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Research Article

SELF REPORTED PSYCHOLOGICAL IMPACT OF COVID-19 PANDEMIC AMONG GENERAL POPULATION OF INDIA

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ABSTRACT

Introduction: COVID-19 pandemic has a profound psychological impact on the health of people worldwide. It is taking a huge toll on mental health and wellbeing of people.
Material and Methods: It was a community based online cross sectional study involving general population more than 18 years of age. Data collection was done by using a goggle form link which was circulated via online platforms. Data was analyzed using SPSS software version 21. Qualitative data was expressed in proportions or percentages and quantitative data was expressed in mean and standard deviation. Chi square test was used to find out association of demographic factors with the extent of impact of pandemic on psychological health.
Results: 15.3%, 38.8% and 33.4% subjects admitted to have severe, moderate and mild psychological impact of COVID-19 pandemic, respectively while 12.5% had no impact at all. The impact was more in case of young (<35 years) as well as old (>55 years), females, those having a business or private job, students and unemployed. Study subjects had very large (16.3%), moderate (39.7) or slight (30.9%) extent of fear about the uncertainty/loss of job or earnings because of the pandemic which was significantly higher among younger age group of 26 to 55 years and males. Almost 91% subjects had fear about getting COVID-19 complications and death with 42.4% having moderate fear, 35.3% mild fear and 12.8% very large extent of fear.
Conclusion: COVID-19 pandemic has resulted in a considerable psychological impact on a large section of study population.

INTRODUCTION

The COVID-19 pandemic has a profound impact on both physical as well as mental health of people worldwide. As a result of this ongoing crisis, people around the world have to face the extreme situations arising out of the economic crash down leading to loss of jobs and wages.[1]

The restrictions imposed to curtail the spread of the virus, the devastating loss of lives, the impact of loneliness and the inevitable recession associated with the pandemic is taking a huge toll on mental health and wellbeing of people. New mental health problems have developed and existing ones have gotten worse.[2]

There is a heightened risk of depression, anxiety, stress and insomnia among general public.[3] Adverse mental impact is found to be disproportionately higher in certain groups like the young, women and new parents. Also, those who are more vulnerable like the elderly, people with compromised immune function and those with preexisting medical and psychiatric morbidities are more prone for adverse psychological impact of the current situation.[4]

Although a considerable research about psychological impact of COVID-19 pandemic is being conducted in some parts of the world, but there is a dearth of similar studies among Indian population.

MATERIAL AND METHODS

This was a community based online cross-sectional study. Study population comprised of general public of age group >18 years who had access to internet using social media applications and who were literate and could understand English or Hindi.

Study subjects were enrolled by direct recruitment via a Google form link consisting of Participant Information sheet and a mandatory consent check box mentioning the purpose of study and only those who gave their consent to be included in the study were able to go to the next section of questionnaire. The online survey continued for a period of one month from 1st to 31st July, 2020.

Study tool: An online pre designed, pre tested, self-administered questionnaire was designed containing information about demographic profile of participants, questions regarding the extent of impact of the current

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pandemic and lockdown restrictions on psychological health and wellbeing, extent of fear about loss of job or earnings and of getting disease complications and death.

Data were entered in MS-Excel and analyzed using SPSS version 22. Qualitative data was expressed in proportions or percentages and quantitative data was expressed in mean and standard deviation. Chi square test was used to find out the association of demographic factors with the extent of impact of pandemic on psychological health.

The approval to conduct the research was obtained from the Institutional Ethics committee. The responses were collected anonymously without any identifying information of the respondents and the data were kept purely confidential.

RESULTS

During the study period, a total of 1112 subjects gave consent and completed the study questionnaire. 861 (77.4%) responses were obtained in English and 251 (22.6%) were in Hindi questionnaire. The responses were obtained from 30 states and union territories of the country. The mean age of the participants was 35.57 years (±14.4) with range of 18 to 78. Almost one third (34.9%) of study subjects belonged to a relatively younger age of 25years or less while 11% were aged more than 55years. 60.3% participants were females. Approximately one fifth of the respondents were employed in Government job, almost the same proportion in private job and the largest chunk (36.6%) were students. (Table 1)

As responded by subjects, COVID-19 pandemic had moderate (38.8%) or mild (33.4%) psychological impact on most of them while 15.3% respondents admitted to have severe impact and 12.5% had no impact at all. Moderate to severe impact was reported by a significantly higher proportion of subjects of younger age groups (<35 years), followed by those more than 55 years as compared to those between 26 to 55 years of age (p <0.001). The extent of this impact was also significantly higher among females than males (p <0.001). As far as occupation is concerned, a mild or no impact was reported by a higher proportion of Government employees, home-makers and self employed while larger impact was reported by unemployed, businessmen, those in private jobs and students (p <0.001). (Table 1)

Except 146 (13.1%) respondents, almost all had either very large (16.3%), moderate (39.7) or slight (30.9%) extent of fear about the uncertainty/loss of job or earnings because of the pandemic which was significantly higher among younger age group of 26 to 55 years and males (p <0.001). Government employees, retired and home makers were having significantly less fear as compared to those unemployed or engaged in business and private jobs. (Table 2)

Almost 91% subjects had fear about getting COVID-19 complications and death with 42.4% having moderate fear, 35.3% mild fear and 12.8% very large extent of fear.

