

A Comprehensive Review on the Effect of Exercise on Healthy Life in the Improvement of Quality of Life

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ABSTRACT

Background: The aim of this article is to review the current literature on the effect of regular exercise habits on healthy living and healthy aging in the process of sustainable quality of life

Materials and Methods: In the search for scientific literature for this review, data from the US National Library of Medicine (PubMed), MEDLINE, PsycINFO and SportDiscus were used, and the terms “physical activity”, “psychological health”, “healthy aging”, and “quality of life” were used. The relevant literature has also taken its source from the research of relevant articles from reference lists derived from data searches.

Results: The literature on the effects of regular physical activity on mental and general health is extensive. Many scientific studies explaining the short and long-term effects of physical activity on mood, cognitive functions, anxiety, depression, mental health and general health have revealed the physical, mental and social benefits of regular physical activity and the positive contribution of these benefits to health throughout a sustainable life. could be placed.

Conclusion: Regular exercise behavior has been associated with numerous benefits for both physical and mental health. This article provides a thorough review of existing literature highlighting the health benefits of regular exercise behavior and its positive contributions to wellness, including its effects on cardiovascular health, weight management, immune function, and mental health. The study also aims to examine the role of exercise in promoting healthy aging and reducing the risk of chronic diseases, while also aiming to discuss the implications of these findings in terms of public health and healthy aging.

Keywords: Quality of Life; Physical Activity; Psychological Health; Healthy Aging

Introduction

While heart diseases are defined as a concept that describes various diseases that may occur in the heart or blood vessels and pose a risk for a healthy life, cardiovascular system diseases are also known as very risky problems in terms of general health. Although there are many causes of cardiovascular system diseases, especially in recent years, it has been observed that overweight and obesity have extremely negative effects on heart health. Clinical studies show that overweight and obesity are associated with cardiovascular risk.

These studies, conducted mostly in middle and older age groups, reveal a clear consensus that overweight and obesity increase the risk of death from cardiovascular diseases in the elderly, and that healthy weight control is essential for a long and quality life, especially heart diseases (Elagizi, et al. [1,2]). A large body of research has demonstrated that regular exercise behavior can improve cardiovascular health and reduce the risk of heart disease and stroke. For example, studies found that regular exercise can lower blood pressure, reduce LDL cholesterol levels, and even improve overall heart function. In addition to cardiovascular health benefits, regular exercise behavior has

been found to be an effective tool for weight management (White M.P. et al. 2019). Some studies by (Jakicic et al. [3,4]) and (Petridou, et al. [5]) found that regular exercise can lead to significant weight loss and even prevent weight regain after diet-induced weight loss. According to the results of numerous studies on healthy living, it has been found that regular exercise behavior has a positive effect on mental health, which is of great importance in the process of sustainable healthy living and healthy aging.

There are many studies highlighting the effect mechanisms of physical activity on psychological wellness during the healthy aging process. One possible mechanism for the positive effect of exercise on mental health is the release of endorphins, naturally occurring chemicals in the body that can improve mood and reduce pain (Craft & Landers, [6,7]). Exercise can also increase blood flow to the brain, which can reduce the risk of cognitive decline and help to support mental and psychological health (Hassmen, Koivula, & Uutela, [8]; Gard et al. 2014). Regular exercise has been shown to reduce symptoms of depression and anxiety (Craft, Landers, et al. 1998; Mandolesi et al. [9]), improve mood, increase self-confidence and self-esteem, and reduce stress (Malm, Jakobsson, Isaksson, [10,11]). In addition, regular exercise has been found to have a protective effect against the onset of mental health disorders such as stress, depression and anxiety, which negatively affect the healthy living process (Bond, et al. [12-14]). In addition to physical and mental health benefits, exercise has also been linked to improvements in overall quality of life. A study by D'Aurea et al. (2022) found that regular exercise can improve sleep quality, reduce stress levels, and increase overall happiness. Overall, the evidence suggests that exercise can have numerous positive effects on both individual and societal levels of sustainable quality of life. By promoting physical and mental health, improving overall quality of life, and promoting sustainable living practices, exercise can be an important tool for achieving sustainable development goals.

