



Cross sectional study to evaluate the impact of COVID-19 on mental health among various age groups in India

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Abstract

Background: COVID-19 is a pandemic first of its kind. In India ICMR has been issuing guidelines on testing and treating Covid patients. This study was done to assess the fear and anxiety of COVID during the period of lockdown and the need for awareness and counselling among various age groups.

Methods: Cross-sectional study using online questionnaire, with open and close ended type questions. 1,016 responses were received. Data was analysed in excel.

Results: Fear and anxiety level was found to be higher in middle aged adults (83.3%) compared to young and old aged adults. 74.4% feared going to hospital due to the chance of infection. 87.5% experienced anxiety after knowing that infection is spreading through asymptomatic carriers. 94.5% are socially responsible and felt extremely disturbed to see people not following Government rules. 85.4% middle aged adults responded that more awareness is needed about COVID-19 and 66% need counselling to overcome fear and anxiety.

Conclusion: More focus should be on mental health as people face fear of COVID infection to them or to their family members. Awareness that COVID infection can be prevented by practising social distancing, wearing masks and along with counselling will help improve mental health.

Keywords: anxiety, counselling, fear, mental health

1. Introduction

COVID-19 has created a pandemic first of its kind. The Entire World Is Going through a Crisis, similar to world wars but with a difference. A zoonotic organism is creating havoc. COVID-19 was declared as a public health emergency by the World Health Organization (WHO) on January 30, 2020 and a pandemic on March 11, 2020 [1].

Within six months of its arrival the psychological and physical stress the virus has created is enormous among all sections of people [2]. Its main symptoms include fever, dry cough and shortness of breath. As on June, mortality rate is increasing at a rate of 3.36% in India. Scientists globally are working on all aspects of this virus ranging from mechanisms to prevent the action of virus, development of vaccines and other therapeutic measures. Lockdown was announced to reduce the doubling time and this has started to affect people emotionally due to high probability of job loss. Anxiety has increased due to loss of livelihood for millions of people across the globe. Only few studies have so far graded the fear & anxiety caused due to COVID-19 [3]. Increased anxiety can lead to stress and weaken the immune system. As a result the risk of infection increases. WHO has warned that the restrictive measures taken up by many countries will have a huge impact on people's mental well-being [4].

The Indian Psychiatry society has highlighted a sudden increase in patients suffering from some sort of mental illness mainly increase in fear and anxiety. Our study questions were based on these important aspects of mental

health as fear and anxiety are co-dependent. Thought of going to hospital or to interact with a neighbour who has visited the hospital is creating phobia among all of us. The awareness has to be made more reachable among the general population. Lot of studies have been carried out on various aspects of mental health. We are focussing on the fear and anxiety component across various age groups. Information from digital media and newspapers sometimes spread a lot of negativity. Half knowledge always increases anxiety. More awareness and counselling will help to reduce the fear to a great extent.

2. Materials and Methods

This was a cross sectional study using a semi structured questionnaire to assess fear and anxiety in the society and need for awareness and counselling. The questionnaire was circulated to all age groups of people through Google forms. Informed consent was obtained from each participant. Institutional Ethical clearance was obtained by virtual presentation.

The online questionnaire was divided into three sections. First section included demographic details. The socio-demographic variables like age, gender, education, area of residence was collected. The second section had 15 questions ranging from fear, anxiety and awareness on COVID-19 and the need for counselling.

The third section contained 6 items that were to be rated in the 8-point scale to assess the anxiety faced by a person when they visit hospitals and when they are back from

hospital. Questions were also framed to assess social responsibility like wearing a mask or maintaining social distance. We received 1016 responses from participants of all ages from 18 -60 years. Descriptive statistics have been used to analyse the findings.

