Futuristic Trends in Medical Sciences
e-ISBN: 978-93-6252-219-1
IIP Series, Volume 3, Book 20, Part 2, Chapter 4
A COMPARATIVE STUDY TO ASSESS THE LEVEL OF
DEPRESSION AMONG PREGNANT MOTHERS IN 1ST & 3RD
TRIMESTER OF PREGNANCY IN NMCH AT NELLORE, ANDHRA PRADESH"

A COMPARATIVE STUDY TO ASSESS THE LEVEL OF DEPRESSION AMONG PREGNANT MOTHERS IN 1ST & 3RD TRIMESTER OF PREGNANCY IN NMCH AT NELLORE, ANDHRA PRADESH"

Abstract

Background: Being pregnant is a very special experience for each woman. Generally pregnancy is a state of compromised immunity and hormonal imbalances which makes the pregnant mother more prone for liable mood changes, anxiety and depression etc. Depression and anxiety are common in pregnancy due to in adaptation to bodily changes, raising hormone levels and also about pregnancy outcome. Hence, the complete 9 months of pregnancy state is potential for many complications, pregnant mothers need to be handled safely to manage these depression with proper management to avoid its complications.

Aim: The aim of the study was to assess the level of depression among pregnant mothers at 1st trimester and 3rd trimester.

Objectives: 1. To assess the level of depression among pregnant mothers at 1st trimester and 3rd trimester. 2. To compare the level of depression at 1st & 3rd trimester among pregnant mothers. 3. To associate the level of depression among pregnant mothers with selected socio-demographic variables.

Methodology: 60 antenatal mothers (30 in Ist trimester & 30 in IIIrd trimester) at Narayana Medical College Hospital, Nellore were selected by using non-probability purposive sampling technique.

Results: The study reveals that In 1st trimester, 3(10.2%) had normal/border line,

Authors

Asha Jyothi.C
Staff Nurse (OT)
M.Sc.N(OBG)
Oasis Fertility Centre
Tirupati, Andhra Pradesh, India.

Latha. P
Professor & Principal
Department of OBG
Nishad College of Nursing & Allied
Sciences, Satna, Madhya Pradesh, India.

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17(56.6%) had mild depression, and 10(33.3%) had moderate depression. In 3rd trimester 4(13.3%) had normal/border line 19(63.3%) had mild depression, and 7(23.7%) had moderate depression.

Keywords: Depression, pregnant mothers, trimester, pregnancy.

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I. SECTION-I: INTRODUCTION

Pregnant is a very special experience for each woman. Generally pregnancy is a state of compromised immunity and hormonal imbalances which makes the pregnant mother more prone for liable mood changes, anxiety and depression etc. Depression and anxiety are common in pregnancy due to in adaptation to bodily changes, raising hormone levels and also about pregnancy outcome. Hence, the complete 9 months of pregnancy state is potential for many complications, pregnant mothers need to be handled safely to manage these depression with proper management to avoid its complications.

The physical changes in a woman's body during pregnancy receive plenty of attention, but less consideration is given to the emotional changes she could be experiencing. In addition to her physical health, a woman's emotional well being and her mental outlook can also play important roles in pregnancy. During these nine months, a woman's moods and emotions can range from the highs of feeling overjoyed and excited about having a baby to the lows of feeling impatient and scared as the delivery and motherhood approaches. "Some women are sensitive to changes in estrogens, while others are affected by rising levels of progesterone or stress hormones[5].

II. NEED FOR THE STUDY

Pregnancy and the complication that comes along with it have been a concerning issue of public health around the globe. Depression affects about 20% of women during their lifetime, with pregnancy being a period of high vulnerability. The WHO identifies depression disorders as the second leading cause of global disease burden by 2020. Depression is also the most prevalent psychiatric disorder during pregnancy and several studies have documented prevalence range from 4% to 25% with point prevalence of 15.5% in early and mid pregnancy, 11.1% in 3rd trimester, and 8.7% in post partum period[6].

Acc. to WHO, worldwide about 10% of pregnant women and 13% of women who have just given birth experience a mental disorder, primarily depression. In developing countries this is even higher i.e.15.6% during pregnancy &19.8% after child birth[7].

