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Psychological Impact of COVID-19 Pandemic on Stress During 2022: A Cross-Sectional Survey

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Abstract:

Background: It is challenging to accurately predict the psychological and emotional consequences of COVID-19. The prolonged stress associated with the sufferings and irreversible loss during pandemic can have a serious long-term consequence on both mental and physical health. This survey aimed to assess the psychological impact of Covid-19 pandemic on stress among the population residing in selected rural community of New Delhi.

Methods: A cross-sectional study was conducted in Health Centre, Najafgarh in March 2022 among 100 sample residing in the rural community. The psychological impact of Covid -19 pandemic was assessed by structured questionnaire.

Results: The findings revealed that the psychological impact of COVID-19 pandemic on stress was considerable, most of the participants 43% had mild stress, 39% had moderate stress, 4% had moderately severe stress. and notably none of the participant had severe stress. Participants reported that they were worried about the financial problem, effect on working status, fear of getting infected, future and family members, frequently checking for signs of infection. Notably some have even reported they felt reluctant to seek general medical facility in fear of getting infection from there.

Conclusion: This study reinforces the need for integrating mental health support into public health response during crisis. Promoting adaptive coping strategies and strengthening community support networks may enhance psychological resilience.

IndexTerms **- COVID-19, Psychological impact, Stress, Prevalence**

I.INTRODUCTION

World Health Organization declared COVID-19 as a global pandemic in March 2020.[1] The uncontrollable and unpredictable nature of COVID-19 resulted in significant stress among the general population.[2] Fear of infection for oneself or loved ones[3], unavailability of effective treatment, mortality, economic losses, disruption of daily routines and continuous exposure to news were other factors that adversely affected mental health.[4]

The psychological response to SARSCOVID 19 pandemic was like any natural disasters or calamities impinging upon the public.[5] A study on the psychological impact of COVID-19 during lockdown among Indians revealed nearly three-fourth (74.1%) perceived moderate levels of stress and about one-fourth reported feelings of pessimism and hopelessness.[6]

Later, the mental health was further exacerbated by increased financial pressures and social isolation.[7] Studies have also shown, the pandemic exerted a negative impact on health and socioeconomic indicators globally.[8] Like any disease outbreaks in the past, COVID-19 pandemic caused serious threats to physical health and triggered wide varieties of psychological problems, including anxiety and depression.[9]

Nevertheless, in the current situation, it is challenging to accurately predict the psychological and emotional consequences of COVID-19. Considering several reported psychological consequences of COVID-19 and its spread, this study was conducted to assess the psychological impact of Covid-19 pandemic on stress among the population. The prolonged stress associated with the sufferings and irreversible loss during pandemic can have a serious long-term consequence on both mental and physical health. Findings of such studies can guide the development of targeted mental health interventions to prevent long term ill-effects.

II. RESEARCH METHODOLOGY

Study Approach and Design
A quantitative, survey approach and cross-sectional design was adopted in the study.

Study Setting
The study was conducted at health centre, Najafgarh, New Delhi.

Study Population
The population in this study was population residing in selected rural community of New Delhi.

Samples and Sampling Techniques
The study samples were attendees at health centre, Najafgarh, New Delhi. A total of 100 participants were selected for the study using non-probability convenient sampling technique.

Data Collection Tools
Section I: Demographic profile

This tool included gender, age, marital status, educational status, type of family, monthly family income, occupation, effect of COVID- 19 on job/income, ever tested positive for COVID- 19 and any of the family members tested positive for COVID- 19.

Section II: Structured Questionnaire

This tool was used to assess the psychological impact of COVID-19 pandemic on stress. There are total of 25 items. Each item scored as not at all (0), slightly (1), moderately (2), very often (3) and extremely (4).

Data collection process
The data collection was done from 01st Mar to 5th Mar, 2022. The purpose of the study was explained, confidentiality of their response was assured and formal consent was obtained from each sample. The data was collected from 100 participants, selected through convenient sampling method.

