

Exploring the Psycho-socioeconomic Impact of COVID-19

Neetu Yadav^{1*}, S.P.K. Jena²

ABSTRACT

Covid-19 has caused havoc in almost every country in a short period. Economies have fallen apart, life risk has increased folds and the mental health of the world is threatened. The present study explores the psycho-socioeconomic impact of Covid-19 in general population during stage two of the first wave of the pandemic in India. Psychological distress and its relation to demographic variables (age, gender, family, work-home distance) were assessed among the participants. A total sample of N=151 completed Kessler Psychological Distress Scale (K10) and an open-ended questionnaire. The findings suggest high levels of psychological distress among the participants. There has been a negative effect of the crisis situation on income levels and job difficulty has increased folds. Certain groups such as the lower socioeconomic class, illiterate people, senior citizens, even higher income groups, were found to be more vulnerable to social distancing, blaming and stigma. Identification of such groups for reduction of stigma is necessary; therefore, dissemination of accurate information to the general public is a must.

Keywords: COVID-19, Epidemics, Psychological Distress, Stigmatization

Infectious diseases have always been a threat to human survival. Despite all the advances in medicine and technology, today the situation is such that millions of human lives are at stake. Infectious diseases are still controllable if the citizens make use of knowledge about it exists. An infected individual becomes a menace being a risk to a varied population. Earlier, diseases like SARS and MERS-CoV, were novel to mankind, therefore, quickly spread to various countries. The lethal effects of these pandemics increased by many folds due to human-to-human transmission and no vaccines or medicines available for their cure.

In the 21st century, no other pandemic has proved to be as disastrous as Covid-19. Post SARS and MERS outbreak, it was assumed that the lessons learnt from them could prepare the healthcare community and the government to be better prepared for the next pandemic. Sadly, the circumstances appear far more terrible than imagined. Millions of cases, thousands of deaths, lockdown to entire countries, extreme drops in economy; people cross-swording with each other for food and other essentials. World class medical facilities are failing to sustain people's lives. On top of that, there is a lack of medical equipment required to treat people. Some are being foolishly negligible of the severity of this situation whereas

¹Applied Psychology Unit, Department of Psychology, University of Delhi, South Campus, New Delhi, India

²Applied Psychology Unit, Department of Psychology, University of Delhi, South Campus, New Delhi, India

*Corresponding Author

Received: April 01, 2021; Revision Received: May 04, 2021; Accepted: May 20, 2021

others are forced to do so for survival. Where the government is trying to get hold of the situation, there stands a possible chance for it get out of hands. Later towards January end, it spread into many other countries and on 11th March, 2020, the WHO declared Covid-19 “a global pandemic” [62].

A total of 213 countries and territories, and 2 international conveyances were affected by Covid-19 outbreak. Though many people have been successfully discharged post treatment but the number of existing cases is still high with more and more new cases showing up every day. The whole world has come to a halt. As people in some countries are under complete lockdown, they are left with no choice than to stay at home. In these conditions, where the privileged class enjoys what is being called ‘work from home’ and relishing time with their families, the underprivileged on the other hand, face a scarcity money and have a hard time struggling to provide basic amenities to their families.

Covid-19 brought with itself not only the health problems but also economic crisis. The economic pressure surely will be reflected in the psychological states of people as well. Amongst these, the worst hit was the poor, even worse the daily wagers. People with some savings could still hang in for some time but hand-to-mouth living was made impossible. In India, with nothing feed their children and themselves, many people started migrating to their hometowns amidst lockdown.

