

COVID-19 Forum: Transformation of Our World and Mental Health

MENTAL HEALTH AMID COVID-19 PANDEMIC: APPROPRIATE COPING STRATEGIES

Israel Oluwasegun Ayenigbara

School and Community Health Education Unit, Department of Health Education, University of Ibadan, Ibadan, Nigeria

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SUMMARY

COVID-19 is a global public health crisis, and is turning to be a major mental health problem. This review provides a broad overview of mental health situations during COVID-19 pandemic in Africa and globally, while some preventive methods to improve mental health conditions during the pandemic were provided.

In the Africa context, various government authorities must ensure the provision and accessibility to mental health care services such as routine preventive information, mental health counseling and self help measures, and social supports such as palliatives, basic needs and special financial assistance to the public during the pandemic.

Generally, coping strategies such as personal care-based measures (adequate nutrition, personal hygiene, adequate sleep and rest) activity-based measures (regular physical exercise, learning new tasks and engaging in novel adventures and mindfulness meditation) and behavioral-based measures (avoidance of psychoactive substances, taking breaks from COVID-19-related information, social connectedness and showing supports to others, setting achievable targets, help seeking measures and psychiatrist's visitations, adherence to all COVID-19 preventive measures and uptake of the COVID-19 vaccines) are all viable preventive methods against mental health conditions during the pandemic globally.

It is recommended that researchers should conduct more studies on the impacts of COVID-19 on mental health status in Africa populations to ensure a valid basis for proper interventions during and post pandemic era. Also, African countries should seek supports and routine guidance from appropriate international health organizations to ensure an updated and frequent mental health care delivery to the public.

Key words: mental health - SARS-CoV-2 - COVID-19 pandemic – Africa - coping strategies

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INTRODUCTION

Mental health entails the general good health whereby individuals are aware of their personal capabilities, could manage their usual daily stresses, could work efficiently, and capable of contributing and impacting to their environments and residential areas (WHO 2018).

Presently, the world is faced with the pandemic of coronavirus disease-19 (COVID-19), caused by an infection with the virulent Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) (Ayenigbara 2020a). Similar to some previous viral-causing health problems, for example the Influenza, Ebola, Severe Acute Respiratory Syndrome (SARS-CoV), and Middle East Respiratory Syndrome (MERS-CoV), COVID-19 is causing various degrees of mental health problems such as depression, anxiety, and emotional trauma in the general populations globally (Luo et al. 2020).

Also, in some patients, SARS-CoV-2 has been shown to penetrate into the central nervous system, which results in various neurological manifestations such as headache, unstable consciousness, sudden onset of confusion and hallucination (delirium), muscular pain and tenderness (myalgia), cerebrovascular illnesses, and a frequent sensation of burning, prickling, itching or tingling of the skin with no obvious cause (paresthesia) (Sinanović et al. 2020). The severities of these manifestations, which

may go unnoticed, are predicted to be evident in Africa because of numerous specific factors such as cultural beliefs, low socio-economic status, superstitious beliefs and defective mental health care services.

This review provided information on the relationship between COVID-19 and mental health, mental health promotion strategies, as well as measures in the Africa context to cope with mental health issues during the pandemic.

SOURCES OF LITERATURE

Literatures and other review materials were gotten from articles saved in the PubMed, Medline, Scopus, Google scholar, and various international health organization web pages, such as the WHO and Center for Disease Control and Prevention (CDC). The literature search for this review began in December 2021 - April 2022, and made use of the following search terms "COVID-19 and mental health in Africa", "COVID-19 and mental health" and "mental health coping strategies". All types of studies including peer reviewed editorials, clinical trials, meta-analyses, randomized controlled trials, systematic and viable review documents, and website data were included in this review. After the literature search, all returned results were critically analyzed, and articles that are not in-line with

the aims and objectives of this study were discarded. In all, sixty-nine (69) articles were deemed appropriate for this review, and discussed under the following headings.

ESTABLISHED LINKS BETWEEN COVID-19 AND MENTAL HEALTH PROBLEMS

COVID-19 is a global public health crisis, and is turning to be a major mental health problem, which in conjunction with other chronic conditions such as cardiovascular illnesses, asthma and diabetes exerts severe outcomes in COVID-19 cases (Torales et al. 2020, Shuja et al. 2020, Hossain et al. 2020, Sayeed et al. 2020). A systematic investigation on COVID-19 pandemic and mental health outcomes across various populations revealed the presence of severe post-traumatic stress conditions, and increased depressive manifestations in COVID-19 patients, while the general populations experienced reduced mental health quality, and increased anxiety and depression levels compared to prior COVID-19 periods (Vindegard & Benros 2020).

