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A comparative study to assess the psychological impact of covid among the pregnant mother

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Abstract

Introduction: The coronavirus disease 2019 (COVID-19) pandemic has recently become the most important issue in the world. Fear and worry about COVID, the impact of the state of emergency on daily life, and the difficulty in predicting the situation have caused much stress and have led to mental health problems.

Method: The researcher adopted quantitative approach were descriptive research design n was used to discuss the phenomenon. A total of 100 pregnant mothers each 50 from rural and urban areas were selected, who underwent inclusion to participate in this study. The tool section were categorized on two parts one includes demographic variable and another structured 22 item questionnaire.

Result: it had been clearly stated that among the mother of the rural areas, 21(42%) of the majority of the pregnant mothers had mild psychological impact, followed by the 18(36%) had no psychological impact of the COVID, 11(22%) had moderate impact of the COVID scenario and none had severe issues. Whereas, discussion about the pregnant mothers of the urban areas, 18(36%) had mild psychological stress, 15(30%) had moderate psychological issues like feeling of hyper arousal, avoidance during the COVID scenario.

Conclusion: The implementation of measures to contain COVID was estimated to negatively affect psychosocial family functioning and may have escalated the risk of depression among mothers.

Keywords: U.P.: Uttar Pradesh, H: Hypothesis, NS: Non Significant

Introduction

Background of the Study

Evidence of COVID and its relation to mental health issues has been published in different countries, and the psychological impact of COVID is already obvious, both in the general population and in people with existing mental disorders. On a clinical perspective, pregnant women have been susceptible to the SARS- CoV-2, but, differently from the Non-pregnant women of childbearing age, they may have a higher risk of developing symptomatic disease and thrombo-embolic consequences, given the pro-thrombotic background of pregnancy itself.

Need of the Study

In December 2019 an outbreak of the new coronavirus pneumonia disease (COVID-19), of unknown etiology, appeared in Wuhan, the capital of Hubei. Thus, in March 2020, a few months after the onset of COVID-19, the World Health Organization (WHO) declared a pandemic caused by the new disease. In this line, different studies conducted during the initial phases of expansion of the previous pandemic caused by Severe Acute Respiratory Syndrome (SARS) showed an increase in psychiatric disorders. These disorders included: anxiety, depression, panic attacks, psychotic symptoms and even cases of suicide. One particularly vulnerable group could be pregnant women due to their condition. In fact, it is well known that during pregnancy the likelihood of experiencing mental disorders increases. For example, 22% of pregnant women have anxiety and 12% experience depression. One of the statistical survey conducted in Japan stated that an online EPDS-based survey of pregnant women during the COVID pandemic was conducted in Japan, the respondents were not compared with a control group that reflected the situation before the COVID pandemic.

Problem statement

A comparative study to assess the psychological impact of COVID among the pregnant mother in selected rural and urban area in Saharanpur (U.P.) India.

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Objectives of the study

- To assess the prevalence of psychological impact of COVID among pregnant mothers living in the urban areas of Saharanpur U.P.
- To assess the prevalence of psychological impact of COVID among pregnant mothers living in the rural areas of Saharanpur U.P.
- To compare the psychological impact of COVID among the pregnant mothers living in rural and urban areas of Saharanpur U.P.

To explore the association between the psychological impact score with demographic variables of pregnant mothers both living in the rural and urban areas of Saharanpur U.P.

Hypothesis

H₁: There will be significant difference between impact of COVID among the pregnant mother in selected rural and urban area.

H₂: There will be a significant association of psychological impact score with selected socio- demographic variables at the level of $p \leq 0.05$.

Assumptions

- The COVID had some psychological distress among the pregnant mothers residing in the selected rural and urban areas of Indore.

Delimitations

- The pregnant mothers residing in the selected rural and urban areas.
- The sample size is limited to 100.
- The study is limited to 4 weeks.

Research Methodology

Research Approach

In this study a quantitative approach was used to assess the psychological impact of COVID among the pregnant mother in selected rural and urban area in Saharanpur U.P., India.

Research Design

In this present study the researcher adopted a non-experimental descriptive research design was applied was used to assess the psychological impact of COVID among the pregnant mothers.

