
REGULAR PHYSICAL ACTIVITIES: ITS' CORRELATION WITH FITNESS AND LONG LIFE SPAN OF THE ELDERLY

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ABSTRACT

Participation in physical activities as an older adult is one of the most important things to do for the health. It can prevent or delay many of the health problems that seem to come with age. Physical activities also increase health benefits. The study assessed regular physical activities: its' correlation with fitness and long life span of the elderly. The study reviewed the types of physical activities for the elderly which were said to be aerobic activity, strength activity and balance activity. The study also explored the effects of regular physical activities on fitness of the elderly, the effects of regular physical activities on lifespan of the elderly, the recommended time for physical activities by the elderly and the recommended duration for elderly engagement in physical activities. On this basis it was conclude that regular physical activities have proven to be a vital determinant of both fitness and extended life span among the elderly. Numerous studies affirm the positive impact of exercise on cardiovascular health, muscle strength, and cognitive function. Engaging in physical activities for as little as 150 minutes per week has been associated with a significant increase in life expectancy. One of the recommendations made was that government should ensure the availability of accessible and senior-friendly recreational facilities. This includes parks, walking paths, and fitness centers equipped with amenities that cater to the unique needs of older individuals, fostering a more inclusive environment.

KEYWORDS: Regular Physical Activities, Fitness, Long Life Span and Elderly.

INTRODUCTION

Regular physical activity is a cornerstone of healthy aging, with profound implications for the fitness and longevity of the elderly population. As societies around the world grapple with the challenges posed by an aging demographic, understanding the correlation between regular physical activities and the well-being of older individuals becomes increasingly crucial. This introduction explores the multifaceted benefits of regular physical activities for the elderly, shedding light on how engagement in exercise can contribute to enhanced fitness levels and an extended lifespan.

Numerous studies have repeatedly demonstrated the beneficial effects of regular physical activity on various aspects of older health. Exercise has been linked to better cardiovascular health, muscle strength, and flexibility, all of which are important aspects of total fitness. The American Heart Association recommends that older persons engage in at least 150 minutes of moderate-intensity aerobic activity per week, highlighting the importance of exercise in heart health and preventing chronic illnesses like cardiovascular disease.

Beyond the physical benefits, regular physical activity has been linked to cognitive well-being in the elderly. Numerous studies have found that exercise can help minimize the risk of cognitive decline and

neurodegenerative illnesses, eventually improving mental sharpness and maintaining cognitive function as people age. Cognitive preservation is especially important for the overall quality of life and independence of the elderly (Boulton, 2018). The link between regular physical activity and a longer lifespan in the elderly is backed by solid data. A groundbreaking study published in the British Journal of Sports Medicine discovered that engaging in physical activities, such as walking or gardening, for just 150 minutes per week resulted in a considerable increase in life expectancy. The study emphasized the necessity of adding regular physical activities into the elderly's everyday lives, proving their ability to improve longevity (Idland, 2013). Furthermore, the social side of physical activity cannot be ignored. Group exercises and community-based fitness programs encourage social interaction, lowering feelings of loneliness and instilling a sense of belonging in the elderly. This social dimension contributes to mental well-being and may indirectly impact the overall life span by promoting a positive and supportive environment.

CONCEPT OF PHYSICAL ACTIVITIES

Physical activities (PA) are defined as any bodily movement produced by contraction of skeletal muscles that requires energy expenditure. This includes exercise as well as other activities that involve bodily movement and are done as part of playing, working, active transportation, house chores, and recreational activities. Physical activities can also be defined as an activity that encompasses all activities, at any intensity, that can be performed during any time of day or night, including both exercise and incidental activities integrated into the daily routine. Physical activity increases energy expenditure and is a key regulator in controlling body weight.

The World Health Organization (2022) defined physical activities as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activities refer to all movement, including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity to improve health. Joe (2020) explained that physical activity involves people moving, acting, and performing within culturally specific spaces and contexts and is influenced by a unique array of interests, emotions, ideas, instructions, and relationships. Performing physical activity on a regular basis will help to improve overall health and fitness, as well as decrease the risk of many chronic diseases.

