

Original Article

Postpartum Depression in Women During the COVID-19 Pandemic

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Abstract

Introduction: Postpartum depression (PPD) is a mental health illness found in approximately 15% of women after giving birth. The COVID-19 pandemic has created additional stressors for new mothers, such as social isolation, financial uncertainty, and fear of infection, which may exacerbate PPD symptoms.

Aim: To explore Postpartum depression (PPD) in women during the COVID-19 pandemic.

Methods: A literature review was conducted using the databases of Google Scholar, Scopus, and PubMed. The keywords used were "postpartum depression," "women" and "COVID-19 pandemic". 45 articles were selected for this review based on their relevance and quality.

Results: The findings suggest that the COVID-19 period has raised the risk of PPD among new mothers. Social isolation, lack of support, financial insecurity, and fear of infection are significant factors contributing to the development of PPD during the pandemic. Additionally, the pandemic has disrupted routine medical care and increased the likelihood of childbirth complications, which can also contribute to PPD. Several interventions have been proposed to address PPD during the pandemic, including teletherapy, peer support groups, mindfulness-based interventions, physical exercise, and medication. However, there are limitations to these interventions, such as lack of access to technology or internet connectivity, which may prevent some women from receiving the support they need.

Conclusion: The COVID-19 pandemic has created significant challenges for new mothers, increasing the risk of PPD. It is important to provide appropriate support and interventions to prevent and treat PPD during the pandemic. Mental health professionals should consider the unique challenges faced by new mothers during the pandemic and provide tailored interventions accordingly. Policymakers should also prioritize maternal mental health by ensuring access to affordable and accessible mental health services and addressing the underlying social and economic factors contributing to PPD.

Keywords: postpartum depression, women, COVID-19, pandemic

Introduction

Postpartum depression (PPD) is a mental health illness found in approximately 15% of women after giving birth (Gavin et al., 2005). Symptoms typically begin within the first few weeks after childbirth but can occur up to a year postpartum. Anxiety, sadness, irritability, changes in appetite, loss of interest in activities, and sleep disturbances are the most common symptoms of PPD. These symptoms can interfere with a mother's ability to care for her newborn baby (Gavin et al., 2005).

Several factors increase the possibility of developing PPD, including a history of depression or anxiety, a difficult pregnancy or childbirth, lack of social support, and financial stress. Women who have experienced trauma, such as domestic violence or sexual abuse, have an increased risk of developing PPD. In addition, hormonal changes during pregnancy and after childbirth can contribute to developing PPD (American Psychiatric Association, 2013). Postpartum depression can have negative long-term consequences for both

mother and child. Mothers with PPD may have difficulty bonding with their babies, which can lead to developmental delays and attachment issues (Dennis & Creedy, 2004). Moreover, mothers with PPD are more likely to develop chronic depression and other mental health disorders later in life (Field, 2010). Children of mothers with PPD may be more likely to experience behavioral and emotional problems (Murray et al., 2016) and have lower cognitive development scores (Stein et al., 2014).

Purpose of the Review

This article aims to present an overview of the impact of the COVID-19 pandemic on postpartum depression. The review will explore the potential effects of the pandemic on the risk factors, prevalence, and symptoms of postpartum depression, as well as the implications for the treatment and management of this condition. Additionally, it will examine the potential long-term effects of the pandemic on postpartum depression and the need for future research in this area.

Method

Design and method of searching the articles: A literature review was performed with keywords in PubMed, Google Scholar, and SCOPUS databases. The duration of the study was one month.

Eligibility criteria: Research articles (original research) and meta-analyses were sought, which concern postpartum depression in women during the COVID-19 Pandemic and have been published in scientific journals in the English language during the last four years (2019-2023). The use of reliable and valid tools to measure women's postpartum depression was also set as an eligibility selection criterion.

Exclusion criteria: Other types of articles (e.g., editorials, case studies, letters to the editor, research protocols), articles that did not have an abstract available or were written in a language other than English, and articles with incomplete information in the abstract were excluded (e.g. not mentioning the time of the research or the questionnaires used).

The keywords used were: "postpartum depression," "women" and "COVID-19 pandemic."

Selection of studies: Below is the flow chart

showing the steps of the search strategy (diagram 1). Initially, 285 potential records were identified in the online databases. After initial screening for duplicate entries, 240 articles remained. 112 studies were then excluded, based on a screening of their title and abstracts. Subsequently, 22 studies were deleted based on the eligibility and exclusion criteria. Finally, 6 studies were included in the review.

