Original Article

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Association between Anxiety, COVID-19 Status and Symptoms of Patients attending Fever Clinic of a Tertiary Level COVID-19 Hospital, West Bengal, India: A Cross-sectional Study

Public Health Section

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ABSTRACT

Introduction: The Coronavirus Disease-2019 (COVID-19) pandemic has caused considerable panic and anguish among the world's population, including India. So, besides physical health, COVID-19 has considerably left its mark on mental health.

Aim: To describe the study population according to their clinico-social, demographic profile, the level of anxiety prior to COVID-19 rapid antigen testing, and to explore the determinants of anxiety among COVID-19 suspected patients.

Materials and Methods: A cross-sectional survey was conducted in June 2021 to August 2021 with a sample of 197 adult participants attending the fever clinic of Medical College, Kolkata, West Bengal, India. Data was collected using predesigned, pretested structured tool where the level of anxiety was measured with the Generalised Anxiety Disorder-7 (GAD-7) self-administered questionnaire. Relevant frequencies, percentages, central tendencies, and dispersions were calculated.

Results: Total of 197 responses were analysed, the mean age of respondents was 44.43±16.54 years with 58.4% males. Among the patients, 64.5% were vaccinated and around 50.3% of total patients were partially or fully vaccinated by Covishield. Of the 197 respondents included in the study, 11.7% had anxiety (GAD score ≥10) before Rapid Antigen Testing (RAT) and among the participants who tested positive (70 patients), 10 patients (14.3%) had anxiety. Education, occupation, number of the symptoms and the symptoms of sore throat, myalgia and joint pain were significantly associated with the anxiety level. Number of symptoms, joint pain, fatigue, weakness and current fever status was significantly associated with RAT positivity.

Conclusion: One out of every 10 patients attending fever clinic with suspected COVID-19 suffered from significant anxiety before the RAT test. These findings mandates linking counselling services with RAT testing facility at the fever clinic.

Keywords: Anxiety, Coronavirus disease-2019 testing, India, Multiple logistic regression

INTRODUCTION

The outbreak of novel coronavirus in Wuhan, China, started the deadliest pandemic of the present time. It caused severe pneumonia and the virus was named Severe Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) [1]. Preliminary studies have shown that SARS-CoV-2 may exceed previous coronaviruses in terms of transmissibility [2,3]. As a result, COVID-19 has quickly evolved into a global pandemic as declared by the World Health Organisation (WHO) on 11th March 2020. The scale and severity of the COVID-19 pandemic have made public health globally vulnerable. The global spread of this potentially lethal disease has left the globe in disarray, even wreaking havoc on high-income countries [4].

The average incubation period is 5.2 days, with significant variance among patients [5], and it is possible that it can spread asymptomatically as well. Fever, chills, cough, coryza, sore throat, breathing difficulty, myalgia, nausea, vomiting, and diarrhoea are all symptoms of infection [6]. Older people with medical co-morbidities are more likely to become infected, and their results are worse [6]. Cardiac injury, respiratory failure, acute respiratory distress syndrome, and death all can occur in severe situations [7].

Not only physical health, COVID-19 has additionally left its mark considerably on mental health. Several previous studies that looked at the psychological impact of epidemics or pandemics like Severe Acute Respiratory Syndrome (SARS) and COVID-19 revealed high levels of mental distress among healthcare personnel and the general public, including panic attacks and psychotic symptoms [4]. A better and timely understanding of the psychological responses to infectious disease outbreaks among the community is important for many reasons. First, the high prevalence of psychological morbidities has been documented among individuals who are directly or vicariously exposed to life-threatening situations [8]. Second, the prevalence of such psychological morbidities within a substantial proportion of the community can impact the daily functions of the affected people and cause social and economic consequences, like lost job productivity and monetary hardships. Third, better safeguarding of the psychological health of the community through practical mental health intervention is crucial to help, prevent or ameliorate healthcare delivery disruptions during outbreaks [9].

