Review Article
Mental Health Impact of Gender-Based Violence Amid COVID-19 Pandemic: A Review
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Abstract
Gender-based violence (GBV) and poor mental health have received particular attention among healthcare professionals, policymakers, and researchers amid the COVID-19 pandemic. This paper presents a review of available literature to understand the dynamics of GBV and its mental health impact in the context of COVID-19. Confinement and control by abusive partners, social and economic disruption, and restricted access to healthcare services were identified as the main contributing factors of GBV. The paper elaborates on the contribution of broader socioeconomic determinants of health as well as cultural and societal factors of victimization in shaping GBV by placing specific populations or individuals in a more vulnerable position within the society based on their gender. Socioeconomic determinants included socioeconomic status, education, migration and racial, ethnic, or gender-based minoritisation. Cultural and societal factors of victimization are mostly related to gender-based structural power discrepancies and communication patterns. Evidence suggests a complex relationship between COVID-19 specific stressors, such as health anxiety and intolerance of uncertainty, GBV, and mental health issues. COVID-19 stressors might directly trigger the mechanism of aggression and cause physical or psychological violence and associated mental health implications in victims, or it might be mediated by pre-existing mental health issues experienced by perpetrators.

Keywords: gender-based violence, mental health, COVID-19 stressors, victimization, contributing factors

Article Highlights
• During the COVID-19 pandemic, concerns about mental health and substance abuse have grown.
• This review explores the mental health impact of gender-based violence amid the COVID-19 pandemic.
• It focuses on factors contributing to gender-based violence, specific COVID-19 stressors and populations that are particularly at risk for experiencing negative mental health or violence consequences.

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Introduction

Gender-based violence (GBV) is a lamentably widespread phenomenon that affects most countries, regardless of their economic and social development stage. Bouta, Frerks, and Bannon 1 define GBV as the “physical, sexual, and psychological violence against both men and women that occurs within the family and the community and is perpetrated or condoned by the state.” Therefore, GBV should be a broad universal term, not restricted to a particular setting or type of violence, and used to discuss various issues. Many instances of GBV inherently violate fundamental human rights and present a serious public health threat. The consequences of these violent acts, be it corporeal violence or various manifestations of psychological and sexual violence, entail deplorable consequences on the victims’ mental health, including but not limited to anxiety, depression, various substance abuse, post-traumatic stress disorder (PTSD), sleep disorders, suicidal tendencies, and self-harm 2.

Nevertheless, while GBV is a commonly used term, delving into the problem in-depth requires a thorough understanding of other terminology around this issue. Numerous terms are often used interchangeably to discuss the different GBV-associated problems; however, it is imperative to draw distinctions between them to understand the implications of each issue. Since GBV disproportionately affects women, another critical term is violence against women (VAW) 3. Globally, one in every three women has suffered beatings, has been pressured into sex without consent, or has become a victim of some form of abuse in their lives 4. Therefore, VAW encompasses all types of violence mentioned above, but only when targeted at individuals who identify as women.

Moreover, another frequent term is domestic violence, which can also be called family violence. It is the broadest term, as it does not imply violence against any particular gender and applies to any person residing in the same household as the perpetrator, be it a child, a partner, or another relative 3. On the contrary, intimate partner violence (IPV) exclusively applies to partners in long-term relationships, both heterosexual and same-sex couples. Therefore, domestic violence and IPV are not based on the victim’s and the perpetrator’s gender identity. We will use GBV as an umbrella term for this review while also using more specific terminology explicated above to narrow down specific issues.

All the aforementioned forms of abuse have adverse consequences to the victim’s mental health, thereby contributing to a severe public health issue. Mental health is defined as “a state of well-being,” including emotional, psychological, and social components. It helps determine an individual’s ability to cope with everyday stresses of life, work productively, and contribute to the community 5. Sexual and physical violence are also known risks to mental health. During the COVID-19 pandemic, “shutting down” businesses and the “stay home” order can aggravate GBV and domestic violence and exacerbate mental health conditions. Depression and anxiety are the most common mental health issues and are among the most critical public health concerns 5.

