

Factors Associated with Depression among Pregnant Women Receiving Prenatal Care at a Community Hospital in Thailand's Chonburi Province

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Abstract

The purposes of quantitative research were to study 1) depression among pregnant women receiving prenatal care at a community hospital in Chonburi province; and 2) relationship between factors and depression among pregnant women receiving prenatal care at a community hospital in Chonburi province. The sample was 265 pregnant women at a community hospital in Chonburi province in 2022. The research instrument was a questionnaire. The statistics used for data analysis were percentage, mean, t-test, and f-test. The research results showed that: 1) The overall level of depression among pregnant women receiving prenatal care at a community hospital in Chonburi province was no depression, with a 4.21 average score. There were 199 pregnant women, or 75.09 percent, who did not have depression. Of those, 65 had slight depression, or 24.53 percent, and one had moderate depression, or 0.38 percent. 2) The factors in terms of age, nationality, occupation, educational level, marital status, monthly income, sufficiency of income, relationship with spouse, and pregnant planning did not affect depression among pregnant women receiving prenatal care at a community hospital in Chonburi province. However, the factor of gestational age influenced depression among pregnant women receiving prenatal care at a community hospital in Chonburi province, with a statistical significance level of .05.

Keywords: Depression, Pregnant Woman, Community Hospital, Thailand

INTRODUCTION

Depression is a common and serious medical disorder that has a negative effect on how people feel, think, and behave. But it is still treatable. Depression causes feelings of sadness and/or loss of interest in activities previously enjoyed. It can lead to a variety of emotional and physical problems and may reduce your ability to function both at work and at home. Women's physiques will change, particularly during pregnancy. It has been found that they are worried about their physique changing, a significant increase in weight, and how hormones within the body affect their mental health. Pregnant women go through a variety of feelings during pregnancy, including joy, excitement, worry, and mood swings. To prevent depression getting worse until it becomes unmanageable and having negative effects on both life and property, prenatal nurses ought to advise pregnant women to pay close attention to changes in their own mood and to deal with them as soon as possible. (American Psychiatric Association, 2023) According to data from The American Congress of Obstetricians and Gynecologists (ACOG), 1 in 4 pregnant mothers (14–23%) had the risk to experience depression while pregnant. The relationship between the mother and her family, stress at work, pregnancy complications such congenital disease and bleeding, fear of miscarriage, having a history of depression before pregnancy, being abused, or having an unwanted pregnancy are the main causes of depression during pregnancy. Stress or depression reduces interest in the pregnancy, that may result in the woman losing her appetite or consuming unhealthy foods, or it can cause a preterm birth, which

results in a smaller-than-average baby. Lack of exercise and too little or too much rest make the mother's body weak, which may have an effect on the baby or how the fetal brain develops. (Wanchai Nattrakulpitak²⁵⁶⁶.) Based on knowledge center data, Depression screening rates in Thailand were found to be low between 2019 and 2021. Even though those involved are looking for strategies to boost the proportion of individuals with depression who receive treatment. (Thai Depression Knowledge Center, 2021) Therefore, there should be clear guidelines for evaluating or finding factors related to depression to further reduce depression in pregnant. Depression during pregnancy affects both the mother and the unborn child because of the slow and irregular prenatal care, which includes failing to care for the health of pregnant women and the fetus. This leads to a variety of difficulties, including low birth weight, early birth, complications from giving birth, slow growth during pregnancy, etc. (Miller et al., 2022) Depression is caused by internal factors, including the physical and psychological changes that occur during pregnancy. Hormonal changes occur. Pregnant and postpartum women's mental health is affected by biochemical factors and stress, affecting their chance of having emotional disorders (Nattanipa Pharapob, Sirinart Sirilert, and Nanthaporn Karnwekpanyawong, 2021). In addition, external factors such as lack of support from family, grandparents, and husbands, negative perceptions toward pregnancy, and the severity of pre-existing depression (Pires, Araujo-Pedrosa, Canavarro, 2014).