The widespread social and economic disruption of the pandemic has created a psychosocial impact unparalleled in present times. All these have been additionally fuelled by information overloads of recent media platforms that have unrelentingly unfolded a combination of accurate as well as inaccurate information and even conspiracy theories that successively have had a psychological impact on the community. The mental health and psychosocial impact of COVID-19 has thus been far-reaching [10]. With the given background for rationale of conducting a study, the authors planned to explore anxiety level of patients with the following objectives:

1. To record clinico-demographic profile of suspected COVID patients.
2. To determine the level of anxiety prior to COVID-19 rapid antigen testing.
3. To assess COVID-19 status using rapid antigen test.
4. To assess relation between RAT status and pretest anxiety.
5. To explore the determinants of anxiety and RAT positivity among COVID-19 suspect patients.

MATERIALS AND METHODS

This cross-sectional observational study was conducted in the fever clinic of Medical College Kolkata, West Bengal, India, from June 2021 to August 2021. This institute was the referral centre for COVID-19 and catered largest number of COVID-19 patients in the state during the pandemic. The study protocol complied to the Helsinki declaration on bio-ethics policy and was approved by Institutional Ethics Committee of Medical College, Kolkata with approval number MC/KOL/IEC/NON-SPON/1096/06/2021 dated 08/06/2021. Informed consent was obtained from all study participants.

Inclusion criteria: The research population included all adult patients suspected of COVID-19 attending fever clinic during the study time period.

Exclusion criteria: Patients who were critically ill, unable to understand English, Bengali or Hindi language and those who refused for consent after reading adequate information about the study were excluded.

Sample size calculation: The minimum required sample size was determined to be 193 based on prevalence rate of anxiety of 14% among fever clinic attendees in Nepal as reported by Devkota HR et al., [4] with 95% confidence, 5% absolute error. The final sample size of the present study was 197, sampling technique was systematic random sampling. The expected number of patients in the fever clinic per day was 80, target recruitment per day was 20. So, sampling interval was four. First patient was randomly selected between 1st and 4th patient using computer generated random number, the output was three, hence every third patient was selected, till the sample size of 197 was reached. If the included patient had one or more exclusion criteria, then data was taken from next available patient.

Procedure

The variables consisted of socio-demographic status of the patients (age, gender, educational status, residence, occupational status and family type), disease related profile (contact with suspected or confirmed COVID case in last 2 weeks, travel history in last 2 weeks, ever tested COVID positive or not and vaccination status), symptoms presented with and duration of the symptoms.

Questionnaire: Data was collected using predesigned, pretested structured tool consisting of two parts. Part I captured data on socio-demographic variables, disease related profile and symptoms. Part II, the anxiety level before COVID-19 rapid antigen testing was measured using the Generalised Anxiety Disorder-7 (GAD-7) questionnaire [11]. Bengali and Hindi versions of the questionaries were distributed among patients, with regard to the sample design of every third registered patient. Prior consent was taken and questionnaire was given while the respondents were waiting for the RAT test. Vernacular versions were translated and re-translated, and their content, and semantic equivalence was checked by bi-lingual experts. The response options were: 0="not at all", 1="several days", 2="more than half the days", and 3="nearly every day". Time limit for these symptoms was within last 7 days. The total score ranged from zero to 21, with a higher score indicating more severe form of anxiety. For the GAD-7, a total score of ≥10 indicated possible anxiety, with the optimal point for sensitivity (89%) and specificity (82%) [12]. In the present study, the Cronbach's alpha coefficient of the GAD-7 was 0.792.

STATISTICAL ANALYSIS

Data was compiled into MS Excel version 10 spreadsheet. Statistical Package for Social Sciences (SPSS) software version 23.0 was used for statistical analysis. Frequencies and percentage were calculated for categorical variables and mean and standard deviation for continuous variables. Variables like age, educational status, occupational status, duration of symptoms and number of symptoms presented with were dichotomized for the purpose of calculation of Crude Odds Ratio (COR) and Adjusted Odds Ratio (AOR) with their 95% confidence interval. COR was calculated by Chi-square and AOR by multiple logistic regression. Outcome variables were GAD-7 score categorised as <10 (no intervention needed) and ≥10 (possible anxiety for which intervention was required). "No intervention needed" was used as reference category for the multivariate logistic regression model. All reported p-values were considered statistically significant at <0.05.

