

# Comparison of Public Mental Health in Nigeria During the Pandemic and the New Normal

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**Abstract.** *Public mental health in Nigeria during the COVID-19 pandemic and the “new normal” that followed after the pandemic. We will analyze the impact of the pandemic on the mental health of the Nigerian people and how society has responded. In addition, we will also evaluate policies that have been implemented by the government and health institutions to address mental health problems caused by the pandemic. The COVID-19 pandemic has caused widespread anxiety and depression around the world, including in Nigeria. Some of the factors causing mental health problems in Nigeria during the pandemic include social isolation, economic uncertainty and fear of infection. However, after the pandemic, there have been some changes in Nigerian society that have made the mental health situation better compared to the pandemic, such as better access to mental health services, and stronger social support. Meanwhile, the Nigerian government has issued policies aimed at addressing mental health problems resulting from the pandemic, such as free counseling services and mental health support programs. However, there are still several obstacles that impede the effectiveness of this policy, such as a lack of adequate medical personnel, lack of access to mental health services in rural areas, and lack of financial support from the government. Overall, the COVID-19 pandemic has negatively affected the mental health of the Nigerian people. However, with the positive changes in society and the policies implemented by the government, it is hoped that the current mental health situation in Nigeria will be better than during the pandemic. However, there is still a need for stronger efforts from the government and health institutions to tackle mental health problems in Nigeria.*

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## INTRODUCTION

The COVID-19 pandemic has had a far-reaching impact on the mental health of people around the world, including in Nigeria (Chenneville et al., 2020). During the pandemic, many people in Nigeria may feel worried about contact with the virus or the health of their families, while also having to deal with the economic problems brought on by social and economic restrictions (Ekpenyong et al., 2020). This can lead to high levels of stress, anxiety and depression (Trumello et al., 2020). In addition, many people may also feel lonely because of the social restrictions implemented to prevent the spread of the virus (Toscano & Zappalà, 2020a). With the ongoing “new normal”, people's mental health situation may change due to increased economic and social activities, but there is still a high risk of the virus (Zafri et al., 2021a). This can lead to uncertainty and conflict in decision-making about personal and family safety, as well as economic problems that

may linger from the pandemic (Zafri et al., 2021b). COVID-19 has affected the mental health of people in Nigeria and how this situation is different from the ongoing "new normal" (Alade et al., 2022). Mental health is a very important issue for the people of Nigeria during the pandemic and the new normal (Li et al., 2020). The COVID-19 pandemic has had a wide-ranging impact on people's mental health, including anxiety, depression, stress and feelings of loneliness (Bo' Zewicz et al., 2021).

Some of the factors affecting the mental health of Nigerians during the pandemic and the new normal include: Employment: Many people in Nigeria have lost their jobs or income during the pandemic, which can lead to financial stress and feelings of insecurity (Dasgupta & Robinson, 2021). Social isolation: The social distancing orders imposed to tackle the pandemic are causing people to spend more time at home and communicating less with others, which can increase feelings of loneliness and depression (Sekulic et al., 2020). Concern for health: Many people feel worried about their own health or that of their families during the pandemic (Toscano & Zappalà, 2020b). Mediation with technology: Some have found that using technology to interact with others reduces loneliness but also leads to a dependence on technology that can worsen mental health.

Slow economic recovery: There are also those who are worried about how to recover the economy damaged by the pandemic, which can add stress and feelings of insecurity (Filho et al., 2020). The Nigerian government and non-governmental organizations need to work together to address this mental health problem by providing financial support and mental health services that are readily available and accessible (Odume et al., 2022a). There is also a need to pay attention to spreading knowledge about how to address mental health, as well as increasing the accessibility of mental health services widely throughout the country (Odume et al., 2022b). Mental health is an important aspect of public health, and the COVID-19 pandemic has had a significant impact on the mental health of people around the world, including in Nigeria (Giorgi et al., 2020a). Currently, Nigerian society is going through a time of pandemic and "new normal", which has a different impact on their mental health (Khair et al., 2021). In this introduction, we will discuss a comparison of public mental health in Nigeria during the pandemic and the "new normal" (Samuel et al., 2020).

