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Knowledge and Attitudes of Pregnant Women in Preventing Postpartum Depression

Syarifah Rauzatul Jannah[1], Rini Asnuriyanti[2], Fithria[3]
[1,3]Lecture, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia
[2]Nurse, RSUD Aceh Besar District, Indonesia

ABSTRACT: Postpartum depression is a harmful depression risk; if not treated properly, it can have bad consequences for both mother and child. Hence, efforts are needed to prevent postpartum depression in pregnant women. This article aims to describe and find out the effect of self-help psychological intervention on the knowledge and attitudes of pregnant women in preventing postpartum depression. This article was quantitative research with a quasi-experimental model. The study population was 155 pregnant women in the Darussalam Public Health Center working area in Aceh Besar, 2021. The sample was 74 respondents, with 37 in the intervention group and 37 in the control group. Data was collected using The Knowledge about Postpartum Depression Questionnaire (KPPD-Q) and Attitudes Toward Postpartum questionnaires. This study found that the self-help psychological intervention significantly affects the knowledge and attitudes of pregnant women (p-value = 0.000 <0.05). Also, there were significant differences in knowledge and attitudes between the intervention. This study concluded that Self-help Psychological interventions could ascend pregnant women's knowledge and attitudes toward preventing postpartum depression. Respondents' age, education level, and gestational age are the driving factors for increasing knowledge and attitudes.

KEYWORDS: Attitude; Depression; Knowledge; Postpartum; Pregnant.

INTRODUCTION

In 2019 WHO released data that more than 280 million people worldwide are experiencing depression. Of these, there are about 10% of pregnant women, and 13% are mothers have just given birth [1]. In developing countries, mothers undergo perinatal depression with a percentage of 10-15% [2]. In line with that, Fisher et al. in their study, stated that anxiety disorders in the form of depression in developing countries were, on average, 15.6% depression during pregnancy and 19.8% after childbirth [3]. Shorey et al. [4] also stated that the postpartum depression rate was around 8%-15% in developed countries and 46.8% in some developing countries[5]. Not much different from these figures, for the Indonesian context, mothers who experience depression after giving birth reach 22.4% [6,7]. These data show that maternal depression during the perinatal period in developing countries is higher than in developed countries. According to O'Hara and Swain the prevalence ranges from 7.4-13%, but unfortunately, developing countries' perinatal mental health system is not well available.

Some studies show that every pregnancy is at risk of complications, and the postpartum period for women is when the risk of depression and mental disorders is increased [9,10]. In general, the incidence is mostly found in women of reproductive age (12-51 years) [2]. The process of childbirth experienced by women causes physiological and psychological changes, which can trigger significant stress. This stress can then impact family life, and if it lasts for a long time, it can be detrimental to the child's emotional and social development [11]. The risk of stress can be exacerbated if there is a history of prenatal stress and anxiety because it is very likely to recur or worsen [12]. William states that women with a previous history of postpartum psychosis will have a 50% chance of experiencing postpartum psychosis again. Also, women with a family history of mental disorders will have a 74% chance of experiencing postpartum psychosis after giving birth.

Some studies mention that the most common symptoms of postpartum depression are extreme sadness, hopelessness, inability to feel love for the baby, severe anxiety, sleeplessness, loss of appetite, poor concentration, prolonged fatigue, social isolation, and suicidal thoughts. Event, to the point of wanting to injure the baby's birth [14,15]. Another study stated that Social determinants of health (SDoH), including poor marital status, low socioeconomic status, and stressful life, also contributed to the increase in postpartum depression [12,16]. Maliszewska et al added that the onset of psychological disorders after childbirth, such as postpartum blues and postpartum depression, is caused by emotional problems such as depression, hormonal changes, stress

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during pregnancy, single-parent families, and unplanned pregnancies [17]. Postpartum depression usually occurs after 4 weeks of delivery, and this is what distinguishes postpartum depression from postpartum blues [11,18].

