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The Effect of Physical Activity on Physical Health: A Literature Study

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Abstract

The decline in physical activity in modern society has become one of the main causes of the increasing prevalence of non-communicable diseases such as obesity, hypertension, and diabetes. Physical activity has a major contribution to improving physical health, including cardiorespiratory endurance, muscle strength, flexibility, balance, and body composition. This study aims to examine in depth the effect of physical activity on physical health through qualitative methods based on literature studies. Data were collected from various scientific journals, WHO reports, and relevant reference books in the period 2015–2025. The results of the study indicate that routine physical activity, whether in the form of aerobic exercise, strength training, or flexibility training, has a significant impact on improving physical fitness and mental health. In addition, it was also found that public awareness of the importance of physical activity is still low, so community-based education and interventions are needed. This study emphasizes the importance of integrating physical activity into daily life as a preventive measure that can support quality of life. This study is expected to be a reference in formulating health policies and strategies for promoting an active lifestyle based on scientific evidence.

Keywords: Physical activity, Physical health, Literature study.

Introduction

The high prevalence of sedentary lifestyles in modern society has become a serious global health issue. Technological advances and changes in work patterns that are increasingly done online have led to a decline in individuals' daily physical activity. Data from various national surveys show that Indonesians, especially in urban areas, are increasingly doing less physical activity. This has an impact on increasing cases of non-communicable diseases such as obesity, hypertension, type 2 diabetes, and musculoskeletal problems. Epidemiological studies also show that lack of physical activity is correlated with an increased risk of premature death from heart disease and stroke. Therefore, it is important to understand the role of physical activity as a preventive factor for these various health conditions.

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Physical activity has significant benefits for improving overall physical fitness. Several scientific studies have shown that activities such as aerobic exercise, strength training, and flexibility training can improve heart-lung capacity, muscle strength, body composition, and balance. A meta-analysis of several randomized controlled trials showed that structured physical activity significantly increased VO_2max and reduced body mass index and body fat. In the elderly, physical activity has also been shown to prevent motor function decline, reduce the risk of falls, and maintain bone and muscle health. In other words, physical activity is not just a means of entertainment, but a vital instrument in maintaining and improving the quality of life through optimizing physical fitness.

Although the benefits of physical activity have been scientifically proven, public awareness to do it regularly is still relatively low. Many people still view exercise as an additional activity that can be postponed or avoided, not as a basic daily need. These obstacles arise from various factors, such as time constraints, lack of facilities, workload, and the perception that exercise is only for certain groups. Qualitative studies in Indonesia show that cultural factors, gender, and social pressure also contribute to low participation in physical activity. Therefore, there needs to be an educational approach that emphasizes the importance of exercise as part of a healthy lifestyle, as well as policy support that facilitates public access to decent and safe sports facilities.

Amidst these challenges, literature studies play an important role in developing a scientific understanding of the effects of physical activity on physical health. Through a systematic literature review, various research results can be collected, analyzed, and synthesized to obtain a comprehensive picture of the relationship between the two variables. Literature studies allow researchers to see the consistency of findings, identify research gaps, and formulate evidence-based recommendations that can be used by practitioners, educators, and policy makers. Thus, the literature study approach is not only academically relevant, but also has a practical impact in encouraging behavioral change and the formation of policies that support increased physical activity in people's lives.

Method

This study uses a descriptive qualitative approach with a literature review method as a data collection and analysis technique. Literature review was chosen because the main objective of this study is to review, summarize, and analyze previously published scientific findings related to the effects of physical activity on physical health. This approach allows researchers to gain in-depth understanding theoretically and empirically without having to collect primary data.

The data sources in this study came from scientific articles, national and international accredited journals, reference books, WHO reports, and policy documents related to physical activity and

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physical fitness. Inclusion criteria in literature selection include: (1) publications within the last 10 years (2015–2025); (2) directly relevant to the topic of physical activity and physical health; (3) have valid research methods, both quantitative and qualitative; and (4) are available in Indonesian or English. Meanwhile, exclusion criteria are articles with incomplete data, not through peer review, or are non-scientific opinions.

Data analysis techniques were carried out through the process of data reduction, thematic categorization, and content synthesis. Researchers first identified, recorded, and collected literature that met the criteria, then grouped them based on themes such as types of physical activity, physical health indicators, age groups, and long-term effects. Each finding was critically reviewed to determine consistency, differences, and interrelationships between studies. This procedure refers to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to maintain the validity and transparency of the review process.

Through this method, the study aims to compile a comprehensive and structured picture of how physical activity affects various aspects of physical health. The results of this study are expected to be a strong conceptual basis for the development of preventive health policies and active lifestyle education in the community.

Results and Discussion

Physical activity is an important component in maintaining physical health, especially in the midst of modern lifestyles that are increasingly sedentary. Various studies have shown that lack of physical movement or minimal physical activity has a significant relationship with an increased risk of non-communicable diseases, such as obesity, hypertension, and type 2 diabetes. According to the World Health Organization (WHO), more than 1.4 billion adults in the world are not physically active enough, and this condition causes around 3.2 million deaths each year. Therefore, physical activity not only functions as a complement to a healthy lifestyle, but also as a primary instrument in disease prevention and promotion of overall physical health.