The pandemic period, which began with the emergence of the coronavirus in 2020, has created tension, anxiety and stress for many individuals in Nigeria (Forte et al., 2020b). Some of the factors affecting people's mental health during a pandemic include: Uncertainty about the duration of the pandemic and how the coronavirus will develop, Lack of access to quality mental health services, Social restrictions that lead to social isolation and economic loss, Changes in work and school patterns that affect daily routine (Zenk et al., 2020). In the post-pandemic "new normal", Nigerians are still experiencing the impact of the pandemic on their mental health (Raghavan et al., 2021a). Some of the factors that affect people's mental health during the "new normal" include: Trauma due to the pandemic, Anxiety about the relapse of the corona virus, The economic burden is still high, The possibility of permanent changes in work and social patterns (Raghavan et al., 2021b). In general, the pandemic and "new normal" have made the mental health of people in Nigeria even worse (Raghavan et al., 2021c). This is mainly due to factors such as uncertainty, social isolation, and increasing economic burdens. However, the "new normal" period also has the potential to provide better support for people's mental health, if the right actions are taken.

## RESULTS AND DISCUSSION

Comparison of the mental health of the people in Nigeria during the Pandemic and "New Normal" period may refer to differences in stress, anxiety, and depression experienced by the community during Pandemic Covid-19 and after Pandemic (Hagiwara et al., 2021). Pandemic Covid-19 has caused major changes in the daily life of the community, including limiting movements, termination of social relations, and loss of jobs or income (Kim et al., 2021). This can all increase mental health risks. Several studies have shown that stress, anxiety, and depression in Nigeria have increased during pandemic (Forte et al., 2020a). On the other hand, the concept of "New Normal" may refer to public adaptation to the Pandemic Situation and the new way of life that is received. In this case, the mental health of the community may begin to be stable or even decreased after a few months of adaptation (Hines et al., 2021).

However, it is still important to remember that some people may still have difficulty in overcoming the impact of pandemic on their mental health (Gelles et al., 2020). In general, it is important to realize that Pandemic Covid-19 has and will continue to have a significant impact on the mental health of the Nigerian people and throughout the world (Gomes & Lopes, 2022). Protection and proper mental health treatment must be available for those in need. It is also important to pay attention to how politics and government regulations in Nigeria affect the mental health of the community during and after Pandemic (Wang & Wang, 2020).

Pandemic Covid-19 has a big impact on the mental health of society around the world, including in Nigeria (Clemente-Suárez et al., 2021). During the Pandemic period, Nigerian people had experienced significant stress due to economic uncertainty, fear of viruses, and social limitations (Anyanwu et al., 2020). Several studies have shown that the level of anxiety and depression in Nigeria has increased during Pandemic. A survey conducted by the World Health Organization (WHO) in Nigeria in April 2020 found that around 33% of respondents experienced a high level of anxiety and 14% experienced depression.

During the New Normal period, the situation in Nigeria was still quite tight. However, the Nigerian government has begun to respond by providing access to quality and sustainable mental health services. The new policy implemented to anticipate mental health problems has made it easier for the community to access mental health services, which can help in reducing the level of stress and depression in the community (Solomou & Constantinidou, 2020). In general, the comparison of mental health of the people in Nigeria in the Pandemic and New Normal period showed that the mental health situation in this country had undergone significant changes (Cielo et al., 2021).

During the pandemic period, the level of anxiety and depression increased, but in the new normal period, the Nigerian government had tried to increase access to mental health services and made it easier for the public to access the service (Nowacka et al., 2021). This is very important to realize that the mental health situation in Nigeria is still developing and needs to be considered, especially to overcome mental health problems arising from Pandemic (Zhang et al., 2020). Initiatives from the government and support from all communities are needed so that the community can immediately return to its normal conditions (Ewuh-Odoyi, 2021a).

## **Differences in mental health conditions during and after pandemic**

Pandemia Covid-19 has a significant impact on the mental health of people around the world. There are some main differences in mental health conditions during and after pandemic (Ewuh-Odoyi, 2021b). During Pandemi, many people experience excessive stress and anxiety caused by economic uncertainty and social welfare, as well as social limitations caused by travel restrictions and restrictions on the crowd (Emodi-Perlman et al., 2020). Some people also experience a sense of loneliness and solitude caused by restrictions on social contact (Kemperman et al., 2019). There are also those who experience more severe depression than before (Chodkiewicz et al., 2020). After Pandemic, mental health conditions may change again (Barchielli et al., 2022). Some people may feel relieved after the pandemic ends and life returns to "normal," while others may experience post-trauma stress and difficulty in overcoming the long-term effects of Pandemic (Przybylowski et al., 2021).

