

Original Research Article

Descriptive study of patients related to COVID-19 pandemic attending psychiatric clinic in Gwalior city

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ABSTRACT

Background: The COVID-19 pandemic and subsequent lockdown has adversely affected the lives and livelihood of millions in our country. This has played havoc on the psychological health of a large section of our population. It is not known, however, whether this has led to an increase in the number of patients of psychiatric disorders. With this aim, this study was planned.

Methods: An observational study was done on 100 participants who visited the private psychiatric outpatient clinic of Gwalior district between mid-May to mid-September. Data entry and statistical analysis was done in MS-Excel Software.

Results: Out of 926 patients with no previous history of psychiatric illness who attended the clinic for the first time, 100 (10.8%) patients had illness as a direct consequence of stress of COVID 19 and subsequent lockdown. The majority were Hindu (87%), males (65%), general category (63%) and 96% were residing in urban areas. 56%, 13% and 10% of patients had Moderate depression, Panic disorder and Anxiety disorder respectively. The precipitating reason for their illnesses turned out to be: fear of viral infection (56%), uncertainty of the situation (90%), losing their source of income (61%), Frustration, boredom and lack of social contact.

Conclusions: In our study, young male participants emerged as risk group. Maximum participants were facing fear of infection, fear of loss of career, uncertainty, frustration due to boredom and lack of social contact as factors of psychiatric health concern.

Keywords: COVID-19, Career, Disorder, Fear

INTRODUCTION

On 30th January 2020, the Director General of WHO declared the COVID-19 outbreak as a public health emergency of international concern.¹ The pandemic spread very quickly and within no time engulfed almost 210 countries and territories. Reports of rising daily death toll from Italy, Spain, France, Germany created mass panic. Most countries declared a compulsory stay at home policy. In India, the first step was to close all schools and

educational institutions and to cancel all exams. Subsequently, a total lockdown was imposed on 25th March after a trial of one day (Janta curfew). The basic idea was not only to halt the spread of infection but also to utilize the time to scale up government response to the disease and to organize its preparedness. On the other hand, this lockdown accelerated the panic and uncertainty among people. While these steps were critical to mitigate the spread of this disease, they undoubtedly had consequences for mental health and well-being in both the

short and long term.² An unprecedented nationwide lockdown put a full stop on all human activities, be it economic, social, or cultural. Though this might have slowed down the spread of COVID-19, it has also made a huge impact on the physiological, financial, social, and psychological aspect of human life across the entire country. With each passing day, anxiety, boredom, financial stress, frustration, and family disputes also escalated; helplessness, inadequate supplies, insufficient information, and stigma struck the mind of common people. Young minds were further stressed due to the uncertainty and postponement of examinations.³ COVID-19 not only affected healthcare needs adversely but also engulfed numerous spheres of human life for the elderly and poor with chronic ailments, migrant laborers, people stranded in locations other than their homes, quarantined individuals and their families. These people were highly vulnerable to and often showed signs and symptoms of mental distress and emotional problems.

During lockdown, continual social media coverage of the discrimination faced by healthcare workers, patients, suspects, and quarantined family members fanned the flames of mass fear of stigma. Fear is the breeding ground for hatred and stigma.⁴ Other stresses like pay cuts, unemployment, uncertainty, fear, domestic violence, and quarantine had a large negative psychological impact on several individuals, as reported in many studies.⁵ It is well known that quarantine/isolation for any cause, especially in the context of a pandemic (as was shown by the Severe Acute Respiratory distress Syndrome pandemic in 2003) has been associated with significant mental health problems.^{6,7} Keeping these things in mind, many psychiatrists were interviewed to know their experience. A telephonic survey of psychiatrists conducted across the city revealed that many saw an increase in the number of patients aged 15-64 with no prior history of mental illnesses now showing symptoms of anxiety, mood disorders, depression and psychotic episodes resulting from growing stresses over isolation, job insecurity, relationship breakdown and bereavement associated with the COVID-19.

Psychiatrists were also concerned about stress linked to the fear of contracting COVID-19. Being cut off from family and friends and disruption to normal daily routines related to work, outdoor activities and recreation were also exacerbating mental health problems. People with no history of mental illness are developing serious psychological problems for the first time as a result of the lockdown. People in the productive age group (15-64) were reported to have been badly affected by first-time mental health issues.

