

COMMENTARY

The Effects of COVID-19 on the Increasing Trend of Depression in Males

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Received: June 29, 2023

Accepted for publication: November 1, 2023

Published: November 16, 2023

Introduction

According to the National Institute of Mental Health, in 2020, approximately 1.3 million males in the United States had at least one major depressive episode.¹ Major Depressive Disorder (MDD) is a common and serious mental illness that negatively affects how a person feels, the way they think, and how they act.² People suffering from depression may experience persistent feelings of sadness, increased apathy towards previously enjoyed pastimes, and even suicidal ideations.^{2,3} While depression can manifest for a variety of reasons, this paper will focus on the effects of COVID-19 (Coronavirus Disease) on depression in males.⁴

Demographics

Men are less likely to seek help, be diagnosed, and in turn, be more likely to commit suicide due to untreated depression at a rate four times higher than women.^{5,6} Males are not only at a social but psychological disadvantage because of the stigma that is associated with depression.⁶ This stigma is based on social constructs, gender roles, stereotypes, and traditional ideologies about masculinity and mental health in men.⁷ These barriers are usually associated more than anything with the fear of giving the appearance of a weak man, having no self-reliance, and not being in emotional control.⁷ There is an

apparent disparity between male and female rates of depression and should be acknowledged.⁶

The Effect of COVID-19 on Mental Health

COVID-19 is a mild to moderate respiratory disease that originated in Wuhan, China. Its primary mode of transmission is through infected respiratory droplets and aerosol particles. Most healthy individuals can recover, but those with weakened immune systems can become seriously ill.^{8,9}

During the COVID-19 pandemic, the modern world saw just how ill-prepared it was to deal with a highly infectious virus and the deaths that came along with it.¹⁰ A world-wide “lockdown” was enacted after COVID-19 gained its pandemic status.^{11,12} In this period, people were only allowed to leave their homes when necessary and social gatherings were banned, limiting the number of people that could be in a confined space at any given time.¹² The restrictions placed on people during “lockdown” brings us to the topic of isolation and the role it played in straining the mental health of the general populous.¹³ Isolation in and of itself does not cause depression. The psychological effects of not being able to interact with others make someone more susceptible to depression.^{14,15} An article published by Harvard states how the rates of loneliness in America have risen due, in part, because of the pandemic.¹⁶

As misinformation became more and more widespread during the pandemic it caused fear to surge among civilians.¹⁷ Fear can stem from many places but in the case of the COVID-19 pandemic, an exponential increase in cases and deaths along with misinformation and constant updates prompted people to become fearful.¹⁸ Anxiety is a prime catalyst for the prevalence of depression as their symptoms overlap; for example, in the case of GAD (General Anxiety Disorder) and MDD, many of their criteria share similar items such as dyssomnia, fatigue, low concentration, etc.¹⁹ In a study published in the Journal of Affective Disorders, doctors and scientists conducted a set of tests called the CDRS-R (Children Depression Rating Scale-Revised) and PARS (Pediatric Anxiety Rating Scale) that each looked into both symptoms and severity of illnesses. The study showed how there were many symptoms that either correlated with each other or had some form of effect on each other (Figure 1).¹⁹ Symptoms that fit both disorders included physical complaints, morbid ideation, anhedonia, impaired school work, social withdrawal, and sleep disturbance.¹⁹ As a cause of these similarities, the ability of one disorder to transition/develop into the other is more apparent.

