPD and postpartum psychosis (Frieder et al., 2019). Although guidelines about ECT use have been published, there are no randomized controlled trials for using ECT to treat PPD (Frieder et al., 2019). There are several neuromodulation techniques in the initial trial stages for the treatment of PPD, but further randomized controlled trials should examine the benefits of ECT over pharmacotherapies in severe PPD.

Key Points

There are many pharmacotherapy options available for PPD but randomized clinical trial data to guide the treatment of PPD remains limited (Frieder et al., 2019). Most of the treatment options PPD patients have are adapted from MDD treatment, not specialized for PPD (Frieder et al., 2019). Postpartum depression is underdiagnosed because there is a lack of understanding of the pathophysiology of PPD. Although there are treatment options available for existing PPD, there are no treatment options to prevent it (Frieder et al., 2019).

Assumptions

The authors of the article clarify a lack of prevention methods for women suffering from PPD. The article often states that PPD is understudied due to various reasons, and it is underdiagnosed. The authors state that not much is known about the etiology or pathology of

postpartum depression. The insufficient knowledge of postpartum depression sets the medical community back from finding more suitable treatment options for these individuals.

Deficit/Conclusion

Although we have several treatment options for existing PPD, none of those therapies are approved for PPD and are adapted from the care plans of other mental illnesses such as MDD (Frieder et al., 2019). In addition, there are no treatment options to prevent PPD from occurring during and after pregnancy. Women with prior episodes of PPD are at a greater risk for developing it again (Frieder et al., 2019). Hence, it is paramount to seek treatment options to help prevent the symptoms from developing in later pregnancies. In order to provide the best care possible to these patients, we must seek out preventive treatment options.

Postpartum Hormonal Contraception Use and Incidence of Postpartum Depression: A Systematic Review

Postpartum depression (PPD) and postpartum psychosis (PPP) are dangerous complications of childbirth. PPP is characterized by irritability, abnormal thought content, anxiety, and depressive symptoms (Rundgren et al., 2018). PPP is less common than PPD, with a prevalence of 0.089%-0.5% (Rundgren et al., 2018). However, there is a disconnection between PPD and PPP, with PPP being more serious than PPD. The most common treatment option for PPD and PPP are pharmacotherapy and psychotherapy, but electroconvulsive therapy, also known as ECT, could be beneficial for this patient demographic (Rundgren et al., 2018). ECT induces an epileptic seizure via electric current, but the use of this technology is controversial (Rundgren et al., 2018). The side effects of this treatment are cognitive impairment, such as short-term

memory loss, but these symptoms only last for a few days post-treatment (Rundgren et al., 2018). The goal of the study conducted in this article was to test the hypothesis that the response rate to ECT as a treatment for depression and psychosis is higher during the postpartum period than outside it (Rundgren et al., 2018). This study's criteria were broken up into two different test groups. The first group included women who received ECT for PPD and PPP within six months of delivery. The second group was the comparison group. This group consisted of subjects who had received ECT for depression or psychosis and either had their last delivery more than six months ago or had no prior deliveries (Rundgren et al., 2018).

The primary outcome of this study was to see an improvement of symptoms within one week of ECT, and the secondary outcome was to evaluate remission post-treatment (Rundgren et al., 2018). During each ECT treatment, participants were given either propofol or thiopental as an anesthetic. Information on electrode placement was as follows; out of 185 cases, 83.1% received unilateral treatment, 14.7% bitemporal treatment, and 2.2% bifrontal treatment (Rundgren et al., 2018). The comparison group placement was as follows; 92.4% received unilateral treatment, 6.5% bilateral treatment, and 1.1% bifrontal treatment (Rundgren et al., 2018).

The results for the preliminary study showed that of 185 PPD case group and the 185 comparison group participants, more than 87% of PPD cases and 78.5% of the comparison group participants responded to ECT (Rundgren et al., 2018). The secondary outcome of this study was to evaluate remission rate post ECT treatment, and the study found that remission rate was higher in the PPD case group than the comparison group (Rundgren et al., 2018). The goal of this study was proven as the response rate was significantly higher during the postpartum period than

outside it. The response rate (87%) in the postpartum period is congruent with other smaller retrospective and protective studies (Rundgren et al., 2018). This study supported the current guidelines that advocate the use of ECT for severe forms of PPD and PPP.

Key Points

Electroconvulsive therapy is a beneficial tool for women who suffer from severe postpartum depression and postpartum psychosis. Currently, the treatment options are limited to pharmacotherapies and psychotherapies, but these alone are not enough for those with severe cases of PPD and PPP (Rundgren et al., 2018). Both the preliminary and secondary outcomes were proven, with more than 87% of PPD cases and 78.7% of the comparison group responding well to the treatment (Rundgren et al., 2018). This study furthered the point the ECT should be a treatment option for this demographic of patients.

Assumptions

The author states that electroconvulsive therapy is controversial, but the results in the study prove it to be very beneficial for these patients. The use of ECT is highly recommended by the Swedish Psychiatric Association (Rundgren et al., 2018). The article also states several times that ECT is only used in those with severe PPD or PPP. PPD and PPP increase the risk of suicide (Rundgren et al., 2018). Suicide is the most common cause of maternal death in the United Kingdom, thus proving that advancements need to be made in this area of study to prevent these tragedies from happening (Rundgren et al., 2018).

Deficit/Conclusion

In conclusion, the pros outweigh the cons when it comes to ECT treatment. The author provides much insightful information on the topic. PPD and PPP are severe life-threatening mental illnesses that affect the mother and the whole family. ECT should continue to be tested more, so women have many treatment options besides pharmacotherapies and psychotherapies. However, these are not a fix for more severe cases of PPD and PPP. If the health care community ignores ECT as a treatment option for severe PPD and PPP, this could mean more deaths among this patient population.

Conclusion

PPD and PPP are severe mental illnesses that are widely underdiagnosed and understudied. Postpartum depression and postpartum psychosis are a global phenomenon; It knows no bounds. Although studies have been conducted, many of these studies have been inconclusive or not studied enough. Therefore, the research of PPD and PPP is fundamental to patient outcomes in health care worldwide. In addition, this information is essential to nursing because these mental illnesses affect the mother and affect their offspring and existing family.

Each of these articles made it clear that not only do physicians not have a proper treatment plan dedicated to PPD and PPP, but there are no current treatment options to prevent it. It is exceptionally unfair the women suffering from these mental illnesses do not get specialized treatment because other healthcare concerns have proper treatment plans dedicated to caring for and curing ailments. This information can provide a base to start from when constructing new case studies.

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