Data Analysis
Data analysis was done using descriptive statistics. Demographic variables and psychological impact on stress was described by frequency and percentage table.

III. RESULTS

Out of 100 samples selected, 44% were males and 56% were females, 65% were between the age group of 18-39 years, 28% were between 40-59 years and 7% were above 60 years. 27% were single, 72% were married and 1% was divorced. Regarding educational status, 19% were illiterate, 21% had completed primary education, 25% had attained secondary education, 23% attained higher secondary education and 12% were graduates. 37% belonged to nuclear families and 63% were from joint families. 32% had monthly family income less than ₹10,000, 50% had between 10,001-30,000, 10% had between 30,001-50,000 and 8% had monthly family income more than 50,000. In terms of occupation, 23% were self-employed, 32% had private job, 5 had government job and 40% were engaged in other occupations.

Majority of the participants, i.e., 63% reported COVID-19 has already affected their job/income, 1% was tested positive, rest 99% were never tested positive for COVID-19. Only 2% had a positive case of COVID-19 in their family.

TABLE 1

Frequency and percentage distribution of psychological impact of COVID-19 pandemic on stress among the population residing in selected rural community of New Delhi.

n=100

LEVEL OF STRESS	SCORE	FREUENCY (f)	PERCENTAGE (%)
No or Minimal Stress	0 – 20	14	14%
Mild Stress	21 – 40	43	43%
Moderate Stress	41 – 60	39	39%
Moderately Severe	61 – 80	4	4%
Severe Stress	81 – 100	0	0%

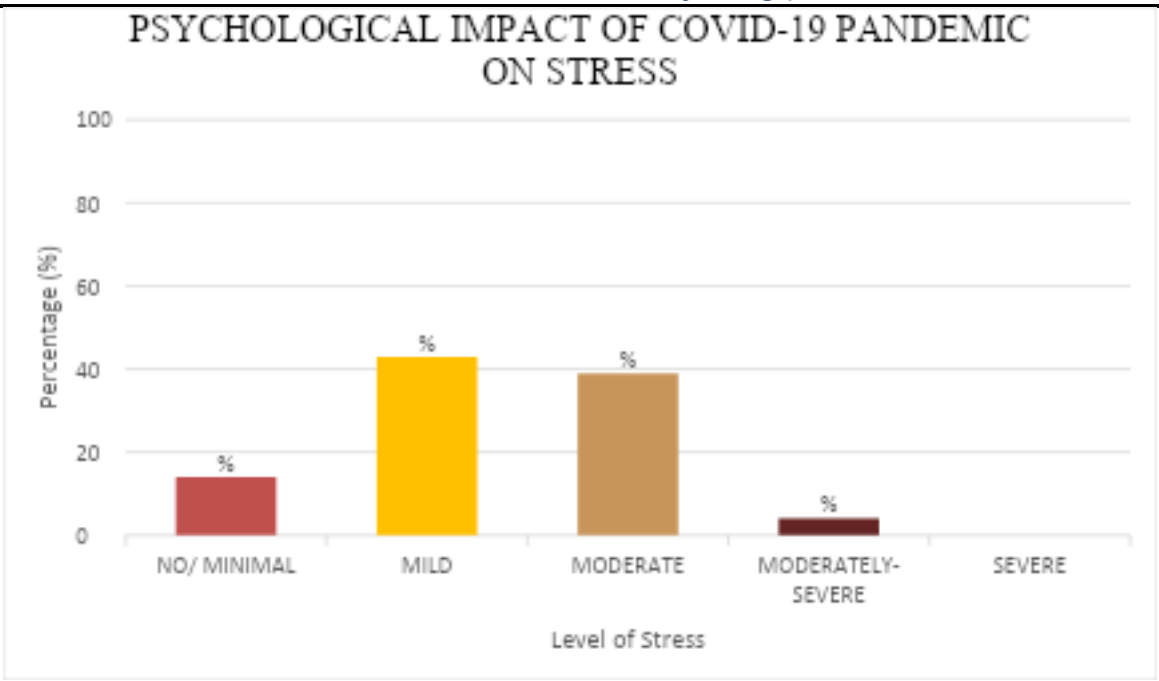

Figure 1: Bar diagram represents the percentage distribution of psychological impact of COVID-19 pandemic on stress among the population residing in selected rural community of New Delhi.

