

Postnatal Depression in the Context of COVID-19: A Framework for Intervention

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ABSTRACT: *Deep psychological effects of the SARS-CoV-2 virus include everything from sadness and suicidal thoughts to stress and generalized anxiety disorder. The COVID-19 pandemic has been connected to mothers psycho-emotional discomfort, according to numerous studies conducted over the past year. Women are at a significant risk for depression, especially those who are of childbearing age. Evidence suggests that postpartum depression in women may have started as a pregnancy-related condition. The aim was to identify the occurrence of depression among postnatal mothers which can be a basis for an intervention program. This is a descriptive cross-sectional study of postpartum mothers who completed the Edinburgh Postnatal Depression Scale (EDPS) as a screening and there are 105 postpartum women in the City of Santiago, Philippines as respondents. Most of the mothers were at age bracket 24-27 (45.7%) and they multipara (51.1%). The study revealed none/minimal depression (5.32) and found no significant difference between the level of severity to age and type of mothers. For pregnant women, the postpartum period is an important time because it is a period of major physical, emotional, and social changes that have an impact on their quality of life. Depression and anxiety symptoms are less common when there is a protective factor and strong social support. In order to integrate and still emphasize mental health assessment, screening during postpartum check-ups, and raising awareness of postpartum depression among mothers, a common condition with potentially harmful consequences that is thought to be a universal dilemma, it is necessary for both obstetricians and psychiatrists to take a multidisciplinary approach. For mothers, receiving social support is crucial to lowering their risk of PPD, especially after giving birth.*

KEYWORDS: *COVID-19, Postpartum Period, Postnatal Depression, Edinburgh Postnatal Depression Scale, Social Support*

I. INTRODUCTION

The Covid-19 pandemic has increased psycho-emotional vulnerability globally. Due to the immediate threat to human life and the widespread psychological load this viral epidemic has caused, people around the world are fearful for their safety. Deep psychological effects of the SARS-CoV-2 virus include everything from sadness and suicidal thoughts to stress and generalized anxiety disorder. This is not unusual because most clinical signs are amplified during lockdowns due to the fear of an impending socioeconomic disaster, and there have been previous experiences of mental burden in recent epidemics. [1]. Healthcare delivery systems all across the world underwent revamping with the start of the COVID-19 pandemic in order to control its viral propagation. The main preventative measures and strict laws restricting human interaction were put into place. These precautions included screening, case isolation, contact tracing, close contact quarantine, general lockdown, and social seclusion. [2]. Due to this health issue, it is possible that progress toward achieving a number of Sustainable Development Goals (SDGs), such as advancing gender equality and women's suffrage, lowering infant mortality, and improving maternal health, would be impacted by mental health. One of the SDGs is to increase mental health and wellbeing while reducing premature mortality from non-communicable diseases by one-third by 2030. [3]. According to this concept, pregnant women are said to have increased levels of anxiety when it comes to prenatal care and labor. Due to rigorous visiting laws, women are typically required to withdraw from their supportive networks and must be present alone during prenatal appointments and even birth. Postpartum depression (also called PPD) is a medical condition that many women get after having a baby. It's strong feelings of sadness, anxiety (worry) and tiredness that last for a long time after giving birth.

Postpartum depression (PPD) may be brought on by loss of social support and prolonged exposure of pregnant women to stressful situations. [4].

Mothers are particularly susceptible after giving birth. It is well recognized that the postpartum period creates a wide range of emotions in new moms, including sadness, fear, weariness, guilt, and confusion. It is also a time when psychiatric illnesses including depression, anhedonia, and anxiety are more likely to emerge. [5,6]. Due to a number of biological factors, including genetic predisposition and hormonal changes related to reproductive function, women are more likely to experience depression.[7] Women are particularly susceptible to depression as they approach childbearing age. Numerous papers contend that the start of the illness during pregnancy and postpartum depression can both contribute to and be a part of a continuum. [8]. The postpartum period comprises of several changes in marital and family relations [9]. The articles show that 85% of women experience “slight depression or baby blues,” shortly after giving birth [10]. The slight depression is often accompanied by unexpected mood swings. Nevertheless, the mood swings are not permanent and disappear after some time. In case this, continue, the depression can restrict the mother’s activities of daily living including their ability to concentrate and relate with other people. If untreated, the condition can last for up to one year. For that reason, patients should be evaluated for serious mood disorders after two weeks of slight depression following birth (WHO guideline). Additionally, it is expected that 5% to 25% of first-time mothers will experience postpartum depression (PPD), which is defined by depressive signs and symptoms that appear within the first year of the puerperium or postpartum period. Low mood, loss of enjoyment, decreased energy and activity, noticeable functional impairment, diminished self-esteem, and thoughts or deeds of self-harm or suicide are further characteristics. [11]