For women or mothers giving birth, postpartum depression is a depression that is at risk if not treated properly. Tabb et al. [19] stated that 2.3% of mothers who experienced postpartum depression in 2020 had suicidal ideation or thoughts [19]. The same thing was conveyed by Trivedi in his research that postpartum depression can impact emotional instability, guilt, confusion, and even suicide. Therefore, it is necessary to prevent the incidence of postpartum depression to minimize the incidence of postpartum depression [20].

Practically, several models or methods have been successfully applied and proven effective in preventing postpartum depression, either individually or in groups or in person or online [4,21]. One of them is psychological self-help, a type of psychological intervention that can influence mental activity, personality characteristics, psychological problems, and mood change disorders. This intervention can be carried out through various media such as face-to-face, either individually or in groups, through computers, mobile phones, WEB, DVD, and online platforms [22]. Psychological self-help is a preventive psychological intervention to help patients solve their problems independently according to standard protocols. Health workers help explain through guidance the steps that must be taken to set psychological intervention goals [23,24]. Several studies have stated that preventive or primary interventions in the form of prevention are positive in reducing depression rates [25–27]. The psychological self-help intervention model is often used, especially in developed countries, because it is considered more effective in preventing and treating postpartum depression. In their study, Lin et al. [24] confirmed that psychological self-help has better effectiveness in preventing and treating postpartum depression than other interventions and has the potential to be a method for the treatment of postpartum depression.

Based on the explanation above, this article specifically aims to determine the effect of psychological self-help interventions on the knowledge and attitudes of pregnant women in preventing postpartum depression in the working area of the Darussalam Health Center, Aceh Besar District. The location of the Darussalam Public Health Center was based on the fact that the Darussalam Health Center had never screened for depression in pregnant and postpartum women. From the interview the author conducted with the head of the Maternal and Child Health (KIA) room at the Darussalam health center, it was found that pregnant women in the Darussalam sub-district only received education in the form of information about physiological changes but had not touched on activities in preventing depression.

METHOD

This quantitative study uses a quasi-experimental model consisting of an intervention group and a control group. The control group in this study were pregnant women who participated in the pregnant women class program in their respective villages in Darussalam Regency but were not given psychological self-help interventions. Then the intervention group was the group of pregnant women who received the self-help psychological intervention four times. The design of this study begins with measuring the knowledge and attitude scores (pretest), then continues with the provision of intervention and then conducts a posttest after 21 days (three weeks) of implementing the intervention. In the intervention session, the researcher went to the respondent's house for 45-60 minutes to provide psychoeducation. Researchers used a 2016 National Health Service (NHS) module entitled Postnatal Depression A Self Help Guide to offer interventions to pregnant women.

The population in this study were pregnant women in the Darussalam Health Center, Aceh Besar District working in 2021, which amounted to 155 pregnant women. The number of samples in this study was determined based on the Cohens Table, with 34 respondents per group. To anticipate the possibility of respondents being selected to drop out, the researcher predicts by making corrections to the number of samples calculated using the attraction rate, namely by increasing the number of subjects so that the number of samples can be met with an estimate of 10%. The total respondents in this study were 74 pregnant women, with 37 respondents in the intervention group and the control group, respectively.

Data collection in this study used a questionnaire consisting of Questionnaires A, B, and C. Questionnaire A was used to find out information about the characteristics of respondents. Questionnaire B was used to determine the knowledge of pregnant women in preventing postpartum depression using The Knowledge about Postpartum Depression Questionnaire (KPPD- Q) with a coefficient of alpha value is 0.72 [28]. Then, Questionnaire C was used to see the attitudes of pregnant women toward postpartum depression using the Attitudes Toward Postpartum Depression questionnaire with an alpha coefficient of 0.80. The data analysis

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technique used in this study was the Wilcoxon signed rank to see the effect of giving psychological self-help interventions in each group and the Mann-Whitney U test to compare groups providing psychological self-help interventions.