Many people may also experience economic and social problems caused by the economic crisis caused by Pandemic, which can affect their mental health (Ferri et al., 2020). In general, Pandemic has increased mental health risks in most populations, and it is important to get professional assistance if you find it difficult to overcome your mental health problems (Giorgi et al., 2020b). Important suggestions that can be done to maintain mental health in the pandemic period and afterwards are staying in contact with others, maintaining daily routines, and finding fun and soothing activities (Giorgi et al., 2020c). Pandemia Covid-19 has a significant impact on mental health (Chatzittofis et al., 2021a). During Pandemi, many people experience excessive stress, anxiety, depression, and social isolation. Several factors that can worsen mental health conditions during pandemic include: uncertainty regarding pandemic and when it will end, loss of job or income, limitations in interacting with others physically, concerns will be infected or spread viruses, excessive social isolation, stress and pressure As a result of regulating work from home, concerns about economic threats and future (Chatzittofis et al., 2021b).

After Pandemic, mental health conditions can also continue to be a problem, mainly because of the long-term effects of stress and trauma associated with pandemic (Dias et al., 2021). Several studies show that depression and anxiety rates increase after pandemic (Jung et al., 2020). In addition, the economic effects of Pandemi can also cause mental health problems such as financial anxiety and difficulty finding work (Guo et al., 2020). As a solution to mental health problems, there needs to be broader and more affordable access for mental health care and social support (Zhang & Ma, 2020). Some ways to reduce stress and improve mental health during and after pandemic include: Maintaining healthy social relations, both physically and online, doing regular exercise or physical activity, maintaining good daily routines, reducing unnecessary news or social media consumption, Looking for support from mental health professionals if you feel worried or depressed (Bentlage et al., 2020a). In general, Pandemi makes everyone feel different influences on mental health, but with the support of the social environment and proper professional care can help in overcoming mental health problems (Wolff et al., 2020).

## **Efforts to overcome mental health problems in the new normal period**

Mental health problems have become a problem that is increasingly considered during Pandemi Covid-19 (Gualano et al., 2020). Efforts that can be made to overcome mental health problems during the New Normal Period: Ensuring Access to Mental Health Care: Mental health care must be available and easily accessible for everyone who needs

it (Blake et al., 2020). This includes providing therapists, psychiatrists, and other mental health professionals online or through teleconferencing (Bielinis et al., 2020). Supporting families and communities: family and community can provide vital emotional support for individuals who experience mental health problems (Meherali et al., 2021). Supporting people around us can be through listening, providing emotional support, and directing them to seek professional help (Leitão et al., 2019). Maintaining a routine: Maintaining a stable daily routine can help individuals to feel better and reduce stress (Flesia et al., 2020). This includes maintaining regular sleep hours, doing regular exercise, and making time to relax (Bentlage et al., 2020b). Avoiding excessive news: Avoiding excessive news about Covid-19 can help to reduce stress and fear that may be caused by Pandemic (Lee et al., 2020). Increasing awareness: Increased awareness about mental health and ways to get help is very important in helping people to overcome their mental health problems. The holistic approach: a holistic approach that includes physical, emotional, spiritual, social and environmental care is very necessary in overcoming mental health problems caused by New Normal (Gibbons, 2020).

Support emotional health through effective communication. This can be done openly and honestly in expressing feelings and actively listening to the feelings of others (Ezpeleta et al., 2020). Promoting physical activity and sports, Physical activity can help reduce stress and improve mental health (Yuksel et al., 2020). Maintain positive social relations, Stay connected with family and friends through telephone calls, video chat, or social media can help reduce the sense of loneliness and loneliness (Xie et al., 2020). Focus on positive experience. Try to find happiness in daily activities and focus on positive things in life. Apply relaxation techniques. Relaxation techniques such as yoga, meditation, or deep breathing can help reduce stress and improve mental health. Get professional help. If you find it difficult to overcome your mental health problems, you should not hesitate to find help from mental health professionals such as psychiatrists or counselors. Time management. Good time management can help in controlling the burden received from work and daily tasks.

