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Negative Emotional States In Pregnant Women: Prevalence and Risk Factors

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ABSTRACT

Background: Negative emotional states among pregnant women is an issue that should not be ignored due to its widespread impact on the health of mothers and babies, which can last for the long term. In addition to affecting physical conditions. This study aims to describe negative emotional states in pregnant women and its risk factors.
Methods: The research method used is descriptive analysis. The study population consists of all pregnant women in Magelang City, totaling 540 individuals, with a purposive sample of 214 individuals. Respondents were asked to complete a questionnaire containing data on respondent characteristics and the Depression Anxiety Stress Scale (DASS). The collected data will then be analyzed using frequency distribution tables and logistic regression to determine the influencing risk factors.
Results: Prevalence negative emotional states : most experiencing mild depression (71%), most experiencing moderate anxiety (68%), with the majority experiencing moderate stress (57%), and total negative emotional states(experiencing at least one): 67,8%. Negative emotional states was higher in those aged < 20 years or > 35 years (p = 0.019), those with low education (p = 0.041), those with low family support (p < 0.001), and those with a pregnancy related illness (p = 0.024). The logistic regression results showed that the dominant risk factor was low family support (OR = 3.9; 95% CI: 1.9–7.8), followed by a pregnancy related illness (OR = 2.5; 95% CI: 1.2–5.2).
Conclusion: Negative emotional statescan occur in pregnant women, especially those who are too young or too old, unemployed, have little support from their husbands, and have a history of obstetric complications. Health workers are expected to help pregnant women minimize negative emotional states .

Keyword : negative emotional states; pregnant women; prevalence; risk factors

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Background. The mental health of a pregnant woman has a significant impact on her health, fetal development, length of labor, premature birth, and the future health of her child (Argaheni, 2021). The mental health of a pregnant woman has a significant impact on various aspects of pregnancy and the health of the child to be born. When a pregnant woman experiences negative emotional states , such as depression, anxiety, or severe stress, it can affect her overall physical well-being. Mental disorders can increase the risk of complications during pregnancy, such as high blood pressure, gestational diabetes, and other disorders that can affect the mother's health. In addition, the mental health of pregnant women also has an impact on fetal development.

High levels of stress can affect fetal growth and development, and may even increase the risk of premature birth. The length of labor can also be affected by the mother's mental health, with evidence that severe stress can accelerate the labor process. In addition, the mental health of pregnant women also has long-term implications for the health of their unborn children. Children born to mothers with mental disorders have a higher risk of experiencing mental health problems themselves in the future (Kirana, Anggreini and Litaqia, 2022). Therefore, it is important to pay serious attention to the mental health of pregnant women, both through preventive approaches and appropriate interventions, to ensure the well-being of the mother and optimal development for the fetus.

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The prevalence of antenatal depression is high in low-income countries, where it has been shown to be a risk factor for antenatal depression and premature birth. Depression is now a common mental illness and can be a risk factor for low birth weight and premature birth (Perwitasari and Wulandari, 2022). Prenatal stress can be caused by physical stress or psychosocial stress. Prenatal stress occurs frequently in almost all pregnant women (Adwinda and Fariani Syahrul, 2023).

The negative emotional states experienced by pregnant women can be influenced by various factors, including social, economic, biological, and psychological aspects. Factors that can affect the mental health of pregnant women include social support, economic status, psychological history, and hormonal changes during pregnancy (Santi, Dewi and Purnamaningrum, 2023)(Astuti, Santosa and Utami, 2000). However, further research is needed to fully understand the complexity and interaction between these factors. Additionally, there is a need to better identify symptoms of negative emotional states in pregnant women, as some symptoms may differ from those in the general population.