In the area of responsibility at a community hospital in Chonburi province, there are a total of 1,411 pregnant women, 838 of whom had their initial prenatal treatment at or before 12 weeks of pregnancy (HDC, 2022). Sawittree Vongpradit, Sopen Chunuan, and Sunanta Youngwanichsetha (2022) conducted a literature review of the factors associated with depression in teenage pregnant women and found that life event factors, relationships between spouses, and self-esteem were negatively related to depression at a moderate level, with a statistically significant at the .01 level. In addition, family support is associated with low levels of depression, with a statistically significant at the .01 level. It can be used as fundamental knowledge for preventing depression and as a guide for maintaining teenager pregnant women' mental health. In accordant with Netchanok Kaewjanta, Somporn Rungreangkulki, Yupa Thavornpitak, and others (2014), depression during pregnancy is the cause of a high rate of postpartum depression. Becoming a mother is considered as a life stressor that can lead to postpartum depression. It is possible to say that physical, psychological, and social factors have had an effect on mental health problems that occur when pregnant women and cause postpartum depression. Personal factors associated with depression were found to involve age, education, marital status, and income. In Thailand's northeastern area, a study studying the prevalence and risk factors for depression among pregnant teens revealed that 19.82% of pregnant teenagers had depression.

The researcher is aware of this situation and a problem in order to find a solution, be prepared to assist as soon as depression symptoms appear and reduce depression. As a result, the research aims to study the factors associated with depression in pregnant women receiving prenatal care at a community hospital in Chonburi province.

The purposes of research

1. Study depression among pregnant women receiving prenatal care at a community hospital in Chonburi province.
2. Study the relationship between factors and depression among pregnant women receiving prenatal care at a community hospital in Chonburi province.

Research Conceptual Framework

In this research, the researcher studied research papers related to factors that associated with depression in pregnant women as shown in the picture below.

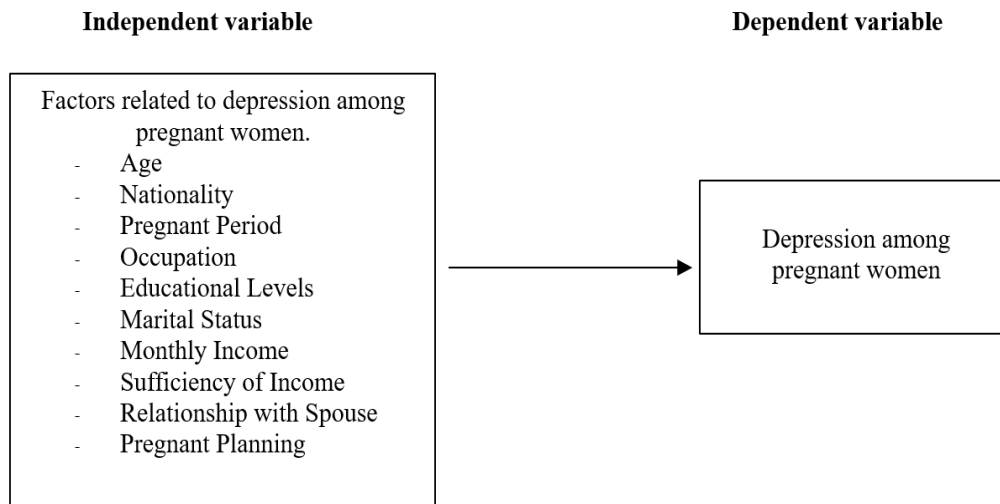


Fig 1: Research Conceptual Framework

RESEARCH METHODOLOGY

The purpose of quantitative research was to study factors that associated with depression among pregnant women receiving prenatal care at a community hospital in Chonburi province.

1. Population and Sample

The population was 838 pregnant women receiving prenatal care at a community hospital in Chonburi province, in 2022.