This lockdown/pandemic anxiety has globally affected every individual to variable extents. Keeping all the above facts in consideration, a systematic study has been designed with objectives to study the various causes leading to psychiatric illness and the association of sociodemographic variables to the causes and diagnosis.

METHODS

This cross-sectional study utilized data collected from private psychiatric outpatient clinic of Gwalior district from May 15 to September 20, 2020. Sample size was calculated to be 100, assuming the proportion of fear due to COVID-19 among psychiatric patients as 50%, at 5% level of significance and 10% absolute precision, the sample size was calculated using the formula: $N = (Z_{(\alpha/2)}^2 * P * Q) / d^2 = 96 \approx 100$. The sample was collected from the patient register/record of the psychiatric clinic. Information regarding telephone number and diagnosis of all the new patients attending the clinic for the first time during the study period (till required sample size was achieved) was collected. Patients were contacted telephonically to explain the purpose and nature of the study and then their verbal consent was obtained. Patients reporting for the first time to a psychiatric clinic May 2020 onwards and who gave consent to participate in the study were included. Patients who refused to participate or had previous history of psychiatric illness or did not have smart phone were excluded from the study.

Using this methodology, a total of 926 new patients (with no previous history of psychiatric illness) who had reported to the psychiatric clinic were assessed, out of which 100 participants were selected in the study as their illness was directly linked to the COVID-19 pandemic or subsequent lockdown and their consent was sought. Patient's information on demographic and causes leading to psychiatric illness was collected in the predesigned proforma. Self-administered, Interview proforma was sent to patients on WhatsApp, while diagnosis of the patients was made by psychiatrist himself. Duly filled proforma was collected in the same way. In case of any query patients were contacted telephonically again. Data entry and Statistical analysis was done in MS-Excel Software. Univariate and Bivariate statistical analysis were done.

RESULTS

In the present study a total of 926 new patients (with no previous history of psychiatric illness) have reported to the psychiatric clinic since mid-May to mid-September, out of which 100 participants were included in the study. Among those 35% were females and 65% were male. Maximum participants belong to general category (63%) followed by OBC category (21%). Hindu preponderance (87%) were seen and maximum participants were highly literate i.e. at least graduate (59%).

A large majority of participants belonged to urban area (96%) and maximum participants were self-employed (37%). The median age of participants was 35.0 (35.00-27.25). Additionally, 50% of the participants were having family income more than ₹ 30,000 with median per capita income ₹ 5916.67. It was found that 50% families were those having 5 family members and 4 members dependent on the head of household (Table 1).

Table 1: Socio-economic profile of patients (participants).

Variables		Frequency/ *Median	Percentage/ *IQR
Gender	Female	35	35.0
	Male	65	65.0
Caste	General	63	63.0
	OBC	21	21.0
	SC	16	16.0
Religion	Hindu	87	87.0
	Muslim	8	8.0
	Jain	5	5.0
Education	Primary	8	8.0
	Intermediate	33	33.0
	Graduate and above	59	59.0
Occupation	Govt. service	13	13.0
	Private service	20	20.0
	Self-Occupation/ business	37	37.0
	Student	16	16.0
	Homemaker	14	14.0
Area of Residence	Rural	4	4.0
	Urban	96	96.0
Age*		35.0	(35.00-27.25)
Family income*		30000	(60000-20000)
Number of family member*		5	(6-5)
Per capita monthly income*		5916.67	(11857.14-3392.86)
Dependent on head*		4.00	(4.0-3.0)

Distribution of patient according to their diagnosis

Moderate depression (56%) was seen among maximum participants followed by panic disorder (13.0%) and Anxiety Disorder (10.0%). For each diagnosis male gender and general caste category preponderance were seen. Overall mean age of the patient was 37.31(\pm 12.5). For moderate depression diagnosis were seen among higher age (41.1 \pm 12.4) relative to other diagnosis. Hypochondriasis and acute transient psychosis were seen among comparative younger population with mean age 24.7(\pm 5.0) and 28.4(\pm 6.8) respectively (Table 2).

