



## LEVEL OF STRESS AMONG ANTENATAL MOTHERS DURING COVID -19 IN SELECTED HOSPITAL OF KAMRUP(M) ASSAM: A DESCRIPTIVE STUDY

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### ABSTRACT

The COVID-19 pandemic was having a tremendous impact on pregnant women. Since the World Health Organization declared that COVID-19 was a worldwide pandemic (WHO, 2020), restrictions related to maternal care emerged. In many countries, including Spain, prenatal and postnatal appointments were canceled or delivered by video-conference or telephone, accompaniment during delivery was restricted, wearing a mask was compulsory, and breastfeeding was in some places discouraged. **Aim :-** Aim of the study was to assess the level of stress during COVID-19 pandemic among antenatal mothers in selected hospitals of Kamrup (M), Assam. **Methods and materials:** A descriptive research design was used to accomplish the objectives. Study was undertaken on 150 antenatal mothers of selected hospitals of Kamrup (M), Assam by using purposive sampling technique. 5 point Likert scale was used to assess level of stress. The reliability of the tool was done by using Test retest Method, where  $r=0.95$ . So it was found to be reliable. Modified Lazaus and Flokman's stress and coping model 1966, was used as conceptual framework. **Results :** Out 150 antenatal mothers 47(31.3%) were aged between 18 – 20 years, 91(60.7%) were Hindus, 71(47.3%) had secondary education, 75(50%) were unemployed, 104(69.4%) had an income of  $\leq$ Rs. 15000 per month, 89(59.3%) belonged to nuclear family, 102(68%) were primi mothers and 45(30%) received information related to COVID-19 and pregnancy through social media. In level of stress regarding physiological aspects, majority i.e. 136(90.67%) had moderate and 14(9.33%) had severe problems. With respect to the domain psychological problems 134(89.33%) had moderate and 15(10.67%) had severe problems. Regarding the domain behavioral problems, 140(93.33%) had moderate and 10(6.67%) had severe problems. Considering the cognitive symptoms, 143(95.33%) had moderate and 7(4.67%) had severe symptoms. The overall level of stress revealed that, 143(95.33%) had moderate stress and 7(4.67%) had severe stress and mean score was  $88.35 \pm 11.82$  with minimum score was 61.0 and the maximum score was 128.0. There was significant association between the level of stress with selected demographic variables such as education, occupation, Source of information related to COVID-19 and pregnancy. **Conclusion:** From this study it was concluded that majority of antenatal mothers had moderate stress with regards to physiological, psychological, behavioral and cognitive aspects.

**KEYWORDS :** Level of stress , COVID-19 pandemic, antenatal mothers.

### INTRODUCTION

The rapid spread of COVID-19 has impacted many aspects of human life and activities. The drastic restrictions on economic activities have resulted in enormous economic losses and consequent loss of incomes and livelihood. Consequently, mental health of the population has become a public health concern and should be studied. In the broader discourse on public health discourse, both maternal health and maternal mental health are usually overlooked.<sup>1</sup>

Corona virus is one of the common viruses that can cause infection in sinuses, nose or upper throat. This category of the virus causes harmful diseases in animals as well as in birds. In humans, the virus causes mild respiratory infection, which in rare cases may even cause death.<sup>2</sup>

In India, the rates of common mental disorders in the antenatal period are approximately 22% and include anxiety, depression and stress related disorders . While some amount of anxiety during pregnancy is considered 'normal' higher levels of anxiety requiring clinical attention are not uncommon, as data from India shows.<sup>3</sup>

### OBJECTIVES:

- To assess the level of stress among antenatal mothers regarding COVID 19 in selected hospital of Kamrup (M), Assam.
- To find out the association between level of stress among antenatal mothers with their selected demographic variables.

### REVIEW OF LITERATURE:

#### Section I: Literature related to knowledge of antenatal mothers regarding COVID-19

Farnaz Naqvi, et al. (2022) conducted a cross sectional study on knowledge, attitude and practices of pregnant women related to COVID-19 infection at DRC, Kenya, Zambia, Bangladesh, India, Paistan and Guatemala. A total of 25260 pregnant women participate in the study. Overall, 56.8% of women had COVID-19 symptoms, 34.3% knew  $\geq 2$  transmission modes, 51.3% knew  $\geq 3$  preventive measures and 79.7% named at least one high-risk condition. Due to COVID-19 exposure concerns, 23.8% had avoided prenatal care and 7.5% planned to avoid hospital delivery. Over half the women in the Guatemalan site and 40% in the Pakistan site reduced care seeking due

to COVID-19 exposure concerns. 24.0% of pregnant women were afraid of getting COVID-19 from healthcare providers. Overall, 63.3% reported wearing a mask and 29.1% planned to stay at home to reduce COVID-19 exposure risk.<sup>4</sup>

