



PREVALENCE OF PSYCHIATRIC MORBIDITIES AMONG COVID -19 PATIENTS IN A TERTIARY CARE HOSPITAL, CHENNAI, TAMIL NADU.

Psychiatry

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ABSTRACT

Background: Due the lack of treatment options, isolation guidelines and fear about the disease, the cases with COVID 19 may experience high psychiatric related disorders. Hence this study was conducted to assess the prevalence of psychiatric morbidities among the cases with COVID 19 in a tertiary care hospital.

Methods: Cross sectional study in the Department of Psychiatry at Government Medical College , Omandurar Government Estate, Chennai, a tertiary care teaching hospital during the period of April 2020 to September 2020. A total of 11,704 cases with COVID-19 were included in the study. Demographic details and psychiatry related clinical profile were assessed and entered in a proforma. Data was entered and analyzed using Statistical Package for Social Sciences (SPSS) version 20.

Results: Overall prevalence of psychiatric morbidities among the COVID 19 cases was reported as 24.4% with significant difference in prevalence among males and females. Most common psychiatric illness reported was COVID related anxiety (16.5%) followed by COVID related depression (6.6%), insomnia (0.87%), alcohol dependence syndrome (0.3%), acute stress reaction (0.03%), intellectual disability (0.03%), psychosis (0.02%) and hemophobia (0.008%). The difference in proportion of cases with various psychiatric morbidities like insomnia, COVID related anxiety, COVID related depression, and alcohol dependence syndrome among the male and female genders was found to be statistically significant.

Conclusion: Almost one fourth of the COVID cases are suffering from psychiatric morbidities. It can be recommended that all the cases with COVID can undergo screening and counseling for the psychiatric disorders.

KEYWORDS

COVID-19, psychiatric morbidities, prevalence

INTRODUCTION

Severe Acute Respiratory Syndrome Coronavirus (COVID -19), the new pandemic is a threat to the whole world. Since the disease is a newer entity with significant mortality, the general public seems to be worried with the new normal lifestyle. Due to the unusual fear and anxiety, COVID-19, seems to be associated with psychiatric implication¹. Preliminary data suggest that patients with COVID-19 might experience delirium, depression, anxiety, and insomnia². This could be due to lack of treatment and isolation guidelines. The people who suffer from COVID 19 experience several psychiatric morbidities which are not directly related to the disease. Though mental health is not affected directly by COVID, the impact of the disease on mental health is not negligible¹. Before the pandemic situation itself, Ministry of Health and Family welfare of India reported the lifetime prevalence of mental disorders as nearly 12 % which is likely to increase to almost 15% by the year 2020³. As the mental disorders require prolonged treatment, the outcome of the disease mainly depends on early diagnosis and prompt support through family, counseling or other necessary rehabilitations. Hence this study was conducted to assess the prevalence of psychiatric morbidities among the patients with COVID 19.

METHODS

This study was conducted as a cross sectional study in the Department of Psychiatry at Government Medical College, Omandurar Government Estate, a tertiary care teaching hospital during the period of April 2020 to September 2020. Study population included cases who were positive for COVID-19 based on Reverse transcriptase-polymerase chain reaction (RT-PCR). Cases above the age of 18 years and from both genders were included in the study. Cases with known severe systemic complications were excluded from the study. A total of 11704 cases who were positive for COVID-19 were included in the study.

All participants were thoroughly explained about the study and its need in their native language. Principal investigator collected the demographic details of all the patients and assessed them for the psychiatric illnesses. All details of the patients were entered in a proforma. Data was entered and analyzed using Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics and Z test and 95% confidence interval were calculated, appropriately to assess the

statistical significance. P value of <0.05 was considered as statistically significant.

RESULTS

In the present study, majority of the study participants belonged to age group of 51-60 years (25%), followed by 41-50 years (21%), 31-40 years (19.9%), 20-30 years (15%), 61-70 years (12.9%) and more than 70 years (6%). (Table 1)

Table 1: Proportion of cases in different age groups

Age group	Frequency	Percentage
20-30 years	1756	15
31-40 years	2340	19.9
41-50 years	2458	21
51-60 years	2926	25
61-70 years	1521	12.9
> 70 years	703	6
Total	11704	100

On assessing the proportion of cases with respect to gender there were 61.6% of male cases and 38.4% of female cases with COVID 19 who participated in this study. (Table 2)

Table 2: Proportion of cases with respect to gender

Gender	Frequency	Percentage
Male	7214	61.6
Female	4490	38.4
Total	11704	100

Table 3 shows the proportion of male and females cases in different age groups.