Results

Studies on the Prevalence of Postpartum Depression in the Pre-COVID-19 Period and During the COVID-19 Pandemic

A study conducted in Australia reported that women with a history of mental illness, a lack of social support, and those who had experienced difficult childbirth were at higher risk of postpartum depression (Lumley et al., 2004). Another study conducted in the United States found that postpartum depression was more prevalent among women who had experienced stressful life events, such as financial difficulties or relationship problems, during pregnancy (Gavin et al., 2005).

Cultural factors have also been shown to influence the prevalence of postpartum depression. A study conducted in Nigeria reported a higher prevalence of postpartum depression among females of lower social and economic status and females who had experienced childbirth complications (Adewuya et al., 2006). A survey conducted in Sweden found that postpartum depression was more prevalent among women of higher socioeconomic status (Flyckt et al., 2010). Furthermore, the COVID-19 pandemic has created unique stressors for postpartum women, such as increased social isolation, disruptions in healthcare access, and financial instability, which have contributed to the disparities in the prevalence of PPD. A study conducted in the United States reported that postpartum women who had financial problems had a higher possibility of developing PPD (Felder et al., 2021).

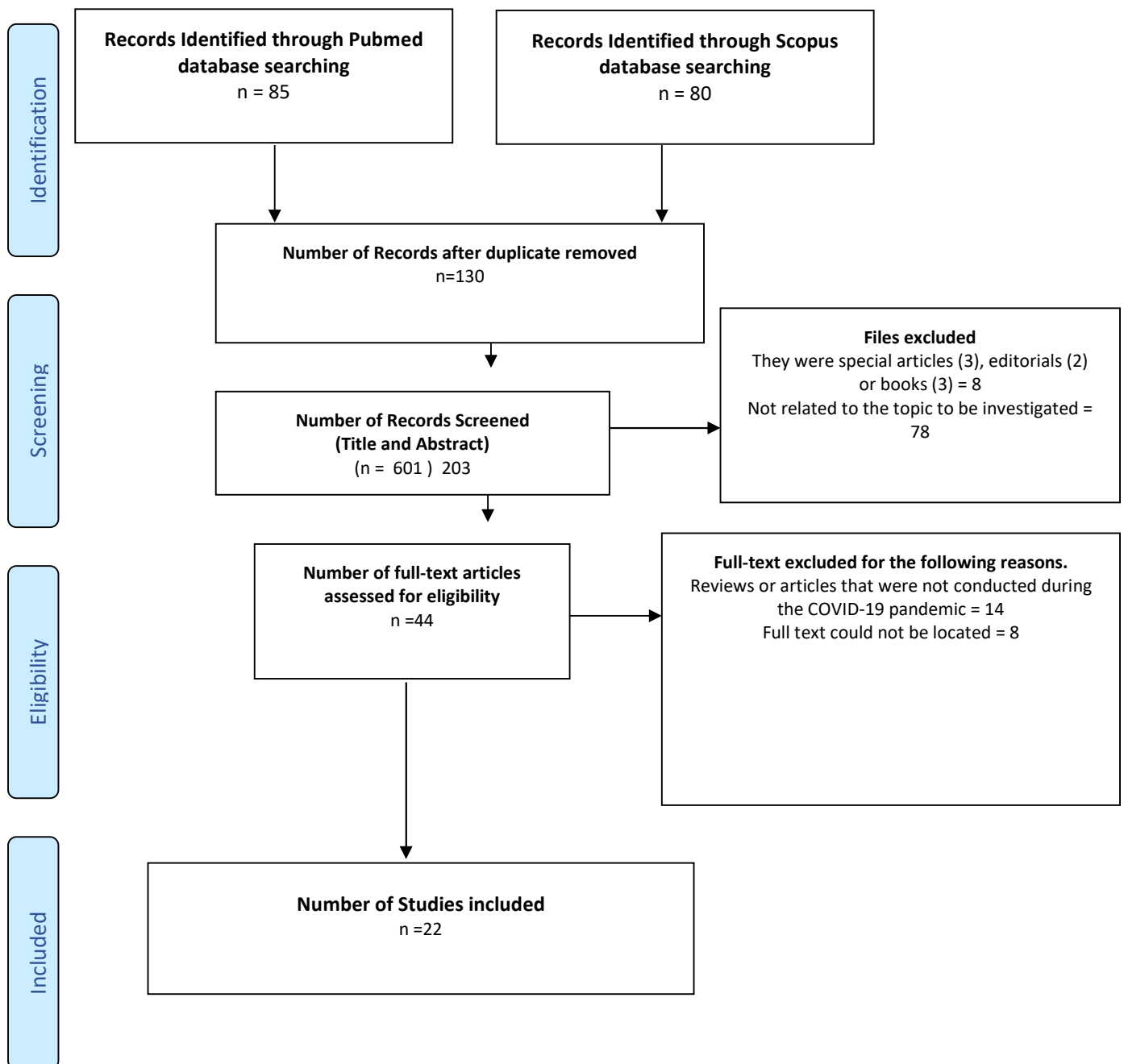
Despite the varying prevalence rates across different populations, it is evident that postpartum depression is a mental health problem that requires intervention. Healthcare professionals should prioritize