3. Results

3.1 Demographic details

Total no of participants in our study was 1016 including 498 males and 516 females. Informed consent was obtained from all the participants (Table 1). 96.1% participated and 3.9% did not give consent and did not participate. Age of the respondents varied from 18 -60 years. 83% of the respondents were from Tamilnadu, 4% from Karnataka, Kerala and Andhra each, 5% belong to North and North Eastern parts of India. 53.2% were students, 28.4% were employed or doing business and 18.4% was not employed.

Age group	Total Number		Male		Female	
	n	%	n	%	n	%
Young age(18-35)	725	71.36%	348	48.00%	377	52.00%
Middle age(36-55)	245	24.11%	120	48.98%	125	51.02%
Old age(Above 56)	46	4.53%	30	65.22%	16	34.78%
Total (N)	1016	100%	498	49.01%	518	50.99%

Fig 1: Demographic details

3.2 Fear related to hospital visits

74.4% agreed that they had fear of going to hospital due to chances of getting infected (Figure 1a). 9.7% had some pre-existing diseases like hypertension and diabetes and were following doctor’s advice to avoid any complications. 32.8% were not ready to go to hospital even if they fell sick and 76.3% had not visited any hospital even as an attender for a patient in the last three months. 58.5% had a health professional’s number to contact in case of emergency .25.9% people agreed that they bought medicine on their own without consulting health professionals to avoid hospital visits. 55.9% responded that even after complete hand wash they had increased fear of getting infected.

3.3 Fear related to neighbours

40.2% agreed that when their neighbours visited hospitals, they experienced fear of getting infection from them even though the visit was for non COVID reason (Figure 1b). 38.3% were not ready to talk cordially with neighbours after they returned home from hospital.

3.4 Anxiety toward COVID-19

82.2% of the population are updated with COVID-19 cases and death rate .73.5% of people reported having increased anxiety with increasing cases of infection and death rate. Women showed more anxiety than men (Figure 2).

3.5 Awareness and counselling towards COVID-19

85.4% and 66% of young adults responded that they need more awareness programs and counselling on COVID-19 and its complications. 86.96% and 54.35% of old aged people felt they needed awareness and counselling or somebody to talk to, to help them feel better (Table 2).

3.6 Fear and anxiety scale

The third section assesses the anxiety scale. For 67.91% of participants, seeing doctors and other paramedical staff in their personal protective equipment caused anxiety and 87.5% are worried after knowing that infection has started spreading through asymptomatic carriers. 85.73% are not willing to buy essentials from public places even with social distancing. 94.49% are socially responsible and felt disturbed to see people not following government rules on social distancing and wearing masks (Figure 3).