Table 1 Perceived severity of psychological impact of COVID-19 pandemic and socio demographic characteristics

Socio demographic characteristics	Number (*percentage*)*	Severity of psychological impact				Significance*
		Severe	Moderate	Mild	No impact	
Age						
<25	389 (*34.9*)	62 (15.9)	160 (41.1)	110 (28.3)	57 (14.7)	Chi square-41.563 Df -12 P value 0.000
26-35	194 (*17.5*)	41 (21.1)	85 (43.8)	50 (25.8)	18 (9.3)	
36-45	239 (*21.5*)	35 (14.6)	74 (31.0)	103 (43.1)	27 (11.3)	
46-55	165 (*14.8*)	11 (6.7)	60 (36.4)	72 (43.6)	22 (13.3)	
>55	125 (*11.2*)	21 (16.8)	53 (42.4)	36 (28.8)	15 (12.0)	
Sex						Chi square-62.236 Df -3 P value 0.000
Male	441 (*39.7*)	45 (10.2)	131 (29.7)	186 (42.2)	79 (17.9)	
Female	671 (*60.3*)	125 (18.6)	301 (44.9)	185 (27.6)	60 (8.9)	
Occupation						
Government Job	219 (*19.7*)	11 (5.0)	41 (18.7)	136 (62.1)	31 (14.2)	Chi square-166.476 Df-21 P value 0.000
Private Job	238 (*21.4*)	35 (14.7)	125 (52.5)	62 (26.1)	16 (6.7)	
Business	99 (*8.9*)	25 (25.3)	57 (57.3)	10 (10.1)	7 (7.1)	
Self employed	44 (*4.0*)	5 (11.4)	18 (40.9)	14 (31.8)	7 (15.9)	
Student	407 (*36.6*)	72 (17.7)	153 (37.6)	121 (29.7)	61 (15.0)	
Retired	48 (*4.3*)	13 (27.1)	15 (31.3)	13 (27.1)	7 (14.6)	
Home maker	36 (*3.2*)	3 (8.3)	12 (33.3)	12 (33.3)	9 (25.0)	
Un employed	21 (*1.9*)	6 (28.6)	11 (52.4)	3 (14.3)	1 (4.8)	
Total	1112 (*100*)	170 (15.3)	432 (38.8)	371 (33.4)	139 (12.5)	

*The percentages mentioned in italics are column percentages

Table 2 Extent of fear about uncertainty/loss of job or earnings with socio demographic characteristics.

Socio demographic characteristics	Fear about uncertainty/loss of job or earnings				Significance*
	Very large	Moderate	Slight	Not at all	
Age					
<25	39 (10.0)	124 (31.9)	126 (32.4)	100 (25.7)	Chi square-153.149 Df- 12 P value0.000
26-35	46 (23.7)	81 (41.8)	58 (29.9)	9 (4.6)	
36-45	62 (25.9)	104 (43.5)	64 (26.8)	9 (3.8)	
46-55	14 (8.5)	98 (59.4)	45 (27.3)	8 (4.8)	
>55	20 (16.0)	34 (27.2)	51 (40.8)	20 (16.0)	
Sex					Chi square-47.503 Df-3 P value 0.000
Male	98 (22.2)	201 (45.6)	93 (21.1)	49 (11.1)	
Female	83 (12.4)	240 (35.8)	251 (37.4)	97 (14.5)	
Occupation					
Government Job	11 (5.0)	55 (25.1)	87 (39.7)	66 (30.1)	Chi square-417.999 Df- 21 P value 0.000
Private Job	26 (10.9)	139 (58.4)	62 (26.1)	11 (4.6)	
Business	50 (50.5)	39 (39.4)	7 (7.1)	3 (3.0)	
Self employed	5 (11.2)	15 (34.1)	19 (43.2)	5 (11.4)	
Student	70 (17.2)	172 (42.3)	130 (31.9)	35 (8.6)	
Retired	4 (8.3)	12 (25.0)	20 (41.7)	12 (25.0)	
Home maker	3 (8.3)	5 (13.9)	16 (44.4)	12 (33.3)	
Un employed	12 (57.1)	4 (19.1)	3 (14.3)	2 (9.5)	
Total	181 (16.3)	441 (39.7)	344 (30.9)	146 (13.1)	

This extent of fear was significantly found to be highest in those aged more than 55 years and lowest in younger than 25 years of age (p <0.01). Sex and occupation were not found to be statistically associated with this fear.

A very large proportion of study subjects (87%) perceived stress about the uncertainty or loss of employment or earning and more than half of them (56%) had moderate to high level of stress regarding this.