postpartum mental health screening and support to identify and address postpartum depression promptly and effectively (Garapati et al., 2023)

Yan et al. (2021) showed that the prevalence of PPD has increased during the COVID-19 pandemic. A survey conducted in China

found that the rate of postpartum depression increased from 10.3% before the pandemic to 23.8% during the pandemic. Similarly, a study by Silverman et al. (2020) conducted in the United States found that the prevalence of PPD was 15% higher during the COVID-19 pandemic than before it.

Diagram1. PRISMA Flow Diagram for the different phases of the review



Another study by Taubman-Ben-Ari et al. (2021) conducted in Israel among 409 new mothers found that the COVID-19 pandemic had negative consequences on the mental health of new mothers, with 42.9% reporting symptoms of anxiety, depression, or stress. These findings reveal that the COVID-19 pandemic has had significant negative consequences on the mental health of new mothers, increasing the prevalence of postpartum depression. Healthcare providers should be aware of these increased rates and provide appropriate screening and support for new mothers during this challenging time.

Differences in Prevalence Rates among Different Populations

The prevalence of PPD varies significantly among different populations and is influenced by various factors such as socioeconomic status, culture, and healthcare access. In this article, we will examine the differences in prevalence rates of PPD among different populations and the factors that contribute to these disparities. Research studies have reported a higher prevalence of PPD among women from low-income and marginalized populations. For example, a study conducted in Brazil showed that PPD was significantly higher among low-income females (Silva et al., 2020). Similarly, a survey conducted in India showed a higher prevalence of PPD among women who had limited access to healthcare services (Benerjee et al., 2020).

Furthermore, cultural factors can also play a role in the prevalence of PPD. A study conducted in Pakistan reported a higher prevalence of PPD among women who had experienced domestic violence. The study also found that cultural beliefs about motherhood and family support systems influenced significantly the prevalence of PPD in this population (Ali et al., 2020). In addition to socioeconomic and cultural factors, healthcare access and quality of care can also impact the prevalence of PPD. A study conducted in the United States reported that women who had difficulty accessing healthcare services had a higher prevalence of PPD compared to women who had adequate access to healthcare services. This highlights the importance of ensuring equitable access to quality healthcare

services for all women, regardless of their socioeconomic status (Seth et al., 2020).

A study conducted in China in the COVID-19 period reported a significant increase in the prevalence of PPD (Chen et al., 2021). Similarly, a survey conducted in the United States during the pandemic found an increase in the percentage of PPD (Saccone et al., 2020).

Moreover, a study conducted in Brazil reported a higher prevalence of PPD among low-income women during the pandemic. Similarly, a study conducted in India reported a higher prevalence of PPD among women who experienced financial difficulties during the COVID-19 outbreak (Pereira et al., 2021).

Overall, the differences in prevalence rates of PPD among different populations can be attributed to various factors, such as socioeconomic status, cultural beliefs, and healthcare access (Bhattacharya et al., 2021).

Risk Factors for Postpartum Depression During the Pandemic of COVID-19

The COVID-19 pandemic has introduced new risk factors that may increase the likelihood of developing PPD. One risk factor for PPD during the pandemic is social isolation. Many women may be unable to see family and friends, attend support groups, or have in-person contact with healthcare providers due to social distancing measures. According to Saccone et al. (2020), women who experienced social isolation during the pandemic were more likely to have symptoms of PPD. Lack of social support can make it difficult for women to cope with the challenges of motherhood, which may contribute to the development of PPD.