## CONCLUSION

Pandemi Covid-19 has influenced the mental health of society throughout the world, including in Nigeria. The negative impacts that can be seen on the mental health of the people in Nigeria during Pandemi include: Increasing stress and anxiety levels due to uncertainty about health, economy, and future. Increasing the level of depression due to social separation and limitations in gathering with others. Increasing the level of social isolation and loneliness due to travel restrictions and restrictions on social activities. The economic impact of Pandemic, such as unemployment or decline in income, can increase the risk of mental health problems. Adaptation to the current Pandemic situation, such as the introduction of new policies at work, learning, shopping and gathering. However, the mental health effects of New Normal will also vary in each individual. There are individuals who feel more adaptive and feel more productive, but there are also individuals who find it more difficult to adapt and experience difficulties in productivity.

## REFERENCES

Alade, O., Folayan, M. O., Adeniyi, A., Adeyemo, Y. I., Oyapero, A., Olatosi, O. O., Nzomiwu, C., Popoola, B. O., Eigbobo, J., Oziegbe, E., Oyedele, T., el Tantawi, M., & Sabbagh, H. J. (2022). Differences in Oral Lesions Associated with Tobacco Smoking, E-Cigarette Use and COVID-19 Infection among Adolescents and Young People in

- Nigeria. *International Journal of Environmental Research and Public Health*, 19(17). <https://doi.org/10.3390/ijerph191710509>
- Anyanwu, M. U., Festus, I. J., Nwobi, O. C., Jaja, C.-J. I., & Oguttu, J. W. (2020). A Perspective on Nigeria's Preparedness, Response and Challenges to Mitigating the Spread of COVID-19. *Challenges*, 11(2), 22. <https://doi.org/10.3390/challe11020022>
- Barchielli, B., Cricenti, C., Gallè, F., Sabella, E. A., Liguori, F., da Molin, G., Liguori, G., Orsi, G. B., Giannini, A. M., Ferracuti, S., & Napoli, C. (2022). Climate Changes, Natural Resources Depletion, COVID-19 Pandemic, and Russian-Ukrainian War: What Is the Impact on Habits Change and Mental Health? *International Journal of Environmental Research and Public Health*, 19(19). <https://doi.org/10.3390/ijerph191911929>
- Bentlage, E., Ammar, A., How, D., Ahmed, M., Trabelsi, K., Chtourou, H., & Brach, M. (2020a). Practical recommendations for maintaining active lifestyle during the covid-19 pandemic: A systematic literature review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 17, pp. 1–22). MDPI AG. <https://doi.org/10.3390/ijerph17176265>
- Bentlage, E., Ammar, A., How, D., Ahmed, M., Trabelsi, K., Chtourou, H., & Brach, M. (2020b). Practical recommendations for maintaining active lifestyle during the covid-19 pandemic: A systematic literature review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 17, pp. 1–22). MDPI AG. <https://doi.org/10.3390/ijerph17176265>
- Bielinis, E., Jaroszewska, A., Łukowski, A., & Takayama, N. (2020). The effects of a forest therapy programme on mental hospital patients with affective and psychotic disorders. *International Journal of Environmental Research and Public Health*, 17(1). <https://doi.org/10.3390/ijerph17010118>
- Blake, H., Bermingham, F., Johnson, G., & Tabner, A. (2020). Mitigating the psychological impact of covid-19 on healthcare workers: A digital learning package. *International Journal of Environmental Research and Public Health*, 17(9). <https://doi.org/10.3390/ijerph17092997>
- Bo` Zewicz, M., Boguszewski, R., & Lefebvre, S. (2021). *The COVID-19 Pandemic as a Catalyst for Religious Polarization in Poland*. <https://doi.org/10.3390/rel>
- Chatzittofis, A., Karanikola, M., Michailidou, K., & Constantinidou, A. (2021a). Impact of the COVID-19 pandemic on the mental health of healthcare workers. *International Journal of Environmental Research and Public Health*, 18(4), 1–8. <https://doi.org/10.3390/ijerph18041435>
- Chatzittofis, A., Karanikola, M., Michailidou, K., & Constantinidou, A. (2021b). Impact of the COVID-19 pandemic on the mental health of healthcare workers. *International Journal of Environmental Research and Public Health*, 18(4), 1–8. <https://doi.org/10.3390/ijerph18041435>
- Chenneville, T., Gabbidon, K., Hanson, P., & Holyfield, C. (2020). The impact of COVID-19 on HIV treatment and research: A call to action. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 12, pp. 1–14). MDPI AG. <https://doi.org/10.3390/ijerph17124548>