People displayed the feelings of disappointment and anger with the government’s incompetency to contain the virus. Another area of concern that might elevate the preinstalled fear and anxiety is reports of shortages of medical equipment, hospital beds, staffs etc. Out of fear, many people attacked the health care workers and police officers in some areas too [43]. In the midst of this entire dilemma an overabundance of false information or fake news about the pandemic has been circulating all over social media which poses a very major risk to people’s mental health. Apart from the general public, some specific groups are at a greater risk of emotional and psychological distress. For example, health care workers face stressors such as longer shifts, lack of personal protective equipment and medical equipment. In addition to that, witnessing co-workers becoming ill and the fear of spread the infection to their friends and family can heighten their anxiety. Anxious thoughts and compulsive behavior can increase folds in such as crisis in people with preexisting mental health issues. Moreover, disrupted support systems and social isolation, especially for people who are more vulnerable (such as senior citizens), can be extremely frightening and fear-inducing.

Infectious diseases are stressful and could lead to major psychological health issues. Some specific groups experience psychological distress more often than others. One of them is the recovered patients. After the SARS outbreak in 2003, about fifty per cent of the recovered patients from a hospital displayed anxiety and approximately twenty per cent displayed fear [3]. Tsang, Scudss, and Chan (2004) added that 50 per cent of the family members of the recovered patients experienced depression. Moreover, stigmatization was reported which in some children had manifested as embarrassment to be a contributor to the spread of the disease. Depression had developed roots so strong that some of the people even committed suicide [55]. According to Gunnell et al. (2020), an increase in the number of cases of various anxiety, depression and self-harm related disorders is certain in times of an epidemic [21].

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Hawryluck, Gold, Robinson, Pogorski, Galea, and Styra (2004) found that longer quarantine periods were associated with high prevalence of PTSD symptoms in the quarantined people [22]. Similar findings were stated by Sprang and Silman in the year 2013[49]. Quarantine period was found to be a predictor of PTSD symptoms even after three years in a group of hospital employees [63]. Bai, Lin, Lin, Chen, Chue, and Chou (2004) in another study established that quarantine period were not only a predictor of PTSD but also of symptoms of acute stress disorder [3]. As the quarantined staffs in hospitals are required to work constantly for long hours even after being quarantined, they are more likely experience exhaustion, isolated, irritability, and insomnia [33].

Wu et al (2009) established the long term effects of having been quarantined. As psychological distress levels are found to be high even when estimated years after a break out of any epidemic, long term psychological effects must not be ignored [63]. Rehabilitation programs could be developed and individualized for specific and varied groups of people who are at risk [32]. In another study by Taylor, Agho, Stevens, and Raphael in the year 2008, analysis of Australia's equine influenza was done. The results revealed that the participants of the study experienced much higher levels of distress as compared to the general population. This huge difference partly was because of various demographic entities. Groups that experienced higher psychological distress as compared to their counterparts included: high risk zones, younger age groups, people with lower levels of formal education, females, target industry being the primary source of income and lower socioeconomic strata [54].

Qiu, Shen, Zhao, Wang, Xie, and Xu (2020) conducted a research in HongKong, China after the breakout of Covid-19 virus [42]. The findings revealed that females experienced significantly higher levels of distress as compared to their male counterparts. People below 18 years of age reported lower levels of distress as compared to those above 18 years of age. An interesting finding was that of the distress level differences between the migrant and non-migrant workers. Migrant laborers showed higher levels of distress as compared to the other group. This is highly applicable to the situation in India as a large number of migrant workers are the ones going through the worst conditions due to the pandemic.

When people around the globe are forced to stay home due to the pandemic, some of the side factors which worsen the situation for certain groups might become active. These factors include self-harm, suicidal tendencies, alcohol and substance abuse, domestic violence and child abuse [39][56]. In such situations for some people family might play a supportive role helping them to be more resilient to stress factors [45][51][65]. Whereas, for others it might create in intolerable environment as in the case of child abuse and domestic violence. Dong and Bouey (2020) have explained how the public has lost trust in government's decision making in China as it failed to be transparent as well as competent leading to increased severity of the problem[16]. The same could be applied to other countries too where people are showing disappointment and anger with the government's competency to contain the virus.