RESULT

This research was conducted at the Darussalam Health Center, and the respondent's house in Darussalam District, Aceh Besar District. The research was carried out for 8 weeks, from September 6 to November 5, 2021. The following are the characteristics of the respondents in this study:

Table 1. Respondent Characteristic

Category	Intervention Group (n=37)		Control Group (n=37)	
	f	%	f	%
Age				
No Risk	35	94.6	36	97.3
At Risk	2	5.4	1	2.7
Education				
Low	2	5.4	4	10.8
Intermediate	22	59.5	22	59.5
Hight	13	35.1	11	29.7
Works				
Unemployment	27	73.0	27	73.0
Civil Servant	4	10.8	9	24.3
Privat Sector	6	16.2	1	2.7
Gestational Ages				
Trimester II	23	62.2	26	70.3
Trimester III	24	37.8	11	29.7
Pregnancies				
Primi Gravida				
Multi Gravida	18	48.6	15	40.5
Grande Gravida	18	48.6	22	59.5
	1	2.7	0	0

Table 1 shows that most respondents are in the non-risk age category (20-35 years), namely 94.6% in the control group and 97.3% in the intervention group. In terms of education, most of the respondents had secondary education (59.5% intervention group and 59.5% control group). Most respondents do not have a job or work as housewives (the intervention group is 73.0%, and the control group is 73.0%). Then, the gestational age in the two groups of respondents was Trimester II (62.2% intervention group and 70.3% control group). While in the number of pregnancies, most of the pregnant women in both the intervention group and the control group were in multi-gravida status or had been pregnant 1 to 5 times (intervention group 48.6% and control group 40.5%).

Table 2. Knowledge and attitude of pregnant women about postpartum depression

Variable	Intervention Group (n=37)				Control Group (n=37)			
	Pretest		***Posttest***		***Pretest***		***Posttest***	
	f	%	f	%	f	%	f	%
Knowledge								
High	0	0.0	25	67.6	0	0.0	0	0.0
Moderate	3	8.1	12	32.4	2	5.4	3	8.1
Low	34	91.9	0	0.0	35	94.6	34	91.9

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Attitude								
Negative	2	5.4	0	0.0	1	2.7	1	2.7
Positive	35	94.6	37	100	36	97.3	36	97.3

Table 2 shows that the knowledge of pregnant women in the intervention group and the control group in preventing postpartum depression before psychological self-help intervention was carried out was in a low category, namely 34 pregnant women (91.9%) had less knowledge. After psychological self-help intervention, there was an increase in learning about the prevention of postpartum depression in the intervention group, namely 25 pregnant women (67.6%) had high knowledge. At the same time, the control group did not show a change (0%) in preventing postpartum depression. In the moderate category, there was an increase in the intervention group; as many as 12 pregnant women (32.4%) had moderate knowledge, and no pregnant women (0%) had insufficient expertise in the intervention group.

In the attitude variable, table 2 shows that the attitudes of pregnant women before being given psychological self-help intervention, both in the intervention group and the control group, were mostly positive. Before the intervention, 5.4% of pregnant women in the intervention group had a negative attitude towards postpartum depression. However, after being given the intervention, all respondents in the intervention group had a positive attitude towards preventing postpartum depression (100%). While in the control group, there was no change in attitude (97.3%). These results indicate that the psychological self-help intervention succeeded in changing the attitude of the respondents in preventing postpartum depression from negative to positive.