Anxiety symptoms related to pregnancy, such as concerns about fetal health or whether one can be a good mother, may not be well recognized during routine mental health examinations. A better understanding of risk factors associated with psychological stress in pregnant women and the development of appropriate intervention strategies are expected to improve the overall mental health of pregnant women. Although (Barat *et al.*, 2023) have identified high-risk pregnancy as a major risk factor for psychological distress, there is still a need to explore other factors that influence the occurrence of psychological distress in women with high-risk pregnancies in rural Temanggung.

Methods. The research method used is descriptive analysis. The study population consists of all pregnant women in Magelang City, totaling 540 individuals, with a purposive sample of 214 individuals. The inclusion criteria for this study were: all pregnant women registered as patients in the working area of the Community Health Center in Magelang City, residing in Magelang City, able to read, able to fill out Google forms, and willing to be respondents.

Respondents were asked to complete a questionnaire containing data on respondent characteristics and the Depression Anxiety Stress Scale (DASS) questionnaire consisting of 21 questions. The collected data have been analyzed using frequency distribution tables and logistic regression to determine the influencing risk factors.

Result and Discussion. Research has been conducted on 214 respondents with the following characteristics:

Table 1. Respondents characteristics

Characteristics	Frequency (n=214)	Percentage (%)
Respondent Age		
Age < 20 years	15	6,9
Age 20–35 years	168	78,4
Age > 35 years	31	14,7
Marital status		
Married	210	98,1
Unmarried	4	1,9
Education level		
Low	37	17,5
Medium	122	56,9
High	55	25,6
Pregnancy age		
First Trimester	36	16,7
Second Trimester	71	33,3
Third Trimester	107	50
Pregnancy classification		
Primigravida	87	40,6
Multigravida	127	59,4
Employment status		
Working	81	37,8
Not working	133	62,2
Family support		
Good	49	22,9
Fair	104	48,6
Low	61	28,5
Pregnancy related illnesses		
Precent	56	26,2
Absent	158	73,8
Negative emotional states		
Distress	145	67,8
Non-distress	69	32,2
Stress		
Mild	81	37,8
Moderate	122	57

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Severe	11	5,2
Anxiety		
Mild	49	22,9
Moderate	146	68,2
Severe	19	8,9
Depression		
Mild	152	71
Moderate	54	25,2
Severe	8	3,8

More than half of all respondents (78%) were aged between 20 and 35 years old. The ideal age for pregnancy is between 20 and 34 years old. Women aged under 20 or over 35 are considered to be at risk of experiencing problems during pregnancy (WHO, 2022). Respondents were at the ideal age for pregnancy, but there was still a possibility that pregnant women at that age would experience negative emotional states caused by various factors. Nearly fifty-seven percent of respondents had a medium education level, which provides a protective effect on the health of pregnant women. More educated mothers find it easier to understand information about nutrition, danger signs, and self-care (Ren *et al.*, 2024). The level of education affects a person's ability to understand information and education related to their health condition. The 59.4% of respondents were multigravida pregnant women, with the majority of pregnancies in the third trimester. The prevalence of negative emotional states increases in pregnant women in the third trimester compared to the first trimester, influenced by physical fatigue, obstetric complications, and uncertainty about childbirth (Gebresilus, Asrat and Amare, 2025). Respondents who received good family support accounted for 48,6%. Family support (especially from husbands/partners, parents, and close family members) is a major protective factor against depression, anxiety, and stress in pregnant women. Family support helps reduce the impact of negative emotional states on mothers during pregnancy (Mane *et al.*, 2024). The support that pregnant women expect from their families is not only financial support, but also attention and affection from their husbands or loved ones. Pregnant women who receive good support from their families generally feel calmer, more comfortable, and are able to attend antenatal care regularly. There were 26.2% of respondents who experienced illness during pregnancy. Illness or medical complications during pregnancy (e.g., hypertension in pregnancy, gestational diabetes, anemia, hyperemesis gravidarum, infection, or chronic comorbidities such as asthma, heart disease, and autoimmune diseases) were found to increase the risk of psychological distress in the form of stress, anxiety, and depression (Garg, 2024).