In addition, comprehensive findings from an investigation on the prevalence of risk factors that are associated with mental health symptoms among the general population in China during the pandemic indicated that the frequencies of psychological symptoms among the study subjects were 27.9%, 31.6%, 29.2% and 24.4% for depression, anxiety, insomnia, and severe stress, respectively (Shi et al. 2020). Also, findings from another study on psychological health issues and correlates among college students during the pandemic in China revealed that 45% of the respondents experienced mental health issues, with severe stress (34.9%), depression (21.1%), and anxiety (11.0%) recorded (Ma et al. 2020). The fear of family members or friends catching COVID-19 was significantly related with higher risk of developing one or more mental issues, while respondents with access to frequent reportage of COVID-19 information (over 3 hours daily) were three times more to experience severe stress manifestations compared to respondents with (less than 1 hour daily) access to COVID-19 reportage (Ma et al. 2020).

In the course of the pandemic, health personnel are faced with severe mental pressures and conditions than any other populations globally (Salopek-Žiha et al. 2020). For instance, findings from a systematic investigation on the psychological health of public health personnel during the COVID-19 outbreak indicated the lowest (L) and highest (H) rates for anxiety (L:24.1%, H: 67.55%), depression (L:12.1%, H: 55.89%), and stress (L:29.8%, H:62.99%) by the health personnel (Vizheh et al. 2020). Female health personnel, nurses, first-contact health personnel, younger health personnel, and health personnel in COVID-19 hotspots areas experienced extreme levels of all mental health problems and symptoms compared to other public health personnel in the world (Vizheh et al. 2020).

COVID-19 AND MENTAL HEALTH SITUATIONS IN AFRICA

Presently, there is limited strong and large empirical information on the effects of COVID-19 on the psychological health of people in Africa (CDC 2020a, Semo & Frissa 2020). However, findings from a small survey research in South Africa revealed that 10–20% of the participants had anxiety and fear because of COVID-19 outbreak, while in Uganda and Zambia, a higher level of depression, stress and anxiety were reported among the general population due to the pandemic (WHO 2020).

In Kenya, just as the situation globally, medical workers who are directly involved with COVID-19 patients reported higher rates of mental health problems (Shah et al. 2021), while in Ethiopia, there was general high psychological impact of the pandemic among healthcare workers, communities, and patients (Bekele et al. 2021). The most prevalent risk factors of mental health effects were anxiety and stress (Bekele et al. 2021). According to Idrissi et al. (2020), Moroccan populations experienced a high rate of sleep disorders, anxiety, and depressive symptoms during the COVID-19 restriction and lockdown periods. Furthermore, an investigation into Job loss and mental health during the COVID-19 restriction and lockdown in South Africa revealed that the economic fallout resulted in numerous job losses, which impaired mental health severely, while people who retained their paid employment amid the lockdown had significantly reduced depression points than people who lost their employments (Posel et al. 2021).

A global survey of the mental health services preparedness by the WHO was conducted around August 2020 for countries globally. Impressive number of countries from Africa indicated they have programmed mental health services into their COVID-19 response plans (WHO 2020). However, presently, mental health care delivery has yet to really kick start in majority of countries in the continent due to specific factors such as defective mental health policies, inadequate qualified mental health personnel and limited health infrastructures (Essien & Asamoah 2020). In addition to numerous impediments, funding is another major stumbling block preventing the prompt implementation of mental health services during the pandemic in Africa (WHO 2020).

RECOMMENDATIONS FOR THE IMPROVEMENTS OF MENTAL HEALTH IN AFRICA CONTEXT DURING THE PANDEMIC

It is imperative for specific social supports such as palliatives, financial assistance to meet basic needs and mental health self-help preventive methods to be available to the people during the pandemic (Aluh & Onu 2020).

In Africa, the social and self help measures people rely on in the prevention and management of mental health conditions includes communicating and the sharing of burdens with relatives and intimate friends, visiting churches (Iheanacho et al. 2021), mosques, and seeking traditional help, and the recitation of specific verses of the bible or the Quran (Mayston et al. 2020). While COVID-19 restrictions, social distancing and partial lockdowns should still be maintained or ordered in situation of rising COVID-19 cases due to emerging virulent variants, specific social and self-help methods for the prevention of mental health problems should be accessible and provided to the public (Mayston et al. 2020).