Frequency distribution of attributes

More than half (56%) reported this fear to be very frequent phenomenon dominating their life. Little less than half reported it to be affecting them sometimes i.e. almost all the participants reported to be scared of getting infected with COVID-19. 90% of the respondent's reported to be perturbed with the uncertainty of the situation whereas

10% reported that they got worried with the fact sometime during the day. 61% of the respondents were frequently worried about losing their source of income where as 31% were not much bothered. Fear of losing professional career and identity were frequently observed among 52% of the participants while 49 % were afraid of what will happen to their job in future or whether they will get a job and become financially independent. Frustration/boredom due to limited social contact were major concern of 48% respondents while 39% face the same sometimes during the day. Maximum participants were not much affected with the fear of discrimination and social isolation (Table 3).

Association of the attributes with gender and age

The table 4 shows that the males were affected more than females in many attributes except for the fear of stigma /discrimination, fear of social isolation and fear of infection to family member and their death, wherein females reported to be in distressed more than males. Distress due to fear of loss of professional career and identity and anguish due to uncertainty of the situation concerned more in males and significant among younger age group. Fear of loss of professional career was frequently observed in younger age (36.48 \pm 10.87) as compared to rarely in older age group (42.33 \pm 14.05). Anguish due to the uncertainty of situation/uncertainty of future was frequently observed in younger age (36.42 \pm 11.917) as compared to rarely in older age group (46.20 \pm 15.49) (Table 4).

Descriptive measure of the attributes

Mode analysis found that factors such as fear of infection, fear of loss of career and uncertainty were of maximum concern to the participants. Frustration due to boredom and lack of social contact were also found to be very common distressing factors. Other factors such as fear of death, domestic violence, were less frequently reported as distressing factor by the participants. A majority of participants were rarely concerned about factors such as social stigma/discrimination, fear of social isolation, fear of infection to family members and their death and global economy (Table 5).

The most stressful experiences 50% (Median) of the study population had to endure turned out to be fear of viral infection, loss of professional career and identity, loss of earning, anguish due to the uncertainty of the situation/uncertainty of future. Factors which were responded as causing concern sometimes (median) were: fear of death, fear of infection to family members and their death, uncertainty about profession, domestic violence/family dispute, distress due to lack of social contact, and frustration. 50% of the participants reported fear of social isolation, concern about the global economy, and fear of loss of loved ones as "rarely". In Third quartile (75%), anguish due to uncertainty was reported as a distressing factor under head of frequent (Table 5).

Table 2: Distribution of patient according to their diagnosis.

Diagnosis	N	Gender		Caste			Age Mean (\pm sd)
		Female	Male	Other	OBC	SC	
Moderate depression	56	15 (26.8)	41 (73.2)	31 (55.4)	11 (19.6)	14 (25.0)	41.1 (\pm 12.4)
Panic disorder	13	6 (46.2)	7 (53.8)	9 (69.2)	3 (23.1)	1 (7.7)	32.7 (\pm 12.2)
Anxiety disorder	10	5 (50.0)	5 (50.0)	8 (80.0)	2 (20.0)	0 (0)	33.8 (\pm 13.5)
Acute transient psychosis	7	3.0 (42.9)	4 (57.1)	5 (71.4)	2 (28.6)	0 (0)	28.4 (\pm 6.8)
Obsessive compulsive disorder (OCD)	6	3 (50.0)	3 (50.0)	4 (66.7)	2 (33.3)	0 (0.0)	33.0 (\pm 13.5)
Severe depression	5	2 (40.0)	3 (60.0)	4 (80.0)	1 (20.0)	0 (0.0)	39.2 (\pm 5.8)
Hypochondriasis	3	1 (33.3)	2 (66.7)	2 (66.7)	0 (0)	1 (33.3)	24.7 (\pm 5.0)
Total	100	35 (35.0)	65 (65.0)	63 (63.0)	21 (21.0)	16 (16.0)	37.31 (\pm 12.5)
P-value		0.564		0.620			0.017

Table 3: Frequency distribution of attributes.

