



STRESS TRAP OF COVID-19 - A WEB-BASED STUDY

Community Medicine

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ABSTRACT

The corona virus infection or COVID-19 outbreak is one of the biggest medical challenges to humankind in recent times. The anxiety and concerns in society regarding the pandemic are globally affecting every individual to variable extents. **Aims & Objectives:** To assess the perceived stress by the general population during lockdown in COVID 19 pandemic. **Methodology:** A cross-sectional, observational study was carried out Pan-India for a period of one month. An online structured questionnaire was developed by using google forms. An online Perceived Stress Scale questionnaire was used. Data was analyzed using Epi info software version 7.0. **Results:** Total 907 responses were received by the stipulated time. Study participants when assessed for their level of stress using Perceived stress scale, majority of them were having moderate stress (62.4%), while 11.5% were having high stress. **Conclusion:** With the spread of COVID19; anxiety, worry and stress has increased among the masses, hence there is need for counsellors and psychiatrists to help people deal with the current scenario.

KEYWORDS

COVID-19, Perceived Stress, Perceived Stress Scale, Pandemic

INTRODUCTION

The corona virus infection or COVID-19 outbreak is one of the biggest medical challenges to humankind in recent times. The outbreak of COVID-19 infection started in China in December 2019, and since then, it has spread to almost all the countries of the world by January–February 2020. The World Health Organization (WHO) declared COVID-19 to be a pandemic on March 11, 2020. (1)

At present, the focus of States and the World bodies such as the World Health Organization (WHO) is on controlling and mitigating the impact of this pandemic by identifying, testing, treating infected people, developing drugs, vaccines and treatment protocols. The WHO has also expressed its concern over the pandemic's mental health and psycho-social consequences (World Health Organization, 2020d). It has speculated that new measures such as self-isolation and quarantine have affected usual activities, routines, and livelihoods of people that may lead to an increase in loneliness, anxiety, depression, insomnia, harmful alcohol, and drug use, and self-harm or suicidal behaviour (World Health Organization, 2020c). (2)

In India, cases of COVID-19 started to rise by the 2nd week of March 2020, and by March 31, 2020, more than 1356 cases were reported with 46 deaths. (1) Both the central government and state governments had been issuing advisory to the people to maintain social distancing to stop the community spread. However, despite several appeals, the social distancing strategy has not been taken seriously, although this is the only possible solution to stop the spread of COVID-19. In view of this, the Prime Minister of India declared "lockdown" in the whole country starting from midnight of March 25, 2020. "Lockdown" is an emergency protocol, which basically means preventing public from moving from one area to the other. (3)

The anxiety and concerns in society are globally affecting every individual to variable extents. Recent evidence suggests that individuals who are kept in isolation and quarantine experience

significant distress in the form of anxiety, anger, confusion and post-traumatic stress symptoms (Brooks et al., 2020). The mental health issues are major health concerns, which are expected to increase day by day during this epidemic. (4)

OBJECTIVES:-

The present study was undertaken to assess the perceived stress levels during COVID-19 Pandemic.

MATERIAL AND METHODS

A cross-sectional, observational study was carried out pan-India. An online structured questionnaire was developed by using google forms. The link of the questionnaire was sent through emails, WhatsApp and other social media to the contacts of the investigators.

The participants were encouraged to roll out the survey to as many people as possible. Thus, the link was forwarded to people apart from the first point of contact and so on. The link was first circulated on 25th April 2020 at 4 PM IST and kept open for responses till 25th May 2020 at 4 PM IST. Daily reminder was sent. The survey invitation clearly stated that the participants will have the right not to participate in the survey and participation in the survey will imply providing informed consent. The survey questionnaire would take around 10-12 mins to complete. Total 907 responses were received by the stipulated time. Institutional Ethical Committee clearance was obtained on a fast-track basis. This questionnaire was also converted in Hindi language for the ease of the people.

INCLUSION CRITERIA

- Any gender
- Able to read English or Hindi.
- Had internet connection with WhatsApp or any other social media installed on their phone/laptop
- Age more than 18 years.

EXCLUSION CRITERIA

- Unwilling and not providing informed consent for the Study
- Children of age less than 18 years.

The given questionnaire on the google forms was prepared to cover the following sections of the participants:-

1. The Socio-demographic variables.
2. Experiences and Coping capacity during lockdown.
3. For assessing the Psychological impact of COVID-19 pandemic on the respondents:-An online Perceived Stress Scale questionnaire was used which includes ten questions related to perceived stress in the last one month during the pandemic of the novel coronavirus. (5)

The inference of Perceived stress scale is as follows:-

0 - 13 = considered low stress,
 14 - 26 = moderate stress, and
 27 - 40 = high perceived stress.

Ethical considerations

1. The participants had the full liberty not to respond to the survey
2. The personal information was kept confidential, and anonymity was maintained.
3. In case someone expressed the desire for psychiatric help, they would be guided to seek help.

STATISTICAL ANALYSIS

Descriptive statistics have been used in the study to analyse the findings. Mean, Standard deviation and proportions have been used to estimate the results of the study. All analyses were done with the help of EPI INFO Version 7.0

The level $P < 0.05$ was considered as the cutoff or significant value.

RESULTS

A total of 907 responses were recorded. All the participants were above 18 years of age. The study included all those participants who understood English or Hindi and had access to the internet. Maximum study participants were in the age group 18-25 years (45.6%) followed by 26-35 years (23.3%), 36-45 years (14.6%), 46-55 years (20.5%), 56-65 years (6.9%) and least were in age group >65 years (2.5%). Among the participants, 49.4% were females and 50.6% were males.

