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MINI REVIEW

The Association Between Stress-Related of COVID-19 Pandemic and Mental Health

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ABSTRACT

Research has shown that young adults were more vulnerable to mental health issues during the COVID-19 pandemic. However, the mechanism of the effect of COVID-19-related stress on mental health outcomes among young adults is still unclear. In general, COVID-19-associated anxiety and depression have been reported in adults. The aim of this study was to investigate the effects of stress associated with COVID-19 pandemic and mental health outcomes. Studies show that the direct effects of stress due to social distance problems on anxiety and depression are much greater than the stress caused by fear of infection and anger compared to others. The results indicate that interventions to increase social support and resilience can be effective strategies to reduce the risks of anxiety and depression among young people with stress caused by social distancing problems.

Introduction

The COVID-19 pandemic is a global crisis that has disrupted life and affected mental health [1]. COVID-19 is a severe respiratory infection, so particles from the breath and speech may contain the virus. Our previous findings show that particulate matter and airborne particles reach the brain and affect the health of the Central Nervous System (CNS), and may cause various neuropsychological and pathological disorders [2-18]. In addition, in line with global regulations, governments enacted public health regulations, including mandatory quarantine, social exclusion, and job quarantine, in an effort to limit the prevalence of COVID-19 [19]. These regulations helped reduce economic activity, increase unemployment, and reduce social protection, which, along with the threat of COVID-19 infection, had adverse effects on mental health [1,19,20]. Young adults are vulnerable to COVID-19 pandemic stress related to loss of daily work, lack of social contact, and work and financial worries. This stress is associated with an increased risk of impaired mental health outcomes, such as anxiety and depression [21]. In fact, young people 18 to 24 years of age experienced higher levels of anxiety and depression during the Covid-19 pandemic than adults 25 years of age or older [22,23]. According to this evidence, COVID-19-related stress affects anxiety and depression in young adults. Since young adults are known to be more vulnerable to the impact of COVID-19 on mental health [24], understanding the underlying pathway through which COVID-19 stress affects mental health outcomes among young adults Laying is important. We hypothesize that COVID-19 related stress affects anxiety and depression through social support mediation and resilience. The purpose of this brief review is to investigate the relationship between stress associated with COVID-19 and mental health outcomes (anxiety and depression).

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Gender differences in stress and anxiety

According to data from the U.S. Census Bureau, in a COVID-19 pandemic, 50.0% of adults aged 18 to 29 reported symptoms of anxiety or depression, which is higher than 32.1% of all adults 18 years or older who had symptoms of anxiety or depression [25]. Also, in a study of Korean youth aged 19 to 24, 48.1% were classified as depressed and 23.4% as anxious [26].

Therefore, according to the results of studies conducted among adults, more young people than other adults show symptoms of anxiety and depression during the COVID-19 pandemic. Therefore, there is an urgent need to develop an effective approach to assessing and intervening in mental health issues among young adults. Some studies have also reported gender differences in mental health. Although young adult women showed higher perceived social support than adult men, women had significantly lower resilience and higher scores for depression and anxiety than men. These findings indicate that women had significantly higher levels of stress, depression, and anxiety than men during the COVID-19 pandemic [24,27]. These gender differences may be explained because although women experienced more stress and anxiety than men even before the Covid-19 epidemic, but the epidemic has widened these gender gaps in mental health, because women respond to stressful events and adversities more stressfully than men [24]. In addition, the findings of another study show that young adult females were significantly less resilient than males to the COVID-19 pandemic, and one study reported that the average ability to manage stress in response to the COVID-19 pandemic was higher among female young was significantly lower than men [27]. Therefore, these findings indicate that young women have higher stress responses due to low resilience to COVID-19 epidemics and are vulnerable to anxiety and depression. Thus, more attention should be paid to young girls who are vulnerable to effective responses to this period of crisis.

Anxiety and depression in young adult people

The research results also show that university graduates showed significantly higher levels of anxiety and depression than students. A possible explanation for these findings may be related to job insecurity, financial anxiety, and mental health. Job insecurity is mostly associated with symptoms of anxiety and depression due to COVID-19 and the resulting financial worries [28]. Further studies are needed to examine what differences between college students and graduates affect differences in their mental health status. This mini-review, survey the impact of COVID-19-related stress on anxiety and depression in young adults and evaluated the indirect effect of COVID-19-related stress on anxiety and depression through social support and resilience. Findings show that related stress of COVID-19, including fear of infection, difficulties due to social distancing, and anger toward others, influenced anxiety and depression directly.

