

Psychological Factors in Postpartum Depression: A study at General Hospitals of Banjarmasin

Winda Ayu Fazraningtyas
{windaayu@unism.ac.id}

Sari Mulia University, Banjarmasin, South Kalimantan, Indonesia

*windaayu@unism.ac.id

Abstract. There is a gradual change in the role of pregnant women as they move from single status to married state and, eventually, in becoming a mother. Nonetheless, mental health is important to note, but often a neglected component of reproductive health. This study aimed to determine and analyze the psychological factors associated with postpartum depression. This study used quantitative design with descriptive survey method. A total of 88 participants were included coming from the two General Hospital in Banjarmasin, South Kalimantan, Indonesia. EPDS, BDI-II, and PPDRF checklist were used. It was found out that there is no significant association between the level of depression and history of depression and knowledge of parenting. It was also discovered that psychological factors play a great role in increasing the incidence of postpartum depression in Banjarmasin i.e., fear of delivery, feeling unhappy being pregnant, and weight gain.

Keywords: postpartum depression, psychological factors

1 Introduction

Maternity deaths are particularly high vulnerable because postpartum women belong to the vulnerable group, who are expected to experience physiologic changes experienced during postpartum, both physically and psychologically [1], [2]. Not all mothers are able to adjust to the psychological changes brought about the postpartum period. Psychological changes during postpartum period bring changes in certain attitudes and feelings of postpartum women and require adaptation [3]. In addition, there is a gradual change in the role of pregnant women as they move from single status to married state and eventually in becoming a mother.

Moreover, during pregnancy, body changes experienced by a postpartum woman also affects her psychological condition. Disorders that occur in pregnancy and childbirth can include stress, conflict, regression, anxiety, emotional instability, ambivalence, and depression [4]. Depression, occurring in mothers, can appear in the postnatal or postpartum period. Postpartum depression is like a thief which takes away the happiness and compassion that a mother feels and is given to a newborn [5]. Additionally, mothers with postpartum depression feel difficulty to conduct and complete daily activities [6].

Mental illness that happens in postpartum women is significantly associated with morbidity and disability [7]. According to Center for Disease Control and Prevention (CDC) (2017), about 1 in 9 women experience postpartum depression [8]. There are about 10% of

pregnant women and 13% of mothers who experience mental disorder, especially depression worldwide. In the other words, 15.6% of pregnant women and 19.8% of mothers experience depression in developing countries [7]. This figure is higher than that of women who experience postpartum depression worldwide. According to a study by Haque, et al. (2015) the prevalence of postpartum depression and anxiety in women from Asian countries were higher compared to Western countries [9]. Moreover, Klainin & Arthur (2009) investigated that the incidence of postpartum depression in Asian countries ranged from 3.5% to 63.3% where Malaysia and Pakistan had the lowest and highest respectively [10]. Meanwhile, in Indonesia, the incidence of depression is not known exactly, either for pregnant women or after childbirth. However, according to a study conducted by Dira, et al. (2016) in the City of Denpasar, it revealed that as much as 20.5% experienced postpartum depression [11].

According to Humayun, et al. (2013), mental health is important to note but often a neglected component of reproductive health [12]. Hence, the study on postpartum depression conducted in Indonesia is still limited, especially in Banjarmasin. Several studies conducted in Indonesia only focused of the socio-demographic factors. Therefore, a study on postpartum depression is considered. Thus, this study aimed to determine and analyze the psychological factors associated with postpartum depression.

2 Methods

This study used quantitative design using descriptive survey method. Participants in this study were the population of postpartum women who were hospitalized in Ulin General Hospital and Dr. H. Moch. Ansari Saleh General Hospital of Banjarmasin City, selected using purposive sampling. However, all participants were screened using Edinburgh Postnatal Depression Scale (EPDS), Beck Depression Inventory (BDI)-II instruments, and Postpartum Depression Risk Factors (PPDRF) checklist with the total number of participants was 88 participants.

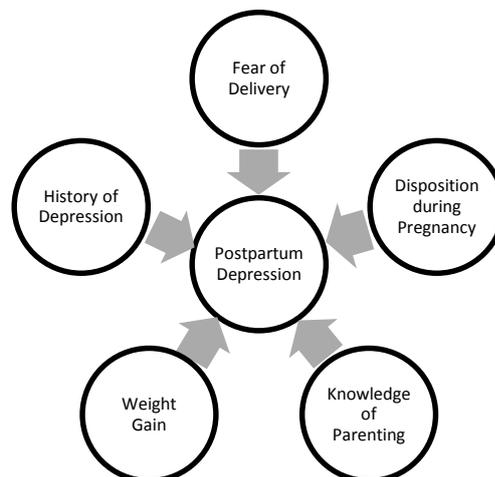


Fig. 1. The conceptual framework of psychological factors associated with postpartum depression

Descriptive statistic was used to describe the participants' characteristics that include frequencies and percentages. Participants' characteristics include psychological factors, e.g., fear of delivery, disposition during pregnancy, knowledge of parenting, weight gain, and history of depression. Furthermore, data analysis used in this study was chi-square test where this analysis was used to know the relationship of level of postpartum depression and the psychological factors. The significance level (α) that was used in this study was 0.05. Chi-square was computed by summing differences between the observed frequencies in each cell and the expected frequencies. These are the frequencies that would be expected if there were no relationship between the variables [13].

