

## Improving Physical Health and Psychological Well-Being in the Midst of Covid-19 Pandemic

Eloh, Modupe Mary

Department of Public Health, School of Community and Public Health, College of Health Sciences and Technology, Ijero-Ekiti, Ekiti State, Nigeria.

### Abstract

*This paper reviews how physical health and psychological well-being can be improved in the midst of COVID-19 pandemic. People around the world are most likely to face increasing physical and psychological health issues because of coronavirus-related concerns. The present global pandemic has led to an increase in anxiety and depression due to the increasing number of deaths, loss of jobs, stress, financial constraints, physical isolation from loved ones and altered daily routines. People with anxiety tend to worry excessively and have feelings of being “on edge” which may cause symptoms like depressed mood, sadness, feelings of emptiness or hopelessness, increased fatigue and even sleep disturbances; all of which can have a negative effect on physical health and psychological well-being. Therefore, adopting a healthier daily routine of physical activity, adequate nutrition, engaging in activities which give a sense of achievement and maintaining social connections can bolster positive mood, make people feel more energized and improve physical health and psychological well-being.*

**Keywords:** Anxiety, Depression, COVID-19, Health, Well-being

### Introduction

Global issues such as COVID-19 pandemic can be incredibly overwhelming, because there seems to be so much uncertainty around it. Among many global health and societal disruptions, the COVID-19 outbreak has forced millions to physically isolate. Anxiety and depression seem to be on the rise due to the increasing number of COVID-19 cases and deaths, loss of jobs, physical isolation from loved

ones, altered daily routines, academic disruptions, social distancing and an uncertain future. Emerging research that assessed the mental health implications of COVID-19 has identified a heightened prevalence of moderate-to-severe self-reported depressive and anxious symptomatology among the general public (Wang et al., 2020), reflecting the widespread effects of uncertainty and health-related fears.

Physical and psychological well-being is likely to be negatively affected as many people try to cope with fear, anxiety, stress, financial constraints, boredom, and isolation. As a result of lockdown measures implemented in response to COVID-19, people are at risk of abuse, employees facing job uncertainty and even children are among those most at risk. Having shut down schools as part of necessary measures to contain the spread of COVID-19, children may no longer have that sense of structure and stimulation that is provided by school environment, and have less opportunity to be with their friends and get the social support that is essential for good psychological well-being. Older people and also those with underlying health conditions, having been identified as more vulnerable to COVID-19, can be extremely frightened. While it is normal to be afraid of threat to life, too much fear and anxiety can be harmful to health.

Physical well-being consists of the ability to perform physical activities and carry out social roles that are not hindered by physical limitations and experiences of bodily pain and biological health indicators. According to Boehm and Kubzansky (2012), psychological well-being includes life purpose, emotional vitality, positive affect, life satisfaction, happiness, and optimism, while psychological ill-being is referred to as negative psychological states

or traits which include, depression, anxiety and negative affect (Hernandez et al., 2017). The lockdown measure to prevent the spread of COVID-19 has placed many at risk of psychological ill-being because people are uncertain, anxious, worried and isolated during lockdown. Some populations including people who are in recovery from addiction and other mental health issues and those experiencing child abuse or domestic violence are even more vulnerable.

According to the Healthline poll 2020, it was found that Americans are reporting more symptoms and signs of depression, anxiety and fear, than historic norms and that this increase has been sustained for several weeks and showing no signs yet of fading (Holland, 2020). YouGov, an international research data and analytics group, that has been running a weekly global COVID-19 tracker across 26 countries, including the United States, found out that 3 in 5 Americans reported that they fear they will contract the virus according to COVID-19 tracker conducted between April 13th and April 20th, 2020. The effects of this fear may not be felt equally in all groups as women reported being concerned more than men (64 percent to 55 percent). Not surprisingly, people with pre-existing health issues also reported higher rates of fear and anxiety. According to YouGov (2020), Hispanic