A total of 67.8% of respondents experienced at least one negative emotional states issue. The negative emotional states experienced included stress, anxiety, and depression. Most respondents experienced moderate stress (57%), moderate anxiety (68%), and mild depression (71%). Mild to moderate psychological disorders during pregnancy can be disruptive, with various causes and effects, and can be managed with treatment strategies. Although they may occur at a lower rate than more severe cases, disorders such as mild anxiety, stress, or less intense symptoms of depression can still interfere with the happiness and mental balance of pregnant women (Gebresilus, Asrat and Amare, 2025). When facing pregnancy, an expectant mother undergoes psychological adaptation. At the beginning of pregnancy in the first trimester, a mother begins to adapt to the changes occurring within herself. Pregnant women often feel stressed due to physical changes, decreased sexual desire, and concerns about miscarriage. In the second trimester, the psychological condition of pregnant women generally begins to calm down and they are able to adapt to their pregnancy. However, the mother's attention shifts to changes in body shape, sexual life, family relationships, and her relationship with the fetus. In the third trimester, mothers will experience complex psychological changes, feeling worried about their condition and that of their fetus. Pregnant women also worry about the delivery process (Yulistanti *et al.*, 2024).

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Anxiety is often caused by fear of the delivery process, suboptimal fetal health, and physical changes that are considered unattractive and unsatisfactory compared to before pregnancy, especially related to abdominal enlargement (Suryani *et al.*, 2025).

The results of the bivariate analysis of variables on negative emotional states can be seen below:

Table 2. Correlation between independent variables and negative emotional states

Variable	distress		non distress		p-value
	n	%	n	%	
Respondent Age					
Age < 20 years	13	9,0	2	2,9	0,019
Age 20–35 years	105	72,4	63	91,3	
Age > 35 years	27	18,6	4	5,8	
Marital status					
Married	141	97,2	69	100	0,128
Unmarried	4	2,8	0	0,0	
Education level					
Low	28	19,3	9	13,0	0,041
Medium	95	65,5	27	39,1	
High	22	15,2	33	47,8	
Pregnancy age					
First Trimester	29	20,0	7	10,1	0,061
Second Trimester	29	20,0	42	60,9	
Third Trimester	87	60,0	20	29,0	
Pregnancy classification					
Primigravida	63	43,4	24	34,8	0,552
Multigravida	82	56,6	45	65,2	
Employment status					
Working	63	43,4	33	47,8	0,621
Not working	82	56,6	36	52,2	
Family support					
Good	8	5,5	41	59,4	0,001
Fair	88	60,7	16	23,2	
Low	49	33,8	12	17,4	
Pregnancy related illnesses					
Precent	46	31,7	8	11,6	0,024
Absent	99	68,3	61	88,4	

Table 3. Factors affecting negative emotional states

Variable	p-value	OR (95% CI)
Respondent Age	0,019	2,1 (1,3 - 5,8)
Education level	0,041	1,9 (1,1 - 6,1)
Family support	0,001	3,9 (1,9 - 7,8)
Pregnancy related illnesses	0,024	2,5 (1,2 - 5,2)

Based on the results of bivariate analysis, it was found that age, education level, family support, and pregnancy related illnesses were factors that caused negative emotional states . The age of pregnant women affecting negative emotional states with a p-value of 0,019. The healthy reproductive age is between 20 and 35 years old, when the reproductive organs function optimally. However, psychological problems often occur in pregnant women, especially in the third trimester or near delivery (Nadeak *et al.*, 2025). Teenage pregnant women tend to face higher risks of stress, anxiety, and perinatal depression—influenced by socioeconomic factors, family support, and unwanted pregnancies (Lesinskienė, Andruškevič and Butvilaitė, 2025). Pregnant women over the age of 35 are prone to negative emotional states such as anxiety and depression. This is related to medical risks to reproductive organ function, the emergence of comorbidity during pregnancy, and social pressure (Ahmad, Sechi and Vismara, 2024). Pregnancy at a safe age, between 20 and 35 years old, can reduce the risk of negative emotional states for both the pregnant mother and the baby.