Health care services are seriously stretched during the pandemic globally, and this effect is more severe on the Africa health care system due to the inadequate of specific medical personnel that will offer mental health promoting information and counseling's to the public (Essien & Asamoah 2020). In this case, the mass media channels should be used to cushion this effect, and also used in the transmission of social and self-help mental health preventive information, and other beneficial tips to the public (Yue et al. 2020). Through the mass media approach, larger audiences may be reached, and may also avail the opportunity to provide knowledge, enlightenments and awareness on the negative effects of discrimination and stigmatization of COVID-19 survivors to the public.

Also, other available health care workers should be used to alleviate the problem of limited mental health personnel in order to ensure the unabated delivery of mental health services in the continent (van Ginneken et al. 2013). For instance, community health personnel, and other allied health care workers should be employed to provide preventive mental health information, counseling's, sensitizations, and other mental health services to the public (van Ginneken et al. 2013, Semo & Frissa 2020). The few mental health professionals that are available, for instance the psychiatrists, counselors, and psychologists should be engaged in the training of the community health personnel, volunteers, and other allied health workers that will be incorporated into the mental health team, following the appropriate mental health guidelines and documents set out by the WHO (Caulfield et al. 2019), as well as offer expert advice, and play a major role in the planning and production of methods for the rapid, and unabated delivery of mental health care responses and services to the general public (Semo & Frissa 2020).

As applicable in developed countries, free-help phone numbers and digital channels such as digital psychiatry or telepsychiatry; an internet-focused and computer-assisted psychological health tools and services should be made available to the public in all African countries in case of urgent need for mental health counseling's or quick responses, as in the cases of people having suicidal thoughts (Rauschenberg et al. 2021, Ćosić et al. 2020). It is also imperative that

all mental health preventive efforts that are provided during the pandemic must continue and be sustained afterwards, with main focus and attention on people who survived the disease, individuals that lost relatives or friends, orphan's children, widows and widowers due to COVID-19, first-contact health personnel, other health personnel, and other vulnerable people in order to prevent and ameliorate the long-lasting psychological effects of the pandemic on the public in the continent (Semo & Frissa 2020).

COPING STRATEGIES TO PROMOTE POSITIVE MENTAL HEALTH DURING THE PANDEMIC

The COVID-19 pandemic is impacting lives negatively globally (Ayenigbara 2020a). Majority of people are experiencing stress, anxiety, and are overwhelmed due to the uncertainties surrounding COVID-19 (Ganesan et al. 2021, Jurblum et al. 2020). To this end, highlighted below are some evidenced-based coping strategies that should be undertaken amid the pandemic in order to promote positive psychological well-being (Figure 1).

Personal Care-Based Measures

Adequate Nutrition

The frequent consumption of various sources of natural fruits and vegetables, especially yellow, red, orange, and leafy green vegetables have been proven to offer health benefits for the improvement of mental health, especially the reduction of depression, as well as the prevention of numerous chronic conditions, which are strongly associated with serious outcomes in COVID-19 cases (Radavelli-Bagatini et al. 2021). In addition, the adequate daily intake of diets which includes food flavanols from natural fruits and green leafy vegetable sources, notable antioxidant and anti-inflammatory agents, fermented probiotics carbohydrates which are capable of promoting healthy bacteria in the intestine, and diets adequate in omega-3 polyunsaturated fatty acids, while shunning diets high in saturated fats and processed sugars among others are beneficial to the overall mental and physical health of an individual (Offor et al. 2021).

Additionally, the consumption of balanced diet and the Mediterranean diet which consist of natural fruits, green vegetables, legumes, whole grain cereals, nuts, seeds, and foods rich in omega-3 polyunsaturated fatty acids, while reducing the consumption of all types of refined-diets, fast-diets, commercial baked products, and sugar laden diets will help in the fortification of the immune system (Opie et al. 2017, Chopra et al. 2021). Likewise, drinking plenty of water is imperative for the promotion of mental health, as well as the prevention of numerous chronic diseases, which exert severe health consequences in COVID-19 cases (Gandy 2015).