Discussion

Healthy aging is a multifaceted concept that covers physical, mental and socio-psychological health. In addition to treatment measures that play an important role in reducing aging, Regular exercise behavior, together with healthy nutrition, can contribute to a healthy life and healthy aging process (Dominguez, et al. [15,16]). The effect of exercise on healthy life in the process of sustainable quality of life has been extensively researched in recent years. Studies aiming to examine the effect of a sedentary lifestyle on chronic disease and early death prove that regular physical activity is effective in preventing various chronic diseases and early death (Anderson & Durstine, [17]). Many studies show that there is a linear relationship between physical activity and health status, and that regular physical activity habits and increases in fitness lead to improvements in health status. Therefore, the importance of regular physical activity should be emphasized to reduce the risk of disease and premature death associated with physical inactivity. A study by (Warburton et al. [18]) found that regular exercise can improve cardiovascular health and reduce the risk of chronic diseases such as diabetes and obesity.

Similarly, a study by (Booth, et al. [19]) found that exercise can improve mental health and reduce the risk of depression and anxiety. In addition to physical health benefits, exercise has been found to have numerous positive effects on mental health and well-being. A study by (D'Aurea, et al. [20]) found that regular exercise can improve sleep quality, reduce stress levels, and increase overall happiness. Similarly, a study by (Craft & Perna [21]) found that exercise can reduce symptoms of depression and anxiety and even improve cognitive function. Also, a study by (Gill, et al. [22]) found that regular exercise can improve the neurological functions, including improving memory and attention and it has been found to have a positive effect on mental health by enhancing cognitive functions [23-25].

Conclusion

Healthy aging should be considered as a multidimensional concept that includes physical, mental and socio-emotional health. In addition to medical treatments that play an important role in slowing down the aging process, regular physical activity and healthy nutrition are known to make significant contributions to a healthy life. As scientific methods focus on healthy aging and the analysis and synthesis of aging modules, many new scientific findings will be revealed on this subject. There are various clinical studies in the field of healthy aging and sustainable healthy living, focusing on the solutions offered by anti-aging, maturation and aging, and ensuring the improvement that the individual can develop against the negative effects of aging, and active research has been carried out on this subject in recent years. A healthy lifestyle and healthy aging process are of great importance. Regular physical activity and exercise are associated with many different health benefits across all age groups, including older adults.

Not only the physical effects of exercise, but also the psychological effects play an important role in the process of a sustainable healthy life. Research has shown that exercise has positive effects on the tracking system, musculoskeletal system, balance, and mobility in older adults. It has also been determined that regular exercise improves mental health and alleviates psychological problems related to stressful life. As a result, it is known that regular physical activity habits contribute to increasing a healthy lifestyle. I am an individual at all ages, but especially regular exercise and healthy nutrition should be encouraged to support the healthy aging of the elderly and increase their freedom of life. In this respect, it is extremely important to introduce regular exercise habits into daily life in order to support possible treatment applications in the sustainable healthy living process and to enable the healthy aging process.