Variables

Research Variable: In the present study the research

variable refers to the assessment of psychological impact towards COVID among the mothers.

Dependent variable

In this present study the dependent variable includes understanding the demographic characteristics regarding psychological impact of COVID among the rural and urban mothers residing in the selected rural and urban areas using 22 point Likert scale.

Demographic Variable

In this demographic variable include age, parity, gestational age, present maternal morbidity issues, educational level, monthly income, use of social media to get COVID information, present history of COVID infection and whether vaccinated with COVID vaccine.

The setting

The present study was conducted in selected rural and urban areas of Saharanpur U.P.

The population

Target Population: In the present study, the target population consisted of all the mothers residing in the Saharanpur U.P.

Accessible Population

In this present study, the accessible population were the mothers residing in the selected rural and urban areas of Saharanpur U.P.

The sample & sample selection criteria

In the present study the sample comprises of 100 pregnant mothers (50+50 each from rural and urban areas).

Sampling technique

In present study the samples were selected through a non-probability convenient sampling technique.

Criteria for the selection of the samples

Inclusion Criteria

- The mothers who are available at the time of data collection
- The mothers who are willing to participate.
- The mothers residing in the selected rural and urban areas of Indore.

Exclusion Criteria

- The mothers not available at the time of data collection.
- The pregnant mothers who are chronically ill.

Result

Section I: Characteristics and Main Features of Subjects

| Age | Rural Areas | | Urban Areas | |
|----------------|------------------|----------------------|------------------|--------------------------|
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| 18-25 Years | 18 | 36% | 13 | 26% |
| 26-30 Years | 24 | 48% | 17 | 34% |
| 31-35 Years | 06 | 12% | 16 | 32% |
| Above 35 Years | 02 | 04% | 04 | 08% |
| Parity | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Primigravida | 24 | 48% | 22 | 44% |
| Multigravida | 26 | 52% | 28 | 56% |

| Gestational Age | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
|--|-------------------------|-----------------------------|-------------------------|---------------------------------|
| First Trimester | 14 | 22% | 22 | 44% |
| Second Trimester | 23 | 46% | 18 | 36% |
| Third Trimester | 13 | 26% | 10 | 20% |
| Present Maternal Morbidity Issues | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Diabetes | 12 | 24 | 16 | 32 |
| Hypertension | 10 | 20 | 14 | 28 |
| Multiple Pregnancy | 02 | 04 | 03 | 06 |
| Heart Disorder | 00 | 00 | 00 | 00 |
| Epilepsy | 01 | 02 | 02 | 04 |
| No issues | 25 | 50 | 15 | 30 |
| Educational Level | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Primary & Secondary | 21 | 42 | 11 | 22 |
| Higher & Higher Secondary | 14 | 28 | 16 | 32 |
| Diploma | 12 | 24 | 14 | 28 |
| Graduation & Post Graduation | 03 | 06 | 09 | 18 |
| Employment Status | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| House wife | 23 | 46 | 18 | 36 |
| Private Job | 10 | 20 | 16 | 32 |
| Government Job | 03 | 06 | 06 | 12 |
| Business | 06 | 12 | 07 | 14 |
| Labor/Daily Wages | 08 | 16 | 03 | 06 |
| Monthly Income | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Less than 15000 | 05 | 10% | 02 | 04% |
| 15001-20000 | 14 | 28% | 16 | 32% |
| 20001-30000 | 21 | 42% | 26 | 52% |
| More than 30000 | 10 | 20% | 06 | 12% |
| Use of Social Media to get COVID-19 information | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Not using social media | 16 | 32% | 06 | 12% |
| Less than 2 hours per day | 28 | 56% | 20 | 40% |
| 2 hour per day | 04 | 08% | 14 | 28% |
| 2-4 hours per day | 02 | 04% | 09 | 18% |
| Average 6 hours a day | 00 | 00% | 01 | 02% |
| Previous History of COVID infection | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Yes | 12 | 24% | 16 | 32% |
| No | 38 | 56% | 34 | 68% |
| COVID Vaccination History of Pregnant Mothers | Rural Areas | | Urban Areas | |
| | Frequency (N=50) | Frequency Percentage | Frequency (N=50) | Frequency Percentage (%) |
| Only one dose | 01 | 02% | 00 | 00 |
| Both one and second dose | 26 | 52% | 16 | 32% |
| All the dose including booster dose | 21 | 42% | 34 | 68% |
| Not taken vaccination | 02 | 04% | 00 | 00% |
| Total | 50 | 100% | 50 | 100% |

