



# Adaptation To Pregnancy Related Changes And Anxiety Levels Among Primigravida Mothers In Selected Hospitals, Kamrup (M), Assam, With A View To Develop Information Booklet On Coping Strategies Related To Pregnancy Outcome – An Exploratory Study.

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## **Abstract:**

**BACKGROUND:** Pregnancy is an important stage in women's lives that requires adaptation to many physiological, psychological and sociological variables. Anxiety during pregnancy is one of the strong factors for exerting the ill consequences in delivery and the expected baby's birth.

**AIMS AND OBJECTIVES:** The aim and objectives of the study is to determine Adaptation to Pregnancy Related changes and Anxiety Level among Primigravida Mothers in selected hospitals, Kamrup(M), Assam.

**METHODS AND MATERIALS:** An exploratory research design was used and Purposive sampling technique was used in obtaining adequate sample for the study. Study undertook 80 samples of primigravida mothers who came for antenatal checkup at the antenatal OPD and who are admitted in the antenatal ward from selected hospitals of Kamrup (M), Assam.

**RESULTS:** The findings reveals that 76(95%) had moderate anxiety, 4(5%) had mild anxiety and none of the mothers suffers from severe anxiety. The study also revealed that the demographic variable participated in pre-conceptual counselling ( $p=0.017$ ) had statistically significant association with level of anxiety among primigravida mothers at  $p<0.05$ .

**CONCLUSION:** Through this study, the investigator concluded that although the primigravida mothers adapt to pregnancy related changes, their coping strategies varies from mother to mother and also their anxiety level. The respondents were provided with the handout on coping strategies related to pregnancy outcome as a guide for future pregnancies.

**KEYWORDS:** Adaptation, Pregnancy Related Changes, Anxiety Levels, Primigravida Mothers, Coping Strategies, Pregnancy Outcome.

## INTRODUCTION:

Adaptation to pregnancy and the gain of the motherhood role depend on a variety of psychosocial factors, which are important for a mother. Pregnancy, which initiates the transition to a new life stage, causes physiological and psychosocial changes in woman. Women who have difficulties adapting to this process and accepting their pregnancy are reported to have difficulty in the transition to pregnancy and motherhood. And of course, pregnant woman's ability to adapt to their pregnancy is related to their positive relationships with their husbands and family, their fear of childbirth being under control, their readiness for birth, and their expectations about their baby's health and future.

Pregnancy is one of the most remarkable experiences in a woman's life. It is connected to a wide range of physical, enthusiastic and social changes. Besides, pregnant women are preoccupied with foetal growth and future obligations, making them vulnerable to different psychological issues such as mood swings, exhaustion, mixed anxiety-depressive disorder, emotional disorders, and pregnancy-related anxiety. Pregnancy-related anxiety is an anxiety related to the pregnancy, involving labour and delivery, the well-being of the foetus or infant, the well-being of the mother, the availability and quality of healthcare resources and/or the capacity to parent. The prenatal anxiety of mother is reported to get the effect on sleep disorders of children, and behavioural problems in early childhood.

## OBJECTIVES OF THE STUDY:

- i. To determine Adaptation to Pregnancy Related changes among Primigravida Mothers in selected hospitals, Kamrup(M), Assam.
- ii. To assess the level of Anxiety among Primigravida Mothers in selected hospitals, Kamrup(M), Assam.
- iii. To find out the association between Anxiety Level among Primigravida Mothers with selected demographic variables.

## METHODS AND MATERIALS:

An exploratory research design was used and Purposive sampling technique was used in obtaining adequate sample for the study. Study undertook 80 samples of primigravida mothers who came for antenatal checkup at the antenatal OPD and who are admitted in the antenatal ward from selected hospitals of Kamrup (M), Assam. Respondents were selected based on the inclusive and exclusive criteria. Semi structured questionnaire to assess adaptation to pregnancy related changes and 4-point Likert scale of Pregnancy Related Anxiety Scale to assess anxiety level was used as a tool for the study. After getting ethical clearance from Ethical Committee a formal written permission was obtained from the medical superintendent of the selected hospitals Kamrup(M), Assam to conduct the study. With permission obtained, the investigator enquired about the average antenatal checkup per month. A brief introduction and purpose of the study were explained to the sample prior to data collection, keeping in mind the ethical aspect of research. The data was collected after obtaining the informed consent from the sample for their willingness to participate in the study. The samples were assured anonymity and confidentiality of information provided by them. The study was assessed through self-reporting questionnaire. The collected data were analyzed in terms of objectives of the study using descriptive and inferential statistics.