This narrative review of past literature aims to explore the dynamics of GBV during the COVID-19 pandemic. The paper addresses the contributing factors and mental health impacts of GBV globally while considering how broader socioeconomic and cultural factors may place specific individuals at a higher risk of violence.

Prevalence and Trends of Gender-Based Violence During the COVID-19 Pandemic

Preliminary data indicate that the ongoing COVID-19 pandemic may significantly impact GBV and associated public health implications. In addition to the unfortunate incidents covered by media, the number of domestic violence incidents has been documented in all regions worldwide during the COVID-19 pandemic 6-10. VAW reportedly increased significantly from 4-5% before to up to 50% during the lockdown based on online surveys in different settings 11-13. The most common form of violence was psychological abuse 11. Interestingly, this type of violence had been the most frequent even before the COVID-19 pandemic 14. Alongside the common forms of abuse, IPV offenders weaponized the anxiety and fear caused by COVID-19, thereby indirectly using it against their partners; for instance, prohibiting medical aid in case of emergency or prohibiting their victims from carrying out routine hygienic practices, such as handwashing, in order to increase the partner’s dread of becoming infected with COVID-19 15. Before lockdown, women who had suffered from IPV were more likely to be abused in isolation with their partners 11.

Broader socioeconomic determinants of health were salient before the pandemic but have been amplified by the ongoing unprecedented public
health crisis. Countries on the lower socioeconomic development spectrum have seen particularly severe cases of women’s self-isolation in unsafe domestic environments brought about by violent and abusive relationships. In a time-series study in rural Bangladesh, among women experiencing emotional violence (being insulted, humiliated, intimidated, or threatened) or moderate physical violence (being slapped or having something thrown at them, being pushed, or having their hair pulled), over half reported that it had increased since the lockdown. According to a preliminary gender analysis of the COVID-19 crisis, persons who identify as women may be disproportionately affected due to their socioeconomic and humanitarian circumstances in various ways, such as facing adverse consequences for their education, safety, health, income, nutrition, and food security.

Additionally, women who come from minority groups are at an increased chance of suffering from the adverse effects of GBV. For example, when it comes to reproductive and sexual health support, marginalized communities are disproportionately in danger of not gaining access to the appropriate services. Moreover, the critical situation caused by COVID-19 specifically affects people identifying as lesbian, gay, bisexual, transgender, intersexual, queer, and others (LGBTIQ+), who already suffer from the lack of adequate access to gender-affirmative healthcare and rampant discrimination as a marginalized community. For instance, a recent study in Argentina carried out among transgender and non-binary persons demonstrated that the most common GBV perpetrators were family members of the victims, especially those who identify as non-binary.

Cultural and societal perceptions of victimization include gender-based structural power discrepancies and communication patterns. It was noted that although IPV is often conceptualized as occurring in the context of VAW by their male partners, reciprocal violence is a common form of IPV. Several gender differences may serve as risk factors of IPV, such as men’s emotion regulation abilities and women’s social support. The study by Glowacz found that the majority reported being victims of violence among the perpetrators. However, the findings were limited to minor violence as perpetrators of terrorism-type intimate violence would be unlikely to report their violent actions. Furthermore, victims would be restrained from responding by their controlling partners. Currently, as long as the COVID-19 pandemic aggravates the situation, the ‘silent’ cases of severe IPV against women will possibly remain more widespread.

**Confinement and Control by Abusive Partners**

Numerous risk factors that lead to IPV are being aggravated by various aspects of the COVID-19 pandemic. Lockdown measures, in particular, contributed to the growing number of domestic violence cases, developing what the United Nations has named “shadow pandemic within the pandemic.” “Shelter-in-place” restriction policies, implemented by governments globally as a preventative measure against COVID-19 spread, obligate victims to endure abuse within the confines of their homes. Various data demonstrate that GBV has grown globally during the lockdown, as victims, most frequently women, have little to no opportunities to get away from their abusive partners. Reports from numerous countries indicate that various public health measures aimed at slowing down the transmission of COVID-19, such as lockdowns and social distancing, entailed inadvertent negative consequences for the victims of domestic violence. The controlling and stalking tendencies of GBV perpetrators have grown during lockdown when they are constantly forced to remain in a domestic setting.