The sample was 265 pregnant women receiving prenatal care at a community hospital in Chonburi province, in 2022. The sample size was calculated by using Krejcie & Morgan's table (Krejcie & Morgan, 1970p.608). The sample size was then determined in proportion to the number of pregnant women in each hospital, a total of 19 hospitals, in order to get the proportion of the sample according to the number of pregnant women who came to receive prenatal care services. The method of accidental sampling was then used to choose the sample. Women who were pregnant at the time of the study and received prenatal care were chosen, and they gave their consent for questionnaire responses.

Inclusion Criteria are as follows:

1. Pregnant women receiving prenatal care at a community hospital in Chonburi province in 2022
2. No previous psychiatric therapy
3. The ability to comprehend, listen, read, write, speak, and communicate in Thai
4. Obtain consent from parents or husband to participate in the research and voluntarily participate in the research.

2. Research Instrument

Part 1 a questionnaire involves age, nationality, pregnant period, occupation, educational levels, marital status, monthly income, sufficiency of income, relationship with spouse, pregnant planning.

Part 2 The 9-question depression evaluation form (9Q) from the Department of Mental Health in Thailand consists of 9 questions, with a total of 27 points. Within the two weeks before to hospital admission, the depression is evaluated. Scores are divided according to the following criteria:

Scores less than 7, no depression

Scores 7-12 indicate mild depression.

Scores 13-18 indicate moderate depression.

A score of more than 19 indicates severe depression.

3. Data Collection

The researcher has sent a letter requesting permission to conduct the research to the directors of all 19 hospitals and inform them of the research objectives. After receiving approval to gather data, the researcher had a meeting with the chief nurse of the hospital's prenatal clinic to identify himself and explain the purposes of the research. Each question was explained to the research assistant to thoroughly comprehend in order to be able to respond in situations where the sample does not understand and must remain neutral, helping the sample to apply their own judgment as much as possible. When the hospital returned the prenatal clinic's questionnaire collecting, the researcher checked the completeness of the 265 returned questionnaires.

4. Human subject protection

The researcher has asked for permission and notify the objective to the sample in order to request their cooperation in participating in the project voluntarily without coercion in any way. The rights of the decision to participate are explained to them or not be able to participate in the project independently. The sample group can withdraw from the project without affecting your service, be informed that all information will be treated as confidential. The results of the study will be presented as an overall picture.

5. Data Analysis

5.1 Use frequency and mean to analyze the general information from a questionnaire.

5.2 Use the t-test and f-test to analyze factors related to depression in pregnant women receiving prenatal care.

RESEARCH RESULTS

1. General information of respondents

Between the ages of 19 and 25, 42.64 percent of them are Thai nationals. Prenatal care was sought out by 40.75 percent of pregnant women between the ages of 24 and 40 weeks. Of these, general contractors represent 33.58 percent. A vocational qualification or a high school diploma is held by 35.85%. Up to 86.04 percent of those who are married live with their spouse. For 42.64 percent and 44.53 percent, respectively, the average monthly income is between 10,000 and 20,000 baht and less than 10,000 baht. 60.38% of them have enough money. A normal relationship with their spouse was indicated by 71.32 percent of participants. 53.96% of women had plans for their pregnancies, but not by 46.04% of them. Details are shown in Table 1.

Table 1: Shows the number and percentage of the sample group classified according to the respondents' general information.

