

Suicidal Ideation in Covid-19 Patients in Tertiary Care Centre

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Abstract

Background and Aim- Corona virus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. COVID-19 pandemic has led to unprecedented hazards to mental health globally. Social isolation, chronic stress, anxiety, fear of contagion, uncertainty & economic difficulties may lead to the development or exacerbation of stress related disorders like Depression & suicidality in vulnerable population including individuals with corona positive people admitted in covid-19 hospitals with or without psychiatric disorders, low resilient persons & people who have a family or friend who has died of Covid-19. Here in this study, we Aim to study the prevalence of Suicidal Ideation/depression in Covid-19 Patients admitted in our hospital and their correlation. **Material and method-** Cross sectional study & purposive and simple random sampling was considered for this study for small period on Corona positive patients admitted in the COVID isolation ward & applied Socio-demographic questionnaire, BECKS Scale For Suicidal Ideation, HAM-D Scale for depressive symptoms in COVID-19 patients admitted in Tertiary COVID Centre. **Result-** In this study out of total 200 Corona patients, we found that 37% of admitted COVID-19 patients are having depression and 2.5% of patients having suicidal ideas. Out of total, depression is seen in majority of females (29.6% - mild, 7.4% - moderate & 8.6% severe depression) according to HAM-D. Prevalence of suicidal ideation was seen more in male and depression increases the risk of suicidal ideation. **Conclusions** – According to my study, depression is seen more in young and middle-aged females & more the no of days stayed in hospital, more the prevalence of depression seen. Whereas suicidal ideation is seen more in males and more no of days stayed in the hospital, increases the chances of suicidal ideation. Also, positive correlation is seen between depression and suicidal ideation. Proper treatment of depression along with psycho education helped in relieving suicidal ideas.

Keywords: COVID-19, Corona, Depression, Suicidal ideation.

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Introduction

The coronavirus disease 2019 (COVID-19) pandemic is caused by the novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that predominantly affects the respiratory system. In addition to the physical impact, COVID-19 can have serious effects on people's mental health[1]. As the pandemic of the disease now known as COVID-19 has spread, there has been a growing recognition of the psychiatric implications. Both the infected and non-infected population might be susceptible as a result of certain experiences, such as widespread anxiety, social isolation, stress in health-care workers and other essential workers and unemployment and financial difficulties. Remarkable social distancing interventions have been implemented to fundamentally reduce human contact. While these steps are expected to reduce the rate of new infections, the potential for adverse outcomes on suicide risk is high². Suicide is a major health problem. Leading theories of suicide emphasize the key role that social connections play in suicide prevention. Individuals experiencing suicidal ideation may lack connections to other people and often disconnect from others as suicide risk rises. Suicidal thoughts and behaviours are associated with social isolation and loneliness[3] Besides, there is economic fallout and occupational deprivation due to lockdown existing everywhere, which also mediates individuals to have been suffered from psychiatric issues like depression, anxiety, stress, etc[4]. A stress-diathesis model has been proposed in which the risk for suicidal acts

is determined not merely by a psychiatric illness (the stressor) but also by a diathesis, such as a tendency to experience more suicidal ideation and to be more likely to act on suicidal feeling[5]. Thus, suicide risk is multi-factorial. External circumstances and personal experience of rapidly changed social and private circumstances with an uncertain outcome specially in this Pandemic may have the potential to cause psychological symptoms and to intensify preexisting psychiatric illnesses, known as "low uncertainty tolerance" or "uncertainty intolerance", especially in patients with (mental) health concerns[6]

Method

It is a cross sectional study & Purposive and simple random sampling was done for this study for a small period, we have taken 200 patients including both male and female positive for corona admitted in the covid isolation ward of tertiary care centre for next three months. The protocol was approved by ethical committee of hospital & all participants gave informed consent. They were given Socio-demographic questionnaire, HAM-D Scale For Depressive Symptoms, BECKS Scale For Suicidal Ideation and assessed on the basis of it.

Measures

1. Participants – Out of total 200 Covid positive patients, most cases are of male (n=119) and less of females (n=81) both of urban (n=139) and rural area (n=61), age ranged from 21 to 64 years (Mean age 45.56±12.37). 173 of them were symptomatic i.e. showings symptoms of corona while 27 were asymptomatic. All this information is collected by socio demographic questionnaire.
2. Hamilton Depression Rating Scale (HAM-D) by using 5-point likert scale used to assess the range of depression in covid positive patients stayed in the isolation ward of the hospital for minimum of mean days of 12.88.

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3. Becks scale for suicidal ideation(BSI) is 20 item scale used to assess the suicidal ideation in covid positive patients whether symptomatic or asymptomatic and their association with the severity of depression.

as Frequency distribution, percentage, mean and standard deviation (SD), were used. Fischer’s exact test and pearson correlation was used to measure the statistical relationship. P value of < 0.05 is considered as significant.