Postpartum depression (PPD) arises in 10-15% of all maternal deliveries around the world [12]. Every year, 200,000 teens give birth in the Philippines, a developing nation. The social stigma associated with early pregnancy has made it even harder for the majority of these women to receive mental health services and emotional support in their communities. [13] In context, this depression during postpartum period usually occurs in 10-18% of women following the birth of their child. Furthermore, the environment, low social support system and low health service access have culminated in a precarious situation for pregnant girls in the Philippines, as many communities do not have regularly available mental health professionals and counselors to assess them. [13]

Similarly, the World Health Organization (WHO) estimated that around the world about 10% of pregnant women and 13% of women who have just given experience a mental disorder, primarily depression. In developing countries like India, this is even higher, i.e., 15.6% during pregnancy and 19.8% after childbirth. [14]. Although this number has been largely calculated through statistical extrapolation rather than an actual count, the 13th Congress of the Republic of the Philippines reported that there were projected to be 126,826 instances of postpartum depression in the Philippines in 2004. [15]. Unfortunately, there is scarcity of local studies on what exact prevalence of this disorder because of this lack information and data this disorder is quite alarming [16].

It is crucial for every researcher and the majority of healthcare professionals, including nurses, midwives, doctors, and allied professionals, to recognize postpartum depression during the height of a global pandemic as the COVID-19 pandemic and the public health response to it progress. Therefore, compared to women who gave birth before the pandemic, postpartum patients during that time may have more varied experiences. [17]. As demonstrated by several researchers, the prevalence of postpartum depression globally is between 10% and 20% [18,19]. The World Health Organization (WHO) communicated that the occurrence of depression in the postpartum period is three times more likely at any other period in a woman’s life. In developed countries, it said that depression is the most common postnatal complication. Research shows that between 5% and 25% of mothers experience depressive episodes with the prevalence rates for socioeconomically disadvantaged groups higher at an approximated 38% [18, 20,21]. For example, the prevalence of postpartum depression in Saudi Arabia is 23.9% [22]. Physiological, psychological, sociodemographic, and perceived social support factors can all contribute to depression. Given the substantial morbidity linked to PPD, prevention of the disorder should consequently be given top priority. It is advised that healthcare practitioners do PPD screenings on high-risk moms as a result. Both before and after labor, this is essential. For early management and prevention of mental health disorders, the results of the screening process that identify PPD risk should be forwarded to community mental health facilities. Furthermore, healthcare administrators should devise plans to create suggestions and activities to avoid PPD. [23, 24, 25].

Henceforth, a need was felt for reviewing the psychological effects of isolation due to COVID-19 containment policies on the mental health of postnatal mothers. Literature is emerging in this area, and data

from the South Asian continent is still few. Conventionally, screening of mental health has been carried out by the validated Edinburgh Postnatal Depression Scale (EDPS) in postpartum women. The aim of the study was to identify the occurrence of postnatal depression in the context of Covid-19 that may serve as a framework for an intervention program.

1.1 Research Questions

Specifically, the study answers the following:

1. What is the demographic profile of the respondents in terms of:
 - 1.1 Age
 - 1.2 Type of Mothers
2. What is the level of postpartum depression based on EDPS?
3. Is there a difference in the level of postpartum depression based on demographic profile?

II. METHODS

2.1 Research Design. The investigation was conducted utilizing a quantitative, descriptive cross-sectional study design. According to the National EMSC Data Analysis Resource Center (2010) and Thomas (2020), this design implies that a specific condition and potentially related factors are gathered and measured at a specific time for a defined population in which these variables are observed without influencing them.

2.2 Instrument. The Edinburgh Postnatal Depression Scale (EPDS) which was developed in 1987 for screening postpartum women was used in this study. The Filipino translation came from Edinburgh Postnatal Depression Scale (EDPS): translated versions Department of Health, Government of Western Australia, 2006.