Compare the prevalence of psychological impact of covid among pregnant mothers in the selected rural and urban areas of Indore

Table 1: Comparison between the Psychological impact of COVID among the pregnant mothers of rural and urban areas

| S. No. | Overall Psychological Impact Score | Score | Score of Mothers at Rural Areas | | Score of Mothers at Urban Area | |
|---------------|---|--------------|--|----------|---------------------------------------|----------|
| | | | No. | % | No. | % |
| 1. | Normal | 0-23 | 18 | 36% | 17 | 34% |
| 2. | Mild | 24-32 | 21 | 42% | 18 | 36% |
| 3. | Moderate | 33-36 | 11 | 22% | 15 | 30% |
| 4. | Severe | >=37 | 00 | 00% | 00 | 00% |
| Total | | | 50 | 100% | 50 | 100% |

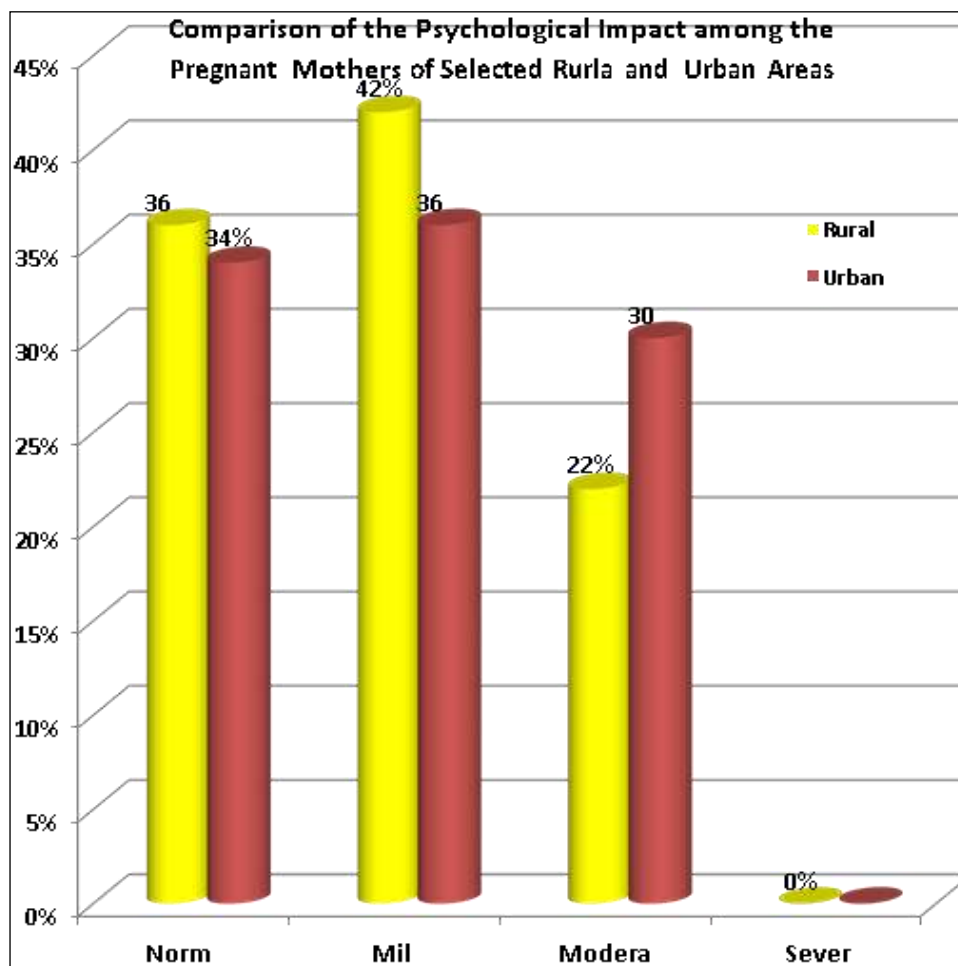


Fig 1: Bar diagram Depicting Representing comparison of psychological impact among the pregnant mothers of rural and urban pregnant mothers