Table 3. Self-help psychological intervention effect on knowledge and attitudes of pregnant women (N=37) (N=37)

Variable	Mean Rank	Sum of Ranks	Z	*P*- value
Intervention Group				
Knowledge	0.00 19.00	0.00 703.00	-5,313	0.000
Attitude	0.00 13.00	0.00 325.00	-4,395	0.000
Control Group				
Knowledge	7.50 10.77	52.50 118.50	-1,451	0.147
Attitude	4.60 2.50	23.00 5.00	-1,552	0.121

Table 3 shows that 37 pregnant women who received psychological self-help interventions experienced an increase in knowledge in preventing postpartum depression with an average increase of 19.0 (mean rank). The significance of the effect of psychological self-help intervention obtained p-value = 0.000 <0.05, which means that the provision of psychological self-help intervention significantly affects the knowledge of pregnant women. Likewise, for the attitude variable where p-value = 0.000 <0.05, there is an effect of providing psychological self-help interventions on the attitudes of pregnant women. In the intervention group, 22 pregnant women experienced an increase in attitudes towards postpartum depression with an average attitude increase of 13.0. As for the control group, there was no effect or difference between the pretest and posttest for the knowledge variable (p-value=0.47>0.05) and the attitude variable (p-value=0.121>0.05).

Table 4. Differences in Knowledge and Attitudes of Pregnant Women about Postpartum Depression

Variable	Intervention Group (n=37)		Control Group (n=37)		Mann-Witney U Test	*p-value*
	MR	SR	MR	SR		
Knowledge	55.84	2066.00	19.16	709.00	6.000	0.000
Attitude	50.14	1855.00	24.86	920.00	217.000	0.000

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Table 4 shows that the results of the knowledge variable test obtained a p-value = 0.000 <0.05, which means a significant difference in knowledge between the intervention group and the control group after the provision of psychological self-help intervention. Similarly, the attitude variable with p-value = 0.000 <0.05 means a significant difference in attitude between the intervention group and the control group after giving the psychological Self-help intervention.

DISCUSSION

Research on psychological self-help interventions for pregnant women in the global context has been widely carried out, but for the Aceh context, it is still minimal. Several studies have shown that psychological self-help has been shown to prevent postpartum depression in pregnant women [23, 24]. The results of this study indicate that the psychological self-help intervention given to pregnant women significantly influences their knowledge and attitudes toward preventing postpartum depression. There was an increase in knowledge and attitudes of pregnant women about postpartum depression in the intervention group by 67.6%. The same thing also happened to the attitude variable that the intervention carried out through psychological self-help succeeded in increasing the attitudes of pregnant women about postpartum depression.

Increased knowledge and attitudes of pregnant women after receiving psychological self-help interventions, as in this study, are also influenced by the characteristics of research respondents. From the data of this study, it is known that the respondents are at a non-risk age with the age range of 20-35 years, with an average age of 28 years which is included in the productive age. Women at productive ages have a high potential to have children again; this age is also considered ideal for undergoing pregnancy and childbirth because, at that age, the woman's physical condition is still in prime condition. In addition, women of productive age are generally also mentally prepared to accept physiological and psychological changes, so the prevention of postpartum depression is also well applied to those of productive age. Sanchiz et al. asserted that the domain of skills and knowledge would increase as a person ages, and at a productive age, a person tends to have a higher ability to search for information [29].

Furthermore, the increase in knowledge and attitudes of pregnant women in preventing postpartum depression as the results of this study were also influenced by the conditions or characteristics of the respondents, the majority of whom had secondary education. Of the total respondents who were given psychological self-help intervention, 59.5% had secondary education, and only 2 had low education in the intervention group. The respondents' educational condition positively impacted the treatment given to them because education would affect their understanding of the intervention. This is supported by research by Branquinho, Canavarro, and Fonseca, which says that education can affect a person's knowledge, attitudes, and skills in preventing postpartum depression. People with low education tend to be more difficult to learn about mental health in general and postpartum depression in particular. In addition, women with higher education tend to have less stress and, thus, more easily prevent depression. [28]