The Edinburgh Postnatal Depression Scale (EDPS) is a list of 10 screening questions that can help determine whether a parent exhibits signs of depression and anxiety that are typical of pregnant and postpartum women. The United Kingdom's consultant psychiatrist Jon Cox and his associates Jeni Holden and Ruth Sagovsky created the EPDS in the 1980s. Many nations now utilize a self-report questionnaire to check for postnatal depression. In recent years, the EDPS has also been used to screen for depression in both the prenatal and postnatal periods in both men and women.

There are 10 statements that are specifically related to prenatal depressive symptoms. Each statement includes four potential answers, and the scores range from 0 to 3 depending on how serious the answer is. This 10-item self-report survey has been used with many different demographics. A score of at least 10 points was utilized to screen for potential cases of postpartum depression, and higher values, up to a total of 30, indicate more severe depressed symptoms. In response to question #10, a score of at least one point suggests potential suicidal intent. The severity range for EDPS, on the other hand, was created by the MGH Center for Women's Mental Health of Harvard Medical School as follows: None or minimum depression (0–6), mild depression (7–13), moderate depression (14–19), and severe depression (19–30).

2.3 Study Site and Participants. The study was carried out in the Philippines specifically in the City of Santiago. 105 Postnatal mothers were gathered to take part in the study using a purposive sampling method.

2.4 Data Analysis. Data were manually reviewed for consistency, completeness, and entry in MS Excel before being exported to SPSS version 23.0 for analysis. Descriptive statistics were used for the data analysis. In order to determine the prevalence of postpartum depression for the demographic information and scale interpretation of the MGH Center for Women's Mental Health of Harvard Medical School, frequency and percentage were specifically used to summarize the data and results. On the other hand, an inferential statistic (ANOVA and T-test) was applied to ascertain whether there was a statistically significant difference between the level of severity and the demographic profile.

2.5 Ethical Considerations. Ethical aspect was considered important to protect the participants and the involved hospitals. Informed consent regarding what was the survey questionnaire and appropriate permission was provided. Likewise, confidentiality was strictly maintained to ensure privacy of the data. Correspondingly, anonymity also upheld to secure the respondent's identity, it is strictly implied to name, age and other personal details. Moreover, participants were allowed to withdraw at any point of data gathering since the participation is voluntary by not signing the informed consent or not answering the survey questionnaire.

III. RESULT

Table 1. Demographic Profile of Respondents (N=105)

Age Bracket	F	%
20-23	30	28.6
24-27	48	45.7
28-31	14	13.3
32-40	13	12.4
First Time Mothers		
Primipara	20	48.9
Multipara	85	51.1

According to the respondents' profiles, the majority of them are in the age range of 24-27 (45.7%) and 85 of the 105 are multipara (51.1%).

Table 2. Edinburg Postpartum Depression Scale of the respondents

Level of Severity	f	%
None/Minimal (0-6)	68	64.8
Mild (7-13)	23	21.9
Moderate (14-19)	14	13.3
Severe (19-30)	-	-
Average:	5.32 (None/Minimal Depression)	

According to the Edinburg Postpartum Depression Scale, 64.8% of women experienced none/minimal depression, as seen in table 3. There were responses for mild and moderate depression, respectively, of 21.9% and 13.3%. Henceforth, a score of 5.32 was considered to indicate none/minimal depression based on the MGH Center for Women's Mental Health at Harvard Medical School.

Table 3. One-way ANOVA between level of severity and age

Level of Severity	AGE	N	df	F	p-value
None/Minimal	20-23	19	3	0.63	0.6
	24-27	30			
	28-31	10			
	32-40	9			
Mild	20-23	8	3	0.63	0.82
	24-27	10			
	28-31	2			
	32-40	3			
Moderate	20-23	3	3	0.63	0.52
	24-27	8			
	28-31	2			
	32-40	1			

The one-way analysis of variance used to determine whether the variables' significant differences are shown in the results above. It demonstrates that there is no significant difference between age and severity level.

Table 4. Independent T-test between level of severity and type of mothers

	Type of mothers	N	t	df	p-value
None/Minimal	Primipara	12	0.68	103	0.501
	Multipara	56			
Mild	Primipara	4	0.09	103	0.926
	Multipara	19			
Moderate	Primipara	4	0.85	103	0.399
	Multipara	19			

The aforementioned data demonstrates that there is no significant difference between the type of mothers and the severity of depression.

