



IJPPR

INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals

ISSN 2349-7203




Human Journals

Review Article

May 2022 Vol.:24, Issue:2

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Will COVID-19- Pandemic and Lockdown Period, Magnify Suicide Rates?



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INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals

ISSN 2349-7203

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Submitted: 21 April 2022
Accepted: 27 April 2022
Published: 30 May 2022

Keywords: Mental health, Anxiety, Depression, Lockdown Period, COVID-19-pandemic, psychiatric illnesses,

ABSTRACT

Every element of life has been impacted by the COVID-19 epidemic. Suicide is a dangerous, dispassionate incident. COVID-19 pandemic has an impact on mortality indicators worldwide. Self-harm and suicide are its extreme effects. The outbreak of the COVID-19 pandemic, has extensive coverage on social isolation, financial stress, depression, and limited and other pandemic-related stressors that may confer to multiply the suicidal behaviors. More than 700 000 people passed away due to suicide every year. World Suicide safeguard Day is observed on September 10 every year to focus on the erection of mental flexibility. The trouble factors interconnected with mental agony during the COVID-19 pandemic include females, younger age group (≤ 40 years), presence of chronic/psychiatric illnesses, unemployment, and frequent exposure to social media/news concerning COVID-19. The coronavirus disease 2019 (COVID-19) pandemic has resulted in abnormal danger to mental health worldwide.

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INTRODUCTION

The consequences of the pandemic and lockdown on socioeconomic, mental health, and other aspects of Nepalese society are immense (1).

Suicide and self-harm (SH) are serious public health problem; however, it is preventable with timely, evidence-based, and often low-cost interventions. Every year approximately 800000 people commit suicide and many more attempt it. In 2016, it was listed as the second leading cause of death among 15-29-year-olds worldwide (2).

Nepal was ranked 7th by suicide rate globally in 2014. The World Health Organization (WHO) reports an estimated 6,840 suicides annually or 24.9 suicides per 100,000 people in our country (3).

Of note, the COVID-19 pandemic is considered the most severe pandemic of the 21st century with significant repercussions not only on physical health but on mental health as well (4).

The COVID-19 pandemic has had a significant impact on mental health in the general population, leading to increased anxiety, depression, and stress around the world (5).

The uncertainties and fears associated with the virus outbreak, along with mass lockdowns and economic recession are predicted to lead to increases in suicide as well as mental disorders associated with suicide (6).

The rising trajectory of suicide was also reported in the USA, Pakistan, India, France, Germany, and Italy (7).

Generally, there is a higher prevalence of symptoms of adverse psychiatric outcomes among the public when compared to the prevalence before the pandemic (8).

They often welcome death, suffer from hunger, and are unable to survive far from homes, when living conditions are a greater threat than the virus itself (9).

A meta-analysis showed that the mental health impact of the COVID-19 pandemic on healthcare workers was more severe compared to the general population (10).

Because depression is a significant factor associated with suicidal ideation, early identification of depression as a target for intervention is a potential suicide preventive strategy (11).

These environmental factors remained significant after accounting for pre-existing mood and anxiety disorders as well as the level of exposure to COVID-19(12).

Of note, the COVID-19 pandemic is considered the most severe pandemic of the 21st century with significant repercussions not only on physical health but on mental health as well (13).

Multiple public health interventions have also been implemented worldwide to decrease the transmission of SARS-CoV-2(14).

The COVID-19 pandemic is expected to increase suicidal behavior (15).

Suicide is the act of intentionally causing one's death (16).

Mental disorders (including depression, bipolar disorder, autism spectrum disorders, schizophrenia, personality disorders, and anxiety disorders), physical disorders (such as chronic fatigue syndrome), and substance use disorders (including alcohol use disorder and the use of and withdrawal from benzodiazepines) are risk factors (17).

History

In ancient Athens, a person who died by suicide without the approval of the state was denied the honors of a normal burial. The person would be buried alone, on the outskirts of the city, without a headstone or marker (18).

However, it was deemed to be an acceptable method to deal with military defeat (19).

In Ancient Rome, while suicide was initially permitted, it was later deemed a crime against the state due to its economic costs. Aristotle condemned all forms of suicide while Plato was ambivalent (20).

In Rome, some reasons for suicide included volunteering death in gladiator combat, guilt over murdering someone, to save the life of another, as a result of mourning, shame from being raped, and an escape from intolerable situations like physical suffering, military defeat, or criminal pursuit (21).

A person who prefers to die by several suicidal methods results in the person with several injuries, health problems, and brain damage (22).

This eruption endangered not only physical health but also has a substantial outcome of action on mental health. The greatest outbreaks were interconnected with severe mental health, including suicide.

Violence

Aggression is a safety valve for anger. It is an obnoxious emotion. Aggression is a consequential prophylactic aggravation, in which both the patient and the physician are at risk. Clinical, neurologic, and/or mentally ill persons prone to aggression. When it triggers, it changes the behavior of a person from normal to frustrate.