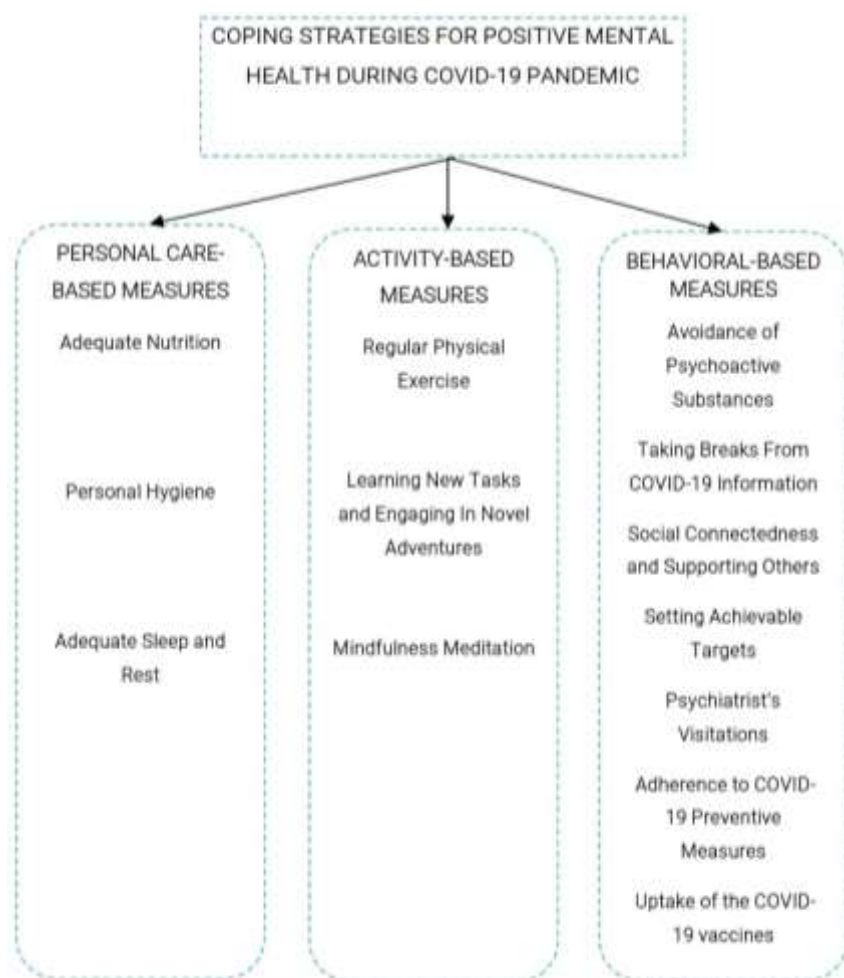


Figure 1. Pictorial Description of Some Coping Strategies for Positive Mental Health during COVID-19 Pandemic [Self developed]

Personal Hygiene

Ensuring the holistic adequate care of the physical health such as personal hygiene would improve the mental health status of the people during the pandemic globally (Peternelj-Taylor 2019). In individuals with poor personal care, the body might serve as a suitable avenue for pathogens to develop and thrive, thus making it susceptible to infections, while on social and mental health levels, people may neglect an individual with poor body hygiene, which may cause loneliness, abandonment and isolation.

Adequate Sleep and Rest

Sleep inadequacies are predisposing factors for the onset of different psychological issues such as depression, restlessness, distress, uneasiness, apprehension, and anxiety (Yu et al. 2016). Also, sleeplessness (insomnia) correlates significantly with the occurrence of many psychotic symptoms and events, as well as other physiological illnesses (Freeman et al. 2017). It is imperative to prevent the risks that are associated with inadequate sleeps and mental health problems during the pandemic by reducing the time used in accessing the internet, consumption of balanced diet, engaging in physical activity, continuous prevention and manage-

ment of chronic diseases, reducing work-associated troubles, and staying in constant communications with friends and loved ones (Gualano et al. 2020).

Activity-Based Measures

Physical Exercise

Physical activities are important for the improvement of mental health and physical health (Mikkelsen et al. 2017). For example, exercise confers beneficial effects in the prevention of anxiety, depression, and negative moods via improvements in endorphins, mitochondria, mammalian target of rapamycin, neurotransmitters and the hypothalamic-pituitary-adrenal axis, while exercise also lowers inflammation through numerous mechanisms (cytokines, toll-like receptors, adipose tissue and through the vagal tone) (Mikkelsen et al. 2017). In addition, findings by Zhang et al. (2020) on the mitigative effects of exercise on the psychological health of university students in China revealed that routine physical exercise significantly improved the mental health status of the students, and this strategy, together with adequate sleep may be viable methods in the promotion of mental health of the general public during and after the pandemic globally.