Attributes	Frequently	Sometimes	Rarely
Immediate repercussion of the situation (COVID-19)			
Fear of getting infected with COVID -19	56	42	2
Fear of death	39	43	18
Fear of stigma/discrimination	3	47	50
Fear of social isolation	6	37	57
Loss of professional carrier and identity	52	17	31
Fear of infection to family members and their death	24	37	39
Immediate loss of earnings (loss of job \shut down of business)	61	08	31
Future uncertainty			
Anguish due to the uncertainty of the situation (when the situation will revert back to normal)	90	10	0
Can I be able to pursue my career \Profession, get a job and become financially independent?	49	10	41
Uncertainty of the global economy	3	17	80
What will happen if I lose my loved one	13	36	51
Consequences of spending more time at home			
Increase in domestic violence/family dispute	21	41	38
Frustration /Boredom and distress due to lack of social contact (as not able to meet a friend and relative and frustration as no social gathering are happening) Boredom due to lack of routine	48	39	13

Table 4: Association of the attributes with gender and age.

Attributes	Frequently	Gender Female	Male	P value	Age Mean(±SD)	P value
Immediate repercussion of the situation						
Fear of getting infected with COVID -19	56	23 (41.1)	33 (58.9)	0.241	35.34±13.73	0.096
Fear of Death	39	19 (48.7)	20 (51.3)	0.070	35.0±14.49	0.217
Fear of stigma/discrimination	3	2 (66.7)	1 (33.3)	0.092	36.63±12.58	0.346
Fear of social isolation	6	4 (66.7)	2 (33.3)	0.293	34.33±10.48	0.146
Loss of professional career and identity	52	13 (25.0)	39 (75.0)	0.088	36.48±10.87	0.008
Fear of infection to family members and their death	24	13 (54.2)	11 (45.8)	0.077	36.29±12.03	0.777
Immediate loss of Earnings(loss of job \shut down of business)	61	17 (27.9)	44 (72.1)	0.107	39.33±10.43	0.130

Continued.

Attributes	Frequently	Gender Female	Male	P value	Age Mean(\pm SD)	P value
Future uncertainty						
Anguish due to the uncertainty of situation/Uncertainty of future	90	31 (34.4)	59 (65.6)	0.488	36.42 \pm 11.917	0.018
Lose your job(uncertainty of job/earning)	49	12 (24.5)	37 (75.5)	0.087	38.08 \pm 10.04	0.581
Uncertainty of the global economy	3	0 (0)	3 (3)	0.111	46.33 \pm 11.50	0.210
What will happen if I lose my loved one	13	4 (30.8)	9 (69.2)	0.374	38.00 \pm 11.31	0.952
Consequences of spending more time at home						
Increase in domestic violence/family dispute	21	5 (23.8)	16 (76.2)	0.402	39.52 \pm 10.04	0.602
Frustration /Boredom and distress due to lack of social contact (as not able to meet a friend and relative and frustration as no social gathering are happening) Boredom due to lack of routine	48	13 (27.1)	35 (72.9)	0.161	35.67 \pm 12.25	0.352

Table 5: Descriptive measure of the attributes.

Attributes	Quartile 1 (Q1)	Median (Q2)	Quartile (Q3)	Mode
Fear of getting infected with COVID -19	1	1	2	1
Fear of Death	1	2	2	2
Fear of Stigma/Discrimination	2	2.5	3	3
Fear of Social Isolation	2	3	3	3
Loss of professional Carrier and Identity	1	1	3	1
Fear of infection to family members and their death	2	2	3	3
Immediate loss of Earnings (loss of job \shut down of business)	1	1	3	1
Anguish due to the uncertainty of the situation (when the situation will revert back to normal)	1	1	1	1
Will I be able to pursue my career \Profession, get a job and become financially independent?	1	2	3	1
Uncertainty of the global economy	3	3	3	3
What will happen if I Lose my Loved one	2	3	3	3
Increase in Domestic Violence/Family Dispute	2	2	3	2
Frustration /Boredom and distress due to lack of social contact (as not able to meet a friend and relative and frustration as no social gathering are happening) Boredom due to lack of routine	1	2	2	1