- Chodkiewicz, J., Talarowska, M., Miniszewska, J., Nawrocka, N., & Bilinski, P. (2020). Alcohol consumption reported during the COVID-19 pandemic: The initial stage. *International Journal of Environmental Research and Public Health*, 17(13), 1–11. <https://doi.org/10.3390/ijerph17134677>
- Cielo, F., Ulberg, R., & di Giacomo, D. (2021). Psychological impact of the covid-19 outbreak on mental health outcomes among youth: A rapid narrative review. *International Journal of Environmental Research and Public Health*, 18(11). <https://doi.org/10.3390/ijerph18116067>
- Clemente-Suárez, V. J., Navarro-Jiménez, E., Jimenez, M., Hormeño-Holgado, A., Martinez-Gonzalez, M. B., Benitez-Agudelo, J. C., Perez-Palencia, N., Laborde-Cárdenas, C. C., & Tornero-Aguilera, J. F. (2021). Impact of COVID-19 pandemic in public mental health: An extensive narrative review. In *Sustainability (Switzerland)* (Vol. 13, Issue 6). MDPI AG. <https://doi.org/10.3390/su13063221>
- Dasgupta, S., & Robinson, E. J. Z. (2021). Food insecurity, safety nets, and coping strategies during the COVID-19 pandemic: Multi-country evidence from sub-saharan Africa. *International Journal of Environmental Research and Public Health*, 18(19). <https://doi.org/10.3390/ijerph18199997>
- Dias, M. C., Pinto, D. C. G. A., & Silva, A. M. S. (2021). Plant flavonoids: Chemical characteristics and biological activity. In *Molecules* (Vol. 26, Issue 17). MDPI. <https://doi.org/10.3390/molecules26175377>
- Ekpenyong, B., Obinwanne, C. J., Ovenseri-Ogbomo, G., Ahaiwe, K., Lewis, O. O., Echendu, D. C., & Osuagwu, U. L. (2020). Assessment of knowledge, practice and guidelines towards the novel covid-19 among eye care practitioners in nigeria—a survey-based study. *International Journal of Environmental Research and Public Health*, 17(14), 1–12. <https://doi.org/10.3390/ijerph17145141>
- Emodi-Perlman, A., Eli, I., Smardz, J., Uziel, N., Wieckiewicz, G., Gilon, E., Grychowska, N., & Wieckiewicz, M. (2020). Temporomandibular disorders and bruxism outbreak as a possible factor of orofacial pain worsening during the COVID-19 pandemic—concomitant research in two countries. *Journal of Clinical Medicine*, 9(10), 1–15. <https://doi.org/10.3390/jcm9103250>
- Ewuh-Odoyi, E. (2021a). How gender is recognised in economic and education policy programmes and initiatives: An analysis of nigerian state policy discourse. *Social Sciences*, 10(12). <https://doi.org/10.3390/socsci10120465>
- Ewuh-Odoyi, E. (2021b). How gender is recognised in economic and education policy programmes and initiatives: An analysis of nigerian state policy discourse. *Social Sciences*, 10(12). <https://doi.org/10.3390/socsci10120465>
- Ezpeleta, L., Navarro, J. B., de la Osa, N., Trepát, E., & Penelo, E. (2020). Life conditions during COVID-19 lockdown and mental health in Spanish adolescents. *International Journal of Environmental Research and Public Health*, 17(19), 1–13. <https://doi.org/10.3390/ijerph17197327>
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4). <https://doi.org/10.3390/soc10040086>