people were nearly twice as likely to say they are 'very scared' compared to white people (29 percent to 16 percent). Twenty-six percent of black people were 'very scared' in the survey. Surprisingly, people in younger age groups were more likely to rate themselves as 'very scared' of getting sick. Twenty-two percent of adults 18 to 34 years old said they were 'very scared' but only 16 percent of people 55+ considered themselves 'very scared'. The self-reported incidence of depression is also higher than historic norms right now. In the Health line survey 2020, 49 percent of respondents showed some signs of depression, ranging from mild to severe, as measured by the PHQ-4 scale (Patient Health Questionnaire), a standardized measure of anxiety and depression (Holland, 2020).

Another study that explored the impact of COVID-19 on student education and well-being found out that approximately 25% of their sample reported experiencing anxiety symptoms, which were positively correlated with increased concerns about academic delays, economic effects of the pandemic, and impacts on daily life (Cao et al., 2020). Also, among the many student surveys administered worldwide, one survey by Young Minds, (2020) reported that 83% of young respondents agreed that the pandemic worsened pre-existing mental health conditions, mainly due to school

closures, loss of routine, and restricted social connections. As anxiety and depression tend to increase in the midst of the global COVID-19 pandemic, coping in a healthy way may require a conscious effort. Therefore, there is need for individual to have access to resources on how to improve physical health and psychological well-being.

### **Improving Physical Health and Psychological Well-Being**

Evidences have shown a strong association between physical health (objective and subjective) and psychological well-being (Hernandez et al., 2017). Psychological well-being is affected by medical history, current physical symptoms and body sensations, health beliefs and behaviors, mental and emotional well-being (Wu & Schimmele, 2006). World Health Organisation (WHO) Regional Director for Europe, Klugeat a press briefing held on 26 March, 2020 while answering questions on mental health issues in the context of COVID-19 said that anxiety and fears should be acknowledged and not be ignored, but better understood and addressed by individuals, communities and governments. The strategies of undertaking physical activity, keeping to routines or creating new ones, and engaging in activities which give a sense of

achievement and maintaining social connections were identified (WHO, 2020).

**i. Physical Activity** - Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure (WHO, 2020). Physical activity may include; active recreation ,sports participation, cycling, walking, playing, dancing, gardening, house cleaning and carrying heavy shopping. During the COVID-19 pandemic, being physically active could be a challenge but it is critical to find and plan ways to be active and reduce sedentary time (WHO, 2020).

The study of Endrighi, Steptoe and Hamer (2016) showed that enforced sedentary behaviour has led to depressive feelings and low moods in healthy people within seven days. Physical activity in any form is a great way to keep an individual physically healthy as well as improving psychological well-being. Research shows that doing exercise influences the release and uptake of feel-good chemicals called endorphins in the brain. Even a short burst of 10 minutes brisk walking increases mental alertness, energy and positive mood (Mental Health Foundation, 2016).The study of Rosenbaum, Sherrington & Tiedemann (2015) on a 12-week exercise program that included three 30-minute resistance training sessions a week, as well as walking, was found to lead to a

significant decrease in PTSD symptoms, depression, and better sleep quality after the program ended.Regular exercise is essential for everyone under normal circumstances and it is especially crucial during the COVID-19 pandemic. Sallis (2020) opined that, in light of the current situation worldwide, certain benefits of physical activity may be specifically pertinent to the COVID-19 pandemic. These benefits are:

- Physical activity enhances immune function and reduces inflammation. Therefore, it could reduce the severity of infections.
- Physical activity improves common chronic conditions that increase the risk for severe COVID-19 (i.e. Cardiovascular Disease and Diabetes)
- Physical activity is a great stress management tool which reduces symptoms of anxiety and depression.
- Physical activity helps bring cortisol levels in balance. Stress and distress (such as during a pandemic) creates an imbalance in cortisol levels and this negatively influences immune function and inflammation.

