Research Article

Antenatal Depression and Related Behaviours in Indonesia

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Abstract.
Nowadays people are starting to realize depression during pregnancy. Depressive symptoms can be reflected in behaviors shown daily. The aim of the study is to identify antenatal depression in Riau and behaviors related to it. In this quantitative study, the *Edinburgh postpartum/perinatal depression scale* (EPDS) was used to screen for depression, and a questionnaire was developed based on a literature review to identify the behaviors of 97 pregnant women from two health centers in Riau, Indonesia. Descriptive statistics were used to analyze the data. This study revealed the presence of depression in pregnant women at mild (38.1%) and moderate (5.2%) levels. Antenatal depression can be shown by physical behaviors, psychological behaviors, and social behaviors. Depression can occur during pregnancy, and nursing further action is needed to prevent more severe depression during perinatal.

Keywords: antenatal depression, depression behavior

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1. INTRODUCTION

Pregnancy is considered a stressful event because of the demands for self-adaptation due to various changes that take place throughout pregnancy[1]. Changes that occur in pregnant women are not only physiological changes but also psychological and social functions[2]. Pregnancy causes hormonal changes in women because there is an increase in the hormones estrogen, progesterone, and the release of placental chorionic gonadotropin (HCG) hormones[3]. Hormonal changes that take place during pregnancy play a role in emotional changes, which make the mother feel erratic[4]. Immediate hormonal changes can trigger biochemical depression in pregnant women[5].

Perinatal depression and anxiety are common, with a prevalence rate of major and minor depression of nearly 20% during pregnancy and the first 3 months postpartum [6]. Approximately 18% of pregnant women experience severe or mild depression during pregnancy, but many are not screened or treated[7]. Research in China reported that

as many as 28.5% of pregnant women in the third trimester experienced symptoms of depression [8]. Meanwhile, research in Indonesia found that the prevalence of mothers with antenatal depression was 59.7% [9].

Depression during pregnancy is of particular concern because maternal depression can paralyze the mother's function throughout a pregnancy and into the next life [10], risk of experiencing pregnancy complications, increased risk of cesarean section, and intrauterine fetal death [11]. In the fetus, the side effects of the given stress will affect the growth and development of the fetus [12]. Long-term negative impacts on babies born are at risk of experiencing digestive and growth disorders, stunting, and even malnutrition or weight below the red line [13]. The negative impact on the family affects social and personal adjustment, marital relations, and interactions between mother and baby[14].

Perinatal depression is often overlooked because signs and symptoms, including acute and chronic stress, sleep deprivation, and hormonal changes, are experienced by every pregnant woman [15]. Mental health disorders often occur during pregnancy and are considered normal, but become serious enough to cause self-harm and suicide[16]. Perinatal depression is a major contributor to morbidity and mortality during pregnancy and is highly treatable if identified early [17].

Barriers experienced in helping mothers who experience psychological pressure and in handling maternal conditions include the inability of women to express their feelings, cultural barriers, ignorance of symptoms of depression, how to get help, and attitudes of family, friends, and health professionals [18]. A study reported that barriers to accessing mental health services for women who experience perinatal depression are caused by various factors divided into several levels, namely: individual (lack of knowledge about perinatal depression, negative attitudes towards mental illness, and individual characteristics of women, families and health professionals), organizational (lack of resources, fragmented services), sociocultural (language barrier, differences in cultural values), and structural (unclear policies)[19].

Based on the preliminary study conducted by the researcher from a community health center in Pekanbaru, Riau, Indonesia, on April 2022 of 5 mothers with mild depression, they did not aware of the signs and symptoms of depression so they did not take further intervention. Understanding the signs and symptoms through the behavior of the mother could help nurses in developing a continued care model. Therefore this study researches to know antenatal depression and the behavior related to depression.