## DESCRIPTION OF THE TOOL

**Section I:** Demographic data.

**Section II:** Semi-structured questionnaire on adaptation to pregnancy related changes.

**Section III:** 4-point Likert scale to assess anxiety level (Pregnancy Related Anxiety Scale).

**RESULT****SECTION I:**

Frequency and Percentage distribution of respondents according to their demographic data.

**Table 1: Frequency and Percentage distribution of respondents according to their demographic data.**

n=80.

<b>1. Age (in years)</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
18–23	13	16
24–29	38	48
30 -35	25	31
>35	4	5
<b>2.Education qualification</b>		
Primary school	-	-
Secondary school	-	-
High school	29	36
Graduate and above	51	64
No formal education	-	-
<b>3.Occupation</b>		
Government- service	1	1
Private -service	21	26
Self-employed	13	17
Unemployed	45	56
<b>4.Duration of marriage</b>		
<2 years	42	52
2–3years	24	30
3-4 years	11	14
>4 years	3	4
<b>5.Types of family</b>		
Nuclear family	27	34
Joint family	53	66
Extended	-	-
<b>6.Residence</b>		
Urban	64	80
Rural	16	20
<b>7.Participation in pre-conceptual counselling</b>		
Yes	50	62
No	30	38
<b>8.Duration of pregnancy</b>		
First trimester	21	26
Second trimester	16	20
Third trimester	43	54
<b>9.Religion</b>		
Christian	5	6
Hindu	71	89
Muslim	4	5
Others	-	-
<b>10.Income per month</b>		
Rs. <6767	47	59
Rs.6768 – 20273	20	25
Rs.20274 – 33792	7	9
Rs.33793– 50559	6	7
Rs.50560– 67586	-	-

Rs.67587-135168	-	-
Rs. >135169	-	-

The table 1 portrays that most of the primigravida mothers, 38(48%) were aged between 24-29 years, 51(64%) were graduate and above, 45(56%) were unemployed, 42(52%) had <2 years of marriage, 53(66%) belonged to joint family, 64(80%) were residing in urban area, 50(62%) had not participated in pre-conceptual training, 43(54%) were in 3<sup>rd</sup> trimester of pregnancy, 71(89%) were Hindus and 47(59%) had monthly income of Rs.<6767.

## SECTION II:

Frequency and percentage distribution of adaptation to pregnancy related changes by the primigravida mothers

**Table 2: Frequency and percentage distribution of adaptation to pregnancy related changes by the primigravida mothers**

n=80

<b>1.Suffer from nausea and vomiting.</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Yes	38	47
No	42	53
<b>1.1. If yes how often.</b>		
1 time a day	15	40
2 times a day	16	42
>2 times a day.	7	18
<b>1.2. If yes, how do you manage/cope, specify</b>		
Take rest	14	37
Take medicine	12	32
Drink lemon juice	12	31
<b>2.Suffer from heart burn</b>		
Yes	33	41
No	47	59
<b>2.1. If yes, how often</b>		
1 time a week	12	37
2 times a week	10	30
>2 times a week	11	33
<b>2.2. If yes, how do you cope/manage, specify</b>		
Take medicine	14	43
Taking rest	10	30
Drink warm water	4	12
Drink more water	3	9
Take red tea	1	3
Drink coconut water	1	3
<b>3.Suffer from constipation</b>		
Yes	21	26
No	59	74
<b>3.1. If yes, how often</b>		
1 time a week	10	48
2 times a week	7	33
>2 times a week	4	19
<b>3.2. If yes, how to you manage/cope, specify</b>		
Drink lots of water	14	67
Take medicine	4	19
Deink warm water	3	14
<b>4.Suffer from indigestion</b>		
Yes	29	36
No	51	64

<b>4.1. If yes, how often</b>		
1 time a week	12	41
2 times a week	15	52
>2 times a week	2	7
<b>4.2. If yes, how do you manage/cope, specify</b>		
Drink lots of water	14	48
Taking medicine	8	28
Drink warm water	3	10
Take blend diet	3	10
Drink lemon juice	1	4
<b>5.Suffer from backache</b>		
Yes	41	51
No	39	49
<b>5.1. If yes, how often</b>		
Everyday	22	54
1 time a week	11	27
>2 times a week	8	19
<b>5.2. If yes, how do you manage/cope, specify</b>		
Massage	33	81
Take rest	5	12
Yoga and exercise	3	7
<b>6.Suffer from muscle cramp</b>		
Yes	30	37
No	50	63
<b>6.1. If yes, how often</b>		
Whole day	10	33
2 times a week	14	47
Whole week	6	20
<b>6.2. If yes, how do you manage/cope, specify</b>		
Massage	28	93
Exercise and yoga	2	7
<b>7.Suffer from increased pigmentation e.g. stretch mark, dark skin patches on the face</b>		
Yes	16	20
No	64	80
<b>7.1. If yes, how do you manage/cope, specify</b>		
Apply lotion	9	56
Apply cream	5	31
Apply bio-oil	2	13
<b>8.Suffer from skin irritation</b>		
Yes	28	35
No	52	65
<b>8.1. If yes, how often</b>		
Whole day	5	18
2 times a week	18	64
Whole week	5	18
<b>8.2. If yes, how do you manage/cope, specify</b>		
Apply lotion	14	50
Apply cream	5	18
Apply coconut oil	4	14
Apply bio-oil	3	11
Apply powder	2	7