3 Results

Table 1 below shows the frequency and percentage of the participants' profile when grouped according to psychological characteristics. Psychological changes in postpartum mothers are a matter of concern, either by the husband, family members, or close friends. In terms of the history of depression, almost all of the participants never experienced or have no previous history of depression while there were 3 who had experienced depression in their post pregnancies. The history of depression increases the risk factors of postpartum depression [14]. Seimyr et al. (2011) investigated that women with prior mental health problems are more vulnerable to maternal distress [15].

Table 1. Frequency and percentage distribution of the participants' profile when grouped according to psychological characteristics

Psychological Characteristics	Specific Variables	Frequency	Percentage
History of Depression	No	85	96.60
	Yes	3	3.40
Fear of Delivery	No	80	90.90
	Yes	8	9.10
Disposition during pregnancy	No	86	97.70
	Yes	2	2.30
Knowledge of Parenting	No	2	2.30
	Yes	86	97.70
Weight gain	No	23	26.10
	Yes	65	73.90

In terms of fear of delivery, majority of the participants are not afraid to face labor while about 9.1% felt afraid to have delivery. Fear of childbirth is known to relate to anxiety-prone personalities, low self-esteem and a history of traumatic events [16]. Adams, et al. (2012) urged that mothers who have fears during labor affect the length of labor that they experienced [17].

In terms of their disposition during pregnancy stage, 97.7% of the participants were happy with their pregnancy and 2.3% felt unhappy being pregnant. This unhappy feeling is felt by the mothers who did not plan their pregnancy [18]. Being sad is a normal reaction to difficult times in life. But, usually sadness goes away within a little time. An unhappy feeling accepting their pregnancy is one of the depression indicators experienced by the mother [19].

In terms of knowledge of parenting, majority of the participants know how to take care for the infants and 2.3% do not have any knowledge of parenting. This is in line with the previous finding of this study that majority of the participants are multiparous meaning, the participants have had experience in providing care to the baby. In addition, participants also get support from mother and mother-in-law so that they can overcome problems in the care of newborns. However, children need care that promotes their overall mental health, including a positive sense of self, as well as the ability to cope with stressful situations, emotional arousal, overcome fears, and accept disappointments and frustrations. Parents are essential resources for children in managing emotional arousal, coping, and managing behavior [20].

Weight gain can be experienced by the mother during pregnancy period. Majority of the participants experienced weight gain during the period of pregnancy and after giving birth. In addition, 26.1% of them have not experienced weight gain. Meireles, et al. (2017) emphasized that the weight gain is a natural part of pregnancy, which can affect their attitudes in relation to their own bodies [21].

Table 2. Frequency and percentage distribution of the participants' level of depression

Level of Depression	Frequency	Percentage
Mild	50	56.80
Moderate	23	26.10
Severe	15	17.00

Table 2 described the frequency distribution and percentage of participants' level of depression. This study used two instruments in assessing level of depression namely Edinburg Postnatal Depression Scale (EPPDS) and Beck Depression Inventory-II (BDI-II). Participants to be included in the study must have the same assessment results in terms of depression level for both instruments. Based on the result, it can be noted that a little more than half of the participants have mild level of depression while the others had either moderate or severe levels. Moderate postpartum mothers show symptoms of disorders that may cause anxiety while postpartum mothers with severe levels require proper handling and are referred to a psychiatrist [22].

The study by Dira, et al. (2016) in Denpasar, Bali showed that there is a prevalence of 20.5% postpartum depression cases based on EPDS score of about 9 participants out of a total of 44 participants with severe depression [11]. Meanwhile, the study of De Chavez & Capco-Dichoso in a tertiary hospital in Dasmarinas, Cavite, Philippines revealed that the prevalence of postpartum depression was 22.61% [23]. Moreover, the cross-sectional study conducted among Canadian Women found out that the prevalence rates of postpartum depression ranged from 8.46% to 8.69% [24].

Depression affects about 121 million people worldwide. At its most, severe depression can lead to suicide and is responsible for 850,000 deaths every year and, by 2020, it is expected to be the largest contributor to disease burden [7]. Depression is particularly common among women. Although depression is the leading cause for both males and females, the burden of depression is 50% higher for females than males [25].