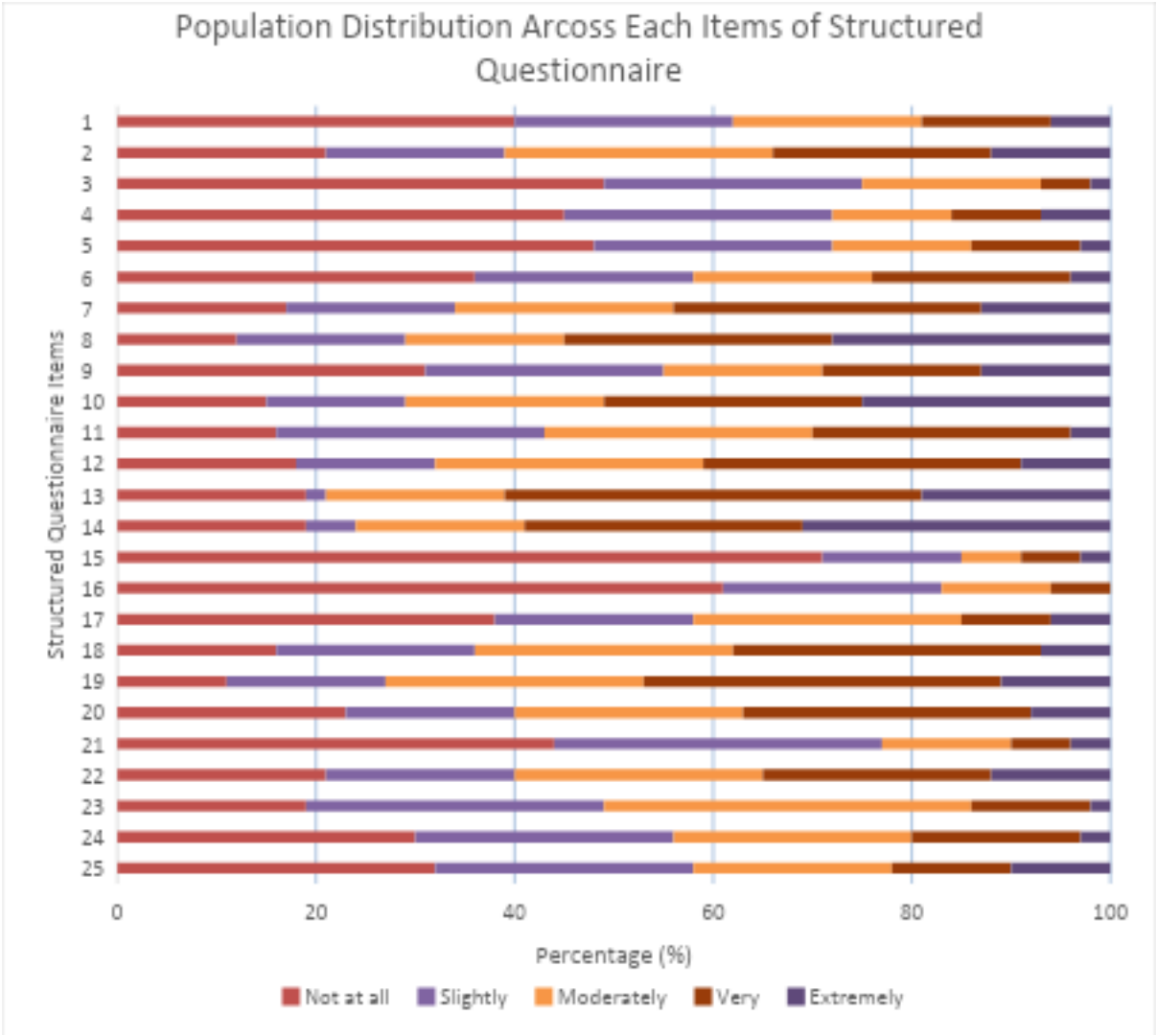

Figure 2: Stacked bar diagram represents the population distribution according to symptoms severity across each item of structured questionnaire.

TABLE 2

Mean score and standard deviation of psychological impact of COVID-19 pandemic on stress among the population residing in selected rural community of New Delhi.

n=100

Level of Stress	Highest score on scale	Highest Score Obtained	Lowest Score Obtained	Mean Score	Standard Deviation
	100	68	10	37.55	14.19

TABLE 3

Score distribution based on total number of responses made against each statement in the tool

n=100

ITEMS	MEAN	MEAN %
I am worried about getting infected with the COVID – 19 virus	14.2	35.5
I am worried that I can't keep my family safe from the virus	13.7	34.25
I ask health professionals (e.g., doctors or pharmacists) for advice about COVID-19	14.8	37
I am worried that social distancing is not enough to keep me safe from the virus	18.6	46.5
I find lack of interest than usual in doing daily activity since few months	9.3	23.25
I am worried that if I would touch anything in a public space (e.g., handrail, door handle), I would get the virus	18.2	45.5
I am worried that if someone coughs or sneezes near me, I would get the virus	22	55
I am worried that people around me will infect me with the virus	19.3	48.25
I Search very often in the Internet regarding the treatments for COVID- 19	12.5	31.25
I find difficult to concentrate because I keep on thinking about the virus	6.2	15.5
I have disturbed sleep since the locked down began	5.6	14
I am confident that if I take necessary precautions, I can protect myself from being infected with COVID - 19	15.3	38.25
I am confident about my ability to handle the difficult situations during pandemic COVID – 19	14.6	36.5
I check frequently my own body for signs of infection (e.g., taking your temperature etc.)	20	50
I seek reassurance from friends or family about COVID-19	17.5	43.75
I feel my working status affected due to COVID -19.	23.2	58