Moreover, some studies have shown that the number of calls to helplines from IPV victims has gone up. Nevertheless, a contrary trend has been observed, whereby a significant decline in the IPV victims who sought aid from various support services, such as emergency departments and assault referral centers, has been reported. Unfortunately, this could be because women are constantly controlled by their abusive partners in the confined spaces during the lockdown, and the opportunities for a disclosure of the maltreatment are reduced.

According to sociological and gender research, the more time families spend in direct contact, the higher the possibility that groundless violence may occur – a tendency which literature ascribes to human psychology. Nevertheless, aside from the adverse consequences on people (domestic violence), it would also be interesting to consider the positive effects of constantly being nearby during lockdowns due to the unprecedented nature of the COVID-19 crisis. Some of the recent studies have already provided insight into this matter. For example, a cross-sectional study among Nigerian couples found...
a decreased prevalence of IPV in the early phase of
the pandemic, suggesting that couples can experience
less partner violence during periods of confinement.
Nevertheless, it is crucial to consider that the study
respondents mainly were working women whose
minimum level of education was a college degree. Therefore, it is possible to suggest a link between the
positive impact of couples’ confinement and the level
of their education and employment status.

Social and Economic Disruption

Considering that the frequency of domestic violence
is disproportionately higher in regions struggling
with the economic repercussions of the COVID-19
pandemic, it is likely that economic problems are
major contributing factors to the sharp rise in
domestic violence cases. A survey carried out
among Spanish women indicated that the impact of
economic consequences was twice as significant as
forced cohabitation due to the lockdown. Despite
having no prior reported abuse in a family, anxiety
brought about by financial hardship during the crisis
and little aid from society may have incited violence.
Pandemic has caused economic insecurity due to
loss of jobs and livelihoods, closure of businesses,
and household members living in increased stress
and tension. Economic insecurity resulted in
worsened economic dependence of women on their
spouses or intimate partners. For instance, sudden
unemployment on the husband’s side may render
him unstable and temperamental, leading him to take
his anger out on his spouse. As a result of domestic
violence, more separations and divorces are likely,
meaning government resources will be employed,
placing additional strain on the economy. The
adverse effects of domestic violence on physical and
mental health are well documented in the literature,
ranging from depression, risky sexual behavior, and
substance abuse to more long-term challenges like
chronic diseases. More importantly, because of
domestic violence, countries face the possibility of
losing a productive workforce that may otherwise
contribute to the economy but is instead taken away
by the mental and physical effects of domestic
violence. An unprecedented phenomenon regarding
the pandemic and domestic violence is that economic complications simultaneously present causes and
consequences, creating a vicious cycle. Essentially,
domestic violence cases aggravated by the pandemic-related economic hardships entail deplorable mental
and physical consequences, which, in turn, lead
to a loss of a valuable workforce that could have
alternatively made a significant contribution to the
country’s economy. Although this unfortunate issue
may take a longer time to develop, it is inescapable,
nonetheless.

Another factor associated with the pandemic is
the disruption of social protective networks and the inability of the victims to seek help and access protective community support or leave the
relationship. Before the pandemic, domestic violence victims had an opportunity to seek various
forms of help, such as support in the face of family
and friends, shelters, and even protective orders and
other forms of legal aid. Lockdown measures take
many of such options away. Moreover, seeking help from colleagues in the workplace is another
essential remedy for the victims, which became
unavailable during COVID-19, as many companies
and establishments implemented remote working
conditions on a large scale. These work-from-home
policies have significantly diminished people’s
overall opportunities for socializing, and more importantly, they have prevented abuse victims from
seeking or maintaining support from their co-workers.
Besides, women’s limited access to different
sources of housing, such as shelters and hotels
that have reduced their capacity to host, and travel
restrictions have prevented women’s access to safer
places. As women have been forcibly cloistered
in their homes, it is likely that the frequency and
magnitude of violence they are subjected to will
only grow. In humanitarian settings, insecurity and
instability during COVID-19 may lead to increased
exposure of women and children to unsafe and
risky environments, including sexual violence and
harassment during the procurement of essential
goods.