#### Section II: LITERATURE RELATED TO STRESS OF ANTENATAL MOTHERS REGARDING COVID-19.

Prasuna Jelly et al. (2021), conducted a cross-sectional survey on Impact of COVID-19 pandemic on the psychological status of pregnant women. The study was conducted from July 15, 2020, to September 15, 2020, in Dehradun, Haridwar, and Nainital districts of Uttarakhand, India. A total of 333 pregnant women were surveyed through an online platform. The survey results revealed that around three-fourths (73.6%) of the pregnant women reported minimal psychological impact, with a mean IES-R score of  $16.93 \pm 11.23$ , whereas 69.4% of respondents had a minimal level of anxiety, with a mean GAD-7 score of  $3.09 \pm 3.73$ . Psychological impact and anxiety levels were found to be minimal in pregnant women residing in Uttarakhand. Early identification of high-risk women is important to formulate necessary strategic planning to reduce the complications associated with maternal psychological stress on developing fetus.<sup>5</sup>

### RESEARCH METHODOLOGY

**RESEARCH APPROACH-** Quantitative research approach.

**RESEARCH DESIGN-** Descriptive research design.

**RESEARCH VARIABLES-** Level of stress among antenatal mothers during COVID-19 .

**DEMOGRAPHIC VARIABLES** –In this study, demographic variables are age, religion, education, occupation of family, income/month, type of family, number of pregnancy, source of information related to COVID-19 and pregnancy.

**SETTING OF THE STUDY** – Sonapur Distric Hospital, Kamrup , Assam.

**POPULATION** – Antenatal mothers

**TARGET POPULATION** –Antenatal mothers who are attending in antenatal OPD and are admitted in antenatal ward.

**ACCESSIBLE POPULATION** -Mothers who are attending in antenatal OPD and are admitted in antenatal ward in Sonapur District Hospital of Kamrup (M), Assam.

**SAMPLES-** Antenatal mothers who fulfill the inclusion criteria.

**SAMPLING TECHNIQUE-** Non probability purposive sampling technique.

**SAMPLE SIZE** -150

**Inclusion criteria:** In this study inclusion criteria were antenatal mothers-

- who are present in antenatal OPD and are admitted in antenatal ward.
- Who are willing to participate.
- Who are available during the time of data collection.

**Exclusion criteria:**

- Antenatal mothers who were mentally unstable.
- Who can not read Assamese language.

Tool and technique: Five point Likert scale was used to assess the level of stress of antenatal mothers and technique was self report.

**Scoring key:**

There is no right and wrong answers in any question.

For physiological problems, psychological aspects, behavioral problems and cognitive problems of stress, there are 5 response and each response has been given score-

Never=1

Rarely=2

Sometimes=3

Most of the time=4

All the time=5

The score of stress level was interpreted as-

0-53(≤33%) = Mild stress

54-106(34%-68%) = Moderate stress

107-160(69%-100%) = Severe stress

**Content Validity of the Tool:** The prepared instrument along with the problem statement and objectives was submitted to 8 experts.

**Reliability of the Tool:**

The reliability was found to be  $r = 0.95$  for level of stress which indicate that the tool was reliable for the study.

**Pilot study:** The pilot study was conducted from 30th November, 2021 to 6th December, 2021. Samples were selected using purposive sampling technique and the study was found to be feasible.

**Main study:** The data collection period was scheduled from 17.01.22 to 04.02.22 from 9am to 2pm as per scheduled for a period of 3 weeks. The study was conducted after obtaining permission from the respective authorities of the selected hospitals. A brief self introduction and the purpose of the study were explained to the samples prior to data collection and keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample for their willingness to participate in the study. The samples were assured anonymity and confidentiality of information provided by them. The level of stress of the study was assessed through 5 point Likert scale. On completion of data collection, the investigator provided informal education on how to cope with stress, what necessary precaution should they take.

**RESULTS:**

**Table I: Frequency and percentage distribution of antenatal mothers according to their demographic variables. n=150**

Demographic Variables	Frequency (f)	Percentage (%)
Age in years		
18 – 20	47	31.3
21 – 23	35	23.3
24 – 26	39	26.0
>26	29	19.4

Religion		
Hindu	91	60.7
Muslim	42	28.0
Christian	17	11.3
Primary	70	46.7
Secondary	71	47.3
Graduate	9	6.0
Post graduate and above	-	-
Occupation of family		
Government service	-	-
Business	65	43.3
Private	10	6.7
Unemployed	75	50.0
Income / month (in Rs.) in the family		
≤15000	104	69.4
15000 – 20000	44	29.3
20000 – 25000	2	1.3
≥25000	-	-
Type of family		
Joint	61	40.7
Extended	-	-
Number of pregnancy		
Primi	102	68.0
Multi	48	32.0
Source of information related to COVID-19 and pregnancy		
Peer groups	26	17.3
Family members	36	24.0
Mass media	43	28.7
Social media	45	30.0