Education level affecting negative emotional states with a p-value of 0,041. Low educational attainment is one of the risk factors for depression, anxiety, and negative emotional states in pregnant women. Low education is associated with increased antenatal depression. This effect is exacerbated when mothers also experience poverty and lack of support from their partners. Pregnant women with higher education are more likely to use adaptive coping strategies and experience lower levels of stress. Education does not directly cause pregnant women to avoid stress; rather, higher education acts as a buffer against pregnancy stress (Ahmad, Sechi and Vismara, 2024). A high level of education enables pregnant women to receive information properly, develop cognitive maturity, strengthen their absorption and critical abilities in filtering complex pregnancy health information, thereby laying a crucial foundation for proactive decision-making to optimally maintain their own health and that of their baby.

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Family support also affecting negative emotional states with a p-value of 0,001. Among the factors that affecting negative emotional states , lack of family support is the most dominant factor causing negative emotional statesin pregnant women with an odds ratio of 3,9. Pregnant women with low social support (including family support) are almost twice as likely to experience negative emotional states as those with high support. Family support plays an important role in reducing economic and emotional stress (Mane *et al.*, 2024). The support that pregnant women need from their families includes emotional support in the form of feeling loved and understood, informational support in the form of knowledge about pregnancy and childbirth, instrumental support in the form of help with housework, caring for other children, or financial matters, and appraisal support in the form of recognition and validation of the pregnant woman's feelings.

Pregnancy related illnesses influences negative emotional states with a p-value of 0,024. Additionally, illness during pregnancy is also a major factor causing negative emotional states with an odds ratio of 2,5. Medical conditions or complications during pregnancy (such as hypertension in pregnancy, gestational diabetes, anemia, hyperemesis gravidarum, infections, or chronic comorbidity such as asthma, heart disease, and autoimmune disorders) have been shown to increase the risk of negative emotional states in the form of stress, anxiety, and depression (Gebresilus, Asrat and Amare, 2025). The impact of illness during pregnancy can occur in mothers, namely the risk of antenatal depression, anxiety, sleep disorders, and postpartum depression. Obstetric diseases (such as gestational hypertension and anemia) are significantly associated with increased psychological distress in pregnant women. The risk of distress is nearly doubled in mothers with medical complications compared to healthy mothers (Tesfaye, Madoro and Tsegay, 2023). High-risk pregnancy is a major risk factor for negative emotions in pregnant women on three subscales (somatization, anxiety, and depression), which can have adverse effects on both mother and child (Barat *et al.*, 2023). Meanwhile, in fetuses, negative emotional states due to illness is associated with premature birth, low birth weight, and neurological developmental disorders. These impacts can also occur in families, namely an increased need for emotional and economic support.

Conclusion and Suggestions. Prevalence negative emotional states : most (71%) experiencing mild depression, most (68%) experiencing moderate anxiety, with the majority (57%) experiencing moderate stress, and total negative emotional states (experiencing at least one): 67,8%. Several factors that have been proven to cause negative emotional states in pregnant women are age with a p value of 0,019, education level with a p value of 0,041, family support with a p value of 0,001, and pregnancy related illnesses with a p value of 0,024. The most dominant factor influencing the occurrence of negative emotional states is family support, with an odds ratio of 3,9.

Based on findings that indicate negative emotional states vulnerability in pregnant women with risk factors such as age, low education level, lack of family support, and pregnancy comorbidities, it is recommended to get antenatal care at least 6 times during pregnancy to obtain accurate information and education about pregnancy and problems that may accompany pregnancy, such as psychological distress. Providing health education materials that are easy to understand and tailored to the health literacy level of pregnant women, not just based on their formal education level. Provide education and motivation to families to support pregnant women.

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