Also, the closure of school and childcare facilities
is a considerable loss for domestic violence victims
as it creates more stress and responsibility for both
victims and their children. In addition, we must also
consider the notion that areas under containment
might not have available childcare support, which
only aggravates the children’s hardships; for
instance, there may be negative consequences to
their food security, adequate education, and general
development. Moreover, children may also be
mentally affected by witnessing increased domestic
violence in their households. Besides, school
closures have led to thousands of adolescent girls
staying at home, placing them at heightened risk of
violence, especially in humanitarian settings.
Restricted Access to Health Services

As the pandemic grows, all health resources are directed towards responding to the COVID-19 situation, leaving other essential services such as GBV support understaffed and under-resourced. Medication shortages have been reported worldwide, with some countries already experiencing stockouts of sexual and reproductive health (SRH) supplies. Many clinics have closed or reduced their hours, while others have had to redirect human resources and clinic space to the COVID-19 response. In addition to possible supply-side issues, lockdown might have restricted women’s access to health care services. Moreover, fear of exposure to the coronavirus might discourage women from attending clinic appointments and seeking other relevant services. Reduced transport options during lockdown also disproportionately impact women, for whom walking carries a greater risk of assault. Women who experience IPV and do not ask for help could have otherwise been identified in the emergency departments by the trained healthcare workers, but now emergency departments are overwhelmed by COVID patients. Notably, an American large-scale online survey demonstrated that people still visited emergency departments during the lockdown for violence outcomes. For the most part, visits for these outcomes decreased to a lesser extent than overall emergency department visits, confirming that violence remains a concern during the COVID-19 pandemic. The COVID-19 crisis has aggravated pre-existing injustices and discrepancies in social and healthcare systems. In a recent large-scale web survey in the UK, people who identify as women, ethnic minorities, and those with chronic illnesses experienced significantly more cancellations of medical or surgical appointments and needed longer care hours during the lockdown. Healthcare systems are generally not easy to utilize, and they are also unable to adequately assist immigrants, considering their background and SRH needs. Under non-pandemic circumstances, immigrants in the United States do not have sufficient access to public health insurance programs, generally due to regulations that do not allow registration because of legal and immigration status or several years living on the United States territory. Given the current high-risk epidemiological situation with many economic and social stressors, the access to appropriate healthcare services may only continue to decrease for immigrants and communities found in similar situations of social and economic deprivities.

Impact of Gender-Based Violence on Mental Health Amid COVID-19 Pandemic

The literature provides compelling evidence of the detrimental consequences of domestic violence on people’s mental health. Such consequences include but are not limited to high-risk sexual behavior, depression, substance abuse, and even problems such as chronic mental afflictions. Both GBV and mental health issues are complex and multifaceted concepts. The adverse effects of the COVID-19-related lockdown on women’s mental health and GBV have been reported in low- and middle-income countries. A recent German survey reported alarming IPV levels and demonstrated that the COVID-19 Pandemic Leads to a mental health burden even in highly developed Western countries. Another cross-sectional study in the United States showed that during the lockdown, IPV and sexual violence were significantly associated with greater symptom severity of depression and anxiety in the two weeks following the stay-at-home state order. The study also demonstrated that those with more outstanding social support appear to have a better capacity to withstand the mental health impacts of the pandemic.

Notably, there is a complex relationship between COVID-19 stressors, IPV victimization, and mental health (or health risk behaviors). Gresham et al. found that COVID-19 stressors, such as social disconnection, financial insecurity, and health anxiety, were positively associated with IPV victimization, and IPV victimization was positively associated with substance abuse. On the other hand, mental health issues may mediate between COVID-19 specific stressors and IPV. For example, uncertainty caused by the pandemic plays a vital role in triggering the mechanism of aggression, and mental health issues experienced by perpetrators could mediate this relationship. Glowacz, Schmits, and Dziewa showed that anxiety and depression mediated the relationship between intolerance of uncertainty and physical or psychological abuse regardless of gender in a multinational sample from Belgium, France, and Canada. The study also found that physical assault was significantly higher in men, whereas psychological aggression, anxiety, and intolerance of uncertainty were significantly higher in women.