The table 2 denotes that among the primigravida mothers, 38(47%) had suffered from nausea and vomiting, 16(42%) had nausea and vomiting two times a day, 14(37%) had taken rest to manage/cope nausea and vomiting, 33(41%) had suffered from heart burn, 12(37%) had heart burn one time a day, 14(43%) had taken medicine to manage/cope heart burn, 21(26%) had suffered from constipation,

10(48%) had suffered from constipation one time a day, 14(67%) drink lot of water to manage/cope constipation, 29(36%) had suffered from indigestion, 15(52%) had indigestion two times a day, 14(48%) drink lot of water to manage/cope indigestion, 41(51%) had suffered from backache, 22(54%) had backache every day, 33(81%) had undergone massage to manage/cope with backache, 30(37%) had suffered from muscle cramp, 14(47%) had muscle cramp two times a week, 28(93%) had undergone massage to manage/cope with muscle cramp, 16(20%) had suffered from increased pigmentation, 9(56%) had applied lotion to manage/cope with increased pigmentation, 28(35%) had suffered from skin irritation or itching, 18(64%) had skin irritation or itching two times a week and 14(50%) had applied lotion to manage/cope with skin irritation or itching.

SECTION III:

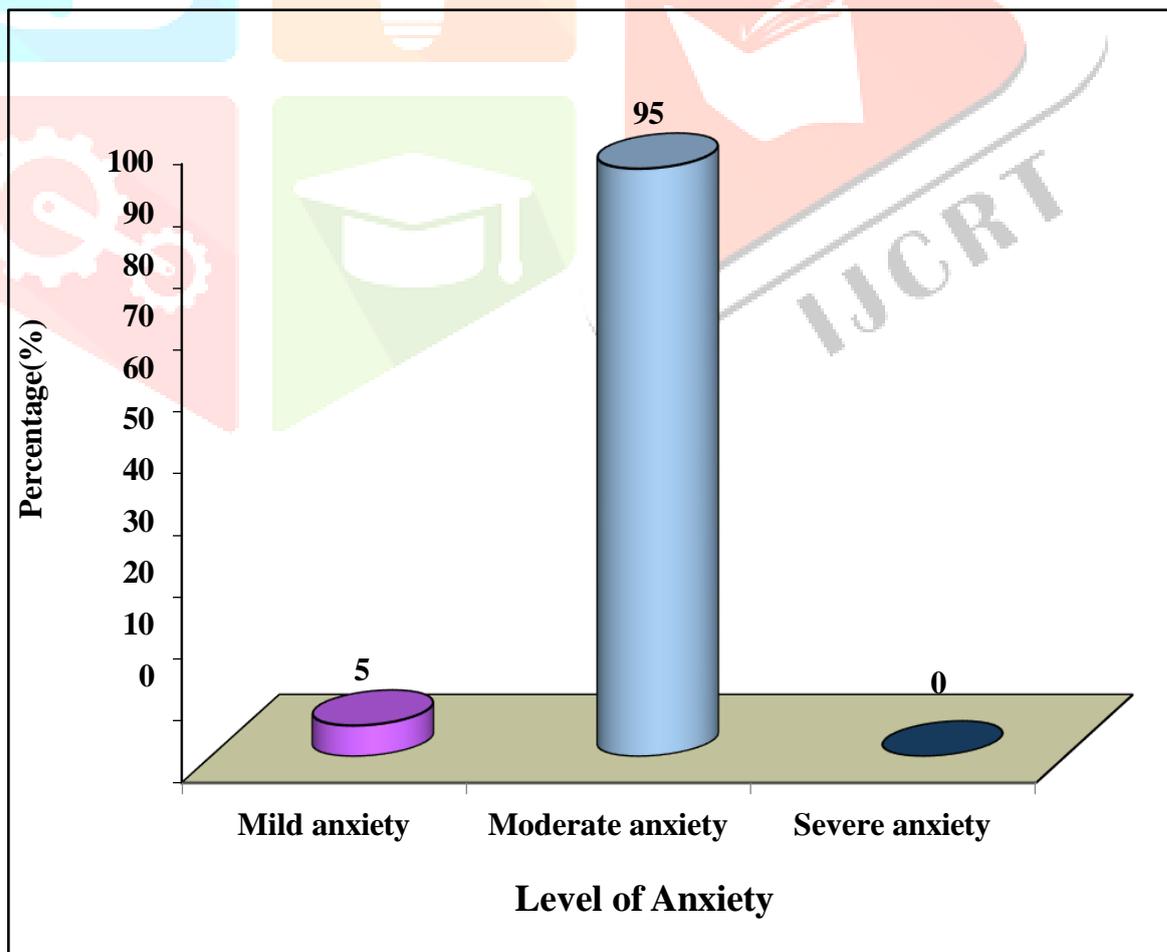
Frequency and percentage distribution of level of anxiety among primigravida mothers.