Another condition that affects the increase in knowledge and attitudes of pregnant women in preventing postpartum depression through interventions is the gestational age of respondents who are psychologically in the second trimester of pregnancy or at the age of 4 to 6 months. Pregnant women tend to feel comfortable, so their anxiety about pregnancy decreases. Mothers are also interested in pregnancy and preparation for childbirth in the second trimester. The social relationship of pregnant women at this time is also higher because mothers look for friends to tell stories about their pregnancy. This condition also means increasing knowledge and attitudes of pregnant women in preventing postpartum depression through psychological self-help interventions should be carried out during pregnancy up to 6 months or the second trimester. This is in accordance with one of the results of research on the experience of couples experiencing postpartum depression, which states that education about postpartum depression should be carried out during pregnancy so that teams can prevent depression after childbirth [30].

Furthermore, the characteristics of the number of deliveries in this study showed that most of the respondents in the intervention group were pregnant for the first time. In contrast, most respondents had more than one child in the control group. Several studies have shown that the number of deliveries can affect postpartum depression; multiparous mothers who have given birth more than once showed lower cortisol levels compared to primiparous mothers who had higher cortisol levels because it could affect the mother's mood [31]. Similar studies have also shown primiparous mothers are more prone to postpartum depression and decreased infant bonding than multiparous mothers [32]. However, several other studies argue that the incidence of postpartum depression is not related to the number of deliveries but rather one's self-efficacy or belief in one's ability to solve the problem [33,34].

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Furthermore, the results of the Mann-Whitney U test in this study showed that after the intervention, a p-value = 0.000 <0.05 was obtained, meaning there was a significant difference in knowledge between the intervention group and the control group. Similarly, the attitude variable with p-value = 0.000 <0.05 means a substantial difference in attitude between the intervention group and the control group after psychological self-help intervention. This result also means that the intervention has succeeded in increasing the knowledge and attitudes of pregnant women in preventing postpartum depression at the Darussalam Public Health Center Aceh Besar. This is because several things that are positive for pregnant women state that lack of knowledge is an important risk factor in developing postpartum depression, so education aimed at preventing postpartum depression needs to be done and should be carried out during pregnancy. [30,35].

Increased knowledge and attitudes of pregnant women in preventing postpartum depression through psychological self-help interventions at the Darussalam health center as the results of this study were also caused by the psychological self-help intervention model itself. This intervention model can be done with or without nurses/health workers because, in general, psychological self-help interventions are designed to assist mothers in helping themselves when symptoms of depression occur. However, based on the research process that has been carried out, the researcher believes that knowledge in preventing postpartum depression should be provided by health workers when mothers make pregnancy visits both at the Puskesmas, hospitals, and clinics. In addition to providing education about postpartum depression, health workers can also closely monitor mothers so that health workers can quickly detect if symptoms of postpartum depression occur. Furthermore, health workers, in this case, nurses, had an important role in providing health education or appropriate interventions in preventing postpartum depression [36,37].

Although this study has not objectively proven that psychological self-help interventions given to the intervention group can reduce symptoms of depression, increasing the knowledge and attitudes of pregnant women after receiving the intervention can indicate that the intervention can reduce the number of postpartum depression symptoms that may occur. It is said that several previous studies have stated that an increase in knowledge is related to the success of postpartum treatment using psychological self-help interventions. Several other studies have also proven that psychological self-help interventions reduce symptoms of depression and increase mother's knowledge of postpartum depression [38–40].

CONCLUSION

This study concludes that psychological self-help interventions can improve the knowledge and attitudes of pregnant women in preventing postpartum depression. The results showed that pregnant women who received psychological self-help intervention experienced an average increase in knowledge of 19.0 (mean rank) with a p-value = 0.000 <0.05 and an increase in attitude with an average value of 13.0 with the p-value. =0.000<0.05. Then there is a significant difference in knowledge and attitudes between the control and intervention groups with a p-value = 0.000 <0.05. Characteristics of respondents in the form of age, education level, and gestational age are the driving factors for the increase in knowledge and attitudes.

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