

The Impact of Physical Activity and Sport on Mental Health

Tamadher Abdulaziz Muhsen⁽¹⁾, Muroj Abdulaziz Muhsen⁽²⁾

Date of submission (1/6/2020) date of publication acceptance (28/6/2020).

DOI: [https://doi.org/10.37359/JOPE.V32\(3\)2020.1032](https://doi.org/10.37359/JOPE.V32(3)2020.1032)

ABSTRACT

Scientists have researched different aspects of physical exercise and sports and their impact on the health of a person. However, the impact of physical activity and sport on mental health has not been looked into extensively. This study reviews the literature on the effect of physical exercises and other sporting activities on mental health. The results indicate the presence of a positive link between participation in physical activities and the mental health of an individual.

Keywords: physical activity, physical inactivity, sport sciences, sedentary, mental health.

المستخلص

تأثير النشاط البدني والرياضة في الصحة العقلية

أجرى العلماء أبحاثاً حول جوانب مختلفة من التمارين البدنية والرياضة وتأثيرها في صحة الإنسان. وبالرغم من ذلك، لم يتم دراسة تأثير النشاط البدني والرياضة على الصحة العقلية على نطاق واسع. تستعرض هذه الدراسة الأدبيات المتعلقة بتأثير التمارين البدنية والأنشطة الرياضية الأخرى على الصحة العقلية. إذ تشير النتائج إلى وجود علاقة إيجابية بين المشاركة في الأنشطة البدنية والصحة العقلية للفرد.

الكلمات المفتاحية: النشاط البدني، الخمول البدني، علوم الرياضة، قلة الحركة، الصحة العقلية.

Background

The number of people suffering from mental health issues like anxiety, depression, stress, and suicidal thoughts has increased considerably over the last few years. Reports from various health organizations such as the CDC (2020) have shown that more than 5% of adults suffer from a particular form of mental health condition every year. This indicates that over 43.8 million people experience a mental health disorder in a year globally. While some people suffer from only one condition, others suffer from a range of mental conditions that have detrimental implications on their health (Pascoe & Parker, 2019). The risk of mental health disorders is also rife in children. Statistics show that over 10% of children aged between 5 and 16 years are diagnosed with various forms of mental disorders annually (Harris, 2018). Mental health conditions begin at an early age and may persist through adulthood. The National Alliance on Mental Health (2020) reported that more than half of all people with mental health conditions started experiencing these problems during their teenage. These people end up dropping out of school due to the overwhelming nature of the symptoms. Mental health disorders also contribute to the death of many people (Harris, 2018). These deaths are mostly associated with suicidal thoughts.

(1) تماذر عبدالعزيز محسن، أستاذ مساعد، دكتوراه تربية رياضية، جامعة بغداد، كلية التربية البدنية وعلوم الرياضة.

Tamadher Abdulaziz Muhsen, Assistant Prof (Ph.D), University of Baghdad, College of Physical Education and Sport Sciences, (tamadher.aziz@gmail.com).

(2) مروج عبدالعزيز محسن، الماجستير صحة عامة، جامعة والدن، مينيابوليس، مينيسوتا، الولايات المتحدة الأمريكية.

Muroj Abdulaziz Muhsen, MPH, Walden University, Minneapolis, Minnesota.

(muroj.muhsen@waldenu.edu).

It is unfortunate that even though standard treatment interventions are effective for mental disorders, they do not produce the desired holistic results for all patients. Some people may develop complications when given medications that are not suitable for their age and health (Harris, 2018). Studies have shown that participation in physical exercise can potentially impact a person's mental health (Jetzke & Mutz, 2019). Physical activities and sports can, thus, be integrated into the treatment plan for persons at risk of developing mental health disorders.

Statement of the Problem

The increased prevalence of mental health disorders has necessitated the use of potentially effective solutions to address this growing problem. Young people, as well as adults, need to be provided with a treatment plan that holds the promise of improving their mental status. Unfortunately, some of the solutions are inconsistent and potentially risky, thus, making them unsuitable for younger people. Mostly, persons with mental health conditions are given medications that may predispose them to adverse effects. Psychotherapy is also administered since it is a potentially effective treatment technique for mental health disorders. However, not all people have access to psychotherapists. Therefore, unavoidable circumstances force many people to live without treatment for these conditions. People are not aware that simple physical activities can improve their mental health. When individuals experience mental health challenges, they only seek costly treatments without considering the potential benefits of physical and sporting activities.