The WHO (2018) highlighted the following guidelines on the amount of physical activity:

- Infants under the age of 1 year need to be physically active several times a day.

- Children under 5 years of age should spend at least 180 minutes a day in physical activities, with 3-4 year-old being moderately or vigorously active for an hour a day.
- Children and adolescents aged 5-17 years should do at least 60 minutes a day of moderate to vigorous-intensity physical activity, including activities that strengthen muscle and bone, at least three days per week.
- Adults aged 18 - 64 years should do a total of at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week, including muscle-strengthening activities two or more days per week.
- Adults aged 65 years should do a total of at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week, including muscle-strengthening activities two or more days per week.
- Older adults with poor mobility should do physical activity to enhance balance and prevent falls on three or more days per week.
- Do not exercise if you have a fever, cough or difficulty breathing (symptoms of COVID-19).
- Practice social distancing when exercising outdoors and practice good hand hygiene before and after.
- If you are not used to physical activity, start slowly with low intensity activities such as walking or low impact exercises for shorter periods of time and gradually build up over time.
- Choose the right activity to reduce the risk of injury; the intensity of the exercise should match your fitness levels and health status.

Moreover, individuals can still be active, even when the gym is closed; by exercising with family, getting outdoors, following along with online exercise videos, setting an exercise goal and making a plan to work toward achieving it and tackling calorie-burning chores like working in the garden or washing the car.

**ii. Keeping to Routine or Creating a New One** - Routine plays an important part in physical and psychological well-being, especially in these uncertain times. Routine can help to cope with change, form healthy habits, and reduce stress levels. Sticking to a routine helps to keep the mind occupied, makes one feel more in control of everything, and helps reduce stress levels (Chloe, 2020). There is need to plan the day as everyone is adjusting to this new normal,

According to WHO (2020), the following are ways to stay safe while exercising during COVID-19:

which can be a risk to psychological well-being. As tempting as it might be, to stay in sleepwear all day, regular routines are essential for identity, self-confidence and purpose. Mental Health Foundation (2020) recommended that people should start the day at roughly the same time they usually would and aim to set aside time each day for movement, relaxation, connection and reflection. Adherence to family routines has been identified as important for family resilience during times of crisis (Black & Lobo, 2008). Furthermore, WHO (2020) recommended that individuals should maintain familiar routines in daily life as much as possible, or create new routines, especially if children must stay at home and engaging them in age-appropriate activities, including activities for their learning. Where possible, children are to be encouraged to continue to play and socialize with others, even if only within the family when advised to restrict social contact. There is need to be alert and ask children what they have heard about the outbreak and support them, without causing them alarm because during times of stress and crisis, it is common for children to seek more attachment and be more demanding on parents, hence, discussion of COVID-19 with children in an honest and age-appropriate way is also encouraged. If children have concerns, addressing them together may ease their anxiety. Children

will observe the behaviour and emotions of adults, for clues on how to manage their own emotions during difficult times. Involving family and children in plans for good health is also essential. The new routine based on the recommendations of WHO (2020), as part of measures to reduce vulnerability to COVID-19 are: avoidance of touching of face (most especially eyes, nose and mouth), washing of hands frequently for at least 20 seconds with soap and water or using an alcohol-based hand sanitizer, staying at home as much as possible, avoiding crowded places, observing social distancing, and adhering to health tips of the World Health Organisation.