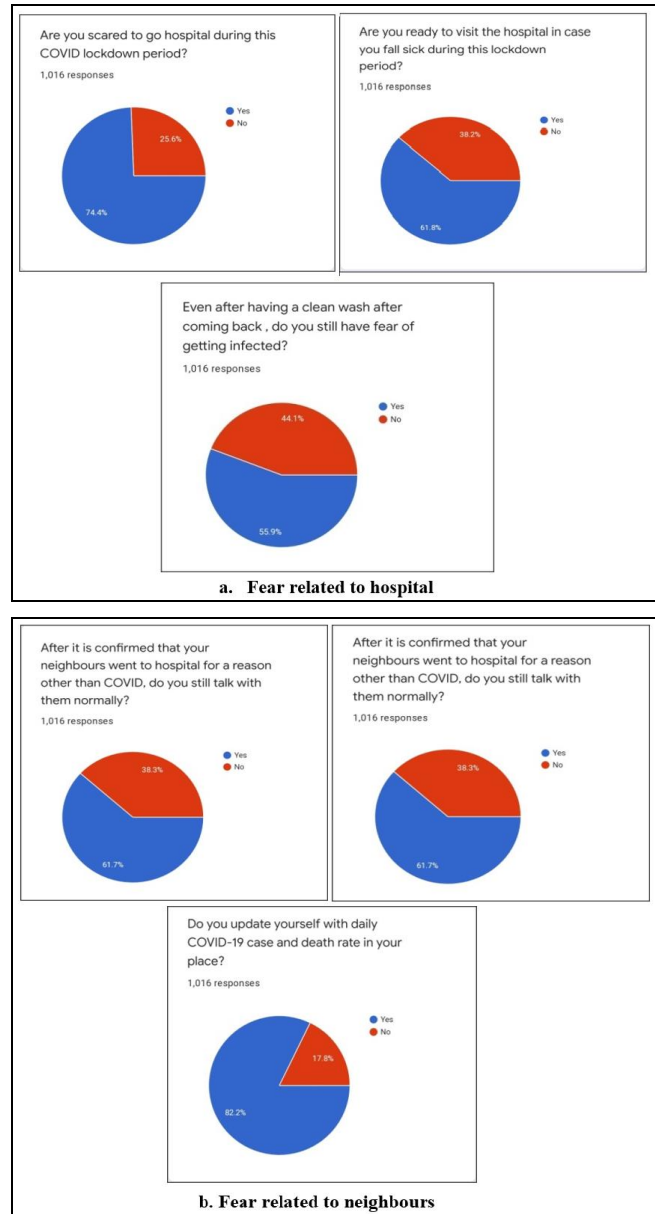


Fig 2: Fear of getting infected with COVID due to social reasons

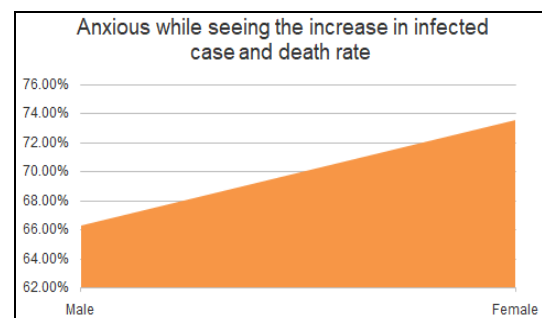


Fig 3: Anxiety towards COVID-19

Age group	Need more awareness on COVID-19 %	Need counselling to overcome anxiety %
Young adults	85.86%	66.45%
Middle aged adults	80.20%	64.59%
Old aged adults	86.96%	54.35%