III. SECTION-II- REVIEW OF LITERATURE

A cross-sectional study was conducted in 2011 on eligible women with depression and other psychological problems are a major health problem during pregnancy and after delivery. Thus, decided to investigate risk factors of depression in different trimesters. Standard questionnaire EPDS was used to screen for depression in the first, second and the third trimesters. The result showed that the mean age of pregnant women was 26.1 ± 5.12 years. 25.3% experienced depression in the first trimester, 28% in each of the second and third, 23.7% had depression in both first and second trimesters, 22% in all three. Also there was a significant relationship in all three trimesters between depression, age and poor education was showed. Regression analysis showed previous history of depression as the strongest depression risk factor in all trimesters. Considering the well-known role of previous history of depression, its timely treatment can largely prevent its persistence[17].

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IV. PROBLEM STATEMENT

"A comparative study to assess the level of depression among pregnant mothers in 1st & 3rd trimester of pregnancy in NMCH at Nellore, Andhra Pradesh".

V. OBJECTIVES

1. To assess the level of depression among pregnant mothers at 1st trimester and 3rd trimester.
2. To compare the level of depression at 1st & 3rd trimester among pregnant mothers
3. To associate the level of depression among pregnant mothers with selected socio-demographic variables.

VI. DELIMITATIONS

The study is limited to pregnant mothers;

1. Admitted in NMCH with 1st and 3rd trimester.
2. Who have mild, moderate, or severe depression
3. The study is limited to 2 weeks of duration.

VII. SECTION-III: METHODOLOGY

1. **Research Approach:** A quantitative approach was adopted to determine the research study.

2. **Research Design:** The present study was conducted by using descriptive design.

3. **Setting:** The study was conducted among pregnant mothers at Narayana Medical College Hospital, Nellore, Andhra Pradesh.

VIII. POPULATION

1. **Target Population:** Pregnant mothers in 1st & 3rd trimester.

2. **Accessible Population:** All pregnant mothers in 1st & 3rd trimester attending antenatal OPD or admitted in antenatal ward of NMCH, Nellore.

IX. SAMPLE FOR THE STUDY

Sample of the present study was pregnant mothers at 1st & 3rd trimester.

X. SAMPLE SIZE

A sample of 60 antenatal mothers i.e. 30 samples of 1st trimester & 30 samples of 3rd trimester.

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XI. SAMPLING TECHNIQUE

The subjects were selected by using non-probability purposive sampling technique.

XII. CRITERIA FOR SAMPLE SELECTION

1. Inclusion Criteria

- Pregnant mothers in 1st trimester & 3rd trimester and admitted in NMCH, Nellore.
- Who can speak & understand Telugu or English.
- Pregnant mothers with depression

2. Exclusion Criteria

- Pregnant mothers who are not willing to participate
- Pregnant mothers who are in II trimester

XIII. VARIABLES

1. **Research Variabl:** Level of depression among pregnant mothers in 1st & 3rd trimester.

2. **Demographic Variables:** Age, occupation, family monthly income, history of abortion, duration of marriage, unplanned pregnancy and obstetric complications.

XIV. DESCRIPTION OF THE TOOL

1. **Part-I:** Demographic data.

2. **Part-II:** An observational check list of Beck inventory depression scale was used to assess the level of depression among pregnant mothers with 1st & 3rd trimester.

XV. SCORE INTERPRETATIONS

1- 10	Normal
11- 20	Mild
21- 30	Moderate
31- 40	Severe
>40	Extreme

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XVI. PILOT STUDY

After obtaining formal written permission from the Medical superintendent/Nursing superintendent of Narayana Medical College Hospital. 6 Antenatal mothers were selected by using non probability purposive sampling technique.

XVII.   METHOD OF DATA COLLECTION

After obtaining formal written permission from the Medical Superintendent/Nursing Superintendent of Narayana Medical College Hospital. The duration of data collection was 4 weeks in selected wards, at Nellore 60 Antenatal mothers were selected by using non probability purposive sampling technique. The antenatal mothers were informed about the nature and purpose of the study and then written consent was obtained and confidentiality was assured. The procedure took 15 minutes for each mother, 3-5 samples was selected per day from 9.00 AM to 5.00 PM. At first demographic data was collected followed by using beck inventory depression scale depression level among pregnant mother in 1st & 3rd trimester were assessed.