Another risk factor is the stress caused by the pandemic. The uncertainty, fear, and disruption of daily life can lead to increased stress levels, which can exacerbate PPD symptoms. A study by Razurel et al. (2021) found that COVID-19-related stress was associated with increased PPD symptoms. Women may also be concerned about the health of their newborns and the potential for infection, which can further increase stress levels.

Access to healthcare may also be limited during the pandemic, which can make it difficult for women to receive timely and appropriate treatment for PPD. Telehealth services may be available, but not all women have access to technology or may be unable to use it due to the demands of caring for a newborn. A study by Kozhimannil et al. (2021) found that access to mental health services was insufficient during the pandemic, particularly for low-income and minority women.

In conclusion, the COVID-19 pandemic has introduced new risk factors for PPD, including social isolation, stress, and limited access to healthcare. Healthcare providers should be aware of these risk factors and take steps to support women during this challenging time. This may include providing virtual support groups, telehealth services, and referrals to mental health providers. By addressing these risk factors, healthcare providers can help prevent or mitigate the impact of PPD during the pandemic.

Social Isolation and Lack of Social Support

The COVID-19 pandemic has created unique challenges for new mothers, including an increased risk for postpartum depression (PPD). One of the key risk factors for PPD during the pandemic is social isolation and lack of social support. Social isolation is an important problem for new mothers during the pandemic. This may mean that new mothers are unable to see family and friends, attend support groups, or have in-person contact with healthcare providers. A study by Guintivano et al. (2021) found that social isolation was associated with a higher risk for PPD. Social isolation can also lead to feelings of loneliness, which is a risk factor for depression (Valtorta et al., 2016).

Lack of social support can also contribute to the development of PPD. Women who lack social support may feel overwhelmed by the demands of motherhood, which can increase their risk for PPD. A study by Asiodu et al. (2020) found that social support was a protective factor against PPD, particularly for Black and Hispanic women.

Financial Insecurity

Financial insecurity is another significant risk factor for PPD in the COVID-19 pandemic. The economic impact of the pandemic has left many families struggling to make ends meet, which can increase stress and exacerbate mental health concerns.

Research suggests that financial insecurity is associated with a high risk of postpartum depression. A survey by Kozhimannil et al. (2016) found that women who reported financial strain during pregnancy were more likely to experience PPD. Financial insecurity makes new mothers feel instability, which can lead to increased anxiety. Moreover, financial hardship may limit a mother's ability to access healthcare services, which may exacerbate mental health concerns. Financial insecurity can also impact maternal and child health outcomes. Women who experience financial strain during pregnancy may have difficulty affording healthy food, prenatal care, and other essential resources.

This may increase the risk of complications during pregnancy and childbirth, which can have long-term consequences for maternal and child health (Bailey et al., 2017). The consequences of financial insecurity for maternal mental health can also extend to the infant. A study by Raver et al. (2019) found that maternal stress during the postpartum period was associated with infant cognitive and socioemotional development. PPD can also lead to decreased maternal-infant bonding and difficulties with infant feeding, which can have negative consequences for infant health and development.

In conclusion, financial insecurity is a significant risk factor for PPD during the COVID-19 pandemic. Healthcare providers should be aware of the impact of financial strain on maternal and child health and take steps to support families experiencing financial insecurity. This may include connecting families with community resources, providing financial counseling, and offering support for mental health concerns.

Fear of Contracting the Virus

The fear of contracting the virus of COVID-19 is a significant risk factor for postpartum PPD in the pandemic. The anxiety and stress caused by the pandemic can exacerbate existing mental health concerns and create new ones for new mothers. The COVID-19 pandemic has created an environment of fear and uncertainty, and this fear can be especially acute for new mothers. The fear of contracting the virus may lead to social isolation and avoidance of healthcare settings, which can increase the risk of PPD (Barnett et al., 2021). A survey showed that the fear of contracting COVID-19 was associated with increased depression and anxiety symptoms in pregnant women (Clout et al., 2021). The consequences of the fear of contracting the virus for maternal mental health can also impact the infant. Maternal stress during the postpartum period can lead to difficulties with infant feeding and decreased maternal-infant bonding, which can have negative consequences for infant health and development (Bridges et al., 2020).