Section IV: Find out the Association of Psychological Impact Score of Pregnant Mothers with Selected Demographic Variables

Table 2: Association of Psychological Impact Score of Pregnant Mothers with Selected Demographic Variables Residing at Urban Areas

| Sl. No. | Demographic Variable | No | Mild | Moderate | Chi-square value | p-value | Significance |
|---------|---------------------------------------|----|------|----------|------------------|---------|--------------|
| 01. | Age | | | | 2.14 | 0.86 | NS |
| A | 18-25 years | 06 | 10 | 02 | | | |
| B | 26-30 years | 09 | 09 | 06 | | | |
| C | 31-35 years | 03 | 02 | 01 | | | |
| D | Above 35 years | 00 | 00 | 01 | | | |
| 2. | Parity | | | | 0.54 | 0.822 | NS |
| A | Primigravida | 09 | 09 | 06 | | | |
| B | Multigravida | 09 | 12 | 05 | | | |
| 3 | Gestational Age | | | | 4.92 | .29 | NS |
| A | First Trimester | 06 | 03 | 05 | | | |
| B | Second Trimester | 09 | 11 | 03 | | | |
| C | Third Trimester | 03 | 07 | 03 | | | |
| 4. | Present Morbidity Issues | | | | 5.763 | .6736 | NS |
| A | Diabetes | 02 | 06 | 04 | | | |
| B | Hypertension | 03 | 04 | 03 | | | |
| C | Multiple Pregnancy | 01 | 01 | 00 | | | |
| D | Heart Disorder | 00 | 00 | 00 | | | |
| E | Epilepsy | 01 | 00 | 00 | | | |
| F | No issues | 11 | 10 | 04 | | | |
| 5 | Educational Level | | | | 1.848 | 0.933 | NS |
| A | Primary & Secondary Education | 08 | 10 | 03 | | | |
| B | Higher and Higher Secondary Education | 04 | 06 | 04 | | | |
| C | Diploma | 05 | 04 | 03 | | | |
| D | Graduation and Post-Graduation | 01 | 01 | 01 | | | |
| 6 | Employment Status | | | | 10.13 | 0.255 | NS |

| | | | | | | | |
|-----|--|----|----|----|-------|-------|----|
| A | House Wife | 09 | 07 | 07 | | | |
| B | Private Job | 03 | 05 | 02 | | | |
| C | Government Job | 01 | 02 | 00 | | | |
| D | Business | 02 | 03 | 01 | | | |
| E | Labor or Daily Wages | 03 | 04 | 01 | | | |
| 7. | Monthly Income | | | | 2.21 | 0.898 | NS |
| A | Less than 15000 | 03 | 01 | 01 | | | |
| B | 15001-2000 | 04 | 07 | 03 | | | |
| C | 20001-3000 | 08 | 08 | 05 | | | |
| D | More than 30000 | 03 | 05 | 02 | | | |
| 8. | Use of Social Media To Get COVID information | | | | 8.42 | 0.208 | NS |
| A | Not using social media | 06 | 08 | 02 | | | |
| B | Less than 2 hours per day | 10 | 12 | 06 | | | |
| C | 2 hour per day | 01 | 00 | 03 | | | |
| D | 2-4 hours per day | 01 | 01 | 00 | | | |
| E | Average 6 hours a day | 00 | 00 | 00 | | | |
| 09. | Previous history of COVID infection | | | | 1.341 | 0.510 | NS |
| A | Yes | 06 | 04 | 02 | | | |
| B | No | 12 | 17 | 09 | | | |
| 10 | Vaccinated with COVID vaccine | | | | 7.68 | 0.262 | NS |
| A | Only one dose | 00 | 01 | 00 | | | |
| B | Both one and second dose | 08 | 13 | 05 | | | |
| C | All the dose including booster dose | 10 | 05 | 06 | | | |
| D | Not taken vaccination | 00 | 02 | 00 | | | |