XVIII. SECTION- IV: DATA ANALYSIS AND DISCUSSIONS

S.No	Data Analysis	Methods	Remarks
1.	Descriptive statistics	• Frequency& percentage, distribution, • Mean and Standard deviation.	• Description of demographical variables • To compare the level of depression among pregnant mothers with 1st & 3rd trimesters.
2.	Inferential statistics	• Chi –square test	• To associate level of depression with socio- demographic variables among pregnant mothers.

DATA ANALYSIS & DISCUSSION

Table 1: Frequency and Percentage Distribution of Depression Level Among Pregnant Mothers in 1st Trimester and 3rd Trimester
(N=60)

Depression Level	1st Trimester		3rd Trimester	
	F	%	F	%
a. Normal/Border line	3	10.2	4	13.3
b. Mild	17	56.6	19	63.3
c. Moderate	10	33.3	7	23.7
Total	30	100	30	100

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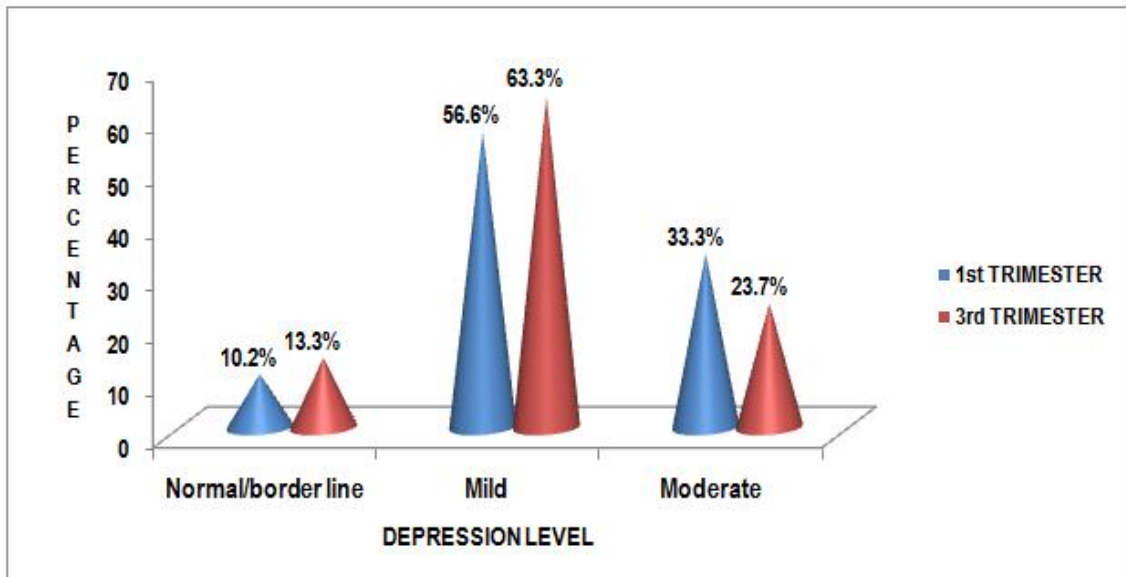TRIMESTER OF PREGNANCY IN NMCH AT NELLORE, ANDHRA PRADESH"

Figure 1: Percentage Distribution of Depression Level Among Pregnant Mothers in 1st & 3rd Trimester

Table 2: Comparison of Mean and Standard Deviation Level of Depression at 1st & 3rd Trimester Among Pregnant Mothers
(N=60)

Category	1st Trimester		3rd Trimester	
	Mean	**Standard deviation**	**Mean**	**Standard deviation**
Pregnant women	17.4	5.014462	16.3	4.251977

Table 3: Association Between Depression Among Women in 1st trimester and Demographic Variables.
(N=30)

S. No	Socio-Demographic Variables	Normal		Mild		Moderate		Chi Square (X^2)
		F	**%**	**F**	**%**	**F**	**%**	
1.	**Age**							C= 4.4922
	a. < 20 years	1	3.33	2	6.66	2	6.66	T= 12.59
	b. 21-25 years	1	3.33	16	36.66	5	16.66	df=6
	c. 26 – 30 years	-	-	10	10	2	6.66	P<0.05
	d. > 30 years	1	3.33	1	3.33	1	3.33	NS
				-		-		