Research Question

The question that will guide this research is, "can the participation in physical and sporting activities among people with mental disorders improve their health?"

Purpose Statement

The current research's purpose is to conduct a synthesis of existing literature to find out the impact of physical activity and sport on mental health.

Methodology

Literature Search

The research articles used in the review of literature were obtained from electronic databases. An electronic search was chosen, considering it helps to save time besides enabling the researcher to generate a large number of articles with little effort. The databases utilized include google scholar, Cochrane, and PubMed. These databases were preferred due to their reliability as sources of peer-reviewed research articles addressing different health issues. Furthermore, these databases contain up to date research articles relevant to the health problem being addressed.

Search Terms

Specific search terms were applied to generate reliable literature materials that could help to generate a valid answer to the research question. The search terms used were physical activity, sporting activities, and the impact on mental health. The selection of these terms was based on the fact that they addressed the main components of the research question. The search generated over 35,000 articles with information related to the search terms.

Exclusion/Inclusion Criteria

The exclusion/inclusion criteria were applied to obtain the most relevant articles from those generated in the search. The articles published in the English language were considered for review while those published in other languages were excluded. Moreover, only full-text articles less than five years old since the date of publishing were reviewed. The articles were thus reduced to 21 from which the review articles were selected randomly.

Review of Literature

The central claim, concerning the impact of physical activities and sports on mental health, is that the integration of these activities into the treatment and prevention plan for psychological disorders can achieve better results with time than medications (Pascoe &

Parker, 2019). Physical activities are presumed to have a profound positive impact on stress, depression, anxiety, ADHD, and other psychological disorders. Individuals who engage in physical exercise not only benefit from improved physical health, but also from improved memory, mood, better sleep, and general psychological health. This indicates that physical activities have an indisputable potential to enhance the physical and mental health of an individual. Evidence supporting these claims can be obtained from different literature sources.

Al-Qahtani, Shaikh, and Shaikh (2018), for instance, noted that depression, which has become a health burden, can be resolved with physical exercise and sporting activities. Mental disorders, according to Al-Qahtani et al. (2018), are treated using a combination of medications and psychotherapy. However, these interventions do not always yield the anticipated results. The limitations of pharmacotherapy have, thus, necessitated the search for more potent and less risky interventions. Research has led to the identification of exercise as one of the alternative therapies for mental health disorders.

Liddle, Deane, and Vella (2017) noted that while only 65% of young people have access to psychotherapy and other mental healthcare services, over 70% of this population has access to physical and sporting activities. Distressed people should, therefore, be encouraged to take part in simple physical activities to improve their mental health. The CDC (2020) noted that adults with chronic mental conditions need to take part in physical activities more regularly as compared to healthy people to enable them to cope with the distress associated with their health. Below is a chart indicating the percentage of physical inactivity among adults with as well as those without chronic behavioral and mental conditions. This chart reveals that individuals with chronic mental conditions have a high level of inactivity than healthy people.

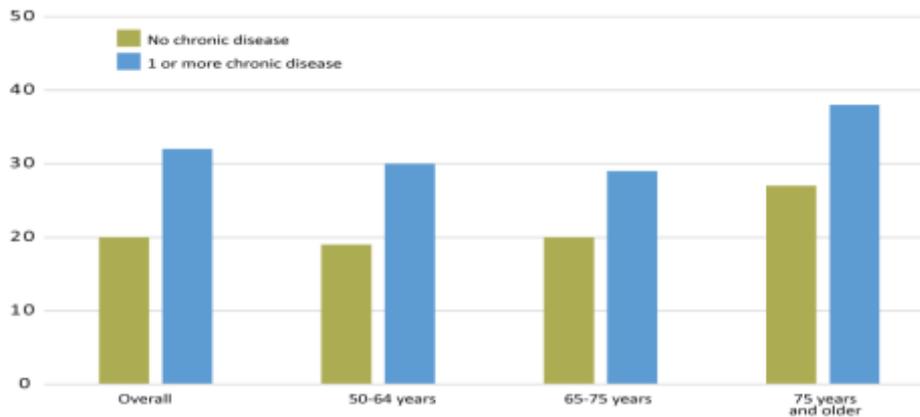


Figure 1. Percentage of physical inactivity among adults (CDC, 2020)