The direct effects of difficulties due to social distancing on anxiety and depression were much greater than other direct effects, so that, social distancing was a possible reason for poorer mental health in young adults than in older adults [29]. In addition, another study reported that college students felt more depressed when their desire for social connectedness was not met due to social distancing [24]. Young adults aged 19 to 24 years are in a period of exploring love, work, and worldviews, and they participate in a wider scope of activities, such as productive activities (school and work) and the formation of romantic relationships than any other age group [22]. Therefore, in young adults, stress from restrictions on activities due to social distancing during the COVID-19 pandemic may have a greater effect on depression and anxiety. On the other hand, results indicate that fear of infection and anger toward others who do not comply with quarantine guidelines had weak direct effects on depression and anxiety can be explained by the fact that young adults have fewer physical symptoms from COVID-19 infection than other age groups [29].

Social support and psychological resilience effects on anxiety and depression

Social support can be a protective factor against the harmful effects of stress on mental health outcomes in difficult times [30]. Social support is defined as social resources that can be obtained from formal and informal support relationships [31]. Some studies have shown the effective role of social support for mental health due to traumatic experiences or disasters [32,33]. Previous studies during the COVID-19 pandemic have also reported an association between social support and depression [34]. Psychological resilience is one of the internal resources of the individual and refers to the ability to adapt effectively in the face of adversity, such as stress, potentially traumatic events, or loss. Psychological resilience helps people to overcome adversity and grow through adversity [35,36]. Previous studies have reported an association between resilience and mental health outcomes including depression, anxiety, and post-traumatic symptoms [37,38], A study on young adults reported that high resilience was associated with depression and low anxiety during the COVID-19 pandemic [34]. Social support and resilience may mediate the effects of COVID-19 stress on depression and anxiety. Given the relationship between social support and resilience, social support may play an important role in increasing resilience [39]. A previous study reported that resilience was mediated between social support and mental health outcomes among healthcare workers during the COVID-19 pandemic [40]. Thus, social support may affect mental health through resilience among young adults. Previous studies on young adults exposed to the COVID-19 pandemic have examined the effect of COVID-19 on their mental health and their mental health-related factors [24,31,34]. However, few studies have examined the mediating role of social support and resilience in the association between COVID-19-related

stress and mental health outcomes among young adults. Studies show that social support and resilience, which are mediating variables, directly affect anxiety and depression. A study of young adults during the COVID-19 epidemic reported that the higher the perceived social support of the family, the higher the resilience and lower scores of depression and anxiety [34].

Another study also reported that there was a link between mental health and social support from family, friends or small groups, communities, organizations or institutions, and communities, as well as resilience and mental health among young adults during the COVID-19 epidemic [29]. In addition, the findings show that social support indirectly affects depression and anxiety through resilience [40,41]. Consistent with these findings, another study highlighted social support and resilience against COVID-19-related stressors as protective factors for the mental health of young adults [42]. Thus, the research results indicate the successive mediating effects of social support and resilience on the relationship between stress-related problems due to social distance and mental health (anxiety and depression) among young adults during the COVID-19 pandemic. Based on this mini-review, we suggest that interventions to increase social support and increase resilience can be effective strategies to reduce the risks of depression and anxiety among young adults who suffer from stress-related problems due to social distancing. These results can be explained by the fact that fears of infection and anger towards others have a weak effect on depression and anxiety.

Conclusion

This study showed that in the face of the COVID-19 epidemic, the prevalence of depression and anxiety in young people was high, demonstrates that mental health assessment and interventions are essential. In particular, young adult females showed less resilience and higher scores of depression and anxiety than young males; shows that they were more vulnerable in this critical period. Research shows that stress due to social distance problems has the greatest effect on depression and anxiety compared to stress due to fear of infection or anger towards others. It shows that young adults in the most active period had the greatest effect of stress related to social distance. In addition, the findings confirmed the significant mediating role of social support and resilience in the relationship between stress-induced social distance problems and mental health outcomes (anxiety and depression). Therefore, we suggest that interventions to improve social support and resilience lead to improved mental health outcomes among young people with stress due to problems with social distancing. The effect of other psychological variables should be considered in studies.

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