All throughout the pandemic, there was a spike in not only reported cases but also deaths.¹⁹ As of now, the total number of deaths has reached an astronomical high of 1,132,872.²⁰ In many of these deaths, people were directly affected either by the loss of a friend, family member, etc. Death, on the occasion of a person dear to you, can have negative effects on not only a person's physical well-being but most of all an individual's mental state. Grieving individuals tend to not receive the proper care from psychiatrists whether by misattribution of the symptoms or because of not administering proper care.²¹ The likelihood of a person acquiring MDD is a lot higher when in the grieving process as they may blame themselves, feel worthless, and have prolonged suicidal ideation.²¹ This is important to monitor if these symptoms persist after 2 months, as most cases of long-term bereavement are marginal indicators of MDD.²¹

Figure 1(a)

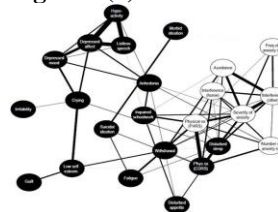


Figure 1(b)

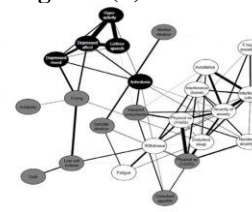


Figure 1(a). Symptom clusters with grouping via both tests CARS-R (Black) and PARS (White).

Figure 1(b). Symptoms with community analysis clustering, in this instance, the black circles correlate with depressive disorder whilst the white with anxiety. The grey circles had clustering to neither group.¹⁹

Depression Before COVID-19

Before the COVID-19 pandemic, research about men and their mental health was limited, but post-pandemic research on this topic has brought upon a substantial amount of awareness regarding the exclusion of men in the conversation about mental health.²² According to the National Center for Biotechnology Information, males were disregarded psychologically on account to the normalization of gender differences that society has situated amongst the majority of individuals involved. Reports show that men with major depressive disorder (MDD) are 2.3% less prevalent than women with MDD over a 12-month period.²³ On the contrary, this could lead to a common misconception that the results are deemed inaccurate because males are inclined to avoid any form of care provided by doctors. This matter in question revolves primarily around masculinity barriers that many individuals have incorporated such as the lack of financial support and/or care.⁷ Therefore, men seek self-aid instead of professional help that causes worsening of their current situation.

The Effect of the COVID-19 Pandemic on Depression

The COVID-19 pandemic phenomenon introduced a new deadly virus worldwide leading to a, similarly, international pandemic requiring countries to fall into a two and a half year lockdown. This virus primarily attacks a person's respiratory system; however, it was found to affect other organ systems such as the cardiac and digestive systems.²⁴ More notably, COVID-19 showed significant effects on a patient's central nervous system as physical manifestations ranging from headaches, encephalitis, convulsions, meningitis, including psychological issues such as depression as a result of chemical

imbalances from the virus' attachment style to ACE2 (Figure 2).²⁴ Persons with a history of mental illnesses suffered repercussions due to the lockdown, as mental health became less of a priority than COVID-19 treatment, excising the probability of receiving proper care.²⁵ It became evident that the lack of effective treatment and care played a key role in depression-related cases, and in worst-case scenarios, deaths. In the wake of the pandemic came a rise of mental health issues with new light shed and as Jim E. Wallis states, "Sometimes it takes a natural disaster to reveal a social disaster."²⁵

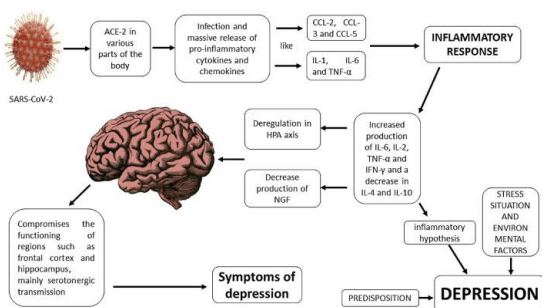


Figure 2. Chemical correlation between COVID-19, SARS-CoV-2, and its effect on ACE-2 throughout the nervous system leading to depression. The SARS-CoV-2 binds to the body's ACE-2 causing an inflammatory response to occur exposing the brain to dysregulation of hormones initiating a person's symptoms of depression.²⁴