It is important for every individual to always engage in routine physical activities and exercises during lockdowns and restrictions to the level of their ability, and consideration to underlying medical conditions (Ayenigbara 2020b). In situations where outdoor physical exercises are not allowed due to restrictions, indoor and home-based physical exercises such as dancing to loved tunes or music, home gardening, light digging, stationary bicycles riding, yoga, various stretches, sit-ups, heel and toe walking, push-ups against fixed materials or objects, and jumping-jacks should be the alternative (Ayenigbara 2020b).

Learning New Tasks and Engaging in Novel Adventures

During the pandemic, every individual should be active and engage in novel tasks such as trying tai chi moves, exercising, taking a nature walk whenever permitted, playing with personal pet/animals, writing an article or a story, playing instruments, doing gardening, and trying cooking new dishes. These activities may help to reduce stress. Also, every individual should ensure to smile and laugh often because of the therapeutic effects on blood quantities of cortisol, epinephrine, growth hormone, and 3,4-dihydrophenylacetic acid (a significant dopamine catabolite), indicating a reversal of the stress response, as well as changing the dopamine and serotonin activity which are all helpful for stress and depression prevention, thereby benefitting the overall physical and psychological health, as well as the social association with others (Yim 2016, van der Wal & Kok 2019).

Mindfulness meditation

Mindfulness meditation and yoga may help to improve the conditions of the mind during the pandemic (Tang et al. 2015). Numerous studies affirmed the beneficial effects of mindfulness meditation in diminishing and lowering the occurrence of stress, depression, anxiety, and other mental health problems, consequently benefitting and promoting psychological and physical well-being, as well as mental performances in an individual (Tang et al. 2015, Yang et al. 2018). For example, findings by Matiz et al. (2020) on the effects of mindfulness meditation on the psychological well-being of female tutors during the pandemic revealed a higher improvement in depression and the general mental health status of the participants. Also, findings from a study by Accoto et al. (2021) on the positive impacts of an eight (8) weeks mindfulness-focused stress reduction regimen together with a six (6) weeks of video-assisted meditation practice on mental health status of female participants during the first confinement of the pandemic in Italy revealed an improvement in the participant's self-acceptance status, essence of life, and relationship with others. Furthermore, the group with higher mindfulness points showed improved levels of mental flexibility and improved levels of the general mental health (Accoto et al. 2021).

Behavioral-Based Measures

Avoidance of Psychoactive Substances

Alcohol consumption is positively associated with the emergence of depression (Ning et al. 2020), while the abuse and misuse of psychoactive substances increases suicidal thoughts (Lee et al. 2017). For example, findings from an investigation by Jacob et al. (2021) on the effect of alcohol intake on psychological health of adults in the UK during COVID-19 lockdown revealed a high level of alcohol intake in the respondents. This was significantly associated with poor general psychological health, and increased cases of depression. Also, smoking should be avoided always. Smoking is a major risk factor for the emergence of different mental problems, and also increases the time with negative mental health especially in people with other serious or severe long-term health conditions such as heart diseases, obesity, and cancers (CDC 2013, Plurphanswatetal 2017). In addition, there is evidence indicating that cigarette smoking increases the risk of developing COVID-19, and independently causes serious symptoms in cases of the disease (Seiler et al. 2020, Haddad et al. 2021).

Taking Breaks from COVID-19-Related Information

COVID-19 infodemic is on the rise globally, and this is having negative effects on the mental health of the public (Jakovljevic et al. 2020). It is important to ensure intermittent breaks of twice daily (morning and evenings) before receiving and accessing any COVID-19-related information and stories from televisions, radios, newspapers, and the internet in order to ensure positive and stable mental health (Shuja et al. 2020). Although, it is imperative to be regularly updated on information about the pandemic, however, frequent updates especially death and infection rates, and wrong information may be disturbing and misleading, consequently leading to stress, depression, anxiety, fear, grief, and shock (Rathore & Farooq 2020).

Social Connectedness and Showing Supports to Others

Communication with relatives, associates and friends should be maintained and ensured via phone calls, video calling, e-mailing messaging, short messaging services (SMS), letter writings, and other various social media platforms (Ng et al. 2020). Through these means, stories, ideas and relieving information would be shared, thereby ensuring connectedness and social togetherness, and consequently preventing loneliness, suicidal thoughts and abandonment (Killgore et al. 2020).