In addition, concerns have been raised regarding mental health and its relationship with family
violence among healthcare practitioners. Being a woman was one of the most common risk factors associated with increased risk of depression and anxiety \(^{48-51}\), exposure to COVID-19 patients \(^{49, 52-54}\), and fear of being infected \(^{50, 53, 55}\). In a study among family and mental health practitioners in Australia, increased proportions of caseloads, changed work practices during COVID-19 restrictions, and associated incidents of family violence resulted in higher workplace stress which was related to sleep disturbances, headaches, more significant negative affect and an overall worsening of mental health of the participants \(^{56}\).

GBV victims face unique challenges amid the COVID-19 pandemic. Through the analysis of available literature, we found that the factors contributing to GBV were related to confinement and control by abusive partners, social and economic disruption, and restricted access to health services. Moreover, we identified the role of socioeconomic determinants and cultural perceptions of victimization in shaping SBV issues, as well as complex relationships between COVID-19 stress factors, violence, and mental health (Figure 1).

**Conclusion and Recommendations**

Globally, GBV is a public health crisis. The COVID-19 pandemic amplified the mental health implications of GBV, primarily due to the effect of lockdowns imposed by the governments to curb the infection spread, financial insecurity, and social disconnection faced by the communities, and diminished health services overstretched by the necessity to address challenges caused by the pandemic. In this study, we identified the main contributing factors of GBV during the pandemic, outlined the broader structural and systemic factors shaping GBV, and elaborated on the complex relationship between COVID-19 specific stressors, GBV victimization, and mental health issues. Future research is needed to explore how the dynamics of GBV and its mental health impact within the COVID-19 pandemic should be addressed by public health policymakers and healthcare professionals to provide more resources and help to GBV victims.

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**Figure 1**: Contributing factors of gender-based violence and its mental health impact in the context of the COVID-19 pandemic (dotted lines represent mediating relationships)
References

1. Bauta T, Ferkens G, Bannon I. Gender, conflict, and development. World Bank Publications; 2005; 33-48. Available from: www.jstor.org/stable/resrep02478.10.

2. World Health Organization. Gender-based violence in health emergencies, 25 July 2018. Available from: https://www.who.int/reproductivehealth/publications/emergencies/COVID–19-VAW-full-text.pdf.

3. Kirkegaard D, What is gender-based violence (GBV)? UNFPA. 2020. Available from: https://www.friendsofunfpa.org/what-is-gender-based-violence-gbv/.

4. Fried ST. Violence against women. Health Hum Rights. 2003; 88-111.

5. World Health Organization. Mental health: strengthening our response. 2018. Available from: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response.

6. Campbell AM. An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. Forensic Sci Int Reports. 2020; 2: 100089. Available from: https://doi.org/10.1016/j.fsir.2020.100089.

7. Godin M. As cities around the world go on lockdown, victims of domestic violence look for a way out. Time. 2020. Available from: https://time.com/5803887/coronavirus-domestic-violence-victims/.

8. World Health Organization. COVID-19 and violence against women: What the health sector/system can do, 7 April 2020. WHO; 2020. Available from: https://www.who.int/reproductivehealth/publications/emergencies/COVID–19-VAW-full-text.pdf.

9. Women’s Aid UK. The impact of COVID-19 on women and children experiencing domestic abuse, and the life-saving services that support them. Women’s Aid UK; 2020. Available from: https://www.womensaid.org.uk/the-impact-of-covid-19-on-women-and-children-experiencing-domestic-abuse-and-the-life-saving-services-that-support-them/.

10. UN Women, Infographic: The Shadow Pandemic–Violence Against Women and Girls and COVID-19. 2020. Available from: https://www.unwomen.org/en/digital-library/multimedia/2020/4/infographic-covid19-violence-against-women-and-girls.