A study by Woods, Breslin, and Hassan (2017) on the impact of sports on the mental health and wellbeing of prisoners revealed that physical activities enabled many people to deal effectively with psychologically distressing issues. Sporting activities were shown to increase social interactions between prisoners, consequently allowing them to forget their prison problems temporarily. Physical activities are not only enjoyable but also tend to increase the confidence of a person, thus making it easy to regain internal self-control (Woods et al., 2017). An individual's desire to exercise is an intrinsic force that triggers interaction with like-minded peers. In turn, it promotes the creation of a social setting that supports social and mental wellbeing as well as a sense of achievement.

Wood et al. (2007), on the other hand, conducted a study to determine the impact of green spaces and recreational facilities on individuals' mental health. This study revealed that individuals with access to recreational facilities that supported sporting activities had better mental health than those from neighborhoods where these facilities were unavailable. The results of this study indicate that sufficient provision of public green spaces within walking distances plays a vital role in improving the mental health of the people.

Jetzke and Mutz (2019) noted that goals and motivations associated with sporting and physical activities moderate the positive impact of these activities on the subjective wellbeing of a person. Sporting activities comprise intrinsic motivational factors such as enjoyment, relaxation, and sociality that positively enhance a person's mental health. People usually engage in physical activities to achieve specific goals, such as reduce weight, compete, or spend social time. Sporting activities, thus, generate a sense of fulfillment and satisfaction of an individual (Jetzke & Mutz, 2019).

Jetzke and Mutz (2019) found out that individuals, who engaged in physical activities had a higher level of satisfaction with life than those who spent a sedentary lifestyle. The other psychological aspects that are enhanced by physical activity, as highlighted by Lubans et al. (2016), include resilience, cognitive function, quality of life, self-connectedness, and improved sleep, as highlighted in the chart below.

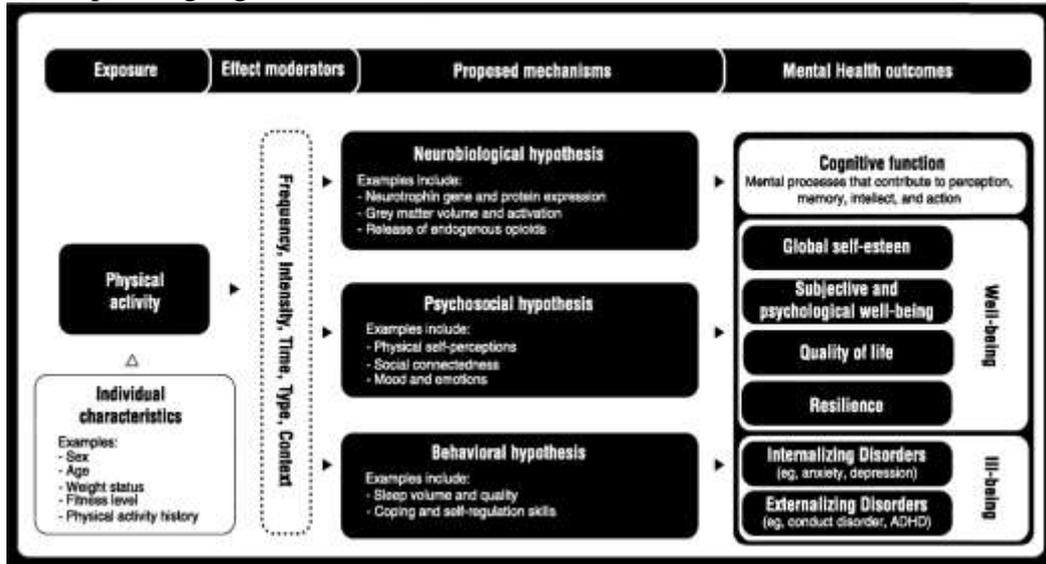


Figure 2. Effects of physical activity on mental health (Lubans et al., 2016)