2. MATERIALS AND METHODS

This research method is descriptive correlation using a cross-sectional approach. The population of this study was all pregnant women registered at 2 Community Health Centers in Pekanbaru City, Riau, Indonesia. The research was carried out from May to August 2022. Samples were taken using the total sampling technique and a total of 97 respondents were obtained. The inclusion criteria for this study were all pregnant women with TM III (UK 38-41 weeks), physically healthy mothers, willing to be respondents, and able to read and write. Exclusion criteria were mothers who experienced pregnancy complications. Data collection in this study used primary data (questionnaire), namely the sociodemographic and the Edinburgh postpartum/perinatal depression scale (EPDS) questionnaire. A questionnaire to measure depression behaviors was developed by researchers based on a literature review. Univariate analysis was performed using descriptive statistics to describe the characteristics of each variable. The Chi-Square test was used for bivariate analysis with $p<0.05$. Ethical clearance has been submitted to the Research Ethics Commission of the University of Riau Pekanbaru, Indonesia no.443/UN.19.5.1.8/KEPK.FKp/2022.

3. RESULTS

3.1. Pregnancy women`s characteristics

The results of the research conducted on 97 respondents obtained the demographic characteristics of the respondents including age, parity, gestational age, complication, and occupation. These can be seen in the following table:

The table above shows that most of the respondents are aged 20-35 years (76 respondents; 78.4%), and multigravida (76 respondents; 78.4%. The highest gestational age is in trimester III (49 respondents; 50.5%). Most of the respondents did not experience complications (91 respondents; 93.8%) and do not have an occupation (81 respondents; 83.5%).

3.2. Antenatal depression

For antenatal depression, the result describes the features of antenatal depression in pregnant women and the relation between the characteristics of pregnant women with

Table 1: The characteristics of pregnant women.

Characteristics	Frequency (N)	(%)
Age		
Under 20	3	3.1
20 to 35	76	78.4
Up to35	18	18.6
Paritas		
Primigravida	21	21.6
Multigravida	76	78.4
Gestational age		
Trimester I	16	16.5
Trimester II	32	33
Trimester III	49	50.5
Complication		
No complication	91	93.8
History of miscarriage	5	5.2
Oligotimdronion	1	1
Occupation		
Working	16	16.5
No working	81	83.5

antenatal depression. The results of the univariate analysis obtained in this study are as follows:

Table 2: Antenatal depression of pregnant women.

Depression	Frequency (N)	(%)
Light	37	38.1
Mild	5	5.2
No Depression	55	56.7
Total	97	100

Table 2 above indicates 42 of 97 pregnant women (43.3%) having depression at a light level (37 respondents, 38.1%) and at a mild level (5 respondents, 5.2%).

Table 3 shows most of the pregnant women have light depression related to age 20 to 35 (81.1%), multigravida (70.3%), at Trimester III (54.1%), without complication (100%), and having no working (78.4%).

Table 3: The relation characteristics of pregnant women with the antenatal depression.

Characteristics	Depression Status		
	Light	Mild	No Depression
Age			
Under 20	2 (5.4%)	1 (20%)	0 (0%)
20 to 35	30 (81.1%)	3 (60%)	43 (78.2%)
Up to35	5 (13.5%)	1 (20%)	2 (21.8%)
Paritas			
Primigravida	11 (29.7%)	0 (0%)	10 (18.2%)
Multigravida	26 (70.3%)	5 (100%)	45 (81.8%)
Gestational age			
Trimester I	4 (10.8%)	2 (40%)	10 (18.2%)
Trimester II	13 (35.1%)	2 (40%)	17 (30.9%)
Trimester III	20 (54.1%)	1 (20%)	28 (50.9%)
Complication			
No complication	37 (100%)	5 (100%)	49 (89.5%)
History of miscarriage	0 (0%)	0 (0%)	5 (9.1%)
Oligotimdronion	0 (0%)	0 (0%)	1 (1.8%)
Occupation			
Working	8 (21.6%)	0 (0%)	8 (14.5%)
No working	29 (78.4%)	5 (100%)	47 (85.5%)

3.3. Behavior in antenatal depression

Table 4 shows most of the pregnant women have light depression related to age 20 to 35 (81.1%), multigravida (70.3%), at Trimester III (54.1%), without complication (100%), and having no working(78.4%).

4. DISCUSSION

4.1. Characteristics of pregnant women and antenatal depression

This study shows that the incidence of antenatal depression screened with the Edinburgh Postpartum/Perinatal Depression Scale (EPDS) instrument to detect depression in pregnant women was found to be 43.3%. This prevalence is close to research in Jembrana district, Indonesia, where mothers who experience tend to be depressed as much as 56.3%[13]. In contrast, some studies in Indonesia and other countries showed the prevalence rate of major and minor depression is almost 20% to 28% during pregnancy[14][15][16]. This difference in prevalence rates can be caused by

Table 4: Behaviors in antenatal depression.