Table 3. Chi-square test on the significant relationship between level of depression and psychological characteristics

Psychological Characteristics	χ^2 value df=10	P-value
History of depression	5.600 ^a	0.061
Fear of delivery	7.979 ^a	0.019
Disposition during pregnancy	9.960 ^a	0.007
Knowledge of parenting	1.856 ^a	0.395
Weight gain	8.058 ^a	0.018

In terms of personal history of depression, table 3 reflects a probability value of 0.061 which is greater than the significant level (0.05). This indicates that there is no significant relationship between participants' level of depression and history of depression. In this study, majority of the participants did not experience the history of depression in the previous pregnancy. Women with previous psychiatric illness are also at greater risk to develop postpartum depression. Women with a history of mood disorder are especially at increased risk. Women with a history of postpartum psychosis appear to be at greatest risk for recurrence of postpartum depression [26], [27]. The study by El Ahchem, et al. (2014) investigated that a positive personal history of depression has been confirmed to be a risk factor for postpartum depression among Lebanese women [28].

In terms of fear of delivery, table 3 reveals that there is a significant relationship between participants' level of depression and fear of delivery. This is supported by the probability value is 0.019 which is smaller than significant level (0.05). Fears can be acquired by at least three major pathways including 1) by conditioning, in which learned association develops when a specific object or situation (e.g. being in hospital or thoughts of delivery) is paired with aversive experiences (e.g. discomfort); 2) by vicarious exposure (e.g. when watching someone else give birth); and, 3) by indirect transmission via information (e.g. horror stories about childbirth) [29]. The fear of childbirth appears to increase the prevalence of postpartum depression [30]. A cross-sectional study by de Castro, et al. (2011) showed that fear during childbirth is associated with postpartum depression [31]. Fear of childbirth affects the psychological condition of the mother during labor and causes prolonged labor so that many mothers prefer to perform caesarean section without clear indication [16], [32]. Nevertheless, fear of childbirth may also be associated with previous birth experience [17].

Therefore, training in relaxation and methods of coping with pain are essential for labor and decline the fear of delivery. Additionally, the cognitive approach suits well the treatment of fear of childbirth because of its short duration and focus on one target problem. The cognitive-behavioral approach teaches the patient constructive thinking, which reduces the perception of stress, and is a positively related to general well-being [32].

In terms of disposition towards pregnancy, the probability value of 0.007 suggested that the null hypothesis is rejected. This indicates that there is a significant relationship between participants' level of depression and their disposition towards pregnancy. Those women who felt unhappy about their pregnancy have severe depression level. Unhappy feelings with pregnancy are closely related to an unplanned pregnancy or unwanted pregnancy. Depression that occurs in women with unwanted pregnancies will lead to the unexpectedness of the situation, deciding what to do for a child, for emotional, and/or emotional reasons, knowing that unintended pregnancy is a precursor to many cases of preventive depression [18].

In terms of knowledge of parenting, the probability value of 0.395 suggests that the null hypothesis is accepted. This indicates that there is no significant relationship between

participants' level of depression and their knowledge of parenting. The learning process currently can be done anywhere as well as for the mother. Mothers can learn how to take care for baby from internet media. In addition, media limitations do not affect mothers to gain knowledge, mothers may ask more experienced neighbors, so the mother can learn about pregnancy, labor, and care for the baby clearly. Furthermore, mothers receive guidance and support from family members, especially mothers and mother-in-law to make it easier for mothers to provide the best care and care for children [33].

In terms of weight gain, there is a significant relationship between participants' level of depression and weight gain. This is supported by the probability value of 0.018. As shown in one of the tables, women who suffered "severe" depression were those who experienced weight gain. The weight gain experienced by the mother during pregnancy could be so disturbing that it appears that the mother feels less beautiful and interesting again.

The study by Cline & Decker (2012) revealed that weight gain was inversely associated with postpartum depression [34]. It could be that women who started off obese were more relaxed about their weight gain during pregnancy, whereas women who were of normal weight were more likely to have a negative change in body image. Many women do diet after the birth of their child, and obese women may try to diet, not only to lose the weight they gained during pregnancy but also to weigh less than they did before becoming pregnant [35]. But, considering that lack of appetite is a sign of depression, it can be argued that obese women who had the least weight gain during pregnancy were the ones who were actually depressed and, therefore, weight gain could be a sign of depression rather than the cause of it [34].

4 Conclusions

Having a baby is usually considered to be a natural and joyous event. But, the transition to parenthood represents an important life event increasing vulnerability to psychological disorders. There are 15 or 17% mothers who suffered severe postpartum depression in both hospitals, Ulin General Hospital of Banjarmasin and Dr. H.M. Ansari Saleh General Hospital of Banjarmasin. This needs to be a concern for health workers because postpartum depression mothers could have a poor relationship with children, difficulty meeting their daily needs, caring for children, or even developing into postpartum psychosis.

However, the psychological factors played a greater role in increasing of postpartum depression; for instance, fear of delivery, disposition during pregnancy, and weight gain. This seems to be the burden of a mother, especially the first-time mother who is faced with a new role without any previous experience.

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