**Table 3: Frequency and percentage distribution of level of anxiety among primigravida mothers.**  
n=80

Level of Anxiety	Frequency	Percentage (%)
Mild anxiety: <43 score (<33%)	4	5
Moderate anxiety:43- 85 scores (33-66%)	76	95
Severe anxiety: >85 score (>66%)	-	-

The table 3 depicts the frequency and percentage distribution of level of anxiety among primigravida mothers. It shows that 76(95%) had moderate anxiety and 4(5%) had mild anxiety.

n=80



Bar diagram showing percentage distribution of anxiety level among primigravida mothers

## SECTION IV:

Assessment of mean and standard deviation of anxiety scores among primigravida mothers.

**Table 4: Assessment of mean and standard deviation of anxiety scores among primigravida mothers.**

n= 80

Anxiety	Mean
Minimum	38
Maximum	84
Median	60
Mean	59.38
Standard Deviation (S.D)	11.09

The table 4 shows that the mean score of anxiety was  $59.38 \pm 11.09$ . The median score was 60. The minimum and maximum score was 38 and 84.

## SECTION V:

Association of level of anxiety among primigravida mothers with their selected demographic data.

**Table 5: Association of level of anxiety among primigravida mothers with their selected demographic data.**

n=80

Demographic Data	Mild		Moderate		Fisher Exact test p-value
	f	%	f	%	
<b>1.Age (in years)</b>					p=1.000 N.S
18 – 23	1	1.2	12	15.0	
24 – 29	2	2.5	36	45.0	
30 – 35	1	1.2	24	30.0	
>35	-	-	4	5.0	
<b>2.Educational qualification</b>					p=1.000 N.S
Primary school	-	-	-	-	
Secondary school	-	-	-	-	
High school	1	1.2	28	35.0	
Graduate and above	3	3.8	48	60.0	
No formal education	-	-	-	-	
<b>3.Occupation</b>					p=0.509 N.S
Government – service	-	-	1	1.2	
Private – service	-	-	21	26.2	
Self-employed	1	1.2	12	15.0	
Unemployed	3	3.8	42	52.5	
<b>4.Duration of marriage</b>					p=0.676 N.S
<2 years	2	2.5	40	50.0	
2 – 3 years	1	1.2	23	28.8	
3 – 4 years	1	1.2	10	12.5	
>4 years	-	0	3	3.8	
<b>5.Family type</b>					p=0.294 N.S
Nuclear family	-	-	27	33.8	
Joint family	4	5.0	49	61.2	
Extended	-	-	-	-	
<b>6.Residence</b>					p=1.000 N.S
Urban	3	3.8	61	76.2	
Rural	1	1.2	15	18.8	

<b>7.Participation in pre-conceptual counselling</b>					<b>p=0.017</b> <b>S*</b>
Yes	-	-	50	62.5	
No	4	5.0	26	32.5	
<b>8.Duration of pregnancy</b>					<b>p=0.808</b> <b>N.S</b>
1 <sup>st</sup> trimester	1	1.2	20	25.0	
2 <sup>nd</sup> trimester	-	-	16	20.0	
3 <sup>rd</sup> trimester	3	3.8	40	50.0	
<b>9.Religion</b>					<b>p=1.000</b> <b>N.S</b>
Christian	-	-	5	6.2	
Hindu	4	5.0	67	83.8	
Muslim	-	-	4	5.0	
Others	-	-	-	-	
<b>10.Income per month</b>					<b>p=0.375</b> <b>N.S</b>
Rs. <6767	3	3.8	44	55.0	
Rs.6768 – 20273	-	-	20	25.0	
Rs.20274 – 33792	1	1.2	6	7.5	
Rs.33793– 50559	-	-	6	7.5	
Rs.50560– 67586	-	-	-	-	
Rs.67587-135168	-	-	-	-	
Rs. ≥135169	-	-	-	-	