Table 3: Association of Psychological Impact Score of Pregnant Mothers with Selected Demographic Variables Residing at Rural Areas

| Sl. No. | Demographic Variable | No | Mild | Moderate | Chi-square value | p-value | Significance |
|---------|--|----|------|----------|------------------|---------|--------------|
| 1. | Age | | | | | | |
| A | 18-25 years | 05 | 06 | 02 | 4.402 | 0.62 | NS |
| B | 26-30 years | 07 | 05 | 05 | | | |
| C | 31-35 years | 03 | 06 | 07 | | | |
| D | Above 35 years | 02 | 01 | 01 | | | |
| 2. | Parity | | | | | | |
| A | Primigravida | 11 | 05 | 06 | 4.978 | 0.83 | NS |
| B | Multigravida | 06 | 13 | 09 | | | |
| 3. | Gestational Age | | | | | | |
| A | First Trimester | 07 | 08 | 07 | 1.51 | 0.82 | NS |
| B | Second Trimester | 07 | 05 | 06 | | | |
| C | Third Trimester | 03 | 05 | 02 | | | |
| 4. | Present Morbidity Issues | | | | | | |
| A | Diabetes | 07 | 05 | 04 | 3.10 | 0.97 | NS |
| B | Hypertension | 03 | 05 | 06 | | | |
| C | Multiple Pregnancy | 01 | 01 | 01 | | | |
| D | Heart Disorder | 00 | 00 | 00 | | | |
| E | Epilepsy | 01 | 01 | 00 | | | |
| F | No issues | 05 | 06 | 04 | | | |
| 5. | Educational Level | | | | | | |
| A | Primary & Secondary Education | 04 | 03 | 04 | 1.73 | 0.94 | NS |
| B | Higher and Higher Secondary Education | 05 | 05 | 06 | | | |
| C | Diploma | 05 | 06 | 03 | | | |
| D | Graduation And Post-Graduation | 03 | 04 | 02 | | | |
| 6. | Employment Status | | | | | | |
| A | House Wife | 06 | 07 | 05 | 4.34 | 0.9825 | NS |
| B | Private Job | 04 | 05 | 07 | | | |
| C | Government Job | 03 | 02 | 01 | | | |
| D | Business | 03 | 02 | 02 | | | |
| E | Labor or Daily Wages | 01 | 02 | 00 | | | |
| 7. | Monthly Income | | | | | | |
| A | Less than 15000 | 01 | 01 | 00 | 4.907 | 0.555 | NS |
| B | 15001-2000 | 04 | 08 | 04 | | | |
| C | 20001-3000 | 10 | 06 | 10 | | | |
| D | More than 30000 | 02 | 03 | 01 | | | |
| 8. | Use of Social Media To Get COVID information | | | | | | |
| A | Not using social media | 02 | 03 | 01 | 5.08 | 0.74 | NS |
| B | Less than 2 hours per day | 07 | 05 | 08 | | | |
| C | 2 hour per day | 05 | 06 | 03 | | | |
| D | 2-4 hours per day | 02 | 04 | 03 | | | |

| | | | | | | | |
|-----|-------------------------------------|----|----|----|-------|------|----|
| E | Average 6 hours a day | 01 | 00 | 00 | | | |
| 9. | Previous history of COIVD infection | | | | | | |
| A | Yes | 06 | 07 | 03 | 1.47 | 0.47 | NS |
| B | No | 11 | 11 | 12 | | | |
| 10. | Vaccinated with COVID vaccine | | | | | | |
| A | Only one dose | 00 | 00 | 00 | 2.236 | 0.36 | NS |
| B | Both one and second dose | 08 | 05 | 03 | | | |
| C | All the dose including booster dose | 09 | 13 | 12 | | | |
| D | Not taken vaccination | 00 | 00 | 00 | | | |

Summary

The present chapter shows the data analysis on the matter regarding comparing the psychological impact of the COVID infection among the pregnant mothers residing in the selected rural and urban areas of Saharanpur U.P., India. Further on, for the description the analysis is divided into following sections frequency and Percentage Distribution Of Demographic Variables, evaluating the prevalence of psychological impact of COVID among pregnant mothers in the selected rural and urban areas of Indore, comparing the prevalence of psychological impact of COVID among pregnant mothers in the selected rural and urban areas of Indore and finding out the association of psychological impact score with selected demographic variables.

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