During any epidemic outbreak, some groups are stigmatized more often than others which can be a potential stressor during such crisis. This stigmatization might be associated with the fear of spread of virus, vulnerability to the infection and many such factors [26]. Social dissociation in such times is usually reported to be towards morally marginalized and derogated groups in society but could change from one epidemic to another. Another criteria used for specifying groups is filtering the weaker population such as the old or sick ones.

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When blame is directed towards government and other higher authorities, it is referred to as upwards blaming.

Blame becomes a way of establishing a sense of control over the situation by identifying the source of the problem (specific groups) and casting out the blame on them. Similarly, stigmatization of who are usually categorized as 'unhealthy' groups in society i.e., those belonging to lower socioeconomic class is associated with perceived vulnerability of these groups to any disease. Some other stigmatized groups apart from those discussed above include quarantined people, people infected, health care workers, sick and old people. The people from Northeastern States of India often face racism. They are called out derogatory terms such as 'chinki', 'chinese' and 'momo', relating them to China. With the Covid-19 outbreak, the hate towards China and its people increased and so did the incidents of racism towards the people of Northeast India [47]. Emotions associated with specific sections of society tend to be related to the extent of their involvement in any issue. Stigmatized groups are often treated with suspicion, fear and hate. For the lowest economic sections, significant loss could be observed in the form of unemployment, and homelessness that further add on to their distress levels [24][27]. As far as the Indian Context is concerned, because no pandemic of a comparable palpable peril had yet hit India, the research base in this area is not sufficient. Therefore, the present study would be beneficial and one of its kind in tacking this area of research.

METHODOLOGY

Objective

- Objective 1: To explore the levels of psychological distress among general population during the Covid-19 pandemic.
- Objective 2: To explore the relation of psychological distress to age, gender, family, and work-home distance of the participants during the pandemic.
- Objective 3: To explore the psycho-socioeconomic effects of the pandemic Covid-19.

Design

The present research employed 'concurrent mix-method design' by Tashakkori and Teddie (1998) to understand the psychological, social and economic impact of Covid-19 on general population of India [53]. Suitable for social and behavioral research, this design would be beneficial to explore the socioeconomic dimension of the research and would reflect on participants' viewpoints [13][14]. The data was collected through Google forms.

Sample

The criterion for selection was individuals above the age of 17 residing in India. Snowball sampling technique was used for sample selection [11]. Data was collected from a total of 151 participants (females=83, males=67, prefer not to say=1). The one 'prefer not to say' response was converted and counted as male in alignment of the biological sex of the person. The final sample therefore comprised of 83 females and 68 males in the age range of 17-52 years. The sample comprised of both the student and working population from varied educational backgrounds and geographies. Majority of the sample belonged to the middle socioeconomic strata. The data was collected during the months of March and April, 2020 in India.

Tools

- 1. Kessler Psychological Distress Scale by Kessler (1992):** The Kessler Psychological Distress Scale is a self-report measure developed by Kessler in the year 1992. It assesses non-specific psychological distress. Two factors it is assumed to assess by some researchers are anxiety and depression [28][29]. There are many versions of the scale such as K10, K6, K10-LM and K10-L3D. K10 and K6 are the most popular and reliable measures established. The present study utilized K10-the ten item scale which requires answers on a five point Likert scale (5= all the time, 1 = none of the time). The questions are asked with respect the past four weeks.
- 2. K6** is found to have a Cronbach alpha value of .85 and that of 10 is found to be .88[6]. The convergent validity of K10[1] is well established with General Health Questionnaire (GHQ). Strong predictive value has been noted for K10 in case of mental disorders. The criterion validity of K10 ranges from 0.87 to 0.88[28]. The minimum possible score is 10 and maximum is 50. Scores from 10-19 indicate likelihood to be well, 20-24 indicate the likelihood of having a mild disorder, 25-29 indicate the likelihood to have a moderate disorder and lastly 30-50 indicate the likelihood of having a severe disorder. The scale is also successfully translated into 27 community languages.
- 3. Open-Ended Questionnaire:** The items of the open-ended questionnaire were based on an extensive review of literature. Some common topics of psycho-socioeconomic nature across literature were extracted and questions were formed to explore them briefly. The topics decided upon were: distance, blame, stigmatization, fatalism, and job characteristics. The distance and blame dimension assess the groups which are more vulnerable to be accounted responsible for the crisis and become targets of social exclusion. Stigmatization is directed towards assessing the kinds of emotions that are associated with certain groups which might reflect hidden or unclear prejudices. Fatalism dimension assesses the extent to which the participants view the situation as fate or consequences of human action. In addition to that, it also represents the rigidity in beliefs about the controllability of the situation. Job characteristics dimension assess the economic effect due to the crisis. Items 1 and 4 are grouped under the distance theme, items 2 and 6 are grouped under the blame theme, items 3 and 5 are grouped under the fatalism theme, items 7 and 8 are grouped under the job characteristics theme and item 9 corresponds to the theme stigmatization. Peer reviewing of the questionnaire was done and all the required modifications were done.