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2.	**Occupation** a. Home makers b. Farmers & coolies c. Business	1 1 1	3.33 3.33 3.33	8 10 1	26.66 13.33 16.66	5 4 1	16.66 13.33 3.33	C=1.899 T= 10.085 df= 4 P<0.05 NS
3.	**Family monthly income** b. Rs.5000 - 10000 c. Rs.10001-15000 d. Rs.> 15000	1 1 1	3.33 3.33 3.33	10 8 1	43.33 6.66 6.66	7 1 2	23.33 3.33 6.66	C=3.1118 T= 10.085 df= 4 P<0.05 NS
4.	**Duration of marriage** a. Less than 1 year b. More than 1 year	2 1	6.66 3.33	17 2	46.66 10	5 5	16.66 16.66	C=15.548 T= 5.99 df= 2 P<0.05 NS
5.	**Unplanned pregnancy** a. Yes b. No	1 2	3.33 6.66	2 17	10 46.66	5 5	16.66 16.66	C=15.548 T= 5.99 df= 2 P<0.05 S*
6.	**History of abortions** a.Yes b. No	1 2	3.33 6.66	2 17	10 46.66	3 7	10 23.33	C =1.381 T= 5.99 df=2 P<0.05 NS
7.	**Any obstetrical complications in pregnancy** a. Yes b. No	2 1	6.66 3.33	4 15	13.33 43.33	4 6	13.33 20	C=5.02 T= 5.99 df= 2 P<0.05 NS

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SECTION-V

Table 4: Association Between Depression Among Women in 3rdtrimester and Demographic Variables
(N=30)

S.No	Socio-Demographic Variables	Normal		Mild		Moderate		Chi Square (X^2)
		F	%	F	%	F	%	
1.	Age a. < 20 years b. 21-25 years c. 26 – 30 years d. > 30 years	1 1 1 1	3.33 3.33 3.33 3.33	2 16 1 -	6.66 53.33 3.33	1 4 1 1	3.33 13.33 3.33 3.33	C=6.684 T= 12.59 df=6 P<0.05 NS
2.	Occupation a. Home makers b. Farmers & coolies c. Business	1 2 1	3.33 6.66 3.33	8 10 1	26.66 33.33 3.33	3 2 2	10 6.66 6.66	C=34.516 T= 10.085 df= 4 P<0.05 S*
3.	Family monthly income b. Rs5000 -10000 c. Rs10001- 15000 d. Rs> 15000	1 2 1	3.33 6.66 3.33	10 8 1	33.33 26.66 3.33	3 3 1	10 10 3.33	C= 13.7396 T= 10.085 df= 4 P<0.05 S*
4.	Duration of marriage a. Less than 1 year b. More than 1 year	2 2	6.66 6.66	17 2	56.66 6.66	6 1	20 3.33	C=9.914 T= 5.99 df= 2 P<0.05 NS
5.	Unplanned pregnancy a. Yes b. No	3 1	10 3.33	2 17	6.66 56.66	2 5	6.66 16.66	C=4.027 T= 5.99 df= 2 P<0.05 NS
6.	History of abortions a.Yes b. No	2 2	6.66 6.66	2 17	6.66 56.66	1 6	3.33 20	C=9.914 T= 5.99 df= 2 P<0.05 S*
7.	Any obstetrical complications in pregnancy a. Yes	2	6.66	4	13.33	2	6.66	C=0.757 T= 5.99 df= 2 P<0.05

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b. No	2	6.66	15	50	5	16.66	NS

XIX. MAJOR FINDINGS OF THE STUDY

1. Regarding the depression level of pregnant mothers, in 1st trimester 3(10.2%) had normal/border line, 17(56.6%) had mild depression, and 10(33.3%) had moderate depression. In 3rd trimester 4(13.3%) had normal/border line 19(63.3%) had mild depression, and 7(23.7%) had moderate depression.
2. In 1st trimester, the mean depression score was 17.4, with standard deviation of 5.014462 and in 3rd trimester, the mean depression score was 16.3, with standard deviation of 4. 251977.
3. Among all the demographic variables only unplanned pregnancy had significant association with level of depression in 1st trimester and occupation, family monthly income, and history of abortion had significant association with level of depression in 3rd trimester at $P < 0.05$ level.

XX. CONCLUSION

The study concluded that, majority of the pregnant mothers in 1st trimester had 17(56.6%) had mild depression, and in 3rd trimester 19(63.3%) had mild depression. And most of the pregnant mothers are prone for anxiety, mood liability depression and emotional disturbances due to hormonal effect. There is an immense need for antenatal counseling and presentational psychotherapies in order to prevent the depression related complications on mother and fetus.

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