Impact of the COVID-19 pandemic on suicide

Self-harm and suicides are its extreme effects.

Professions with Highest Suicide Rates

Due to the stressful nature of their job, they are less likely to get adequate sleep.

The fact that the financial market has been subject to instability in Covid times, many in the financial industry become stressed and depressed. It often leads some financial experts to inevitably “sink” and they makeshift so suicidal.

Some real estate agents have a really tough time in Covid, and finding work in a bust economy. This leads to fewer sales and less money to provide for themselves and/or families. The suicide rate among real estate agents is alarming.

Farmers are often exposed to pesticides, which have been linked to suicide. For these reasons,

A pharmacist has easy access to drugs and general knowledge of dosing and pharmacology, which makes suicide via overdose a more common option.

The COVID-19 pandemic is having profound mental health consequences

The COVID-19 pandemic significance could evidence by increased suicide rates.

Suicide is a deliberate attempt made to kill oneself Suicide is a psychiatric emergency and the causes are manifold.

1. Depression- this is by far the most common cause of suicide. Symptoms of depression include low mood, easy fatigue pessimistic thoughts, loss of interest, low concentration, sleep disturbances, weight gain or loss, and low sexual drive. Depression can be from causes outside (exogenous) or inside the body (endogenous) Early detection of suicidal behavior by family or friends or primary care health staff plays a vital role.

2. Bipolar illness – suicides in bipolar patients can happen both during mania or depression- Mania symptoms include high energy, decreased need for sleep grandiose thinking.

3. Addiction- any addiction especially to substances like alcohol or drugs can increase suicide risk. Most of the suicidal attempts are done while intoxicated.

Long-term use of alcohol can itself push into depression. Other substances like cannabis, opioids, and injectable drugs can lead to disruption in family and social life and can create a financial crisis.

Other addictions like gambling, and gaming can directly or indirectly increase suicidal behavior.

4. schizophrenia- symptoms include various delusions, hallucinations, and behavior changes. Nihilistic delusions and command hallucinations can worsen the suicidal risk.

The need for long-term medication, and lack of awareness about the disorder further complicates the issue.

5. Family conflicts, -these are more common among young women than men. Suicide due to reaction break up, family conflicts, and financial issues are much more common than reported,

Lack of emotional support, personality disorders, poor coping skills, bad sleep, and time management can further add to the risk.

Smoking contributes to suicidal risk

There may be many causes of suicide but substance use disorders are found to be one of the important causes of suicide. Smoking has been commonly found to be associated with increased suicide rates. Many studies were done to find out the causative factors and association between smoking and suicidality. A study done by Poorolajal et al in 2016 found

an association between smokers and suicidality but could not prove that suicidality is due to smoking (23).

A meta-analysis which was conducted by Sankaranarayanan et al in 2015 reported that smoking was significantly associated with an increased risk of suicidality among individuals with a severe mental illness (24).

Some epidemiological studies indicated that smoking could be a part of problematic behavior that is linked to various psychopathological disturbances. Many studies reported that smoking is generally associated with mental illnesses and high-risk taking behaviors such as substance abuse in the form of alcohol and smoking, and sexual and physical abuse, which are considered major causes of suicide (25,26).

Chronic nicotine use is found to be associated with decreased levels of Serotonin and Monoamine oxidase (MAO) levels when compared to non-exposed populations, and low levels of serotonin and MAO activity have been linked with suicidal behavior.

Smoking could be associated with other mental illnesses like Schizophrenia, Bipolar disorder, Depression, and Anxiety disorders where smoking could be an indirect factor resulting in suicides as part of the mental illnesses.

Neurotransmitters--Suicidal behavior

Significantly low levels of serotonin and the neurotransmitter metabolite (5-HIAA) may be correlated with suicidal behavior (27).

Suicidal behavior is a major cause of morbidity and mortality in psychiatric illness. However, only a subset of patients with psychiatric illnesses, such as major depressive disorder (MDD), commit suicide (28).

Suicidal behavior is associated with lower resting cortisol levels and blunted cortisol responses to stressors (29, 30).

Anxiety disorders

A wide range of psychological outcomes have been observed during the Virus outbreak, at individual, community, national, and international levels (31).

The pandemic has harmed public mental health which can even lead to psychological crises (32).

Early identification of individuals in the early stages of a psychological disorder makes the intervention strategies more effective (33).

Nervousness and anxiety in a society affect everyone to a large extent. Recent evidence suggests that people who are kept in isolation and quarantine experience significant levels of anxiety, anger, confusion, and stress (34).

Alcohol and aggression

Alcohol has been one of the causative agents in causing aggressive events in an individual's life. It also has been one of the major factors in creating conflicts in families and also reduced the quality of life of people consuming alcohol (35).