Procedure

The participants were contacted using snowball sampling. Thereafter, a Google form comprising the three tools was administered online via two applications: WhatsApp and E-mail. The tests were administered individually. Two incomplete forms were dropped and a total of 151 forms were considered for further data analysis.

Data Analysis

Post data collection, the data entry into excel sheet was done and the responses were coded for the quantitative tools. As for the qualitative tools, a frequency count of the responses was done. Raw data was analyzed using the software SPSS version 16.0. Normality test for psychological distress scores showed a skewed distribution, non-parametric statistical measures were used for further analysis. For exploring the relation between psychological distress with gender and family, Mann Whitney U test was used. Spearman's rho correlation was used for age and work-home distance correlation with psychological distress levels.

RESULTS

For a total of 151 participants, the mean of the Psychological Distress Scores was 19.13, standard deviation was 6.756 and the median of the Psychological Distress scores was 18. Results show no correlation between psychological distress and demographic variables (gender, family, and work-home distress). Negative correlation between age and psychological distress was observed but the values were insignificant.

Table 1 Mann Whitney U Test for Gender and Psychological Distress

	Gender	N	Mean Rank	Asymptotic Significance (2-tailed)
Distress	Female	83	80.17	.194
	Male	68	70.90	

Table 2 Mann Whitney U Test for Family and Psychological Distress

	Family	N	Mean Rank	Asymptotic Significance (2-tailed)
Distress	With Family	91	77.90	.510
	Away from Family	60	73.12	

Table 3 Correlation between Work-Home Distance and Psychological Distress

		Distress	W_H_distance
Spearman's rho	Distress	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	151
	W_H_distance	Correlation Coefficient	.042
		Sig. (2-tailed)	.613
		N	151

Table 4 Correlation between Age and Psychological Distress

		Age	Distress
Spearman's rho	Age	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	151
	Distress	Correlation Coefficient	-.113
		Sig. (2-tailed)	.169
		N	151

DISCUSSION

The aim of the present research was to understand the psychological, social and economic impact of the pandemic Covid-19 on the general population in India. The first objective was to assess the psychological distress levels in the participants using the Kessler's Psychological Distress Scale (K10). Results show that about 61.5 % (N=93) participants are likely to be well and have extremely low distress levels. 19.8 % (N=30) are found likely to be having a mild disorder which means that they experience low but significant levels of psychological distress. 7.9 % (N=12) participants are indicative of a moderate disorder or distress whereas 10.5 % (N=16) of the participants have a likelihood of having a severe disorder/distress. In comparison to the norms established by Slade, Grove and Burgess (2007) with the help of the Australian National Survey for Mental Health and Well Being (2007) in a sample of 8841 adults, the present research sample mean (mean=19.3) indicate

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an increase in the psychological distress in the population as a whole which could have been a result of the epidemic situation [48]. Increase in psychological distress during a crisis situation has been documented by many researches in the past [22]. Most countries have undergone lockdown and in such a situation of self-isolation, uncertainty over events and health, boredom, and loss of freedom can result into extremely stressful conditions. Not only the physical health but the mental health of people is at a high risk too. Studies have reported symptoms of emotional disturbance, PTSD, depression, anxiety, irritability, insomnia etc. [8].