11. Sediri S, Zgueb Y, Ouanes S, Ouali U, Bourgou S, Jomli R, Nacef F. Women’s mental health: acute impact of COVID-19 pandemic on domestic violence. Arch Womens Ment Health. 2020; 23 (6): 749-56.

12. Hamadani JD, Hasan MI, Baldi AJ, Hossain SJ, Shiraji S, Bhuiyán MS, Mehrin SF, Fisher J, Tofail F, Tipu SM, Grantham-McGregor S. Immediate impact of stay-at-home orders to control COVID-19 transmission on socioeconomic conditions, food insecurity, mental health, and intimate partner violence in Bangladeshi women and their families: an interrupted time series. Lancet Glob Health. 2020; 8 (11): e1380-9.

13. Aoitymat I. A cross-sectional study of the impact of COVID–19 on domestic violence, menstruation, genital tract health, and contraception use among women in Jordan. Am J Trop Med Hyg. 2021; 104 (2): 519.

14. Ojeahere MI, Kumswa SK, Adiukwu F, Plang JP, Taiwo YF. Intimate Partner Violence and its Mental Health Implications Amid COVID-19 Lockdown: Findings Among Nigerian Couples. J Interpers Violence. 2021; 1:0862605211015213

15. Emezue C. Digital or Digitally Delivered Responses to Domestic and Intimate Partner Violence During COVID–19. JMIR Public Health Surveill. 2020; 6 (3): e19831. DOI: 10.2196/19831.

16. Lugova H, Samad N, Haque M. Sexual and gender-based violence among refugees and internally displaced persons in the Democratic Republic of the Congo: post-conflict scenario. Risk Manag Healthc Policy. 2020; 13: 2937.

17. CARE International. Gender implications of COVID-19 outbreaks in development and humanitarian settings. 2020. Available from: https://www.care-international.org/files/files/Gendered_Implications_of_COVID-19_Full_Paper.pdf.

18. Viveiros N, Bonomi AE. Novel Coronavirus (COVID-19): Violence, reproductive rights and related health risks for women, opportunities for practice innovation. J Fam Violence. 2020; 1-5.

19. Radusky PD, Cardozo N, Duarte M, Fabian S, Frontini E, Sued O, Aristegui I. Mental health, substance use, experiences of violence, and access to health care among transgender and non-binary people during the COVID-19 lockdown in Argentina. Int J Transgend Health. 2021: 1-4.

20. Pu DF, Rodriguez CM, Dimperio MD. Factors distinguishing reciprocal versus nonreciprocal intimate partner violence across time and reporter. J Interpers Violence. 2021: 0862605211001475.

21. Glowacz F, Schgmits E, Dziewa A. Intimate Partner Violence and Mental Health Within the Community During Lockdown of Covid-19 Pandemic. Researchsquare [preprint]. 2021.

22. COVID-19 and Ending Violence Against Women and Girls. UN Women. 2020; Available from: https://www.unwomen.org/en/digital-library/publications/2020/04/issue-brief-covid-19-and-ending-violence-against-women-and-girls.

23. Viero A, Barbara G, Montisci M, Kustermann K, Cattaneo C. Violence against women in the Covid-19 pandemic: A review of the literature and a call for shared strategies to tackle health and social emergencies.
Using social norming theory with young people to address domestic abuse and promote healthy relationships. *J Fam Violence.* 2019; 34 (6): 507-19.

Finkelhor D. Sexually victimized children. Simon and Schuster; 2010.

Wood SL, Sommers MS. Consequences of intimate partner violence on child witnesses: A systematic review of the literature. *J Child Adolesc Psychiatr Nurs.* 2011; 24 (4): 223-36.

Holland KM, Jones C, Vivolo-Kantor AM, Idaiikkadar N, Zwald M, Hoots B, Yard E, D’Inverno A, Swedo E, Chen MS, Petrosky E. Trends in US emergency department visits for mental health, overdose, and violence outcomes before and during the COVID-19 pandemic. *JAMA Psychiatry.* 2021; 78 (4): 372-9.