*1 – Frequently, 2 -Sometimes, 3 -Rarely

DISCUSSION

After the declaration of COVID-19 as a pandemic in March 2020, lockdown and social distancing were adopted as universal strategies in almost every country. The Indian Govt used a proactive approach and imposed a strict and nationwide lockdown from 25th March onwards which continued for almost 2 months. This was followed by multiple phases of unlocking of varying degrees. Although the strictest lockdown in the world prevented the exponential rise in cases and gave time to the health system to be prepared, it also created havoc on lives and livelihoods of millions of people across the country. The

first and foremost response to this havoc was fear and sense of imminent danger. For millions across the nation, this fear ranged from the very real fear of getting infected for self and family, to fear of death and fear of losing jobs and livelihoods. As the lockdown progressed into months, a very large number of people experienced distress about uncertainty of future. Many also experienced unfounded fears based on misinformative reports over media/social media. The list of fears and worries were endless and lead to a cycle of distress and anguish. While these adversely affected the mental health of millions of people (as reported by WHO and number of other surveys).^{6,8} A very few studies have actually studied that whether this distress

leads to an increase in psychiatric morbidity (diagnosable psychiatric disorder). In regard to the above facts, the current study was planned to evaluate the psychological impact of the novel coronavirus: whether it is transient and is managed by one's coping skills or it is causing more sinister damage in the form of diagnosable psychiatric disorders in the affected population. Our study focused on the actual number of people seeking psychiatric help for their morbidity caused by the present scenario. This seems to be a major strength of our study. In our study findings, male preponderance for various diagnoses may be because, in addition to the fear of being infected, they also often have to cope with the stress created by reduced livelihoods and rising unemployment as they are often the sole breadwinners of the family. Although depression can and does affect people of all ages, from all walks of life, the risk of becoming depressed is increased by poverty, unemployment, life events such as the death of a loved one or a relationship break-up, physical illness and problems caused by alcohol and drug use.⁹ Small businesses such as garment shops, footwear shops, marriage-related businesses, etc. have come to a standstill, and these businessmen have no means to earn their livelihoods.

In our study, participants were showing preponderance of Hindu religion and general caste category. Similar finding was reported by another study conducted in Central India.¹⁰ Rural-urban differences can be understood by the fact that rural population is still relatively safe from the havoc of COVID-19. They are not witnessing the infections and deaths of family members/neighbors/friends etc. and are not exposed to the panic created by social media. They do not have to cope with livelihood-related stress since their primary profession i.e. farming is one of the few that remained unscathed. Even workers who are migrating back to their villages are optimistic that they will face less hardship as their community networks in villages remain intact. In our study the mean age of the participants was 37.31 (± 12.5) and majority of the participants were male. Grover et al reported in their study that Middle age group was predicted to have higher impact of COVID-19 and a huge number of people are experiencing anxiety and depression due to lockdown and the prevailing COVID 19 pandemic.⁶

Our study found that stress due to lack of social contact was perceived as a dominant phenomenon by nearly half of the participants. Indians with so many religious festivals and family get-togethers are more socially active and have better social networks. But this year being a social isolation state for everyone, it may cause some adverse consequence on mental health. Lack of social contact may be a possible cause of an increase in psychiatric problems among the patients. Hakley et al, in their study also concluded that socially well-connected individuals have a positive mood: they perceive their interactions more positively while reverse is true otherwise.¹¹ It is well known that quarantine/isolation for any cause has been associated with significant mental health problems ranging from anxiety, fear, depressive symptoms, sense of loneliness, sleep

disturbance, anger etc. in the immediate few days of isolation and later with symptoms of posttraumatic stress disorder and depression after discharge from the hospital.¹² Research conducted by Cacioppo et al shows that perceived social isolation is a risk factor for and may contribute to poorer overall cognitive performance, more negative and depressive cognition and heightened sensitivity to social threats.¹³ Roy et al conducted an online survey and concluded that a great majority of participants were avoiding any form of social gatherings and contact due to the highly contagious COVID 19, and prefer to spend time alone which is taking a toll on their psyche. A survey by Roy et al reported the similar finding that majority of general Indian population has limited their social contacts owing to the fear of contracting the virus.³

Our finding that fear of infection to family members and their death due to COVID-19 could be a stressor to people was supported by study conducted by Balkhi et al, who reported that an additional worry for the welfare of family members in times of crisis like these further plays a role in heightening fears.¹⁴ It is likely that people are relating contracting the virus with a fear of falling sick, helplessness, hopelessness, stigma and even death.¹⁵