Fig 4: Need for awareness and counselling among age groups

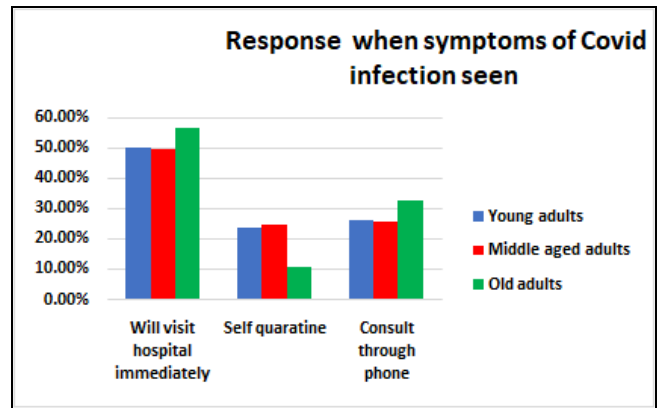


Fig 6: Response in different age groups when they show symptoms

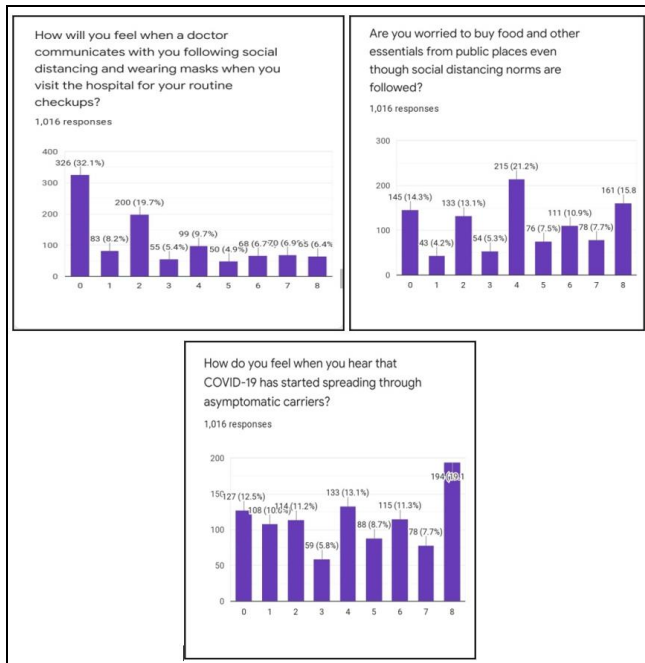


Fig 4: Anxiety measured in scale of 1 - 8. (No effect – severely disturbed)

