

Beyond the virus: The impact of the COVID-19 pandemic on mental health

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Introduction

Mental health issues are one of the main concerns in public health. This is of special concern during the COVID-19 pandemic, where restrictive policies in the interest of public health, such as social distancing and domiciliary lockdowns, could make us feel isolated and lonely, leading to anxiety and depression. About 41.1% of adults reported anxiety disorders during the COVID-19 pandemic as compared to the 11% before the onset of the pandemic ([Panchall, 2021](#)). This might impact the activity levels, appetite, decision making and even induce suicidal thoughts.

There has been extensive prior analysis done related to this topic of discussion. [Dsouza et al. \(2020\)](#) analyzes how the fear of contracting the COVID-19 infection had resulted in high suicide rates in India. They scraped data from seven popular English Indian online newspapers by employing purposive sampling method. [Sava and Papari \(2015\)](#) performed an interesting comparative analysis of suicide rates based on the criteria of seasons and gender. By employing Chi-Square test on the dataset, they ranked the season-based suicide rates as summer, spring, autumn and winter. They also observed a significant difference in the rates with respect to the gender. [Näher et al. \(2020\)](#) statistically proved that low socioeconomic status and high social isolation are linked to increased suicide rates by modeling data distributions.

The objective of this work is to study the different factors associated with mental health issues during the COVID-19 pandemic, while also examining the effects of mental health issues, such as suicide rates and substance abuse, on the population during the pandemic across various regions. This study has the potential for a significant impact on making well-informed decisions and taking better actions in future pandemics, aiming for both the physical and mental well-being of the population.

Hypotheses

We will aim at empirically testing the following hypotheses:

- Based on the study of suicide and self-harm in [Wetherall \(2019\)](#), four of the indicators for mental health issues can be identified as physical health, relationships, stressful events and financial insecurity. These and other factors that are connected to the pandemic or a consequence of measures taken to preserve public and personal health have contributed to an increase in mental health issues during the COVID-19 pandemic.
- If the previous hypothesis, that there is an increase in mental health issues during the pandemic, is not rejected, there is a correlation between this increase and the increase in the associated consequences (such as suicide and substance abuse).

Project Design Plan

In order to provide the empirical evidence for the aforementioned hypotheses, this project would involve the aggregation of multiple sets of data from different indicators across geographical regions. For the first hypothesis, multiple factors that could lead to mental health issues, such as isolation and unemployment, would be analyzed independently while also taking into consideration a few region-specific external factors such as the degree of restrictions imposed, economic condition and policies. Furthermore, statistical tests, like the t-test, would be performed on pairs of these factors to compare the significance of their impact on the mental health of the population.

After exploring the factors, the second hypothesis would be tested by studying the various effects of such mental health issues on the population during the pandemic, like suicide rates and substance abuse. This helps to better understand, not just the factors to take actions against, but also the severity of the issue if not properly addressed. The results of the data analysis on the various effects are again correlated to multiple external region-specific factors like policies, economy and population for a more comprehensive analysis.

In addition to the above data analysis, inputs from human experts in this field would be incorporated for a broader view on the matter. Combining data analysis and the input from field experts, the work would finally conclude with effective strategies to help maintain better mental health while also safeguarding public health and battling the COVID-19 pandemic.

References

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