Statistical analysis

The statistical package for the social sciences (spss) 22 versions software were used for statistical analysis. Descriptive statistics such

Result-

Table 1: Age distribution between gender

Age	Gender		p-value
	Male	Female	
21-30	27 (22.7%)	13 (16.0%)	0.006
31-40	14 (11.8%)	26 (32.1%)	
41-50	36 (30.3%)	19 (23.5%)	
>=51	42 (35.3%)	23 (28.4%)	
Total	119 (100%)	81 (100%)	

Mean age of covid19 patient- 45.56±12.37 (minimum age-21yr and maximum age-64 yr). Majority of participants were from urban areas- 139 (69.5%) , Participants from rural areas -61(30.5%). Majority of

covid 19 patient are symptomatic and presenting with respiratory symptoms -173 (86.5%), Asymptomatic participants -27 (13.5%).

Table 2: Comparisons of HAM-D between gender

HAM-D	Gender		Fisher’s exact p-value
	Male	Female	
Normal	83 (69.7%)	43 (53.1%)	0.003
Mild	25 (21.0%)	24 (29.6%)	
Moderate	7 (5.9%)	6 (7.4%)	
Severe	0 (0.0%)	7 (8.6%)	
Very Severe	4 (3.4%)	1 (1.2%)	
Total	119 (100%)	81 (100%)	

In this study, more number of females were having having depression as compared to males with the significant p value. Depression

assessed by HAM-D has also showed maximum fear of COVID-19 Infection, thereby exhibiting the symptoms of depression.

Table 3: Comparisons of BSI between gender

BSI	Gender		Fisher’s exact p-value
	Male	Female	
Normal	115 (96.6%)	80 (98.8%)	1.000
Low	1 (0.8%)	0 (0%)	
Medium	2 (1.7%)	1 (1.2%)	
High	1 (0.8%)	0 (0%)	
Total	119 (100%)	81 (100%)	

Suicidal ideation seen more in males, But according to our study it was not significant and thus it does not depend upon gender of the

patient. Suicidal ideas do not depend on whether the patient is having symptoms of covid-19 or not as P value is not significant in our study.

Table 4: HAM-D with No days stayed hospital

HDMI	N	Mean days	SD	p-value
Normal	126	12.88	4.251	<0.0001
Mild	49	13.43	3.446	
Moderate	13	21.77	3.113	
Severe	7	24.00	.000	
Very Severe	5	20.60	2.881	

Our study shows as the number of days stayed in hospital increased, Moderate level of depression was more.

Table 5: BSI with No days stayed hospital

HDMI	N	Mean days	Standard deviation	p-value
Normal	195	14.01	4.872	0.044
Low	1	23.00	-	
Medium	3	18.67	1.528	
High	1	24.00	-	

More the number of days stayed in the hospital , more is suicidal ideation seen.

We had applied Pearson Correlation between two parameters (HAMD and BSI) , Score of r value -0.457 and P-value is significant <-0.0001,

thus Positive Correlation is seen between Depression and Suicidal Ideation, more the depression, more is the suicidal tendency.

Discussion & Conclusion

Depression and other psychiatric problems have been taking a toll on the mental health of these covid-19 patients. Depression and cognitive

impairments are associated with suicidal behaviour, for example, lifetime risk of suicide. The burden and risk factors of suicidal behaviour among Covid positive patients in low- and middle-income countries have not been well-established. Our study shows 2.5% of Covid positive patients shows suicidal ideation during their stay in hospital isolation ward which was not significant while 11.1% of healthcare workers in Malaysia reported current suicidal ideation (past 2 weeks) during the early phase of the COVID-19 pandemic and lockdown⁷.

According to my study, Depression is seen more in female adults same as Malaysian study⁷. This also aligns with national pre-pandemic data⁸ and suggests that the pandemic may have exacerbated existing patterns, at least in the Philadelphia region. Social isolation and loneliness are associated with increased risk of depression in children and adolescents,⁹ and school closures and other COVID-19 mitigation measures have restricted social interactions among adolescents. Adverse effects of social media (eg, bullying) have been implicated as potential contributors to the greater burden of depression among girls,⁸ and these effects may have been magnified during the pandemic as in-person social interactions have declined or shifted online.

Depression is a well-established risk factor for suicidal behaviour (ideation, attempt and suicide) among medical physicians and nurses[9-10]. According to my study, there is no significant change in the Suicidal ideation and associated Depression of urban or rural population & whether patient is symptomatic or asymptomatic.

This study shows Suicidal ideation more in male sex whereas it seen more in the Malaysian study[7] Our study also shows positive correlation between depression and suicidal ideation whereas as reported by Keng and Tong (2016), trait-mindfulness has been negatively correlated to lability of negative emotions, independently of depression[11]

Considering the COVID-19 related extreme psychological impact on individuals, there emerges a need for extensive mental health services. This can be bested through services like Tele-mental health care, where the mental health professionals are required to play an essential role in facilitating psychological and emotional well-being, enhancing problem-solving and health-promoting behaviours in service users. Additionally, appropriate and authentic information regarding COVID-19 and (mental) healthcare seeking opportunities is necessary to increase the knowledge of COVID-19 in the public. Furthermore, social media platforms, news media such as televisions,

news portals, etc. can take measures to promote positive mental health in combating further COVID-19 suicides.

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