- Filho, W. L., Brandli, L. L., Salvia, A. L., Rayman-Bacchus, L., & Platje, J. (2020). COVID-19 and the UN sustainable development goals: Threat to solidarity or an opportunity? *Sustainability (Switzerland)*, 12(13). <https://doi.org/10.3390/su12135343>
- Flesia, L., Monaro, M., Mazza, C., Fietta, V., Colicino, E., Segatto, B., & Roma, P. (2020). Predicting perceived stress related to the covid-19 outbreak through stable psychological traits and machine learning models. *Journal of Clinical Medicine*, 9(10), 1–17. <https://doi.org/10.3390/jcm9103350>
- Forte, G., Favieri, F., Tambelli, R., & Casagrande, M. (2020a). COVID-19 pandemic in the italian population: Validation of a post-traumatic stress disorder questionnaire and prevalence of PTSD symptomatology. *International Journal of Environmental Research and Public Health*, 17(11), 1–16. <https://doi.org/10.3390/ijerph17114151>
- Forte, G., Favieri, F., Tambelli, R., & Casagrande, M. (2020b). The enemy which sealed the world: Effects of COVID-19 diffusion on the psychological state of the Italian population. *Journal of Clinical Medicine*, 9(6), 1–14. <https://doi.org/10.3390/jcm9061802>
- Gelles, L. A., Lord, S. M., Hoople, G. D., Chen, D. A., & Mejia, J. A. (2020). Compassionate flexibility and self-discipline: Student adaptation to emergency remote teaching in an integrated engineering energy course during covid-19. *Education Sciences*, 10(11), 1–23. <https://doi.org/10.3390/educsci10110304>
- Gibbons, L. v. (2020). Regenerative-The new sustainable? In *Sustainability (Switzerland)* (Vol. 12, Issue 13). MDPI. <https://doi.org/10.3390/su12135483>
- Giorgi, G., Lecca, L. I., Alessio, F., Finstad, G. L., Bondanini, G., Lulli, L. G., Arcangeli, G., & Mucci, N. (2020a). COVID-19-related mental health effects in the workplace: A narrative review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 21, pp. 1–22). MDPI AG. <https://doi.org/10.3390/ijerph17217857>
- Giorgi, G., Lecca, L. I., Alessio, F., Finstad, G. L., Bondanini, G., Lulli, L. G., Arcangeli, G., & Mucci, N. (2020b). COVID-19-related mental health effects in the workplace: A narrative review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 21, pp. 1–22). MDPI AG. <https://doi.org/10.3390/ijerph17217857>
- Giorgi, G., Lecca, L. I., Alessio, F., Finstad, G. L., Bondanini, G., Lulli, L. G., Arcangeli, G., & Mucci, N. (2020c). COVID-19-related mental health effects in the workplace: A narrative review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 21, pp. 1–22). MDPI AG. <https://doi.org/10.3390/ijerph17217857>
- Gomes, S., & Lopes, J. M. (2022). Evolution of the Online Grocery Shopping Experience during the COVID-19 Pandemic: Empiric Study from Portugal. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(3), 909–923. <https://doi.org/10.3390/jtaer17030047>
- Gualano, M. R., lo Moro, G., Voglino, G., Bert, F., & Siliquini, R. (2020). Effects of COVID-19 lockdown on mental health and sleep disturbances in Italy. *International Journal*

- of *Environmental Research and Public Health*, 17(13), 1–13.  
<https://doi.org/10.3390/ijerph17134779>
- Guo, J., Feng, X. L., Wang, X. H., & van IJzendoorn, M. H. (2020). Coping with COVID-19: Exposure to covid-19 and negative impact on livelihood predict elevated mental health problems in Chinese adults. *International Journal of Environmental Research and Public Health*, 17(11), 1–18.  
<https://doi.org/10.3390/ijerph17113857>
- Hagiwara, G., Tsunokawa, T., Iwatsuki, T., Shimoazono, H., & Kawazura, T. (2021). Relationships among student-athletes' identity, mental health, and social support in Japanese student-athletes during the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(13).  
<https://doi.org/10.3390/ijerph18137032>
- Hines, S. E., Chin, K. H., Glick, D. R., & Wickwire, E. M. (2021). Trends in moral injury, distress, and resilience factors among healthcare workers at the beginning of the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(2), 1–11. <https://doi.org/10.3390/ijerph18020488>
- Jung, S., Kneer, J., & Krüger, T. H. C. (2020). Mental health, sense of coherence, and interpersonal violence during the covid-19 pandemic lockdown in Germany. *Journal of Clinical Medicine*, 9(11), 1–12. <https://doi.org/10.3390/jcm9113708>
- Kemperman, A., van den Berg, P., Weijs-Perrée, M., & Uijtdewillegen, K. (2019). Loneliness of older adults: Social network and the living environment. *International Journal of Environmental Research and Public Health*, 16(3).  
<https://doi.org/10.3390/ijerph16030406>
- Khair, N. K. M., Lee, K. E., & Mokhtar, M. (2021). Community-based monitoring in the new normal: A strategy for tackling the covid-19 pandemic in Malaysia. *International Journal of Environmental Research and Public Health*, 18(13).  
<https://doi.org/10.3390/ijerph18136712>
- Kim, J., Kim, Y., & Ha, J. (2021). Changes in daily life during the covid-19 pandemic among South Korean older adults with chronic diseases: A qualitative study. *International Journal of Environmental Research and Public Health*, 18(13).  
<https://doi.org/10.3390/ijerph18136781>
- Lee, K., Jeong, G. C., & Yim, J. (2020). Consideration of the psychological and mental health of the elderly during COVID-19: A theoretical review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 21, pp. 1–11). MDPI AG.  
<https://doi.org/10.3390/ijerph17218098>
- Leitão, J., Pereira, D., & Gonçalves, Â. (2019). Quality of work life and organizational performance: workers' feelings of contributing, or not, to the organization's productivity. *International Journal of Environmental Research and Public Health*, 16(20). <https://doi.org/10.3390/ijerph16203803>
- Li, J. bin, Yang, A., Dou, K., & Cheung, R. Y. M. (2020). Self-control moderates the association between perceived severity of coronavirus disease 2019 (COVID-19) and mental health problems among the Chinese public. *International Journal of Environmental Research and Public Health*, 17(13), 1–10.  
<https://doi.org/10.3390/ijerph17134820>