Likewise, frontline COVID19 personnel and other essential workers face many challenges such as long working hours, heavy workloads, stigma, and discrimination, which may lead to numerous mental health problems such as anxiety, burn out, tiredness and mental distress while they work to keep the public safe and vital maintain services (García-Iglesias et al. 2020). Front line medical workers should be checked on, they

should be showed love and appreciations, bought gifts and presents, and the public should be in constant communication with them. These measures may ensure sense of togetherness, thereby improving their mental health status. In addition, vulnerable categories of people in the society such as the elderly people, people living in care homes, people with numerous comorbidities, children, COVID-19 patients, people who have lost loved ones to COVID-19, pregnant and nursing mothers, and students should be identified, supported and prioritized for mental health services in order to prevent or reduce the adverse psychological health conditions they may be experiencing during the pandemic (Kaya et al. 2021, Canlı & Karaşar 2020, Sayeed et al. 2020).

Setting Achievable Targets

Setting achievable goals and targets during the pandemic periods, especially for people who work from home and students receiving online lectures is important. Setting vague goals during the pandemic might be hard to reach due to different factors which might result in feelings of failures, thereby leading to anxiety and depression. Also, every individual should be time cautious and always ensure adequate time management when doing certain tasks to prevent disorganization and disorderliness which might cause high levels of stress which are dangerous for positive mental well-being.

Help Seeking Measures and Psychiatrist's Visitations

Every individual should always endeavor to get assistances and supports when coping with mental health issues seem to be getting tougher during and after the pandemic. This is an indication of strength not vulnerability or weakness (Xu et al. 2018). An individual should endeavor to speak and discuss frequently with family members, religion leaders, trusted people and friends about any concerns or issues bothering their minds during the pandemic periods. In addition, findings from a study by Zhang et al. (2021) on the impact of research-focused mental health counseling on the psychological well-being of adolescents during the COVID-19 pandemic revealed that research-focused mental health counseling was effective in the improvements of the participant's psychological well-being, as well as their mental resilience. Thus, mental health counseling should be adopted globally for the improvements of mental health conditions of the public during the pandemic.

Adherence to All COVID-19 Preventive Measures

Continuous adherences to all COVID-19 preventive measures are essential to improve mental health conditions during the pandemic, and might also help in the protection of an individual and his/her family members from the infection of COVID-19 (Ayenigbara et al. 2020c). For instance, measures such as the regular washing and cleaning of hands with an antiseptic soap and clean running water for the duration of over

twenty seconds, the use of ethanol based hand gels to rub the hands, sneezing and coughing in a bent elbow or tissue paper after which the elbow should be thoroughly washed with an antiseptic soap and clean running water, while the tissue paper is disposed appropriately, avoiding touching any parts of the face such as the eyes, mouth, ears, and nose with unclean hands, the regular wearing of face coverings, limiting social association or gathering, avoiding crowded places, avoiding contact with sick patients and going for a COVID-19 test even after getting vaccinated, and regularly cleaning and disinfecting of frequently touched objects and surfaces should all be continued by the public globally (Ayenigbara et al. 2020c).

Uptake of the COVID-19 Vaccines

There are many COVID-19 vaccines that have been certified safe and effective for use by various regulatory bodies globally (Benfield & Helweg-Larsen 2021). The uptake of the full COVID-19 vaccines are highly effective in protecting and preventing an individual from catching and spreading the SARS-CoV-2 to their loved ones (Hodgson et al. 2021). Furthermore, taking the full COVID-19 vaccines could prevent against severe illness and outcomes in COVID-19 cases, and may offer high-level protection for individuals with long term medical conditions (Hodgson et al. 2021). Also, getting the COVID-19 vaccine might give a mental-sense of protection from catching the disease, which might give feelings of relief from anxiety and depression during the pandemic (CDC 2020b).

Also, the public should proceed with other preventive measures such as vaccinations for other diseases and conditions as directed by personal physicians during the pandemic periods. For example, the continuation of cancer screenings, getting vaccines for influenza, children getting the vaccines for childhood-killer diseases, taking medications for the management of chronic and other diseases, and routine dental check-up must be ensured in order to improve mental well-being, and prevent severe outcomes in COVID-19 cases.

CONCLUSIONS

The proper planning, improvisations, and continuous delivery of various mental health services to the public are necessary, and must be ensured during the pandemic in order to promote positive and sound psychological well-being, as well as prevent a tsunami of mental health problems after the pandemic globally.

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Correspondence:

Israel Oluwasegun Ayenigbara; MD
School and Community Health Education Unit, Department of Health Education, University of Ibadan
Post Office Street Number 022, 200284, Ibadan, Nigeria
E-mail: histrealite2647@gmail.com