Additionally, the fear of contracting the virus may lead to avoidance of healthcare settings, which can limit access to essential postpartum care for both the mother and infant. It is crucial to address the fear of contracting the virus and provide support for new mothers during the pandemic. Healthcare providers can offer telehealth options and alternative care settings to address concerns about exposure to COVID-19 (Alhomaizi et al., 2021).

Education about the safety measures in place in healthcare settings and the benefits of postpartum care can help alleviate anxiety and encourage new mothers to seek care. Additionally, healthcare providers can offer mental health support and resources to address the emotional toll of the pandemic on new mothers. In conclusion, the fear of contracting the COVID-19 virus is a significant risk factor for PPD during the pandemic (Leanne et al., 2022).

Health Concerns for the Infant

Postpartum depression is a significant concern for maternal mental health, but it can also have adverse effects on the infant's

health. The COVID-19 pandemic has added additional health concerns for infants, and the impact of PPD during this time can exacerbate these concerns (Jackson et al., 2022).

Infants of mothers experiencing PPD are at increased risk of developmental delays, behavioral problems, and social-emotional difficulties (Letourneau et al., 2012). The COVID-19 pandemic has added additional concerns for infant health, including the risk of infection and disruptions in routine healthcare (Barnett et al., 2021). Infants born to mothers with PPD during the pandemic may be at higher risk for COVID-19 infection due to exposure to caregivers with the virus or inadequate access to essential care (Khoury et al., 2021).

The impact of PPD on maternal-infant bonding can also have long-term consequences for infant health. A study by Slomian et al. (2021) found that poor maternal-infant bonding was associated with an increased risk of infant mortality, poor physical health, and developmental delays. The pandemic has added additional stressors to the postpartum period, including social isolation and disruptions in social support networks, which can exacerbate difficulties with maternal-infant bonding (Bridges et al., 2020).

Healthcare providers play a crucial role in addressing the health concerns of infants born to mothers experiencing PPD during the pandemic. Telehealth options and alternative care settings can be used to address concerns about exposure to COVID-19 while still providing essential care. Education about the importance of routine healthcare and vaccinations can help ensure that infants are receiving necessary preventative care. Additionally, healthcare providers can offer resources for maternal mental health support to improve maternal-infant bonding and reduce the risk of long-term health consequences for the infant (Paul et al., 2021).

Effects of Postpartum Depression on Women during the Pandemic

Physical Effects

Postpartum depression has an important impact on women's physical health in the

COVID-19 pandemic. The pandemic has added additional stressors and challenges, exacerbating the impact of PPD on women's overall well-being. A survey by Shachar et al. (2020) found that women with PPD during the pandemic were more likely to report physical symptoms such as fatigue and headaches. These physical symptoms can be caused by the increased stress and anxiety of the pandemic, which can lead to disruptions in sleep patterns and other physiological processes. In addition to these general physical symptoms, women with PPD may also experience specific physical health problems related to pregnancy and childbirth. For example, women with PPD may have many possibilities of developing complications related to cesarean section delivery (Osman et al., 2020).

It is crucial for healthcare providers to be aware of the physical effects of PPD on women during the pandemic and to provide adequate support. This may include monitoring for physical symptoms and providing referrals for medical care when needed. Additionally, healthcare providers should work with women to develop strategies for managing stress and improving sleep and other lifestyle factors that can impact physical health (Patel et al., 2012).

Psychological Effects

The COVID-19 pandemic has made it even more challenging for new mothers to cope with the challenges of postpartum depression. One study found that new mothers were at a higher risk of developing PPD during the pandemic compared to before the pandemic. The isolation and lack of social support that many new mothers experienced during lockdowns contributed to increased feelings of loneliness and anxiety, which are risk factors for PPD (Hassan et al., 2021). Moreover, women who contracted COVID-19 during their pregnancy or postpartum period were at an even higher risk of developing PPD (Bajaj et al., 2021).

Postpartum depression can have severe psychological effects on women, including feelings of hopelessness, guilt, and worthlessness. PPD can also cause a loss of interest in activities that were once entertaining and lead to difficulty sleeping or oversleeping. These symptoms can

negatively impact a woman's ability to care for her newborn and form a bond with her child. PPD can also have long-term consequences on a woman's mental health (Kroh et al., 2021).

One study found that women who experienced PPD were more likely to develop depression and anxiety later in life (Cox et al., 2020). Therefore, it is crucial to identify and treat PPD early to prevent long-term mental health complications.