There are strong links between alcohol consumption, patterns of drinking, and rates of violence. Each of these two increases the effects of the other.

Mechanisms of alcohol use and violence:

The mechanisms linking alcohol and interpersonal violence are manifold.

Harmful alcohol use directly affects the physical and cognitive function of an individual.

Self-control makes alcohol drinkers more likely to resort to violence in confrontations (36).

Individual and societal beliefs that alcohol causes aggressive behavior can lead to the use of alcohol as preparation for involvement in violence, or as a way of excusing violent acts (37).

Experiencing or witnessing violence can lead to the harmful use of alcohol as a way of coping or self-medicating (38).

India's suicidal fires are getting bigger and hotter, than the rest of the world

Every element of life has been impacted by the COVID-19 epidemic. As the virus has spread over the world, fearful people have consciously distanced themselves from it and decreased their economic activity to avoid infection. To contain the virus, governments have taken extraordinary steps to adopt large-scale, costly interventions: residents and communities have been asked to minimize social interactions, avoid social gatherings, close schools, and cease

needless economic activity. To date, the majority of scientific and therapeutic attention has been focused on identifying and preventing the disease's direct physical risk. However, the end of the epidemic is still a long way off. This poses a new public health concern: the pandemic could hurt people's mental health, and in a more dire situation, suicide fatalities could rise.

Simultaneously, the current epidemic may have alleviated some of the stress caused by workplaces and social interactions (such as commuting or bullying at school), and government financial assistance may have somewhat mitigated the pandemic's negative effects. However, given the ongoing public health problem's extraordinary scope, ubiquity, and complexity, comprehensive preventative strategies to lower the risk of suicide will be required. Policymakers, healthcare professionals, and academics need a realistic evaluation of suicide prevalence during the pandemic to design effective policy responses.

However, convincing empirical evidence linking the COVID-19 pandemic to suicide mortality is still lacking. An inclusive evaluation necessitates harmonized data that are obtained at a granular level and include representative and suitably large samples. The lockdown, travel limitations, and social isolation are all thought to have contributed to a dramatic decrease in the usage of private transportation for patient transfers to the emergency department. This could explain why our sample's presentation to the emergency department was delayed during the lockdown period.

Kerala reported the fifth-highest rate of suicides in the country in 2019 (24.3 percent), which was significantly higher than the all-India rate (10.2 percent). The worrying trend has only been gaining further momentum, especially during Covid times, says the data released by the National Crime Records Bureau in 2019. According to estimates by the World Health Organization, nearly 800,000 people die by suicide every year. India tops the south-east Asian countries in the rates of suicides (39).

Dr. John Vijay Sagar, Professor, and HOD, child, and adolescent psychiatry, Nimhans, said: "Suicides don't happen suddenly. In most of these cases, the students would have faced problems earlier too. The fact that the unprecedented circumstances the pandemic brought in would have meant they had to cope with additional stress and anxiety. Most children/students spent time at home by themselves, except in families where parents too could work from home. This means their coping mechanisms would have got affected with venting systems, like friends and school/college environment being absent." He added that family conflicts

that students would not have noticed would have come to the fore with everybody staying at home (40).

Factors contributing to suicide in India

Family problems, alcohol addiction, Marriage failures, examination failures, Unemployment, Professional problems, Death of near relatives are the Domestic violence, Mental illness, and Ragging are the contributing suicide causes of suicides (41).

More people die of suicide than die of war and murder (42).

SUMMARY

Although suicide is seldom caused by a single variable, and the causes of changes in suicide incidence are exceedingly complicated, past research suggests that the pandemic could have a variety of effects on the suicide rate. Social distancing, in addition to the fear, uneasiness, and anxiety brought on by the disease's threat, can lead to strained social and family relationships, increased loneliness, boredom, inactivity, and limited access to healthcare, potentially leading to mental ailments and increased suicidal behavior. Suicide is linked to a variety of conditions, including financial insecurity and job loss. As a result, the pandemic-driven economic downturn may lead to an increase in suicide deaths.

CONCLUSION

The psychiatric disorder can present diverse problems throughout an individual's life and also clinical challenges not only to psychiatrists but to all who practice medicine. The numbers of reported cases for various conditions requiring intensive care were low throughout the lockdown period; therefore, more beds were vacant, avoiding referrals to other facilities. This could explain why there was a rise in-hospital death from suicides and self-harm during the lockdown, or they could have contemplated suicide via lethal means. Data from both the pre-COVID-19 time (as a baseline) and the COVID-19 period should be included in this analysis. Existing studies, on the other hand, rely on readily available and convenient data that can easily lead to skewed conclusions; many studies use some initiatives of suicidality rather than suicide mortality, and the majority of them compare antisocial behavior using snapshot data from during the pandemic rather than pre-pandemic baseline samples.

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