IV. DISCUSSION and CONCLUSION

According to Dr. Carolina U. Rayco, national executive director of the Philippine Mental Health Association, families can support mental health by upholding activities that enhance the lives of each member and bolster their social networks. [26]

Postpartum mental health is an important but relatively unnoticed outcome during COVID-19 health crisis. The mandated use of face masks, fear of getting the infection, restrictions of visitors in the hospitals, and social isolation may have helped to slow harboring the infection and decrease the incident rates, to an expense, it also may contribute to worse postpartum mental outcomes which known as postpartum depression. In this study, it can be concluded that respondents experience none to a minimal depression (5.32) as evaluated using the EDPS. A protective factor that lowers the risk of depressed and anxious symptoms is high social support. The mother needs a lot of care and assistance in the postpartum period. Social support is the ability to reach out for and receive assistance from others when necessary. When assistance is most needed, it is believed to be a backup from family, friends, coworkers, neighbors, professionals, and organizations. On contrary, if a mother, lacks social support it is possibly accompanied by dissatisfaction and problems in marital relationships and financial limitations can lead to severe stress causing PPD. Similarly, with the study of Kim, Connolly & Tamim (2014) PPD was experienced by 14.0% among teen mothers and 7.2% among adult mothers ($p < .001$). Overall, teen mothers reported receiving more support during pregnancy and after birth than adult mothers ($p < .010$) but contrary on some point in his study that both teen and adult mothers were approximately five times more likely to experience PPD if they received no support or minimal support after the birth of the baby (95% CI, 3.51-7.36). [27].

COVID-19 has a greater impact on communities within the four walls of many houses than it has on communities at large. Every family is put to the test by difficulties like the current pandemic. Especially now that COVID-19 threatens public health, health institutions must establish appropriate infrastructure to accommodate the varied needs of peripartum patients, including educational and psychosocial services amid distracting conditions like pandemics. On the other hand, postpartum depression is a treatable disease if it is quickly identified by a qualified healthcare professional and treated with a tailored plan of treatment that includes social support, counseling, medication, and, if necessary, hospitalization. [28] Understanding the relationship and function of social support after childbirth is crucial for creating a successful intervention. Mothers' education should be taken into consideration as a protective factor.

V. IMPLICATION TO PRACTICE

The likelihood of postpartum depression in the Covid-19 scenario is demonstrated by the strength of the evidence from this research. Postpartum depression incidents can be decreased with the help of family, friends, or the local community. Therefore, understanding the potential target demographic, such as age, who are susceptible to postpartum depression, is necessary to address the correct intervention and care, and the value of family support in preserving a mental health status during a health crisis is vital to everyone.

The examination of mental health must be included in postpartum check-ups. Additionally, it is beneficial to train the primary healthcare providers at the various healthcare facilities on how to use the abovementioned scale while counseling postpartum women who are at a high risk of developing postpartum depression. Emphasis should be placed on the significance of Republic Act No. 11036, also known as the act establishing a national mental health policy, which is intended to improve the provision of integrated mental health services, promote and protect human rights, use psychosocial health services, and appropriate funds for such purposes.

The Mental Health Act strengthens advocacy for mental health, particularly among vulnerable community members like expectant and nursing mothers, young children, and the elderly. since they are one of the groups most impacted by health crises.

Additionally, it is advised to reinforce the connections within the healthcare delivery system since patients who have been recognized as having postpartum depression may be referred to a government tertiary hospital for counseling, management, and psychological assessment. The first step, if a healthcare professional detects PPD, is to offer the patient a referral while bearing in mind that many PPD sufferers are too overburdened, worn out, or afraid to seek treatment.

In order to give new mothers broad support from their families and the community and prevent postpartum depression, the Maternal Newborn Child Health & Nutrition Strategy must also be enhanced and improved.

Lastly, for future researchers, there is a need to improve the methodology as qualitative research is recommended.

ACKNOWLEDGMENTS

The author would like to appreciate the University of La Salette, Inc. for the unending kindness and support in pursuing this study.

COMPETING INTERESTS

The authors declare that they have no competing interests.

Funding

N/A

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