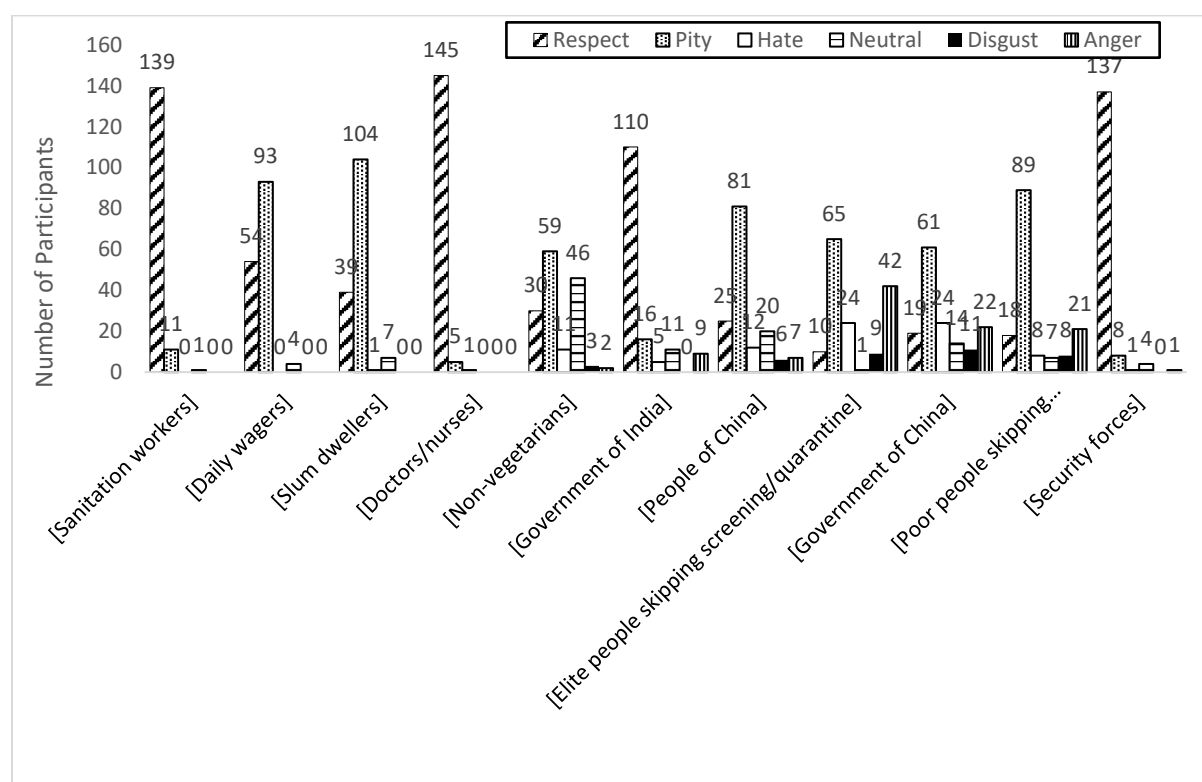


Figure 1. Feelings towards specific groups of people.

Such a crisis calls for a psychological intervention to deal with negative effects of the situation. As not the people in quarantine but also those confined to homes, frontline workers, poor families, farmers-everyone is frightened and going through immense stress. A lot of people have died due to a reason associated with the pandemic Covid-19 in India alone. A man in Andhra Pradesh, took his life because he believed that he had been infected and did not want his family to suffer [59]. The negative effects of quarantine are not only on the individual but also their families and social networks [22]. Though, many hospitals, NGOs and other local communities have taken an initiative to provide counseling services to the general public free of cost in India as well. But the need of the hour is to have a more active and organized system in place and there is a need to inform the general public about these services through social media platforms so that they can readily avail them and lessen the psychological burden.