Physical health, in a scientific context, includes various components such as muscle strength, cardiovascular endurance, flexibility, and balanced body composition. Physical activity plays a role in optimizing all of these elements. A study conducted by Warburton et al. (2006) showed that regular physical activity can increase cardiorespiratory capacity, lower blood pressure, increase glucose metabolism, and improve blood lipid profiles. This shows that physical exercise not only has an impact on fitness aspects, but also provides systemic physiological effects that contribute directly to improving the quality of physical health.

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Furthermore, certain types of physical activity have specific effects on certain aspects of physical fitness. For example, aerobic exercise such as brisk walking, running, or cycling has been shown to significantly improve cardiovascular and pulmonary endurance. Meanwhile, strength training such as weight lifting or resistance training can strengthen muscles and bones, which is very important especially for the elderly to prevent osteoporosis and sarcopenia. Research by the American College of Sports Medicine (ACSM) confirms that a combination of aerobic and resistance training provides more optimal results in improving components of physical fitness than just doing one type of exercise alone.

On the other hand, physical activity also plays an important role in weight management and body composition. An imbalance between energy intake and energy expenditure is a major cause of weight gain and obesity. Physical exercise helps burn calories, increase metabolism, and improve the muscle-to-fat ratio. A longitudinal study by Ross et al. (2000) found that participation in a 12-week aerobic exercise program significantly decreased visceral fat and increased muscle mass, even without major changes in diet. This strengthens the argument that physical activity plays a central role in regulating healthy body composition.

Physical activity also contributes to postural balance and body flexibility, which are important indicators of physical health, especially to prevent injuries during movement. Stretching exercises, yoga, or pilates can significantly improve muscle and joint flexibility, thereby reducing the risk of injury, lower back pain, and muscle tension. Research by Behm et al. (2016) states that flexibility can be significantly improved in just four weeks with a regular stretching program. This aspect is often overlooked, even though it is important to maintain body mobility, especially in the elderly population and workers with limited physical activity.

In addition to the physical aspect, the benefits of physical activity are also seen in mental and emotional health, which ultimately supports overall physical health. Physical activity stimulates the production of endorphins and serotonin in the brain which function as natural neurotransmitters that reduce stress and depression. Meta-analytic research by Rebar et al. (2015) showed that physical activity significantly reduced symptoms of mild to moderate depression and increased perceptions of quality of life. This balance of mental and physical health is important because mental disorders can also affect body functions, including the immune system and metabolism.

However, although the benefits of physical activity have been scientifically proven, there are still many challenges in its implementation in society. Barriers such as lack of time, limited facilities, and low awareness and education about the importance of exercise are major obstacles in forming an active lifestyle. The results of the 2018 Riskesdas national survey showed that more than 33% of Indonesians are still classified as physically inactive. This low participation shows a gap

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between scientific knowledge and practical application at the community level. Therefore, an evidence-based educational approach needs to be strengthened in various sectors, from education, communities to public policy.

In an academic context, literature studies have strategic value in compiling and strengthening the understanding of this phenomenon. With this method, researchers can collect and analyze various relevant research results to produce a focused scientific synthesis. Through consistent mapping of themes and findings from various literatures, it can be seen what variables influence the effectiveness of physical activity on physical fitness. For example, factors such as age, gender, duration of exercise, and initial health status are moderators that determine the magnitude of the effect of physical intervention. Thus, literature reviews not only provide theoretical information, but also become the basis for formulating policies and designing contextual interventions.

Overall, this discussion reinforces that physical activity is an important foundation in forming, maintaining, and improving physical health. Scientific evidence reviewed through a literature study approach shows that the positive effects of physical activity are holistic, covering physiological, psychological, and social aspects. The biggest challenge today is not in proving its benefits, but in implementing and internalizing the values of an active lifestyle in society. Therefore, synergy is needed between scientists, practitioners, government, and the wider community to make physical activity part of a sustainable healthy lifestyle culture.

Conclusion

Based on the results of the literature review, it can be concluded that physical activity has a very significant role in improving and maintaining overall physical health. Physical activity not only has an impact on improving cardiorespiratory fitness and muscle strength, but also contributes to maintaining flexibility, balance, and a healthy body composition. Scientific evidence shows that various types of exercise, both aerobic and resistance, can provide specific benefits that complement each other to the components of physical fitness. In addition to physical benefits, physical activity has also been shown to have a positive effect on mental health, including reducing stress and symptoms of depression. However, the prevalence of a sedentary lifestyle is still high in various communities, especially in urban areas. Low awareness of the importance of physical activity is a major obstacle in creating a physically healthy society. Therefore, health education and promotion efforts must continue to be intensified through an evidence-based approach and local culture. The literature study conducted in this study strengthens the understanding of the positive impacts of physical activity and becomes a scientific basis for designing preventive policies in the field of public health. This study also shows that physical activity is an integral part

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of a long-term quality of life improvement strategy. Community-based interventions and cross-sector support are needed to encourage more active behavioral changes. Thus, physical activity should be viewed as an essential need, not just a lifestyle choice. Collective efforts to increase physical activity participation are believed to create a healthier, fitter, and more productive generation.

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