An upsurge in domestic violence cases was reported by National Commission of Women, which supports our study findings.¹⁶

In our study, participants belong to middle income group 5916.67 (11857.14-3392.86). A study by Sareen et al reports that low levels of household income are associated with several lifetime mental disorders and suicide attempts, and a reduction in household income is associated with increased risk of incidence of mental disorders.¹⁷ In our study, immediate loss of earnings (loss of job/shut down of business) emerged as an important cause for concern. A study conducted in Ahmedabad found that psychiatric distress was more common in people with poor financial conditions (12.5%); in Woolley's study, depressive symptoms were associated with subsequent unemployment and loss of family income among working young adults.¹⁸ Lockdown can also have a long-lasting effect on the economy, self-employment and daily wage earners of the country.⁶

Researchers reported panic about catching the virus or passing it on is having financial impacts, which has become a cause for further panic, anxiety and uncertainty of the situation, and is adding fuel to the fire.¹⁹ Unemployment rates have climbed above 23% (Nag,2020: survey for monitoring Indian economy).²⁰ Low levels of household income are associated with several lifetime mental disorders and suicide attempts, and a reduction in household income is associated with increased risk for incidence mental disorders.¹⁷

"There's no doubt uncertainty is always the lynchpin to anxiety and panic," author added. "In addition to panic

around catching the virus or passing it on, the financial impact has become a cause for panic too."²¹

Our study reported 56% of the participants have a fear of getting infected whereas other studies reported approximately that 40% of the participants were paranoid with the thought of contracting the novel coronavirus infection over the past week.³ Roy et al survey found that 72 % of participants reported being worried for themselves and their close ones during the ongoing pandemic.³ While the global focus has mostly been on testing, finding a cure and preventing transmission, people are going through a myriad of psychological problems in adjusting to the current lifestyles and fear of the disease.²² Another emerging aspect which adversely affects the populace is the stigma which is attached to the disease. The WHO (2020) reported that COVID-19, being a new disease, is bound to cause confusion, anxiety and fear amongst people. These factors can give rise to harmful stereotypes. Due to associated stigma people can be compelled to hide their disease due to fear of discrimination, prevent people from seeking health care immediately and may discourage them from adopting healthy behaviors. Stigma has been observed against infected individuals, families and even healthcare workers. There have been reports of healthcare workers being attacked owing to the stigma. Gunnel et al. (2020) reported that effects of Coronavirus disease might be profound and there are suggestions that suicide rates will rise.²³ The research results of a recent KFF poll, almost 45 per cent of the adults in the United States reported that their mental health has been negatively impacted due to worry and stress over the coronavirus.²⁴

Social stigma associated with COVID-19 fear and anxiety leading to prejudices against people and communities, social isolation and stigma. Such behavior may culminate into increased hostility, chaos and unnecessary social disruption.²⁵ Providing psychological first-aid and counselling is quintessential during an epidemic. It helps in reducing the psychological distress and promoting adaptive coping strategies to deal with the situation.²⁶ Constant support for mental and psychosocial well-being in different groups during the outbreak should be of highest priority.^{27,28} Lastly, as has been noted from previous pandemics, increased anxiety leads to further exacerbation of the disease, therefore a few measures could be taken on an individual level to reduce this anxiety and fear.²⁹ Previous study showed that psychological resilience can protect individuals against mental illness and thrive from the adversity.^{30,31}

Limitations

The present study was mobile and WhatsApp based so it includes limited potential respondents. The study was conducted at a single center; hence, to diversify its potential respondents multiple centers should be included in the study.

CONCLUSION

The study concludes that the fear and distress caused by this pandemic and subsequent lockdown had a disastrous impact on the mental health of substantial number of people and caused psychiatric morbidity (diagnosable psychiatric disorder) in significant number of otherwise healthy people: patients who have no past history of psychiatric illness and attributed their mental health conditions directly to situations arising from the COVID19 pandemic. As it's a well-known fact that mental health facilities and professionals are scarce in India; if within the time frame concrete steps are not taken to alleviate the situation which is creating massive negative impact on people's daily living, this could be a grave public health concern.

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