Demographic variables such as race, gender, age, marital status, personality variable, socioeconomic status are found to have frequently related to distress. In the present study, as depicted in Table 1, the difference between the means of both the genders (males and females) is insignificant indicating no relation between gender and psychological distress. Supporting evidence comes from the study by Slade, Grove and Burgess (2011) conducted

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on Australian population [48]. Past literature however has suggested mixed evidence for the existence of such a correlation. Moreover, as K10 is a self-report measure, cultural norms might influence the expressive styles regarding the obstacles faced by both the genders.

Another variable explored in the present study is family. Family, as a variable here, differentiates between whether the individual resides with the family or away from family. No significant difference between two groups was found (Table 2). Although the two groups were unequal in numbers, there are many other factors that might have contributed to these findings. Family and friends support during an epidemic have been implicated as important resilience factors in previous literature [45][51][65]. But to say that living with the family will always be beneficial in such a situation would be wrong as this is only one side of the paradigm. Some people out of family dynamics or personality effects prefer staying alone than with their families. In such a case, having to live together under one roof might be distressing for some people. For example, in families with environment where, domestic violence and child maltreatment prevails [39][56].

The third factor explored in the present study in relation to the distress levels is work-home distance. Table 3 shows that the correlation between work-home distance and psychological distress is approximately zero. This is a new variable in the area of research of epidemics. The only plausible reason for no correlation at all could be the homogeneity in restrictions placed (the whole target population is confined to their homes and work from home was suggested) on the sample during the crisis situation.

Age and psychological distress, as it is clear from Table 4, are negatively correlated with each other but the correlation is very weak. Yeung and Fung (2006) concluded that the younger participants experienced more negative emotions than the older population during SARS outbreak and that the older adults were better at emotional regulation than the younger lot [64]. Another work of evidence comes from the research by Taylor et al (2008), revealing that younger people experience higher psychological distress as compared to older people [54].

Finally, the third objective of the study was to study the psycho-socioeconomic effects of Covid-19. The themes covered under this objective were distance, blame stigmatization, fatalism and job characteristics are discussed below.

Distance: When it comes to maintaining a physical/social distance with others during infectious diseases outbreaks, specific groups are targeted more than the others. Joffe (2011) has reported this dissociation pattern to be directed towards marginalized and derogatory groups of the society [26]. The perception of the participants as to which groups are the most vulnerable to be infected was assessed in the present study. This view of vulnerability is believed to play a determining role in 'towards whom distancing will be directed?' The highest perceived vulnerability is towards the senior citizens followed by the lower socioeconomic class people. The assessment of maintaining social distance show a high number of preferences for high socioeconomic class were also observed which could be an outcome of the nature of pandemic spread and its relation to international travelers. Weaker sections of society though considered vulnerable are less often blamed. Therefore, having higher socioeconomic section of the society under a vulnerability lens might ease out the direction of blaming.

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Blame: The blame game of the society as conceptualized by Joffe (2011) is directed either downwards towards the marginalized and derogatory groups of the society or upwards towards the government or higher authorities [26]. Majority of people have blamed the failure to control the spread of Covid-19 on to the uneducated section of the society which in accordance with Joffe's concept falls among the marginalized groups. Following the uneducated/illiterate people, two groups deemed responsible for this failure are high socioeconomic class people and the government. High socioeconomic class and government represent the upwards direction of blame. This upward flow of blame was also observed in response to the initial outbreak of the virus. One of the responses is mentioned below: "Educated fools who do not report about their travel history or symptoms if they have."