**Table II: Frequency and percentage distribution of staff nurses according to the level of stress.**

Level of Stress	Mild Stress (≤33%)		Moderate Stress (34 – 66%)		Severe Stress (>66%)		Mean	SD	Range of score	Total score
	F	%	F	%	F	%				
Physiological Problems	0	0	136	90.67	14	9.33	28.64	4.81	18.0-42	160
Psychological Problems	0	0	134	89.33	16	10.67	29.27	4.64	18.0-40	
Behavioural Problems	9	6.0	140	93.33	1	0.67	14.42	2.46	9.0-24	
Cognitive Symptoms	0	0	143	95.33	7	4.67	16.02	2.38	10.0-24	
Overall	0	0	143	95.33	7	4.67	88.35	11.82	61.0-128	

The findings of the present study is in contrast with study conducted by Abdulkarim M. Meraya , Mamoon H. Syed,Ayesha Yasmeen,Amal A. Mubarak, , et al. (2021) had conducted a cross sectional study on COVID-19 related psychological distress and fears among mothers and pregnant women in Saudi Arabia using snowball sampling method of 628 women who were either mothers of children under 10 years of age or were pregnant. The results shows that among the participants mothers' and pregnant women's (N = 628) psychological distress was high during the time of the COVID-19 outbreak in Saudi Arabia. The

mean psychological distress score was 9.2 (SD = 5.2). The Cronbach's alpha for the scale was 0.85. The majority (94.9%) of the sample self-reported some degree of psychological distress during the time of the survey. Specifically, 34.7% reported moderate psychological distress, and 39% reported high psychological distress.

**Table III: Association of level of stress among antenatal mothers regarding COVID-19 with their selected demographic variables. n = 150**

SL.NO.	Demographic Variables	Chi square	df	P- value	Remarks
1.	Age in years	3.843	3	0.279	N.S at p>0.05
2.	Religion	2.433	2	0.296	N.S at p>0.05
3.	Education	8.170	2	0.017	S at p<0.01
4.	Occupation	9.602	2	0.008	S at p<0.001
5.	Income / month (in Rs.) in the family	0.949	2	0.622	N.S at p>0.01
6.	Type of family	2.880	1	0.090	N.S at p>0.01
7.	Number of pregnancy	0.398	1	0.528	N.S at p>0.05
8.	Source of information related to COVID-19 and pregnancy	8.223	3	0.042	S at p<0.05

N. S = Not significant, S=Significant, df= Degree of Freedom

Table III shows the association of level of stress among antenatal mothers during COVID-19 with their demographic variables. It was observed that education, occupation and source of information related to COVID-19 and pregnancy had statistically significant association.

### CONCLUSION:

The following conclusion were drawn from the present study:

In level of stress , majority 143(95.33%) had moderate stress and 7(4.67%) had severe stress among antenatal mothers regarding COVID-19.

The mean score of stress was 88.35±11.82 with minimum score of 61.0 and the maximum score of 128.0. The median score was 91.0.

Thus, this study concluded that majority of antenatal mothers have moderate stress during COVID-19 pandemic as they have well adopted with the situation.

### REFERENCES:

- Jungari, S. (2020). Maternal mental health in India during COVID-19. *Public Health*, 185, 97–98. doi:10.1016/j.puhe.2020.05.062.
- Narayana Health. (2020, January 29). Know about Coronavirus. Retrieved June 11, 2022, from Narayana Health Care website: <https://www.narayanahealth.org/blog/know-about-coronavirus/>.
- Taubman - Ben-Ari, O., Chasson, M., Abu Sharkia, S., & Weiss, E. (2020). Distress and anxiety associated with COVID-19 among Jewish and Arab pregnant women in Israel. *Journal of Reproductive and Infant Psychology*, 38(3), 340–348. doi:10.1080/02646838.2020.1786037.
- Naqvi, F., Naqvi, S., Billah, S. M., Saleem, S., Fogleman, E., Peres-da-Silva, N., ... Goldenberg, R. L. (2022). Knowledge, attitude and practices of pregnant women related to COVID-19 infection: A cross-sectional survey in seven countries from the Global Network for Women's and Children's Health. *BJOG: An International Journal of Obstetrics and Gynaecology*. doi:10.1111/1471-0528.17122.
- Jelly, P., Chadha, L., Kaur, N., Sharma, S., Sharma, R., Stephen, S., & Rohilla, J. (2021). Impact of COVID-19 pandemic on the psychological status of pregnant women. *Cureus*. doi:10.7759/cureus.12875.
- Merayya, A. M., Syed, M. H., Yasmeen, A., Mubarak, A. A., Kariy, H. D., Maabouj, W., ... Makeen, H. A. (2021). COVID-19 related psychological distress and fears among mothers and pregnant women in Saudi Arabia. *PloS One*, 16(8), e0256597. doi:10.1371/journal.pone.0256597.