Characteristics	Depression Status		
	Light (N=37)	Mild (N=5)	No Depression (N=55)
Physical behaviors			
Disturbed appetite	10 (27%)	3 (60%)	9 (16.4%)
Oversleeping or insomnia	20 (54.1%)	4 (80%)	19 (34.5%)
Presentation of subtle bodily symptoms	18 (48.6%)	4 (80%)	11 (20%)
Somatic complaints	18 (48.6%)	5 (100%)	14 (25.5%)
Indifference	22 (59.5%)	2 (40%)	23 (41.8%)
Psychological behaviors			
Sadness	2 (5.4%)	0 (0%)	1 (1.8%)
Worry	6 (16.2%)	0 (0%)	1 (1.8%)
Depressed mood	24 (64.9%)	2 (40%)	9 (18.4%)
Feeling of worthlessness	0 (0%)	2 (40%)	0 (0%)
Feeling panicked	12 (32.4%)	3 (60%)	5 (9.1%)
Anger and hatred of the fetus	0 (0%)	0 (0%)	0 (0%)
Negative mood	9 (24.3%)	2 (40%)	3 (5.5%)
Feeling numb, stiff, and a feeling of emptiness	4 (10.8%)	1 (20%)	0 (0%)
Mood without joy or sadness	7 (18.9%)	5 (100%)	4 (7.3%)
No interest in the fetus	0 (0%)	0 (0%)	0 (0%)
Hopelessness or thoughts of hurting yourself	0 (0%)	0 (0%)	0 (0%)
Social behaviors			
Doing obsessive activities	2 (5.4%)	1 (20%)	0 (0%)
Perform ritualistic activities	10 (27%)	2 (40%)	12 (21.8%)
Afraid to leave the house	2 (5.4%)	2 (40%)	0 (0%)

sociodemographic and cultural differences between one place to another that could be explained by some of the characteristics of pregnant women in this study.

The results of this study are in line with research[17] showing that most of the characteristics of pregnant women with depressive symptoms are pregnant women of non-risk age (20-35 years). Meanwhile, the study found that the right time for a woman to get pregnant and give birth is the age of 20-35 years when the maturity of the reproductive organs has occurred, followed by the maturity of the emotional, social, and baby care conditions by a mother. Reproductive age increases the physical

and mental readiness of mothers in child care so that they can solve problems with emotional calm[20].

The next characteristic that needs to be considered from the results of this research that may be related to the occurrence of depression in pregnant women is the mother's occupation. In this study, the number of mothers who did not work was 55%. Study results showed that 62.3% of pregnant women who did not work tended to experience depression[13]. Managing a household has considerable pressure if mothers don't communicate and share with other people so the discomfort they feel is just buried, especially for pregnant women who have toddlers [21].

4.2. Behavior in antenatal depression

The results of this study are in line with other studies which show that depressive behavior can be seen from several things, namely from psychological behaviors by showing depressed mood and feeling panicked. Regarding social behaviors, there is a decrease in motivation and social activity. Based on physical behaviors, pregnant women experience sleep pattern disturbances, decreased appetite, and body weight. For cognitive, they have difficulty concentrating, and think negatively about themselves. Furthermore, in social terms, mothers experience a decrease in social interactions and activities [22][23][24].

Somatic complaints can be an expression of stress that refers to the occurrence of symptoms of anxiety and depression which are common in society [25]. Symptoms of depression in the form of sleep disturbances include insomnia, problems with sleep onset, sudden awakenings, and hypersomnia. On contrary, sleep disturbances can increase the risk of depression in the future [26]. Interestingly, pregnant women carry out ritual activities related to their cultures to reduce their insecure feelings. They also believe that the ritual could protect the baby during the gestation period.

5. CONCLUSION

The depression of pregnant women can be shown by their behaviors. In this study, the behaviors of depression showed through physical, psychological, and social behaviors. The findings of this study have implications for the early screening of antenatal depression that can be detected by pregnant women, and their families through the behaviors.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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