Laura (2023) stated that physical activities are movements of the body created by the contraction of skeletal muscles, resulting in the expenditure of energy. This includes any motion one makes throughout the day, excluding sitting still or lying down. For example, walking to class, taking the stairs, mowing the lawn, and even cleaning your house can be considered physical activities. Thiago (2022) mentioned that physical activities are essential human acts resulting from inherent urges: to feel, to explore, to transform, and to connect. These urges prelude and compel people's involvement in physical activity and contribute to the meanings and purposes that sustain life and growth, including all types of physical activity; these can be broadly categorized as leisure, transport, household, education, and occupational activities. Nancy explained (2018) that physical activity is planned, structured, repetitive, and purposefully focused on the improvement or maintenance of one or more components of physical fitness. Physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activities are any form of body movement that works one's muscles and requires more energy than resting.

CONCEPT OF REGULAR PHYSICAL ACTIVITIES

Regular activities or exercises is concerned with an individual's participation in bodily and muscular movement regularly in order to stay fit physically and mentally. According to Quora (2016), regular exercise is a consistent and planned physical activity performed with the intention of improving or maintaining overall health and fitness. According to Felman (2019), regular exercise involves engaging in physical activity and increasing the heart rate beyond resting levels. Regular exercise is an important part of preserving physical and mental health. Caspersen, Powell, and Christenson (1985), as cited in Neurol (2024), defined the concept of regular exercise as any bodily movement produced by skeletal muscles that results in energy expenditure. The energy expenditure can be measured in kilocalories. Liberma (2020) defined regular exercise as "intentional physical activity to enhance or maintain fitness and overall health."



Regular physical activities, or regular exercises, according to the World Health Organization (2022), are bodily movements produced by skeletal muscles that require energy expenditure. Regular exercise, both moderate- and vigorous-intensity physical activity, improves health. Mayo Clinic (2023) mentioned that regular exercising can help prevent excess weight gain or help one keep off lost weight. When one takes part in physical activity regularly, such a person burns calories. The more intense the activity, the more calories one burns. Regular physical exercises are essential for making one's body strong.

Engaging in physical exercise regularly benefits an individual's heart, body, and mind. Physical activity or exercise contributes to preventing and managing non-communicable diseases such as cardiovascular diseases, cancer, and diabetes. Physical exercise is also paramount in reducing symptoms of depression and anxiety. Regular exercise also enhances thinking, learning, and judgment skills. There are so many benefits attached to engaging in regular physical exercise, including the fact that regular exercise ensures healthy growth and development in young people. Globally, people who are insufficiently active in regular exercise have a 20%–30% increased risk of death compared to people who are sufficiently active (World Health Organization).

CONCEPT OF FITNESS

Fitness is the ability of an individual to perform daily activities efficiently without undue fatigue, reduce the risk of health problems, and have extra “reserve” in case of emergency. According to Physical Fitness (2014) fitness “refers to the ability of the body to adapt to an external environment and cope with daily activities. Good physical fitness not only enables a person to carry out daily work but also gives him or her extra energy to enjoy leisure, ensuring the body can adapt to unexpected environmental changes and daily pressures. There are two kinds of physical fitness: health-related physical fitness and sports-related physical fitness.

Physical fitness is a state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations, and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise, and sufficient rest, along with a formal recovery plan. Before the Industrial Revolution, fitness was defined as the capacity to carry out the day's activities without undue effort. With automation and changes in lifestyles, physical fitness is now considered a measure of fatigue or lethargy. However, the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, to improve the immune system, and to meet emergency situations (Wikipedia, 2023).

Physical fitness refers to the ability of your body systems to work together efficiently to allow you to be healthy and perform activities of daily living. Being efficient means doing daily activities with the least effort possible. A fit person is able to perform schoolwork, meet home responsibilities, and still have enough energy to enjoy sports and other leisure activities. A fit person can respond effectively to normal life situations, such as raking leaves at home, stocking shelves at a part-time job, and marching in the band at school. A fit person can also respond to emergency situations, for example, by running to get help or aiding a friend in distress (Human Kinetics, 2024).

CONCEPT OF LONGEVITY

Longevity refers to the ability for an individual to live a long life beyond their average age at death. Longevity can be considered as the average lifespan of an organism under ideal conditions. A long life span is the average length of life of a kind of organism, especially in a particular environment or under specified circumstances. A long lifespan refers to the idea of living for an extended period of time. It is often associated with the desire for increased human longevity and the pursuit of methods or technologies to extend the average lifespan beyond what is considered normal (López-Otín et al., 2013). The term "long lifespan" means the duration of time that an organism, typically a living being, exists or is expected to live. It is the measurement of the length of an individual's life from birth to death. Longevity is influenced by various factors, including genetics, environmental conditions, healthcare, lifestyle, and advances in medical science. In the context of humans, an increased focus on nutrition, healthcare, disease prevention, and

advancements in medical technologies has contributed to an overall improvement in life expectancy, resulting in a longer lifespan.