Fatalism: Majority of the participants believed that the situation can be controlled by humans. But many do view it as nature's balancing act. This concept of fate though not the dominant one but still is prevalent in a good number of participants. Fatalism though observed in some of the responses, the approach to countering the problem appears to be more practical.

Stigmatization: Usually stigma is channelized towards what are considered the 'unhealthy' groups of society. Stigmatization however can be upwards, similar to blame, too. Stigmatization yields various emotions in response to certain groups. Non stigmatized groups might be greeted with positive or neutral emotions based on their involvement in any crisis situation. Stigmatized groups however are often met with unpleasant or negative emotions. Expressed or not, but the mere existence of such emotions can clarify the presence of stigma [26].

Figure 1 shows the kinds of feelings that the participants have associated with some specific groups of people. Respect has been the dominant feeling for four groups. Highest number of people felt respectful for the doctors/nurses followed by sanitation workers, security forces and Government of India. Pity was the dominant feeling for all the other groups. Highest number of people felt pity for the slum dwellers followed by daily wagers, poor people skipping screening/quarantine, people of China, elite people skipping screening/quarantine, Government of China and non-vegetarians. Feeling of pity as can be clearly seen is directed towards the groups for which distancing and blame were exhibited. Both negative and positive emotions were displayed in downwards as well as upwards direction. Therefore, it is necessary for separate identification all these groups and thus work on reducing for future purposes.

Job characteristics: In the present study, though the effect on income levels has been reported by only fifty percent of the participants, a considerable number of people reported an increase in job difficulty amidst lockdown. According to Holmes et al. (2020), interventions must be made keeping into mind the economic conditions of the effected population [24]. Work from home is not possible for a large section of society and the fear of job security and unnecessary pay-cuts in times of a global crisis add a huge amount of distress to human life. Taylor et al (2008) reported that economic stress contributes to the overall psychological distress and is highly dependent on the worst hit industries during any crisis [54]. Policies, interventions must be laid out keeping in mind the unemployment, financial insecurity, and poverty that the lower sections encounter on daily basis [4].

There certainly is a need for mental health assistance for the general public as much as possible. Any intervention or policy for the betterment of general population during an

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epidemic/ pandemic situation must account for the digital-divide that exists between the subsections of society and therefore must be planned accordingly so as to cover all sections of society, especially the lower and vulnerable groups [24].

The majority of the participants were from middle class socioeconomic strata, a proportionate stratified sample could have been selected for data collection. Substantial research in this area will contribute to increased preparedness among the society for dealing with the stigmatized groups. Future research can take up interventions that would be beneficial in reducing anxiety in general public in such an epidemic situation. As the present study revealed that lack of adequate information was reported by many participants from the middle socioeconomic class, it is assumed that in low socioeconomic class this lack would further be reported at a heightened rate. Therefore, proper information dissemination systems must be formed [8]. Future research could focus on the development of educational models which could be implemented for providing mental health support during epidemics.

CONCLUSION

Psychological distress levels of the participants of the study are found to be high overall. Though effect on income levels has been reported by only 50 % of the participants, job difficulty has increased for 3/4th of them which probably is an important contributor to the psychological distress. The findings of the study are in alignment with Joffe's (2011) concept with certain groups being highlighted more than others in context of distancing from them, blaming and stigmatizing them [26]. The groups in the present study were lower socioeconomic class, illiterate people, higher socioeconomic class, senior citizens, and government (though less often as compared to other). Lack of inadequate or misleading information can lead to developing/strengthening of stereotypes or schemas that foster stigmatized thinking. Therefore, it is necessary that identification such groups are done and information is properly disseminated for countering stigma in society.

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

Exploring the Psycho-socioeconomic Impact of COVID-19

How to cite this article: Yadav N. & S.P.K. Jena (2021). Exploring the Psycho-socioeconomic Impact of COVID-19. *International Journal of Indian Psychology*, 9(2), 798-812. DIP:18.01.085.20210902, DOI:10.25215/0902.085