Figure 1 reveals that study participants when assessed for their level of stress using Perceived stress scale, majority of them were having moderate stress (62.4%), while 11.5% were having high stress and 26.1% were having low level of stress during the countrywide lockdown due to the COVID-19 Pandemic.

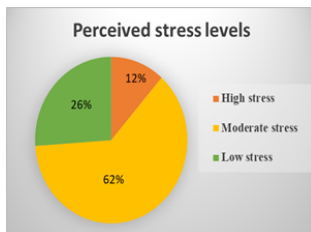


Figure 1:- Level of Psychological Stress during lockdown using Perceived Stress Scale-10 questionnaire

Study population were assessed for the fears faced by them during the COVID-19 Pandemic and it was seen that majority of study participants were having the fear of getting their family members affected by COVID-19 infection (59%), followed by the fear of getting themselves infected by COVID-19 (43%) while very few i.e. only 6% had the fear of facing disrespect from their neighbours. (Figure 2)

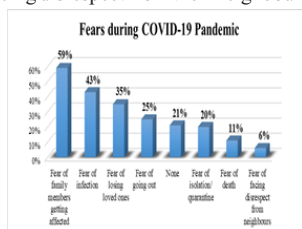


Figure 2: Distribution of population according to Fears during Covid-19 pandemic (Multiple Response)

The association of level of stress with the current working situation during the period of lockdown was assessed and it was seen that majority of study participants **having high or moderate level of stress** were not working or were off duty from their respective works. Among the total study participants nearly 461 (50.8%) were not working, 282 (31.1%) were working from their homes and 164 (18.1%) were working at their offices or workplaces. It was seen that in all the working statuses majority were having moderate stress. The current working status was found to be statistically significant with the level of stress with p -Value < 0.001 thereby showing that work itself is the best remedy to relieve stress. (Table 1)

Table 1:- Association of various levels of stress with the current working situation.

Current Working Status	Perceived Stress Levels			TOTAL N (%)	p-Value
	HIGH N (%)	MODERATE N (%)	LOW N (%)		
Off duty/No work	66 (14.3)	301 (65.2)	94 (20.4)	461 (100)	<0.001
Work from home	25 (8.9)	166 (58.9)	91 (32.3)	282 (100)	
Working at office or workplace	13 (7.9)	99 (60.4)	52 (31.8)	164 (100)	
TOTAL	104 (11.5)	566 (62.4)	237 (26.1)	907 (100)	

Table 2 reveals the association of stress levels with the place of their stay during the lockdown period and it was seen that majority of those staying in hostels (93.1) and those staying away from family (98.1%) were having high and moderate level of stress while among those who were staying with their family nearly 37.5% were having low level of stress and this association of perceived stress levels with the place of stay during the lockdown period was found to be statistically significant with p -Value < 0.001 .

Table 2: Association of various level of stress with the Place of Stay during Lockdown

Place of Stay during Lockdown	Perceived Stress Levels			TOTAL N (%)	p-Value
	HIGH N (%)	MODERATE N (%)	LOW N (%)		
Hostel/PG	37 (16.9)	166 (76.2)	15 (6.9)	218 (100)	<0.001
Stuck away from Family	38 (37.3)	62 (60.8)	2 (1.9)	102 (100)	
With Family	29 (4.9)	338 (57.6)	220 (37.5)	587 (100)	
TOTAL	104 (11.5)	566 (62.4)	237 (26.1)	907 (100)	

IV. DISCUSSION

Public health emergencies can have psychological effects on the general public such as stress, anxiety and distress. The aim of the study was to assess the perceived stress by the general population during lockdown in COVID 19 pandemic. Perceived stress is a measure of the degree to which situations in one's life are appraised as stressful. This survey revealed that as much as 62.4 % of the study participants had moderate level of perceived stress score and 11.5% had high perceived stress scores because of COVID 19 outbreak and lockdown which is less than the study done by Kandeger A et al (6) in which level of perceived stress score was assessed among nursing students and reported that maximum students (82.7%) were having moderate perceived stress score and nearly 13.3% were having high perceived stress score, while the stress levels were almost comparable to the study done by Grover S et al with nearly 70.1% having moderate perceived stress score and 4% having high perceived stress score. (3)

Lockdown and social distancing were undertaken throughout the country in order to prevent the spread of infection and due to the devastating effect on health due to increasing mortality and morbidity as seen in many other countries. The state of lockdown which was followed in many parts of the world has leads to changes in everyday routine life. With the spread of COVID19; anxiety, worry and stress has increased among the masses, including in India. The shortage of sanitizers, medical supply, the overwhelming and sensational news headlines, and erroneous news reports have also lead to increased stress.

V. CONCLUSION AND RECOMMENDATIONS

The study reveals a significantly higher stress levels in the community under Pandemic. Stress levels were significantly higher in people staying away from family, hence indicating that family is one of the biggest shock absorber. While those staying away from their families should be aware about the various healthy remedial measures such as effective recreational happiness programme, using fitness applications and seeking online psychological support, thereby care of people staying away from families can be ascertain.

During such stressful situations, the concerned government, hospitals, educational institutions, organizations, and even individuals need to look into psychological intervention and adopt necessary measures. In addition to educating individuals to stay isolated, it is vital to educate and prepare them to face the mental health issues that may endure during the period.

The study also recommends that the community should be prepared for any similar circumstances by opening up online psychotherapy counselling, healthy recreational happiness program, meditation programs. The study also recommends of organizing the online sessions and videos by the concerned persons so that general population can benefit during the time of such crisis.

Conflict of interest: None

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