RESULTS

The total completed responses analysed were 197, making the response rate of 100%. Mean age of the respondents were 44.43 (±16.54) years, with 58.4% being male, residing in urban areas (75.1%). Only 8.1% participants were previously diagnosed with COVID-19 and they atleast had mean duration of fever for three days prior to their visit to the fever clinic. Among the patients 64.5% were vaccinated and around 50.3% were partially or fully vaccinated by Covishield, 13.2% were vaccinated with Covaxin and only 1% of the patients received Sputnik V [Table/Fig-1].

Majority (85.8%) presented with fever which was mostly intermittent in nature and more or less equally distributed in between low and high grade [Table/Fig-2].

Characteristics	Frequency (n)	Percentage (%)
Age of the patient (years)		
≤20	12	6.1
21-40 years	79	40.1
41-60 years	69	35.0
>60 years	37	18.8
Gender		
Female	82	41.6
Male	115	58.4
Residence		
Rural	49	24.9
Urban	148	75.1
Religion		
Hindu	154	78.2
Muslim	41	20.8
Christian	2	1.0
Educational status		
Less than primary	18	9.1
Primary	16	8.1
Secondary	30	15.2
Higher secondary	31	15.7
Graduation and above	102	51.8
Occupation		
Student	21	10.7
Home maker	48	24.4
Working	109	55.3
Retired	19	9.6
Family type		
Joint	116	58.9
Nuclear	81	41.1
Contact with suspected or confirmed COVID case in last 2 weeks		
No	136	69.0
Yes	61	31.0
Travel history in last 2 weeks		
No	178	90.4
Yes	19	9.6
Ever tested COVID positive		
No	181	91.9
Yes	16	8.1

COVID-19 vaccination status		
No	70	35.5
Yes	127	64.5
If yes then vaccinated with*		
Covishield 1 dose	38	19.3
Covishield 2 doses	61	31.0
Covaxin 2 doses	26	13.2
Sputnik V 2 doses	2	1.0

[Table/Fig-1]: Distribution of patients according to their Socio demographic and Disease related profile (n=197).
*n=127

Characteristics	Frequency (n)	Percentage (%)
Fever		
No	28	14.2
Yes	169	85.8
If yes then fever pattern*		
Intermittent	116	58.9
Continuous	53	26.9
If yes then fever severity*		
Low grade	89	45.2
High grade	80	40.6
Sore throat		
No	36	18.3
Yes	161	81.7
Myalgia		
No	65	33.0
Yes	132	67.0
Shortness of Breath (SOB)		
No	171	86.8
Yes	26	13.2
Loose stool		
No	172	87.3
Yes	25	12.7
Cough		
No	46	23.4
Yes	151	76.6
Anosmia		
No	176	89.3
Yes	21	10.7
Ageusia		
No	177	89.8
Yes	20	10.2
Joint pain		
No	151	76.6
Yes	46	23.4
Vomiting		
No	187	94.9
Yes	10	5.1
Headache		
No	140	71.1
Yes	57	28.9
Fatigue and weakness		
No	49	24.9
Yes	148	75.1

[Table/Fig-2]: Distribution of common symptoms among patients (n=197).
*n=169

Of the 197 respondents included in the study 23 (11.7%) had moderate to severe anxiety (GAD score ≥10) before rapid antigen testing [Table/Fig-3].

GAD-7 Score	Frequency (n)	Percentage (%)
No to low (0-4)	111	56.3
Mild (5-9)	63	32.0
Moderate (10-14)	20	10.2
Severe (15-21)	3	1.5

[Table/Fig-3]: Distribution of respondents according to their anxiety level (n=197).
GAD-7: Generalised anxiety disorder-7

It was observed that 70 (35.5%) of the study population was RAT positive, among them 10 (14.3%) patients had anxiety. Anxiety was not associated with RAT positivity by Chi-square test [Table/Fig-4].