Table 3: Gender distribution in different age groups

Age group	Male (%)	Female (%)
20-30 years	1053 (9)	703 (6)
31-40 years	1474 (12.6)	866 (7.4)
41-50 years	1449 (12.4)	1009 (8.6)
51-60 years	1814 (15.5)	1112 (9.5)
61-70 years	927 (7.9)	594 (5.1)
> 70 years	497 (4.2)	206 (1.8)
Total	7214 (61.6)	4490 (38.4)

In this study, the overall prevalence of psychiatric morbidities was 24.4% with the prevalence among males and females as 18.9% and 33.1% respectively. A statically significant higher proportion of cases among the females were reported compared to males ($p < 0.0001$). The most common psychiatric illness reported was COVID related anxiety (16.5%) followed by COVID related depression (6.6%), insomnia (0.87%), alcohol dependence syndrome (0.3%), acute stress reaction (0.03%), intellectual disability (0.03%), psychosis (0.02%) and homophobia (0.008%). The difference in proportion of cases with various psychiatric morbidities like insomnia, COVID related anxiety, COVID related depression, and alcohol dependance syndrome among the male and female genders was found to be statistically significant. (Table 4)

Table 4: Difference in proportion of psychiatric morbidity with respect to gender

Psychiatric Morbidity	Male (%)	Female (%)	Total (%)	95% CI	P value
Hemophobia	1(0.01%)	0	1 (0.008)	-0.011 - 0.012	1
Psychosis	3(0.04%)	0	3 (0.02)	-0.020 - 0.021	0.439
Intellectual disability	3(0.04%)	1(0.02%)	4 (0.03)	-0.023 - 0.024	0.971
Insomnia	24(0.03%)	78(1.7%)	102 (0.87)	-0.112 - 0.130	<0.001 *
COVID related anxiety	1070(14.8%)	861(19.1%)	1931 (16.5)	-0.320 - 0.650	<0.001 *
COVID related depression	233(3.3%)	543(12.0%)	776 (6.6)	-0.258 - 0.391	<0.001 *
Alcohol dependant syndrome	31(0.04%)	1(0.02%)	32 (0.3)	-0.065 - 0.071	<0.001 *
Acute stress reaction	1(0.01%)	3(0.06%)	4 (0.03)	-0.023 - 0.024	0.32
Over all Prevalence	1366 (18.9)	1487 (33.1)	2853 (24.4)	12.6-15.8	<0.001 *

*Significant

DISCUSSION

Since the literature on psychiatric morbidities among the COVID cases are scarce, in this study we compared the findings with other studies (three studies) conducted among COVID cases and non COVID cases reported in outpatient department of psychiatry (three studies). The burden of psychiatric morbidities among the COVID 19 cases was entirely different than the usual pattern of cases reported in the psychiatric outpatients department. Mazza et al⁴ reported that a significant proportion of patients self-rated in the psychopathological range : 28% for post traumatic stress disorder (PTSD), 31% for depression, 42% for anxiety, 20% for (obsessive compulsive) OC symptoms, and 40% for insomnia. Overall, 56% scored in the pathological range in at least one clinical dimension.

Poyrez et al⁵ reported that after discharge the COVID 19 cases experienced psychiatric related disorders. They reported that 34.5% had clinically significant PTSD, anxiety, and/or depression, with PTSD being the most common condition reported (25.4%). One hundred and eighteen patients (44.3%) reported one or more protracted symptom(s). Predictors of PTSD symptom severity were the female gender, past traumatic events, protracted symptoms, stigmatization, and a negative view on the COVID-19 pandemic. PTSD symptom severity was the sole independent predictor of the protracted symptoms.

Krishnamoorthy Y et al⁶ conducted a meta-analysis and reported that the pooled prevalence rate of psychological morbidities includes poor sleep quality (40%), stress (34%), psychological distress (34%), insomnia (30%), post-traumatic stress symptoms (27%), anxiety (26%), depression (26%). Pooled prevalence rate of psychological morbidities with respect to impact of event due to COVID-19 pandemic was 44%.

The following are the patterns of prevalence of psychiatric outpatient department reported before the pandemic. Sunil Nayak et al⁷ conducted a study and reported that in their study majority of their study participants belonged to age group 20-29 years and 59.9% of

cases were females. Most common psychiatric disorders reported were depression (29%), schizophrenia (18%) and substance abuse psychiatric disorder (11%). Vineet Kumar et al⁸ performed a study and reported that in their study 51% of cases were in the age group of 18-40 years. Schizophrenia was the most common psychiatric illness in their daily outpatient department. Manhas RS et al⁹ conducted a study and reported that 39.5% of cases had depression, 23.8% had substance abuse disorder, 21.6% had anxiety disorders, 7.6% had bipolar affective disorder, 5.8% had schizophrenia and 1.7% patients were of other psychiatric disorders. They stated that onset of psychiatric illness usually occur in young adults, mostly in males, living in nuclear families of the urban region in their daily outpatient department.

CONCLUSION

Compared to the pattern of prevalence of psychiatric morbidities reported in daily outpatients departments, the prevalence and pattern which is prevailing during the COVID 19 pandemic is entirely different. Hence it is most important to design strategies, policies and guidelines to handle this situation in a better way. Since almost one fourth of the COVID cases are suffering from psychiatric morbidities, it can be recommended that all the cases with COVID can undergo screening and counseling for the psychiatric disorders.

Conflict of interest

Nil

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