	Status	Number	Percentage
1.	Age		
	Not older than 18 years	27	10.19
	19 – 25 years old	113	42.64
	26 – 35 years old	99	37.36
	36 – 45 years old	26	9.81
	More than 45 years old	-	-
2.	Nationality		
	Thai	250	94.34
	Others	15	5.66
3.	Pregnant Periods		
	no more than 12 weeks	15	5.66
	12 – 22 weeks	45	16.98
	23 – 33 weeks	97	36.60
	34 – 40 weeks	108	40.75
4.	Occupations		
	General Employee	89	33.58
	Agriculture	15	5.66
	Merchant	36	13.58
	Government Officer/State Enterprise	27	10.19
	Private Employee	56	21.13
	Others	42	15.85
5.	Educational Levels		
	Primary School or Lower	74	27.92
	Secondary School or Vocational Certificate	95	35.85
	Diploma, High Vocational Certificate, or an Equivalent	52	19.62
	Bachelor's degree	39	14.72
	Above a bachelor's degree	-	-
	Others	5	1.89

6.	Marital Status		
	Single	22	8.30
	Married	228	86.04
	Widowed/Divorced	15	5.66
7.	Average Monthly Income		
	Not more than 10,000 Baht	118	44.53
	10,001 – 20,000 Baht	113	42.64
	20,001 – 30,000 Baht	34	12.83
	More than 30,001 Baht	-	-
8.	Sufficiency of Income		
	Sufficient	160	60.38
	Insufficient	105	39.62
9.	Spousal Relationship		
	Normally good	189	71.32
	Not in Contact	76	28.68
10.	Pregnancy Planning		
	Planned	143	53.96
	Unplanned	122	46.04
	Total	265	100

2. Depression in pregnant women receiving prenatal care at Chonburi provincial hospital

It was discovered that pregnant women's overall levels of depression were not depressive, with an average score of 4.21 (S.D. = 3.18). 199 persons, or 75.09 percent, of the pregnant women did not have depression. There were 65 people with mild depression (24.53%) and 1 with moderate depression (0.38%), respectively. Details are shown in Table 2.

Table 2: Shows number and percentage of the sample classified by level of depression

Variable	none	Experience		
		Mild	Moderate	Severe
Depression 9Q	199 (75.09)	65 (24.53)	1 (0.38)	- -

3. Factors related to depression in pregnant women receiving prenatal care at Chonburi provincial hospital

It was discovered that factors in terms of age, nationality, occupation, marital status, and average monthly income, sufficiency of income, spousal relationship, and pregnancy planning had no effect on pregnant women receiving prenatal care at Chonburi provincial hospital. However, with a statistical significance level of .05, the gestational age factor had an effect on the depression of pregnant women receiving prenatal care at Chonburi Provincial Hospital.

Table 3: Shows overall comparative results of depression among pregnant women at Chonburi District Hospital, classified by age, gestational age, occupation, education level, marital status, and monthly income

General Information	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Age	Between Group	55.011	3	18.337	1.826	.143

	Within Group	2620.574	261	10.041		
	Total	2675.585	264			
Gestational Age	Between Group	105.315	3	35.105	3.565	.015*
	Within Group	2570.270	261	9.848		
	Total	2675.585	264			
Occupation	Between Group	99.408	5	19.882	1.999	.079
	Within Group	2576.177	259	9.947		
	Total	2675.585	264			
Educational Level	Between Group	17.373	4	4.343	.425	.791
	Within Group	2658.212	260	10.224		
	Total	2675.585	264			
Marital Status	Between Group	44.833	2	22.417	2.233	.109
	Within Group	2630.752	262	10.041		
	Total	2675.585	264			
Monthly Income	Between Group	1.826	2	.913	.089	.914
	Within Group	2673.759	262	10.205		
	Total	2675.585	264			

Table 4: Shows overall comparative results of depression among pregnant women at Chonburi District Hospital, classified by nationality, sufficiency of income, spousal relationship, and pregnancy planning

* With a statistical significance level of .05

General Information		Number	\bar{X}	S.D.	t	Sig.
Nationality	Thai	250	4.23	3.22	.426	.670
	Others	15	3.87	2.59		
Sufficiency of Income	Sufficient	160	3.96	3.05	-1.591	.113
	Insufficient	105	4.59	3.35		
Spousal Relationship	Normally Good	189	4.01	3.22	-1.593	.112
	Not in Contact	76	4.70	3.06		
Pregnancy Planning	Planned	143	4.15	3.27	-.335	.738
	Unplanned	122	4.28	3.09		