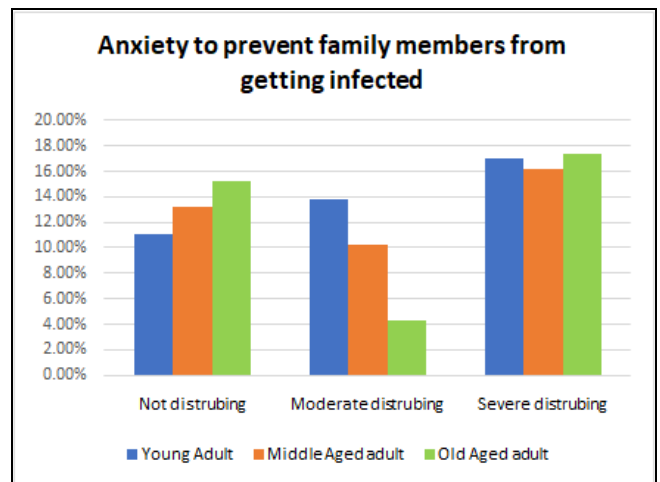


Fig 7: Anxiety about family members among different age groups

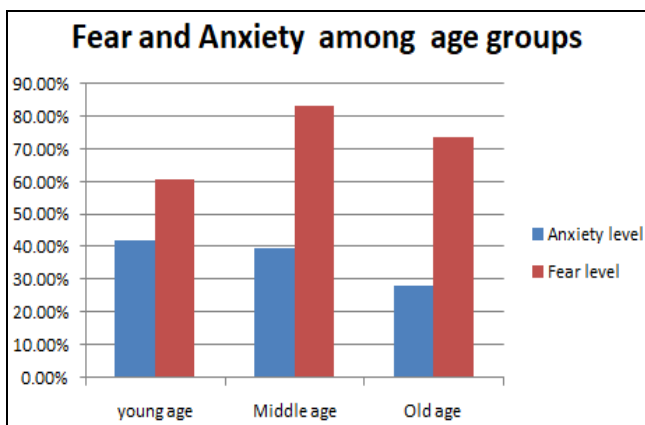


Fig 5: Comparison of fear and anxiety among different age groups

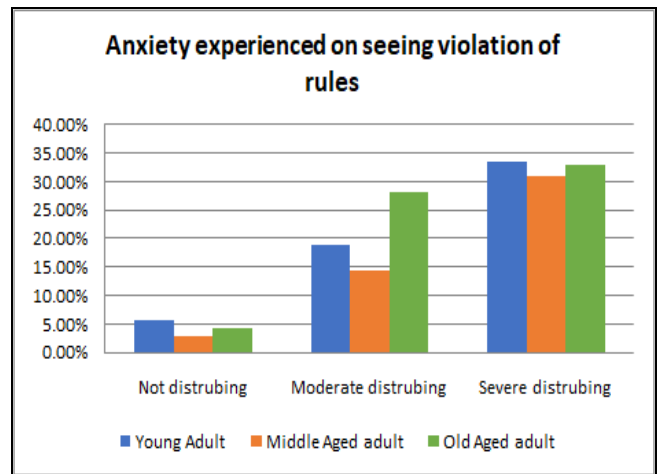


Fig 8: Social responsibility among various age groups

4. Discussion

SARS CoV is proving to be a dangerous enemy and India's preparedness and response plan has been scaled up^[5]. Social distancing and self-isolation has helped in controlling the spread of infection but with a price^[6]. Lockdown is complete shutdown except essentials. This has proved to be effective but daily wages workers, office goers and students are facing a 360degree turnabout in their daily routine. People working in different cities have been trapped in one particular place and not able to move out and the plight of migrant labourers is a matter of great concern. Women are facing the extra burden of managing all members of a family throughout the day. Sexual and Physical violence has increased^[7]. People are going through an emotional turmoil. This study was conducted to assess fear and anxiety in our society due to this COVID-19 pandemic. The questions were answered by people of all age groups from 18 - 60 years. This gives a perspective on anxiety and fear among students, employed, people without employment and superannuated. A maximum number of participants are from Tamilnadu, but a considerable number of responses have been recorded from adjacent states of Karnataka, Kerala, Delhi and North-eastern states. Fear and anxiety of people not only in hot spots or dark red zones of Tamilnadu but also other less affected states gives us a complete picture on mental health.

The results show that fear among middle aged adults is high on the prospects of getting infected from hospital and show increased anxiety on knowing that their neighbours have visited the hospital even for emergency reasons whereas older people are more understanding of the purpose of neighbours visit to hospital. Similar results were obtained in a study where 38 % people were scared that a known person would be infected without their knowledge^[8]. 38.3% people responded that they will not communicate with neighbours even after knowing that their hospital visit was for non-COVID-19 related reasons. Young aged adults show the highest level of anxiety on following the mortality data due to COVID-19. But middle-aged groups are showing generalised fear and anxiety during this lockdown phase more than younger adults and older groups (Figure 4). With no job security, the anxiety to maintain a family for an indefinite period is very high in middle aged adults. Studies have proved that young adults who are forced to stay at home have developed anxiety attacks and suffer from palpitations, breathlessness, sweating and tremors imagining the worst^[6, 9]. Women are found to be more anxious than men (73.5%) as they update themselves on daily increase in COVID-19 cases and mortality rate. Managing household expenses and with the entire family at home, women are prone for anxiety^[10].

Our results show that people above 56 years are ready to visit hospitals in the event of falling sick than other younger age groups (Figure 5). Fear of becoming dependent or burden on their family can be a deciding factor for the older age group. 23.5 % preferred self-quarantine as the stigma of getting quarantined in a government facility is very high and suicidal tendency is more in COVID-19 infected people lodged in Government facilities. When asked if they agreed to consult a doctor over the phone, 27.9% agreed it would be the best option in the current crisis. Older aged adults felt very disturbed on the chances of their family getting infected by COVID (Figure 6).

Knowledge, attitude and sensible practices were very high

among all age groups^[8]. In our study 94.49% were socially responsible and showed severe anxiety on seeing people not following government rules (Figure 7).

Government initiative to spread awareness about COVID has been very successful^[11]. 75 - 90% of all age groups responded that awareness programs have to be a continuous process and it has to be constantly updated by projecting the success achieved through various measures adopted by the government. This will help to reduce fear and anxiety and make people more socially responsible^[12]. Medical camps with medical psychologists should be set up in all areas as 70% people need help from qualified personnel to get over their anxiety. Surveillance of containment areas and instructions given through public address systems will also help^[13]. Middle aged adults who are in their prime of careers need more counselling to help them get over their fears of job and financial uncertainty.

5. Conclusion

Fear and anxiety is prevalent among all age groups but middle aged adults are worst affected. Women are also facing high levels of anxiety. Awareness programs should be made more accessible to prevent unwanted incidences like violence, aggression and suicides due to fear of this virus.

6. Acknowledgments

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