### **iii. Maintaining Social Connections:**

Staying at home, especially if one lives alone, can trigger a feeling of loneliness, as isolation and loneliness can aggravate anxiety and depression. Based on the recommendation of Mental Health Foundation, (2020), individuals are admonished to find creative ways to keep in touch with co-workers, friends, family, and others to help feel more connected and supported. Ways of social connections that work for individuals; over the phone, social media, or video-chat should be explored. This could be anything from sharing a cup of tea over video, playing an online game together, or simply sending a supportive text message. Social interactions are critical

production factors in health. Previous studies have found a strong positive relationship between social interaction and mental health (Dour et al., 2014; Bekele et al., 2015). Ohrnberger, Fichera and Sutton (2017) found out that social interaction has a positive direct effect on mental and physical health. The positive association of social ties with mental health has previously been found by Umberson and Montez (2010) and Umberson et al., (2010) also supports the positive relationship of social ties with physical health. An explanation for this effect is that social interactions favour good health behaviours and vice versa. WHO (2020) encouraged people to minimize watching, reading or listening to news about COVID-19 that causes feelings of anxiety or distress. Individuals are advised to seek information only from trusted sources, in order to take practical steps to make plans and protect oneself and loved ones. Individuals are also advised to seek information updates, once or twice at specific times during the day (WHO, 2020).

Based on the review, findings have shown that physical activity, keeping to routines and maintaining social connections are essential in improving physical health and psychological well-being as recommended by WHO (2020). However, the researcher opined that there is also a need to identify the important role of

adequate nutrition in ensuring good physical health by boosting the immune system which protects the host from pathogenic organisms (bacteria, viruses, fungi, parasites) and preventing physical illness of which the recommendations of WHO (2020) did not take into account. Calder and Kulkarni (2018) stated that the immune system relies on both macronutrients: proteins, carbohydrates and fats, and micronutrients: vitamins and minerals, supplied by daily diet to remain healthy, by improving individual cell function as well as interactions between cells, as adequate nutrition makes an individual more resilient to infection.

### **Methodology**

A literature review was conducted using search terms: COVID-19, physical health, psychological well-being, anxiety, social interactions. Databases searched included YouGov, Health line, World health Organisation and Young Minds.

### **Conclusion and Recommendations**

Physical activities, keeping to routines or creating new ones, maintaining social connections, adequate nutrition and a healthy lifestyle are essential for physical health and psychological well-being especially among the adult population. It is therefore recommended that individuals should exercise regularly, keep regular



sleep routines, eat healthy food and avoid unhealthy habits of sleep irregularities, physical inactivity, skipping meals, increased alcohol or other drugs intake and neglect of personal care which are unhelpful 'coping' strategies. It is also

necessary for individuals to protect themselves and family by adhering to measures put in place by World Health Organization to prevent the spread of coronavirus and seek professional help when necessary.

## References

- Bekele, T., Rourke, S.B., Tucker, R., Greene, S., Sobota, M., Koornstra, J., Monette, L., Rueda, S., Bacon, J., Watson, J., Hwang, S.W., Dunn, J. & Guenter, D., (2015). Direct and indirect effects of perceived social support on health-related quality of life in persons living with HIV/AIDS. *Journal of Aids Care Psychology. Socio-medical Aspects AIDS/HIV* 25 (3), 337–346.
- Black, K. & Lobo, M. A. (2008). Conceptual review of family resilience factors. *Journal of Family Nursing*, 14:33-55.
- Boehm, J. K. & Kubzansky, L. D. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin*, 138(4), 655–691.
- Calder, P.C & Kulkarni, A. (2018). *Nutrition, immunity and infection (EDS)*. Boca Raton: CRC Press. [Google Scholar](#)
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J. & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, Article 112984. <https://doi.org/10.1016/j.psychres.2020.112934>
- Chloe, K. (2020). The importance of routine for your mental health. Retrieved July 9th 2020 from <https://www.generalandmedical.com/live-healthy/posts/2020/april/the-importance-of-routine-for-your-mental-health/>
- Dour, H.J., Wiley, J.F., Roy-Byrne, P., Stein, M.B., Sullivan, G., Sherbourne, C.D., Bystritsky, A., Rose, R.D. & Craske, M.D., (2014). Perceived social support mediates anxiety and depressive symptom changes following primary care intervention. *Depress. Journal of Anxiety* 31 (5), 436–442.
- Endrighi, R., Steptoe, A. & Hamer, M. (2016). The effect of experimentally induced sedentariness on mood and psychobiological responses to mental stress. *British Journal of Psychiatry*, 208(3), 245-251.
- Hernandez, R., Basset, S.M., Boughton, S.W., Schuette, S.A., Shiu, E.W. & Moskowitz, J. T (2017). Psychological well-Being and physical health: Associations, mechanisms, and future directions. *SAGE Journals*, 10 (1), 18-29.
- Holland, K. (2020). Healthline poll on what COVID-19 Is Doing to Our Mental Health. Retrieved July 5th 2020 from <https://www.healthline.com/hea>