DISCUSSION

- 1) According to the findings of a study on depression among pregnant women receiving prenatal care at Chonburi Provincial Hospital, most of them (75.09%) did not have it while only 24.91% had mild to moderate depression. This may be due to the love and encouragement that pregnant women received from their families, who can continue to support them during this pregnancy. As a result, you can go about your regular activities and interact with people normally. Most pregnant women (86.04%) and their spouses get along well with each other (71.32%). Additionally, they earn enough money to cover their living expenses. They are able to discuss a variety of problems with their spouse, which shows that your family is your most important partner and is capable of taking good care of you while you are pregnant. This is in accordance with research by Kwanta Bunwas, Sasithorn Khamphun, and Chutikarn Saetan (2016) said that relationships between married couples are a particular kind of relationship that had a greater effect on happiness than relationships with family or friends. Pregnant women's happiness was affected differently depending on the characteristics of their relationships. Pregnant women with better relationships scored on average as happier than those whose relationships were unchanged or worsening. These findings confirm that relationship with spouse is a factor affecting the mental health of pregnant women. In accordance with Yaowalak Namsarot (2021), 30% of pregnant women have mild to moderate

depression. In accordance with Poonsuk Shuaytong, Bang-on Nammgorn, Premwadee Karuhadej, and Surang Cherwanitchakorn (2014), pregnant women who conduct good self-care accept their pregnancy and are aware of the advantages of doing so. In order to achieve excellent pregnancy results, have a positive attitude that promotes confidence and has the added benefit of taking care of yourself to prevent pregnant depression.

- 2) It was found that pregnant women getting prenatal treatment at Chonburi Provincial Hospital were unaffected by criteria such as age, nationality, occupation, marital status, average monthly income, sufficiency of income, spousal relationship, and pregnancy planning. However, the gestational age factor did have an effect on the depression of pregnant women getting prenatal care at Chonburi Provincial Hospital, with a statistical significance level of .05. This may be because of the occurrence of depression in pregnant women influenced factors from yourself, your family, and the people around you. And as the gestational age increases, it causes pregnant women to be more concerned about various risks. They must be careful not to have accidents that affect the risk and death of themselves and the fetus affects the mental state, emotions of pregnant women are sensitive, feeling sad. It easily leads to depression. Therefore, pregnant women should be taken care of to have a good mental state. In accordance with Poonsuk Shuaytong, Bang-on Nammgorn, Premwadee Karuhadej, and Surang Cherwanitchakorn (2014) stated that factors predicting depression include education level, marital status, occupation, family income, family characteristics and social support was no relationship with the self-esteem of pregnant women, with a statistically significant at the .05 level. This is in accordance with Rosenberg's (1965) who believes that some life experiences lead to stress, which then leads to depression. Family is one factor that may have an important influence on depression. In addition, pregnant women who have healthy relationships with their spouses, have a positive mental state, and take good care of each other also have positive emotions, behaviors, and personalities.

RECOMMENDATION

1. Implications of the Study

- 1.1 According to the study's findings, 24.91 percent of pregnant women had mild to moderate depression; therefore, these women should be monitored and periodically assessed for depression in order to solve a variety of problems in a timely manner.
- 1.2 According to the study regarding factors related to depression in pregnant women, the gestational age of the pregnant woman was the only factor that had an effect on depression. In order to prevent depression in pregnant women, which may represent a risk to the pregnant woman and her unborn child, hospital personnel, family, relatives, and friends or other people nearby should be careful and attentive, especially as the gestational age increases until birth and after giving birth.

2. Recommendation for further research

- 2.1 The research should be conducted on other factors that can predict depression in pregnant women.
- 2.2 There should be research and development of a self-assessment model for pregnant women along with strengthening the relationship with their husbands to prevent depression.