Topriceanu CC, Wong A, Moon JC, Hughes AD, Bann D, Chaturvedi N, Patalay P, Conti G, Captur G. Evaluating access to health and care services during lockdown by the COVID-19 survey in five UK national longitudinal studies. *BMJ Open.* 2021; 11 (3): e045813.

Desai S, Samari G. COVID-19 and immigrants’ access to sexual and reproductive health services in the United States. *Perspect Sex Reprod Health.* 2020; 10.1363/psrh.12150.

U.S. Centers for Medicare and Medicaid Services, HealthCare.gov. Coverage for lawfully present immigrants, 2017. Available from: https://www.healthcare.gov/immigrants/lawfully-present-immigrants/.

Su Z, McDonnell D, Roth S, Li Q, Šegalo S, Shi F, Wagers S. Mental health solutions for domestic violence victims amid COVID-19: a review of the literature. *Global Health.* 2021; 17 (1): 1-11.

Jung S, Kneer J, Krüger TH. Mental health, sense of coherence, and interpersonal violence during the COVID-19 pandemic lockdown in Germany. *J Clin Med.* 2020; 9 (11): 3708.

Raj A, Johns NE, Barker KM, Silverman JG. Time from COVID-19 shutdown, gender-based violence exposure, and mental health outcomes among a state representative sample of California residents. *EClinicalMedicine.* 2020; 26: 100520.

Gresham AM, Peters BJ, Karantzas G, Cameron LD, Simpson JA. Examining associations between COVID-19 stressors, intimate partner violence, health, and health behaviors. *J Soc Pers Relat.* 2021; 11: 02654075211012098.

Huang JZ, Han MF, Luo TD, Ren AK, Zhou XP. Mental health survey of 230 medical staff in a tertiary infectious disease hospital for COVID-19. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi.* 2020; 38: E001-.

Davico C, Ghiggia A, Marcutulli D, Ricci F, Amianto F, Vitiello B. Psychological impact of the COVID-19 pandemic: Experiences and mental health in divorced and separated families. *Fam Violence.* 2020; 35 (2): 129-42.

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pandemic on adults and their children in Italy. Front Psychiatry. 2021; 12: 239.

50. Zhang SX, Liu J, Jahanshahi AA, Nawaser K, Yousefi A, Li J, Sun S. At the height of the storm: Healthcare staff’s health conditions and job satisfaction and their associated predictors during the epidemic peak of COVID-19. Brain Behav Immun. 2020; 87: 144-6.

51. Zhu J, Sun L, Zhang L, Wang H, Fan A, Yang B, Li W, Xiao S. Prevalence and influencing factors of anxiety and depression symptoms in the first-line medical staff fighting against COVID-19 in Gansu. Front Psychiatry. 2020; 11: 386.

52. Abdessater M, Rouprêt M, Misrai V, Matillon X, Gondran-Tellier B, Freton L, Vallée M, Dominique I, Felber M, Khene ZE, Fortier E. COVID-19 pandemic impacts on anxiety of French urologist in training: outcomes from a national survey. Progr Urol. 2020; 30 (8-9): 448-55.

53. Lu W, Wang H, Lin Y, Li L. Psychological status of medical workforce during the COVID-19 pandemic: A cross-sectional study. Psychiatry Res. 2020; 288: 112936.

54. Ni MY, Yang L, Leung CM, Li N, Yao XI, Wang Y, Leung GM, Cowling BJ, Liao Q. Mental health, risk factors, and social media use during the COVID-19 epidemic and cordon sanitaire among the community and health professionals in Wuhan, China: cross-sectional survey. JMIR Ment Health. 2020; 7 (5): e19009.

55. Cai H, Tu B, Ma J, Chen L, Fu L, Jiang Y, Zhuang Q. Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China. Med Sci Monit. 2020; 26: e924171-1.

56. McLean SA, McIntosh JE. The mental and physical health of family mental health practitioners during COVID-19: relationships with family violence and workplace practices. Aust J Psychol. 2021: 1-10. Available from: https://doi.org/10.1080/00049530.2021.1934118.