Studies have shown that the integration of physical exercise into the treatment plan can tackle psychological health conditions like medications. Importantly, physical activities do not predispose individuals to the risk of side effects. Clough et al. (2016) argued that taking part in physical activities for 15 minutes per day lowers the risk of depression and anxiety by 26%. Maintaining a physical exercise schedule further reduces the risk of relapsing. Physical exercise is a reliable intervention for psychological disorders since it promotes several positive changes in the brain (Clough et al., 2016). It enhances a feeling of relaxation and wellbeing through the release of endorphins. These activities also create a distraction from negative thoughts and other activities that feed depression and anxiety.

In line with the use of physical activities in the treatment of depression and other mental disorders, Malm, Jakobsson, and Isaksson (2019) pointed out that the use of these activities as primary and secondary interventions have a profound impact on the prevention and alleviation of depressive symptoms. Malm et al. (2019) supported the allegations by Clough et al. (2016) that physical activities have an antidepressant effect in those presenting with neurological symptoms. Importantly, training and exercise strengthen people's social skills and self-esteem, subsequently improving their quality of life and coping mechanisms for depressive symptoms. The study by Harris (2018) revealed that individuals who participate in physical exercise regularly report a higher mental wellbeing score, as indicated in the chart below.

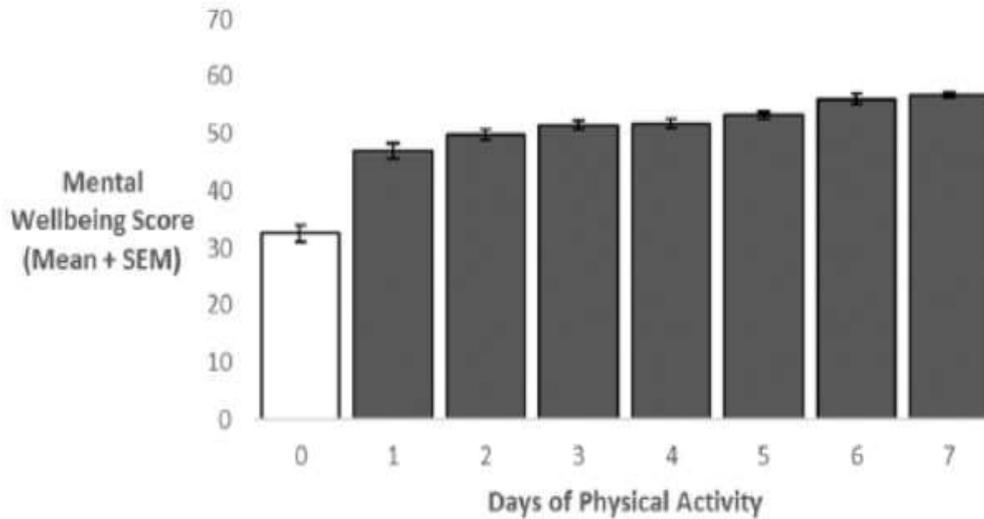


Figure 3. Mental health score (Harris, 2018)

Recommendations

The finding of the current research led to the recommendation that exercise and physical activities should be considered as effective interventions for mental health conditions. The beneficial role of physical exercise has been confirmed from the results of different research studies. These benefits are evidenced by improvement in the quality of life, alleviation of mental symptoms, and decreased risk of relapse. Therefore, all people experiencing psychological health disorders such as depression, anxiety, insomnia, fatigue, and hopelessness should be enrolled in physical activity programs to resolve their problems (Lubans et al., 2016).

Target Audience

The target audience for this research is young people as well as adults, who are at risk of developing mental health problems. These people can use this evidence to change their lifestyles, thereby setting their mental status on the path of recovery and improved health. Individuals, who have been diagnosed with mental health conditions, as well as those who suffer from mild forms of these disorders, can integrate physical and sporting activities into their daily lives to improve their mental health and prevent incidences of mental disorders. Mental health care practitioners can also use this information. These professionals can use this evidence to guide the integration of physical activities into the treatment plans for clients with mental health disorders.