- Meherali, S., Punjani, N., Louie-Poon, S., Rahim, K. A., Das, J. K., Salam, R. A., & Lassi, Z. S. (2021). Mental health of children and adolescents amidst covid-19 and past pandemics: A rapid systematic review. In *International Journal of Environmental Research and Public Health* (Vol. 18, Issue 7). MDPI AG. <https://doi.org/10.3390/ijerph18073432>
- Nowacka, U., Kozlowski, S., Januszewski, M., Sierdzinski, J., Jakimiuk, A., & Issat, T. (2021). Covid-19 pandemic-related anxiety in pregnant women. *International Journal of Environmental Research and Public Health*, 18(14). <https://doi.org/10.3390/ijerph18147221>
- Odume, O. N., Onyima, B. N., Nnadozie, C. F., Omovoh, G. O., Mmachaka, T., Omovoh, B. O., Uku, J. E., Akamagwuna, F. C., & Arimoro, F. O. (2022a). Governance and Institutional Drivers of Ecological Degradation in Urban River Ecosystems: Insights from Case Studies in African Cities. *Sustainability*, 14(21), 14147. <https://doi.org/10.3390/su142114147>
- Odume, O. N., Onyima, B. N., Nnadozie, C. F., Omovoh, G. O., Mmachaka, T., Omovoh, B. O., Uku, J. E., Akamagwuna, F. C., & Arimoro, F. O. (2022b). Governance and Institutional Drivers of Ecological Degradation in Urban River Ecosystems: Insights from Case Studies in African Cities. *Sustainability*, 14(21), 14147. <https://doi.org/10.3390/su142114147>
- Przybyłowski, A., Stelmak, S., & Suchanek, M. (2021). Mobility behaviour in view of the impact of the COVID-19 pandemic-public transport users in gdansk case study. *Sustainability (Switzerland)*, 13(1), 1–12. <https://doi.org/10.3390/su13010364>
- Raghavan, A., Demircioglu, M. A., & Orazgaliyev, S. (2021a). Covid-19 and the new normal of organizations and employees: An overview. *Sustainability (Switzerland)*, 13(21). <https://doi.org/10.3390/su132111942>
- Raghavan, A., Demircioglu, M. A., & Orazgaliyev, S. (2021b). Covid-19 and the new normal of organizations and employees: An overview. *Sustainability (Switzerland)*, 13(21). <https://doi.org/10.3390/su132111942>
- Raghavan, A., Demircioglu, M. A., & Orazgaliyev, S. (2021c). Covid-19 and the new normal of organizations and employees: An overview. *Sustainability (Switzerland)*, 13(21). <https://doi.org/10.3390/su132111942>
- Samuel, J., Ali, G. G. M. N., Rahman, M. M., Esawi, E., & Samuel, Y. (2020). COVID-19 public sentiment insights and machine learning for tweets classification. *Information (Switzerland)*, 11(6). <https://doi.org/10.3390/info11060314>
- Sekulic, D., Blazevic, M., Gilic, B., Kvesic, I., & Zenic, N. (2020). Prospective analysis of levels and correlates of physical activity during COVID-19 pandemic and imposed rules of social distancing; gender specific study among adolescents from Southern Croatia. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/SU12104072>
- Solomou, I., & Constantinidou, F. (2020). Prevalence and predictors of anxiety and depression symptoms during the COVID-19 pandemic and compliance with precautionary measures: Age and sex matter. *International Journal of Environmental Research and Public Health*, 17(14), 1–19. <https://doi.org/10.3390/ijerph17144924>