RAT status	GAD Score <10 [No-Mild anxiety] (%)	GAD Score ≥10 [Moderate-Significant anxiety] (%)	χ^2 (p-value)
RAT negative (n=127)	114 (89.8)	13 (10.2)	0.397 (0.718)
RAT positive (n=70)	60 (85.7)	10 (14.3)	
Total	174 (88.3)	23 (11.7)	

[Table/Fig-4]: Association of RAT status with anxiety (n=197).
RAT: Rapid antigen testing

Among the demographic variables, education and occupation of the patients were statistically significant with the anxiety level. Adjusted odds ratio was significantly high for some symptoms like sore throat (p-value=0.014, AOR=0.008-0.578), myalgia (p-value=0.021, AOR=1.442-90.574) and joint pain (p-value=0.013, AOR=1.583-48.175) [Table/Fig-5].

Contact history of the patient (p-value=0.007) and their vaccination status (p-value=0.014) was statistically significant. Number of symptoms (p-value=0.006, AOR=1.867-40.961), joint pain (p-value=0.044, AOR=0.129-0.973), fatigue and weakness (p-value=0.004, AOR=0.064-0.578) and current fever status (p-value <0.001, AOR=2.420-21.487) of the patient was statistically significant with the RAT positivity [Table/Fig-6].

DISCUSSION

Present study provides important and timely data about the impact of COVID-19 on individuals' mental and physical health. The level of anxiety prior to COVID-19 rapid antigen testing was 11.7% and it was significantly associated with the symptoms of sore throat, myalgia and joint pain.

The present study was done during and after the second wave of COVID-19 pandemic. During that time the patients came with major symptoms like fever (85.8%), sore throat (81.7%), myalgia (67%), and cough (76.6%). These findings are more or less similar with a study done in the early period of pandemic in Wuhan, China [6]. Though there were also some new symptoms like anosmia and ageusia, the percentage of these symptoms were not high. However, later it was seen that these symptoms were also statistically significant with the test positivity. Hence, the authors could relate that these new symptoms are pathognomonic of COVID-19 which inturn portrays similarity with case reports in Europe [13].

This study found 11.7% of the respondents with moderate to severe level of anxiety with the GAD-7 questionnaire according to which this said percentage of people are in need for intervention for their mental status. The disease burden discovered within the current study were not dramatically high compared to the recent studies conducted in different countries e.g. in China [14], and Italy [15] at the time of the pandemics. Prevalence of anxiety was higher than the background estimated national prevalence rate for anxiety with GAD which is 4.2% [16]. During lockdown, a study conducted in India with the help of Depression, Anxiety and Stress Scale-21 (DASS-21) scale reported anxiety level of 10% [17] which is at par