I feel worried to be out even to get my necessary things	15.6	39
I am worried about the financial problems due to COVID - 19	24.2	60.5
I am worried about my future and my family members	20.6	51.5
I feel more worried more than usual from past few months due to COVID 19.	13.4	33.5
I feel depressed most of the times in past few months due to COVID - 19	9.7	24.25
I become more irritable than usual in last few months	10.6	26.5
I perceive the threat of my existence due to COVID – 19 pandemic	8.5	21.25
I am reluctant to seek medical facility for other medical conditions due to fear of getting COVID – 19	18.6	46.5
I fear the lockdown can happen again	12.3	30.75

The data presented in table 1 and figure 1 shows the psychological impact of COVID-19 pandemic, out of 100 participants, only 14% had no or minimal stress, most of the population 43% had mild stress, 39% were experiencing moderate stress, 4% had moderately severe stress and notably none of the participant had severe stress.

The data presented in table 2 represents that the total achievable score on the scale was 100. The highest score obtained by a participant was 68 and the lowest score obtained was 10. The mean score calculated was 37.55, indicating moderate stress among the outpatient department attendees at GOPD and the standard deviation was 5.7 which signifies the extent of variation in severity of depression.

The data presented in table 3 represents the score distribution across each statement in the tool, indicating most of the participants reported that they were worried about the financial problem with highest mean percentage (60.5%), effect on working status(58%), fear of getting infected (55%), future and family members (51.5%), frequently checking for signs of infection (50%). Notably some have reported they felt reluctant to seek general medical facility in fear of getting infection from there (46.5%). The same data is illustrated in figure 2, allowing visual representation of response patterns across the population.