Interventions to Address PPD in the COVID-19 Pandemic

The pandemic has made it more challenging for new mothers to cope with postpartum depression. However, there are interventions available to address this disorder during these challenging times. Teletherapy, peer support groups, mindfulness-based interventions, physical exercise, and medication are all potential interventions that healthcare providers can offer to new mothers to help them manage PPD during the pandemic. Teletherapy, which involves providing mental health services remotely using video or phone calls, has become a popular intervention for PPD during the pandemic. It allows new mothers to access mental health services from their homes and can be a more convenient option for women who may not have access to in-person care due to social distancing measures (Goyal et al., 2020).

Peer support groups can be a helpful intervention for women experiencing PPD during the pandemic. These groups can help new mothers to communicate with other mothers who are going through the same experiences. They can be a valuable source of information and can help women feel less isolated and alone (Santos et al., 2020).

Physical exercise is an effective intervention for depression and anxiety. Exercise can improve mood and reduce stress, which can be helpful for women experiencing PPD during the pandemic. Women can engage in physical exercise from the comfort of their homes using online classes or exercise apps (Davenport et al., 2020).

In some cases, medication may also be necessary to treat PPD. Antidepressant medications, with selective serotonin

reuptake inhibitors (SSRIs), can help new mothers treat PPD. However, healthcare providers must consider the advantages and disadvantages of medication during pregnancy and breastfeeding (Dimitrov et al., 2021).

In conclusion, the virus of COVID-19 has had an important effect on the mental health of new mothers, increasing the risk of developing postpartum depression (PPD). It has created unprecedented stressors, such as financial insecurity, fear of illness, social isolation, and disruption of routines, which can contribute to the development of PPD.

Various interventions can be used to address PPD during the pandemic, including support groups, psychoeducation, and online mental health services. Support groups can provide new mothers with a sense of community and social support, while psychoeducation can increase awareness and knowledge of PPD, reduce stigma, and promote early identification and treatment of the disorder. Online mental health services can provide accessible and convenient support to new mothers who may be unable to access in-person services due to the pandemic (Moore et al., 2016).

Healthcare providers should be aware of the increased risk of PPD during the pandemic and consider incorporating interventions such as support groups and psychoeducation into their treatment plans for women with PPD. Early identification and treatment of PPD are crucial for improving outcomes for new mothers and their families. In addition, policymakers should prioritize maternal mental health by providing funding for mental health services which will be addressed to new mothers. (Moore et al., 2016; Cameron et al., 2020).

Overall, addressing PPD during the pandemic requires a multi-faceted approach that considers the unique challenges of the pandemic and provides accessible and evidence-based interventions to support new mothers and their families (Moore et al., 2016).

Implications for Future Research

Future research on PPD during the pandemic should aim to deepen our understanding of the unique challenges faced by new mothers

during this time and identify effective interventions that can address PPD in the context of the pandemic. One area of research that warrants attention is the impact of the pandemic on maternal mental health disparities. Research has shown that women from disadvantaged backgrounds are at higher risk for PPD, and the pandemic may exacerbate these disparities by creating additional stressors, such as financial insecurity and lack of access to healthcare (Santos et al., 2019).

Future research should explore how interventions aimed at reducing PPD during the pandemic can effectively reach and support women from disadvantaged backgrounds. Another area of research that requires attention is the effectiveness of online mental health services for PPD during the pandemic. While these services have the potential to provide accessible and convenient support for new mothers, it is unclear how effective they are in addressing PPD. Future research should investigate the effectiveness of online mental health services, such as teletherapy and virtual support groups, in reducing PPD symptoms and improving maternal mental health outcomes during the pandemic (Muzik & Hamilton, 2020).

Finally, future research should also examine the long-term mental health outcomes of new mothers who experience PPD during the pandemic. The pandemic has created significant stressors for new mothers, and it is unclear how these stressors may impact their mental health in the long term. Research should explore the long-term mental health outcomes of new mothers who experience PPD during the pandemic and identify interventions that can promote recovery and resilience (Wall et al., 2023).

Conclusion

The COVID-19 pandemic has created significant challenges for new mothers, increasing the risk of PPD. It is important to provide appropriate support and interventions to prevent and treat PPD during the pandemic. Mental health professionals should consider the unique challenges faced by new mothers during the pandemic and provide tailored interventions accordingly. Policymakers should also prioritize maternal

mental health by ensuring access to affordable and accessible mental health services and addressing the underlying social and economic factors contributing to PPD.

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