Variables	Categories	Outcome (N=197)		COR (95% CI)	p-value	AOR (95% CI)	p-value
		GAD-7 interpretation					
		No intervention needed n (%)	Intervention needed n (%)				
Age of the patient (years)	<44	96 (91.4)	9 (8.6)	1.915 (0.787-4.658)	0.147	0.318 (0.065-1.545)	0.155
	≥44	78 (84.8)	14 (15.2)				
Gender of the patient	Male	105 (91.3)	10 (8.7)	1.978 (0.822-4.736)	0.123	4.254 (0.957-18.931)	0.057
	Female	69 (84.1)	13 (15.9)				
Residence	Urban	128 (86.5)	20 (13.5)	0.417 (0.188-1.471)	0.163	0.010 (0.389-1.003)	0.853
	Rural	46 (93.9)	3 (6.1)				
Education	≤Secondary	51 (79.7)	13 (20.3)	0.319* (0.131-0.744)	**0.009**	0.035 (0.093-1.506)	0.167
	>Secondary	123 (92.5)	10 (7.5)				
Occupation	Working	101 (92.7)	8 (7.3)	2.594* (1.045-6.441)	**0.035**	2.0 (0.427-9.367)	0.379
	Not working	73 (83.0)	15 (17.0)				
Family type	Joint	100 (86.2)	16 (13.8)	0.591 (0.231-1.510)	0.268	0.569 (0.081-4.007)	0.353
	Nuclear	74 (91.4)	7 (8.6)				
Contact with suspected or confirmed COVID case in last 2 week	No	120 (88.2)	16 (11.8)	0.972 (0.378-2.500)	0.953	0.375 (0.076-1.859)	0.230
	Yes	54 (88.5)	7 (11.5)				
Travel history in last two weeks	No	157 (88.2)	21 (11.8)	0.880 (0.190-4.079)	0.870	0.221 (0.011-4.033)	0.321
	Yes	17 (89.5)	2 (10.5)				
Ever tested COVID positive	No	162 (89.5)	19 (10.5)	2.842 (0.883-9.698)	0.083	3.202 (0.418-24.494)	0.262
	Yes	12 (75.0)	4 (25.0)				
COVID-19 vaccination status	No	62 (88.6)	8 (11.4)	1.038 (0.417-2.585)	0.936	4.584 (0.706-29.771)	0.111
	Yes	112 (88.2)	15 (11.8)				
Duration of symptom (days)	≤3	99 (88.4)	13 (11.6)	1.015 (0.422-2.441)	0.973	0.334 (0.079-1.412)	0.136
	>3	75 (88.2)	10 (11.8)				
Number of symptoms	≤4	76 (95.0)	4 (5.0)	3.684* (1.202-11.279)	**0.016**	0.992 (0.068-14.519)	0.052
	>4	98 (83.8)	19 (16.2)				
Fever	No	28 (100.0)	0 (0.0)	1.158* (1.090-1.229)	**0.038**	-†	-
	Yes	146 (86.4)	23 (13.6)				
Sore throat	No	31 (86.1)	5 (13.9)	0.780 (0.269-2.262)	0.647	0.068* (0.008-0.578)	**0.014**
	Yes	143 (88.8)	18 (11.2)				
Myalgia	No	62 (95.4)	3 (4.6)	3.690* (1.055-12.914)	**0.030**	11.426* (1.442-90.574)	**0.021**
	Yes	112 (84.8)	20 (15.2)				
Shortness of breath	No	155 (90.6)	16 (9.4)	3.569* (1.303-9.779)	**0.009**	5.963 (0.748-47.555)	0.092
	Yes	19 (73.1)	7 (26.9)				
Loose stool	No	153 (89.0)	19 (11.0)	1.534 (0.476-4.946)	0.471	1.975 (0.264-14.782)	0.508
	Yes	21 (84.0)	4 (16.0)				
Anosmia	No	159 (90.3)	17 (9.7)	3.741* (1.282-10.915)	**0.011**	1.895 (0.026-136.726)	0.770
	Yes	15 (71.4)	6 (28.6)				
Ageusia	No	160 (90.4)	17 (9.6)	4.034* (1.371-11.868)	**0.007**	7.555 (0.089-640.038)	0.372
	Yes	14 (70.0)	6 (30.0)				
Cough	No	43 (93.5)	3 (6.5)	2.188 (0.620-7.776)	0.241	0.685 (0.093-5.042)	0.711
	Yes	131 (86.8)	20 (13.2)				
Joint pain	No	140 (92.7)	11 (7.3)	4.492* (1.827-11.047)	**0.001**	8.732* (1.583-48.175)	**0.013**
	Yes	34 (73.9)	12 (26.1)				
Vomiting	No	165 (88.2)	22 (11.8)	0.833 (0.101-6.896)	0.866	0.062 (0.002-2.184)	0.126
	Yes	9 (90.0)	1 (10.0)				
Headache	No	126 (90.0)	14 (10.0)	1.688 (0.688-4.155)	0.251	1.023 (0.223-4.694)	0.977
	Yes	48 (84.2)	9 (15.8)				
Fatigue and weakness	No	42 (85.7)	7 (14.3)	0.727 (0.280-1.887)	0.511	0.342 (0.061-1.922)	0.223
	Yes	132 (89.2)	16 (10.8)				
Current fever status	Afebrile	143 (91.1)	14 (8.9)	2.965* (1.178-7.464)	0.017	2.972 (0.611-14.750)	0.177
	Febrile	31 (77.5)	9 (22.5)				