Impact by Age Group

COVID-19 infects individuals across all different demographics, a similar situation can be documented with the event of the "quarantine" process and its association with the increase in depression cases. Despite that fact, however, there is considered to be a prevalence in cases among male, young adults. For instance, in a study conducted from April 2020 through February 2021, the increase in cases of MDD was measured through the link of solitude, where many individuals were expected to remain at home or away from others causing many to be alone or cut-off from social interaction, in the CDC recommended social isolation.¹² Upon further examination, it was deduced that the individuals who were experiencing the most loneliness, which was later revealed to be young adult men, were subject to report 14 times more cases of MDD.²⁶ Furthermore, as previously known data states, MDD and its symptoms are more likely to present themselves across a younger age pool.²⁶ Thus, this information provides an alignment that is parallel to the finding of its prevalence in young adult males, thereby qualifying the data acquired. Figure 3 shows

the prevalence of depression symptoms on a global scale with data from a study conducted across 114 different countries measuring depressive symptoms of men of varying age groups. Based on the information given, the majority of all countries' men faced depression to a certain capacity, to which, most of those men were recorded to have a rate of at least 1:4 men having experienced symptoms of depression.²⁷ Furthermore, correlating the graph to a specific age range, the study yielded that most of the men who contributed to the study were of ages 18-24 as they expressed symptoms at a greater degree, whereas, when the age increased, the number of depressive symptoms decreased.²⁷ Simply put, the research, provided by the British Medical Journal, gives insight into how the pandemic increased the cases of adult men at large scale. Data from both studies indicates the COVID-19 pandemic did, in fact, have a frequent effect on the age group of young adult males. As the first conducted study was able to be supported by previous researched data and the second study provided evidence across a significant number of countries, they both served the purpose of proving that COVID-19 did not only affect men as whole, but they proved it had a significant influence on young, adult men.

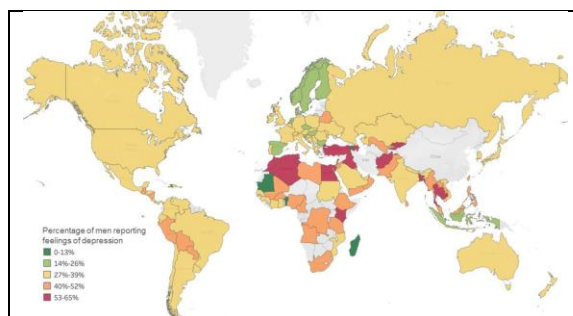


Figure 3. Choropleth map based on a poll of 115 countries from May 2021 to September 2021. The map provides statistics on a global scale to further elucidate the number of men facing feelings of depression.

Treatments

Treatments for depression include psychological treatments, therapies and medications. The duration of treatment is divided into 2 phases: acute treatment lasting 6-8 weeks and the continuation treatment lasting from 4-9 months.²⁸ There are also different types of therapy to deal with depression. There is cognitive behavioral therapy and systemic therapy.²⁹ Cognitive behavioral therapy focuses on how thoughts and beliefs influence individual actions

and systemic therapy focuses more on the relationship with external stimuli, including family and friends.²⁸ Antidepressants help relieve the symptoms of depression and include doxepin, dosulepin, citalopram, among others. Some medications are short-acting but most are lifestyle medications that require long-term compliance.³⁰

Conclusion

In review of the research available, there is a direct correlation between the increase in depression cases and the COVID-19 pandemic. The overall data found throughout the literature reveals why males were greatly impacted but also how this prevalence came to be. The importance of male depression is an overall dilemma faced by many generations and nationalities.

Acknowledgements

Monica Betancourt-Garcia, MD, Program Director;
 Melissa Eddy, MS, Program Manager

Funding

Funded by DHR Health Institute for Research & Development; DHR Health; Region One ESC GEARUP College Ready, Career Set!; Region One ESC GEARUP College Now, Career Connected; Region One ESC PATHS; Region One ESC Upward Bound Math & Science; Benavides ISD; and Jubilee Academy-Brownsville

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