**\*p<0.05, S – Significant**

**N.S – Not Significant, p>0.05**

The table 5 shows the association of level of anxiety among primigravida mothers with their selected demographic variables by using Fisher Exact Test. It was observed that the demographic data participated in pre-conceptual counselling (**p=0.017**) had statistically significant association with level of anxiety among primigravida mothers at  $p<0.05$  and the other demographic variables did not show statistically significant association with level of anxiety among primigravida mothers at  $p<0.05$  level.

## INETPRETATION

Hence the research hypothesis was accepted and the null hypothesis was rejected and infers that there is an association of level of anxiety among primigravida mothers with the selected demographic data such as participated in pre-conceptual counselling.

The null hypothesis is accepted and research hypothesis is rejected with the selected demographic data such as age (in years), educational qualification, occupation, duration of marriage, family type, residence, duration of pregnancy, religion and income per month.

## CONCLUSION

After analyzing the collected data, this study shows that out of 80 primigravida mothers' majority of the respondents that is 76(95%) had moderate anxiety and only 4(5%) had mild anxiety. None of the respondents have severe anxiety. Although the primigravida mothers adapt to pregnancy related changes their coping strategies varies from mother to mother and also their anxiety level. There is an association of level of anxiety among primigravida mothers with the selected demographic data such as participated in pre-conceptual counselling. Since, majority of the primigravida mothers have moderate anxiety, it is evident that the pregnant mothers suffered from anxiety while coping through physiological transition during pregnancy. Therefore, health care workers can give awareness on coping strategies on pregnancy outcome and anxiety to overcome the stress the pregnant women face during the pregnancy process.

## REFERENCES

1. Kara P, Var E, Nazik E, Determination of adaptation to pregnancy and anxiety levels in primiparous pregnant women and affecting factors. Journal of Nursology [Internet].2023;26(4):280–6. Availablefrom: <http://dx.doi.org/10.5152/janhs.2023.23505>
2. Teskereci G, Akgün M, Boz I, The precursor's adaptation to pregnancy, prenatal attachment and maternal self-confidence. J ObstetGynaecol [Internet]. 2022;42(8):3552–9. Availablefrom: <http://dx.doi.org/10.1080/01443615.2022.2158312>
3. Megananda NK, Beo YA, Albyn DF. Mother's adaptation process during pregnancy: A systematic review. PPMH Journal. 2021;1(2):49–55.
4. Hadfield K, Akyirem S, Sartori L, Abdul-Latif A-M, Akaateba D, Bayrampour H, et al. Measurement of pregnancy-related anxiety worldwide: a systematic review. BMC Pregnancy Childbirth [Internet]. 2022;22(1). Available from: <http://dx.doi.org/10.1186/s12884-022-04661-8>
5. Sahoo S, Gill G, Sikka P, Nehra R. Antenatal depression and anxiety in Indian women: A systematic review. Ind Psychiatry J [Internet]. 2023;32(2):222–33. Available from: [http://dx.doi.org/10.4103/ipj.ipj\\_156\\_22](http://dx.doi.org/10.4103/ipj.ipj_156_22)
6. Arazzaman N, prenatal anxiety among the antenatal primigravida mothers in gmch, guwahati, assam in a view to develop an information booklet in GMCH, Guwahati, Assam (2021). Volume - 10 | Issue - 04 | April - 2021 | PRINT ISSN No. 2277 - 8179 | DOI: 10.36106/ijsr.
7. Sharma S.K. Nursing Research and Statistics. 4nd edition. New Delhi: Elsevier, 2023.
8. Hungler P and Polit DF, Nursing Research: Principles and Methods, 9<sup>th</sup> edition, New Delhi Wolter Kluner (India) Pvt Ltd, 2012.
9. Treece W.E, Element of Research in Nursing, 2nd edition. CV Mosby Company Publishing:2009.
10. Brunton, R. J., Dryer, R., Krageloh, C., Saliba, A., Kohlhoff, J., & Medvedev, O. (2018). The Pregnancy-related Anxiety Scale: a validity examination using Rasch analysis. Journal of Affective Disorders, 236C, 127-135. Doi: 10.1016/j.jad.2018.04.116