- [lth-news/what-covid-19-is-doing-to-our-mental-health](#)
- Kluge, H.H.P. (2020). Mental health and psychological resilience during the COVID-19 pandemic. Retrieved July 9th 2020 from <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic>
- Mental Health Foundation (2016). Physical health and mental health Retrieved July 5th 2020 from <https://www.mentalhealth.org.uk/a-to-z/p/physical-health-and-mental-health>
- Mental Health Foundation (2020). Looking after your mental health during the coronavirus outbreak. Retrieved July 9th 2020 from <https://www.mentalhealth.org.uk/coronavirus/looking-after-your-mental-health-during-coronavirus-outbreak>
- Ohrnberger, J., Fichera, E. & Sutton, M. (2017). The relationship between physical and mental health: A mediation analysis. *Journal of Social Science and Medicine* 195, 42-49.
- Rosenbaum, S.I., Sherrington, C. & Tiedemann, A. (2015). Exercise augmentation compared with usual care for post-traumatic stress disorder: a randomized controlled trial. *Acta Psychiatrica Scandinavica* 131(5), 350-359.
- Rosenbaum, S., Vancampfort, D., Steel, Z., Newby, J., Ward, P.B. & Stubbs, B. (2015). Physical activity in the treatment of Post-traumatic stress disorder: A systematic review and meta-analysis. *Psychiatric Research* 230(2), 130-136.
- Sallis, J. F. (2020). Physical activity + COVID-19. Lecture to UC San Diego medical students. Published on 1<sup>st</sup> of April 2020. Retrieved July 9th 2020 from <https://www.youtube.com/watch?v=F4mcbi9tD-M>
- Umberson, D., Crosnoe, R. & Reczek, C., (2010). Social relationships and health behaviors across the life course. *Annual Review of Sociology*, 36, 139–157.
- Umberson, D. & Montez, J. K. (2010). Social relationships and health: a flashpoint for health policy. *Journal of Health and Social Behavior*, 51 (5), 554–566.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S. and Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), Article 1729. <https://doi.org/10.3390/ijerph17051729>
- World Health Organisation (2018). Physical Activity. Published on 23 February 2018. Retrieved July 6th 2020 from <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
- World Health Organisation (2020). Be Active during COVID-19. Retrieved July 5th 2020 from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/be-active-during-covid-19>
- World Health Organisation (2020). Mental health and psychosocial

considerations during the COVID-19 outbreak. Mental-health-consideration.pdf

World Health Organisation (2020). Latest information on COVID-19 Retrieved July 6th 2020 from [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)

Wu, Z. & Schimmele, C. M. (2006). "Psychological disposition and self-reported health among the 'oldest-old' in China," *Ageing and Society*, 26, (1), 135–151.

YouGov (2020). YouGov's COVID-19 tracker. Retrieved July 5th 2020 from <https://yougov.co.uk/covid-19>

Young Minds (2020). Coronavirus: Impact on young people with mental health needs .Retrieved July 6th 2020 from [https://youngminds.org.uk/media/3708/coronavirus-report\\_march2020.pdf](https://youngminds.org.uk/media/3708/coronavirus-report_march2020.pdf)