[Table/Fig-5]: Crude and adjusted odds ratio for the factors associated with anxiety (n=197).
*Significant at p<0.05
†Multiple logistic regression not possible as one cell contains '0' value

Variables	Categories	Outcome (n=197) RAT status Negative n (%)	Positive n (%)	COR (95% CI)	p-value	AOR (95% CI)	p-value
Contact with suspected or confirmed COVID case in last two weeks	No	96 (70.6)	40 (29.4)	2.323* (1.246-4.330)	**0.007**	1.968 (0.821-4.718)	0.129
	Yes	31 (50.8)	30 (49.2)				
Travel history in last two weeks	No	112 (62.9)	66 (37.1)	0.453 (0.144-1.421)	0.165	0.416 (0.090-1.915)	0.260
	Yes	15 (78.9)	4 (21.1)				
Ever tested COVID positive	No	112 (61.9)	69 (38.1)	0.108* (0.014-0.083)	**0.011**	0.020 (0.810-5.765)	**0.002**
	Yes	15 (93.8)	1 (6.3)				
COVID -19 vaccination status	No	53 (75.7)	17 (24.4)	2.233* (1.165-4.278)	**0.014**	2.266 (0.810-5.765)	0.086
	Yes	74 (58.3)	53 (41.7)				
Duration of symptom	≤3	72 (64.3)	40 (35.7)	0.982 (0.545-1.770)	0.951	0.992 (0.411-2.394)	0.985
	>3	55 (64.7)	30 (35.3)				
Number of Symptoms	≤4	64 (80.0)	16 (20.0)	3.429* (1.777-6.617)	**0.001**	8.746* (1.867-40.961)	**0.006**
	>4	63 (53.8)	54 (46.2)				
Fever	No	25 (89.3)	3 (10.7)	5.474* (1.589-18.851)	**0.003**	1.554 (0.246-9.817)	0.639
	Yes	102 (60.4)	67 (39.6)				
Sore throat	No	28 (77.8)	8 (22.2)	2.192 (0.939-5.115)	0.065	0.848 (0.208-3.455)	0.818
	Yes	99 (61.5)	62 (38.5)				
Myalgia	No	43 (66.2)	22 (33.8)	1.117 (0.598-2.085)	0.728	0.415 (0.151-1.141)	0.088
	Yes	84 (64.6)	48 (36.4)				
Shortness of breath	No	115 (67.3)	56 (32.7)	2.396* (1.040-5.520)	**0.036**	0.457 (0.134-1.557)	0.211
	Yes	12 (46.2)	14 (53.8)				
Loose stool	No	114 (66.3)	58 (33.7)	1.814 (0.779-4.228)	0.163	1.336 (0.358-4.983)	0.666
	Yes	13 (52.0)	12 (48.0)				
Anosmia	No	119 (67.6)	57 (32.4)	3.393* (1.331-8.647)	**0.008**	3.564 (0.056-228.475)	0.549
	Yes	8 (38.1)	13 (61.9)				
Ageusia	No	120 (67.8)	57 (32.2)	3.910* (1.480-10.329)	**0.004**	1.967 (0.031-123.941)	0.749
	Yes	7 (35.0)	13 (65.0)				
Cough	No	33 (71.7)	13 (28.3)	1.539 (0.748-3.166)	0.239	0.933 (0.234-3.724)	0.921
	Yes	94 (62.3)	57 (37.7)				
Joint pain	No	96 (63.6)	55 (36.4)	0.845 (0.419-1.701)	0.636	0.354* (0.129-0.973)	**0.044**
	Yes	31 (67.4)	15 (32.6)				
Vomiting	No	121 (64.7)	66 (35.3)	1.222 (0.333-4.486)	0.762	2.137 (0.266-17.163)	0.475
	Yes	6 (60.0)	4 (40.0)				
Headache	No	92 (65.7)	48 (34.3)	1.205 (0.637-2.279)	0.566	0.902 (0.355-2.294)	0.829
	Yes	35 (61.4)	22 (38.6)				
Fatigue and weakness	No	28 (57.1)	21 (42.9)	0.660 (0.341-1.278)	0.217	0.194* (0.064-0.578)	**0.004**
	Yes	99 (66.9)	49 (33.1)				
Current fever status	Afebrile	113 (72.0)	44 (28.0)	4.769* (2.282-9.968)	**0.001**	7.211* (2.420-21.487)	**0.001**
	Febrile	14 (35.0)	26 (65.0)				