IV. DISCUSSION

The finding of the present study suggested that the psychological impact of COVID-19 pandemic on stress was considerable, out of 100 participants, only 14% had no or minimal stress, most of the population 43% had mild stress, 39% were experiencing moderate stress, 4% had moderately severe stress and notably none of the participant had severe stress. The findings are similar to the observation made by an umbrella review, reported the prevalence of stress to be 41% during the COVID-19 pandemic. Moderate stress was the most frequently reported, affecting 29% of individuals, followed by mild stress at 24% and severe stress at 13%.[10] Similarly, other studies have also reported 29.6% prevalence of stress where many individual experienced mild symptoms and a significant proportion also faced moderate to severe stress.[11] Some studies have also showed that healthcare workers experienced higher rates of mental health challenges compared to the general public during pandemic.[12]

This study also found that most of the participants reported that they were worried about the financial problem with highest mean percentage (60.5%), effect on working status (58%), fear of getting infected (55%), future and family members (51.5%), frequently checking for signs of infection (50%). Notably some have reported they felt reluctant to seek general medical facility in fear of getting infection from there (46.5%). The findings were in keeping with findings from a web-based cross-sectional survey, reported 35.1% of people experienced poor sleep quality.[13] Although the psychological impact varied widely, studies have suggested people also experienced stress related to unemployment or wage reduction, loss of loved one, intense emotional and behavioral reactions such as fear, boredom, anger, loneliness, anxiety, and insomnia.[14,15] Several studies have documented general public has reported an increase in negative emotions such as anxiety or depression and a decrease in positive emotions such as happiness and life satisfaction.[16] Such findings suggests that psychological impact of pandemic was multidimensional, influenced by concerns related to economic, social and psychological factors. World Health Organization has also urged to take necessary precautions to address the negative impact of COVID 19 on psychological health and well-being.[17]

In the context of the results, a considerable proportion of population experienced significant psychological impact due to pandemic. These results reinforce the need for integrating mental health support into public health response during crisis.

V. CONCLUSION

The present study highlighted the significant psychological impact of COVID19 pandemic on stress. This indicates that while the stress levels were not severe in most individuals, a considerable segment of the population was psychologically affected during the pandemic. It emphasizes the importance of integration of mental health screening, awareness and support services into routine healthcare. Promoting adaptive coping strategies and strengthening community support networks may enhance psychological resilience.

VI. LIMITATIONS

Limitations of the study the findings of this study are valuable as they contribute to the existing body of knowledge about psychological impact of COVID-19. However, the results should be interpreted with caution due to certain limitations. The study was conducted in a single setup, which limits the generalizability of the findings. In addition, Future research should involve multiple setups with a larger sample size to obtain more comprehensive and generalizable results.

VII. IMPLICATIONS OF THE STUDY

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Implications for Nursing Practice

- Stress screening tools should be integrated with daily assessments to identify, burnout, anxiety or trauma.
- Nurses can identify the potential risk and provide basic counselling, emotional support and referrals to mental health professionals when needed.
- Nurses can encourage patients to adopt stress reduction strategies such as relaxation techniques, mindfulness and healthy routines.

Implications for Nursing Education

- Nursing curriculum should involve practical approach for stress management and crisis preparedness.
- Prepare student nurses for pandemic or disaster-based stimulations.
- Educate students about post pandemic psychological consequences.

Implications for Nursing Administration

- Organize regular stress management and resilience building workshops.
- Policies and protocols related to preparedness for future pandemics and emergencies.
- Regular screening should be conducted to monitor psychological status of health care providers.

Implications for Nursing Research

- Further studies can be conducted with larger sample sizes and in different setting to improve generalizability.
- Future research can assess the long-term psychological effect of COVID19 pandemic.
- Comparative studies can be conducted between different groups.
- More studies can be done to develop and validate culturally appropriate stress management tools.

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