References

- 1) Bunwas, K., Khamphun, S., & Chutikarn Saetan. (2016). *Factors Affecting Stress among Pregnant Adolescents*. Journal of Boromarajonani College of Nursing, Bangkok, 32(3), 1 – 10.

- 2) Pharapob, N., Sirilert, S., & Karnwekpanyawong, N. (2021). *Psychiatric Disorders in pregnancy*. March, 1 2022, Retrieved from <https://w1.med.cmu.ac.th/obgyn/lecturestopics/topic-review/38188/>
- 3) Kaewjanta, N., Rungreangkulki, S., Thavornpitak, Y. & et al. (2014). *Prevalence of Depression in Adolescent Pregnancy in Antenatal Clinics, Provincial Hospital, Northeastern Thailand*. Journal of the Psychiatric Association of Thailand, 59(3), 207-220.
- 4) Shuaytong, P., Nammgorn, B., Karuhadej, P., Cherwanitchakorn, S. ((2557. *Self-esteem and associated factors of teenagers with first pregnancy*. Chulalongkorn Medical Journal, 58(6), 683 – 696.
- 5) Namsarot, Y., (2021). *Screening for depression and factors related to depression among pregnant women attending prenatal care for the first time*. Health Promoting Hospital Health Center 7, Khon Kaen. October, 1, 2023, retrieved from <https://hpci.anamai.moph.go.th/hl/Res/ResFile/2564000801.docx>
- 6) **Nattrakulpitak, W.**, (2023). *Depression in Pregnant Women, Risk Factors during Pregnancy*. September, 16, 2023, retrieved from [https://www.paolohospital.com/th-TH/chokchai4/Article/Details/สำหรับคุณแม่ตั้งครรภ์/โรคซึมเศร้าในคนท้อง-\(-Depression-in-Pregnancy-](https://www.paolohospital.com/th-TH/chokchai4/Article/Details/สำหรับคุณแม่ตั้งครรภ์/โรคซึมเศร้าในคนท้อง-(-Depression-in-Pregnancy-)
- 7) The Excellent Center of Depression Disorder (2021). *Report on access to services for patients with depression*. September, 16, 2023, Retrieved from https://thaidepression.com/www/report/main_report/.
- 8) Vongpradit, S., Chunuan, S., & Youngwanichsetha, S., (2022). *Factors Associated with Depression among Pregnant Teenagers*. The Southern College Network. Journal of Nursing and Public Health, 9(1), 29-41.
- 9) American Psychiatric Association. (2023). *What Is Depression?*. September 16, 2023, retrieved from <https://www.psychiatry.org/patients-families/depression/what-is-depression>
- 10) HDC. (2565). *อนามัยแม่และเด็ก*. September 16, 2023, retrieved from https://hdcservice.moph.go.th/hdc/reports/page.php?cat_id=1ed90bc32310b503b7ca9b32af425ae5
- 11) Health Data Center. (2019). Number of Population at Songkhla Province 2019. Retrieved December 21, 2019 from <https://ska.hdc.moph.go.th/hdc/report>
- 12) Krejcie, R.V. & Morgan, D.W. (1970). *Educational and Psychological Measurement*. New York: Minnesota University.
- 13) Miller, E. S., Saade, G. R., Simhan, H. N., Monk, C., Haas, D. M., Silver, R. M., Grobman, W. A. (2022). Trajectories of antenatal depression and adverse pregnancy outcomes. *American Journal of Obstetrics & Gynecology*, 226(1), 108.e1-108.e9.
- 14) Pires, R., Araujo-Pedrosa, A., & Canavarro, M. C. (2014). Examining the links between perceived impact of pregnancy, depressive symptoms, and quality of life during adolescent pregnancy: The buffering role of social support. *Maternal and Child Health Journal*, 18(4), 789-800.
- 15) Rosenberg, M. (1965). *Society and the adolescent self-image*. New Jersey: Princeton University Press.