Further Research

However, further research is needed to determine if all physical activities produce similar results in reducing and alleviating mental symptoms. Individuals at risk of mental disorders are encouraged to partake in various aerobic exercises such as swimming, walking, jogging, and cycling. However, it is not clear if all these activities would generate the same impact concerning the prevention of depressive symptoms and other mental conditions. Further, studies need to be carried out to ascertain if all psychological conditions can be treated with physical exercise interventions.

Conclusion

The increase in numbers of people suffering from mental health issues like anxiety, depression, stress, and suicidal thoughts over the last few years, despite the application of standard methods of care, has necessitated the implementation of physical exercise programs that offer a more potent but less risky intervention. Standard treatment interventions are effective for mental disorders, but they do not produce the desired holistic results for all patients. Evidence has shown that physical activities have a profound positive impact on stress, depression, anxiety, ADHD, and other psychological disorders. Individuals who

engage in physical exercise benefit from improved physical health and improved memory, mood, sleep, and general psychological health. Sporting activities increase social interactions between people, subsequently enabling them to forget the problems. These activities are not only enjoyable but also increase the confidence of a person, thus making it easy to regain internal self-control. Physical activities achieve the intended outcomes by promoting a feeling of relaxation and wellbeing through the release of endorphins. These activities also create a distraction from negative thoughts and other actions that feed depression and anxiety, thus improving the quality of life of an individual.

References

- Al-Qahtani, A. M., Shaikh, M. A. K., & Shaikh, I. A. (2018). Exercise as a treatment modality for depression: A narrative review. *Alexandria Journal of Medicine*, 54(4), 429-435. <https://doi.org/10.1016/j.ajme.2018.05.004>
- CDC (2020). Adults need more physical activity. <https://www.cdc.gov/physicalactivity/inactivity-among-adults-50plus/index.html>
- Clough, P., Mackenzie, S. H., Mallabon, L., & Brymer, E. (2016). Adventurous physical activity environments: a mainstream intervention for mental health. *Sports Medicine*, 46(7), 963-968. <https://doi.org/10.1007/s40279-016-0503-3>
- Harris M. A. (2018). The relationship between physical inactivity and mental wellbeing: Findings from a gamification-based community-wide physical activity intervention. *Health Psychology Open*, 5(1), 1 – 8. <https://doi.org/10.1177/2055102917753853>
- Jetzke, M., & Mutz, M. (2019). Sport for pleasure, fitness, medals, or slenderness? differential effects of sports activities on well-being. *Applied Research in Quality of Life*, 1-16. <https://doi.org/10.1007/s11482-019-09753-w>
- Liddle, S. K., Deane, F. P., & Vella, S. A. (2017). Addressing mental health through sport: a review of sporting organizations' websites. *Early Intervention in Psychiatry*, 11(2), 93-103. <https://doi.org/10.1111/eip.12337>
- Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., ... & Biddle, S. (2016). Physical activity for cognitive and mental health in youth: a systematic review of mechanisms. *Pediatrics*, 138(3), e20161642. <https://doi.org/10.1542/peds.2016-1642>
- Malm, C., Jakobsson, J., & Isaksson, A. (2019). Physical activity and sports-real health benefits: a review with insight into the public health of Sweden. *Sports (Basel, Switzerland)*, 7(5), 127. <https://doi.org/10.3390/sports7050127>
- Pascoe, M. C., & Parker, A. G. (2019). Physical activity and exercise as universal depression prevention in young people: A narrative review. *Early Intervention in Psychiatry*, 13(4), 733-739. <https://doi.org/10.1111/eip.12737>
- The National Alliance on Mental Health (NAMI) (2020). Mental health by the numbers. <https://www.nami.org/mhstats>
- Wood, L., Hooper, P., Foster, S., & Bull, F. (2017). Public green spaces and positive mental health—investigating the relationship between access, quantity, and types of parks and mental wellbeing. *Health & Place*, 48, 63-71. <https://doi.org/10.1016/j.healthplace.2017.09.002>
- Woods, D., Breslin, G., & Hassan, D. (2017). A systematic review of the impact of sport-based interventions on the psychological wellbeing of people in prison. *Mental Health and Physical Activity*, 12, 50-61. <https://doi.org/10.1016/j.mhpa.2017.02.003>