[Table/Fig-6]: Association of disease related and clinical profile with RAT positivity.
*Significant at p<0.05

to the present study. Furthermore, a recent systematic review of COVID-19 and mental health literature indicated a prevalence of anxiety and depression ranging from 16% to 28% [18]. Another population-based research intended at assessing depression and anxiety in Hong Kong residents during the COVID-19 pandemic discovered that 14% of the residents reported anxiety (GAD score ≥10) during the pandemic [8]. In another cross-sectional survey conducted between May to June 2020 across 26 hospitals in Nepal found that the prevalence of anxiety were 14% [4] though they had found that women were more at risk of anxiety. So, by comparing several studies it is clear that the anxiety level of the patient remained more or less same during the first and second wave of COVID-19 pandemic worldwide. High anxiety throughout the pandemic is problematic because a recent study found that coronavirus-related anxiety was strongly related to functional impairments, alcohol or drug coping, negative religious coping, extreme hopelessness, and passive suicidal ideation [19]. Besides the present study findings are accordant with previous related studies, which exposed that public health emergencies like SARS [20], Ebola outbreak [21], earthquake [22] also causes severe mental health issues.

It is seen that during the time of recent pandemic that receipt of a COVID-19 positive result may cause a person to become traumatised, or in some way psychologically disordered, so after developing COVID-19 like symptoms the chance of a person becoming anxious is very high. For this reason, in the present study, the authors especially tested anxiety level before COVID-19 Rapid Antigen testing. As a positive result can make the person socially isolated which may impact on his or her day-to-day livelihood. Somewhat similar psychological distress precedes Human Immunodeficiency Virus (HIV) testing or receipt of HIV positive test which can precipitate distress and anxiety. Rather

than being prompted by an HIV test result, study discovered that discomfort and symptoms of depression and anxiety are part of the psychological profile of those seeking an HIV test [23].

The term infodemia was coined during the SARS outbreak, however, it is becoming comparatively more serious in the outbreak of COVID-19 infection [24]. COVID-19 information overload has been characterised by contradictory information from different international and local authorities, experts, and scientists with different backgrounds, and mass media [25]. During this pandemic it is seen that social medias like Facebook, Twitter is flooded with updates and latest information regarding COVID-19. Winning the race to share novel COVID-19 details and obtaining prominence on social media has expedited the propagation of false information during the current COVID-19 pandemic [26]. So, this parallel global epidemic of misinformation spreading rapidly through social media platforms and other outlets-not only poses a serious problem for public health but due to this massive information load, it also precipitated severe mental health issues.

To explore the regional variation of depression and anxiety during the COVID-19 pandemic cross-cultural studies must be considered. As the pandemic is not quite finished till now mixed method studies are very much needed for further evaluation of coping mechanism of people during pandemic. The data are very important to management of future pandemic.

Limitation(s)

The current study provides the preliminary subset of data about the impact of COVID-19 on mental health of patients attending a large tertiary care COVID-19 hospital. The results of the present study was limited by lack of generalisability due to unknown population denominator.

CONCLUSION(S)

One out of every 10 patients attending fever clinic with suspected COVID-19 suffered from significant anxiety. This was associated with symptoms having high sensitivity of COVID-19, like anosmia and ageusia which were also associated with RAT positivity. Significant anxiety was also associated with sore throat, myalgia and joint pain which emphasises the need for surveillance of COVID-19 illnesses. However, pretest anxiety was not associated with test positivity.

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