Table 3 Extent of fear of getting disease complications and death with socio demographic characteristics.

Socio demographic characteristics	Fear of getting disease complications and death				Significance*
	Very large	Moderate	Slight	Not at all	
Age					
<25	11 (2.8)	124 (31.9)	183 (47.0)	71 (18.3)	Chi square 250.608
26-35	10 (5.2)	75 (38.7)	99 (51.0)	10 (5.2)	Df 12
36-45	45 (18.8)	127 (53.1)	58 (24.3)	9 (3.8)	P value 0.000
46-55	36 (21.8)	77 (46.7)	47 (28.5)	5 (3.0)	
>55	40 (32.0)	75 (60.0)	6 (4.8)	4 (3.2)	
Sex					Chi square 5.829
Male	69 (15.6)	187 (42.4)	146 (33.1)	39 (8.8)	Df 3
Female	73 (10.9)	291 (43.4)	247 (36.8)	60 (8.9)	P value 0.120
Occupation					
Government Job	34 (15.5)	86 (39.3)	79 (36.1)	20 (9.1)	
Private Job	42 (17.6)	101 (42.4)	79 (33.2)	16 (6.7)	
Business	10 (10.1)	45 (45.5)	35 (35.4)	9 (9.1)	Chi square-117.589
Self employed	6 (13.6)	20 (45.5)	15 (34.1)	3 (6.8)	Df 21
Student	37 (9.1)	181 (44.5)	149 (36.6)	40 (9.8)	P value 0.463
Retired	6 (12.5)	21 (43.7)	17 (35.4)	4 (8.3)	
Home maker	5 (13.9)	15 (41.7)	11 (30.6)	5 (13.9)	
Un employed	2 (9.5)	9 (42.9)	8 (38.1)	2 (9.5)	
Total	142 (12.8)	478 (42.4)	393 (35.3)	99 (8.9)	

DISCUSSION

A majority of study subjects (87.5%) perceived to have some psychological impact of the current pandemic. Almost 55% had moderate to severe impact which is similar to another study conducted on Chinese general population by Wang C *et al*.[5] As a consequence of COVID-19 pandemic, level of psychological stress has increased and this has been documented by many researchers.[6-11]

This study shows that psychological impact was more in case of young (<36years) as well as old (>55years) population. Young population is usually more concerned about the current and future consequences of the pandemic. Older population may be more stressed because of their vulnerability to morbidity and mortality associated with the disease.[11-14] Other authors have also reported greater psychological distress among younger population due to COVID-19 pandemic.[7-10,15,16] We have found a greater psychological impact of pandemic on females as compared to males. The pandemic has disproportionately increased the burden on women who are considered primarily responsible for domestic chores and care of children. These findings are in accordance with other studies as well.[5,6,9,15-18]

Government employees were found to perceive a milder psychological impact of pandemic. The reason may be because of better job security and financial stability among them, which is not there for those working in private sector, having their own business or unemployed. Other studies also point out a better psychological wellbeing in Government employees than others.[9,11,15] Higher level psychological stress because of COVID-19 pandemic in businessmen is also being reported by Absar Ahmad *et al* and Hossein A *et al*.[11,19] Students have also reported to have a considerable psychological impact in our study. Because of closure of educational institutes, there is a shift to online mode which may not be very comfortable for students and some may have internet access problems. Career of this year's university graduates is at stake and students are concerned that the consequent stress will adversely affect their exam performance.[20]

The COVID-19 pandemic has led to people around the world to face the extreme situations arising out of the economic crash down leading to loss of jobs and wages. (sleepless in covid 19). A study on general population of Spain shows that 36% people perceived a risk of losing job and 44% of decreased income.[9] The stress was more in young and middle aged population because they are the productive age group and have more financial responsibilities as compared to others. Therefore, the economic crisis affects them the most.[7] Also, males are traditionally considered responsible for financially supporting the family and hence they are expected to be more stressed about the economic uncertainty. Similar results have been found by other studies.[7,9,21] Those working in Government sector have less stress of financial losses than others while the fear of loss of earning was highest among businessmen which is in accordance with other studies.[9,11,15,19] A study done in Turkey shows that 15% subjects lost jobs or income because of the pandemic.[15] Rodriguez-Rey *et al* have reported that unemployed had the strongest negative psychological feelings.[9]

A large majority of participants had fear of getting COVID-19 complications and death. Other authors have mentioned that fear of death is the major cause of anxiety associated with the current pandemic.[22] Pradhan M *et al* have found that perceived stress during pandemic is associated with fear of death and death anxiety.[23] Older population may be more afraid of the adverse consequences of COVID-19 as they commonly have co-morbid conditions like diabetes and hypertension and are vulnerable to morbidity and mortality because of the disease.[24]

CONCLUSION

We conclude that COVID-19 pandemic has resulted in a considerable psychological impact on a large section of study population. People are stressed about fear of losing job or income and also fear of death. The impact is more in case of young (<35 years) as well as old (>55 years), females, those having a business or private job, students and the unemployed.

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