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Author Contributions

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References

- Elagizi A, Kachur S, Lavie, CJ, Carbone S, Pandey A, et al. (2018) An overview and update on obesity and the obesity paradox in cardiovascular diseases. *Progress in cardiovascular diseases* 61(2): 142-150.
- Zalesin K C, Franklin B A, Miller W M, Peterson E D, McCullough P A, et al. (2008) Impact of obesity on cardiovascular disease. *Endocrinology and metabolism clinics of North America* 37(3): 663-684.
- Jakicic J M, Clark K, Coleman E, Donnelly J E, Foreyt J, et al. (2001) American College of Sports Medicine position stand. Appropriate intervention strategies for weight loss and prevention of weight regain for adults. *Medicine and science in sports and exercise* 33(12): 2145-2156.
- Swift D L, McGee J E, Earnest C P, Carlisle E, Nygard, et al. (2018) The effects of exercise and physical activity on weight loss and maintenance. *Progress in cardiovascular diseases* 61(2): 206-213.
- Petridou A, Siopi A, Mougios V (2019) Exercise in the management of obesity. *Metabolism* 92: 163-169.
- Craft L L, Landers D M (1998) The effect of exercise on clinical depression and depression resulting from mental illness: A meta-analysis. *Journal of Sport and Exercise Psychology*, 20(4): 339-357.
- White R L, Babic M J, Parker P D, Lubans D R, Astell-Burt, et al. (2017) Domain-specific physical activity and mental health: a meta-analysis. *American journal of preventive medicine* 52(5): 653-666.
- Hassmen P, Koivula N, Uutela A (2000) Physical exercise and psychological well-being: A population study in Finland. *Preventive Medicine* 30(1): 17-25.
- Mandolesi L, Polverino A, Montuori S, Foti F, Ferraioli G, et al. (2018). Effects of physical exercise on cognitive functioning and wellbeing: biological and psychological benefits. *Frontiers in psychology* 9: 347071.
- 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* 7(5): 127.
- O Oral, P Tatlibal, U Oral (2022) Psychological and Social Results of COVID-19 Pandemic in Relation to Physical Activity: A Narrative Review. *Scientific Chronicles* 27(2): 282-288.
- Bond G, Stanton R, Wintour S A, Rosenbaum S, Rebar A L, et al. (2020) Do exercise trials for adults with depression account for comorbid anxiety? A systematic review. *Mental health and physical activity* 18: 100320.
- Josefsson T, Lindwall M, Archer T (2014) Physical exercise intervention in depressive disorders: Meta-analysis and systematic review. *Scandinavian journal of medicine & science in sports* 24(2): 259-272.
- Kandola A, Ashdown-Franks G, Hendrikse J, Sabiston C M, Stubbs B, et al. (2019) Physical activity and depression: Towards understanding the anti-depressant mechanisms of physical activity. *Neuroscience & Biobehavioral Reviews* 107: 525-539.
- Dominguez L J, Veronese N, Baiamonte E, Guarrera M, Parisi A, et al. (2022) Healthy aging and dietary patterns. *Nutrients* 14(4): 889.
- Eckstrom E, Neukam S, Kalin L, Wright J (2020) Physical activity and healthy aging. *Clinics in geriatric medicine* 36(4): 671-683.
- Anderson E, Durstine J L (2019) Physical activity, exercise, and chronic diseases: A brief review. *Sports medicine and health science* 1(1): 3-10.
- Warburton D E, Nicol C W, Bredin S S (2006) Health benefits of physical activity: the evidence. *Canadian Medical Association Journal* 174(6): 801-809.
- Booth F W, Roberts C K, Laye M J (2012) Lack of exercise is a major cause of chronic diseases. *Comprehensive Physiology* 2(2): 1143-1211.
- D'Abreo C V R, Frange C, Polyares D, Souza A A L D, Lenza, M, et al. (2022). Physical exercise as a therapeutic approach for adults with insomnia: systematic review and meta-analysis. *Einstein (Sao Paulo)*, 20, eA08058.
- Craft L L, Perna F M (2004) The benefits of exercise for the clinically depressed. *Primary Care Companion to the Journal of Clinical Psychiatry* 6(3): 104-111.
- Gill D L, Hammond C C, Reifsteck E J, Jehu C, Williams R A, et al. (2013) Physical activity and quality of life. *Journal of preventive medicine and public health* 46(Suppl 1): S28.
- Gard T, Noggle J J, Park C L, Vago D R, Wilson A, et al. (2014) Potential self-regulatory mechanisms of yoga for psychological health. *Frontiers in human neuroscience* 8: 100258.
- Haskell W L, Lee I M, Pate R R, Powell K E, Blair S N, et al. (2007) Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Circulation* 116(9): 1081-1093.
- White M P, Alcock I, Grellier J, Wheeler B W, Hartig T, et al. (2019) Spending at least 120 minutes a week in nature is associated with good health and wellbeing. *Scientific reports* 9(1): 1-11.

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