- Toscano, F., & Zappalà, S. (2020a). Social isolation and stress as predictors of productivity perception and remote work satisfaction during the COVID-19 pandemic: The role of concern about the virus in a moderated double mediation. *Sustainability (Switzerland)*, 12(23), 1–14. <https://doi.org/10.3390/su12239804>
- Toscano, F., & Zappalà, S. (2020b). Social isolation and stress as predictors of productivity perception and remote work satisfaction during the COVID-19 pandemic: The role of concern about the virus in a moderated double mediation. *Sustainability (Switzerland)*, 12(23), 1–14. <https://doi.org/10.3390/su12239804>
- Trumello, C., Bramanti, S. M., Ballarotto, G., Candelori, C., Cerniglia, L., Cimino, S., Crudele, M., Lombardi, L., Pignataro, S., Viceconti, M. L., & Babore, A. (2020). Psychological adjustment of healthcare workers in Italy during the COVID-19 pandemic: Differences in stress, anxiety, depression, burnout, secondary trauma, and compassion satisfaction between frontline and non-frontline professionals. *International Journal of Environmental Research and Public Health*, 17(22), 1–13. <https://doi.org/10.3390/ijerph17228358>
- Wang, J., & Wang, Z. (2020). Strengths, weaknesses, opportunities and threats (Swot) analysis of China's prevention and control strategy for the COVID-19 epidemic. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 7). MDPI AG. <https://doi.org/10.3390/ijerph17072235>
- Wolff, W., Martarelli, C. S., Schöler, J., & Bieleke, M. (2020). High boredom proneness and low trait self-control impair adherence to social distancing guidelines during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 17(15), 1–10. <https://doi.org/10.3390/ijerph17155420>
- Xie, J., Luo, S., Furuya, K., & Sun, D. (2020). Urban parks as green buffers during the COVID-19 pandemic. *Sustainability (Switzerland)*, 12(17). <https://doi.org/10.3390/SU12176751>
- Yuksel, H. S., Şahin, F. N., Maksimovic, N., Drid, P., & Bianco, A. (2020). School-based intervention programs for preventing obesity and promoting physical activity and fitness: A systematic review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 1). MDPI AG. <https://doi.org/10.3390/ijerph17010347>
- Zafri, N. M., Khan, A., Jamal, S., & Alam, B. M. (2021a). Impacts of the COVID-19 pandemic on active travel mode choice in Bangladesh: A study from the perspective of sustainability and new normal situation. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126975>
- Zafri, N. M., Khan, A., Jamal, S., & Alam, B. M. (2021b). Impacts of the COVID-19 pandemic on active travel mode choice in Bangladesh: A study from the perspective of sustainability and new normal situation. *Sustainability (Switzerland)*, 13(12). <https://doi.org/10.3390/su13126975>
- Zenk, L., Steiner, G., E Cunha, M. P., Laubichler, M. D., Bertau, M., Kainz, M. J., Jäger, C., & Schernhammer, E. S. (2020). Fast response to superspreading: Uncertainty and complexity in the context of COVID-19. *International Journal of Environmental Research and Public Health*, 17(21), 1–13. <https://doi.org/10.3390/ijerph17217884>

- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(7). <https://doi.org/10.3390/ijerph17072381>
- Zhang, Y., Zhang, H., Ma, X., & Di, Q. (2020). Mental health problems during the COVID-19 pandemics and the mitigation effects of exercise: A longitudinal study of college students in China. *International Journal of Environmental Research and Public Health*, 17(10). <https://doi.org/10.3390/ijerph17103722>