The pursuit of a long lifespan often involves scientific research and interventions aimed at understanding and addressing the biological processes of aging, with the goal of extending the healthy and active years of life. Discussions around long lifespans also encompass ethical considerations, societal impacts, and the quality of life during the additional years (Gratton and Scott, 2016).

TYPES OF PHYSICAL ACTIVITIES FOR ELDERLY

Physical activity (PA) in older people is critically important in the prevention of disease, maintenance of independence, and improvement of quality of life. Aging does not have to be as intimidating as you may think. Aging is an inevitable process that manifests differently for each individual. Starting to exercise in late adulthood has a lot of numerous benefits. Elderly who participate in physical activities enhance balance, strength, and flexibility. Below are listed out the types of activities for elderly:

- **Aerobic activity**

The benefits of aerobic exercise for the elderly are well-known. They extend beyond cardiovascular changes and can reduce the inactivity-induced loss of strength, mobility, balance, and endurance that are vital for the safe performance of daily activities in older adults. Aerobics is an important activity because it makes our hearts beat more rapidly and forces our breathing rate to increase. This helps us meet the demands of the body's movement. Older adults who engage in regular aerobic activity are faced with greater health benefits, including a reduced risk of age-related loss of function, a reduced risk of heart disease, high blood pressure, strengthened hearts, and a reduced risk of stroke. Some examples of aerobic activities are dancing, water aerobics, walking, jogging, sports like tennis or basketball, and some form of yoga (Catalina, 2021).

- **Strength activity**

Strength activity focuses on improving muscular strength, endurance, and overall fitness. Strength activity makes the muscles work harder than usual. This increases the muscles' strength, size, power, and endurance. The activities involve using the body weight or working against resistance. Elderly's need strength training more and more as they grow older to stay mobile for their everyday activities. The goal of training is to reduce the loss of muscle mass and the resulting loss of motor function. Strength training can also reduce the signs and symptoms of many diseases and chronic conditions in the following ways: Arthritis reduces pain and stiffness and increases strength and flexibility. Some of these activities include: Strengthening exercises using exercise bands, weight machines, or hand-held weights Body-weight exercises Digging, lifting, and carrying groceries (Natalia, 2023).

- **Balance activity**

A good balance is important for helping adults retain mobility as they age. Balance activity strengthens self-efficacy in balance control, leading to improved self-efficacy, reduced fear of falling, increased walking speed, and improved physical function. The elderly found the program motivating, valuable, fun, and enjoyable. Balance control is the foundation of a person's ability to move and function independently. However, balance control declines with age, and impaired balance is a major risk factor for falls among older adults. Therefore, balance activities are needed, such as: walking backwards, Standing on one leg, Walking heel-to-toe Practicing standing from a sitting position, Strengthening muscles of the back, abdomen, and legs (Alexander, 2015).

EFFECTS OF REGULAR PHYSICAL ACTIVITIES ON FITNESS OF THE ELDERLY

According to Tricco et al. (2017) participation in physical activities can contribute to maintaining quality of life, health, and physical function and reducing falls among the elderly. The following are the effects of regular physical activities on fitness of the elderly:

- **Cardiorespiratory Fitness**

Regular physical activity has a profound impact on cardiorespiratory fitness in the elderly. Aerobic exercises, such as walking, swimming, and cycling, enhance cardiovascular health by improving heart and lung function (Nelson et al., 2007). Studies have shown that sustained aerobic activities contribute to increased endurance and reduced risk of cardiovascular diseases among older individuals.

- **Muscular Strength and Endurance**

Engaging in resistance training, such as weight lifting or bodyweight exercises, promotes muscular strength and endurance in the elderly (Peterson et al., 2010). Progressive resistance training has been linked to improvements in muscle mass, bone density, and overall functional capacity, crucial for maintaining independence and preventing frailty.

- **Flexibility and Balance**

Aging often leads to a decline in flexibility and balance, increasing the risk of falls and injuries. Regular participation in activities that enhance flexibility, such as stretching exercises or yoga, can mitigate these issues (Chang et al., 2015). Moreover, balance exercises, including tai chi, have been shown to reduce the risk of falls among older adults.

- **Cognitive Function**

Physical activity has also been associated with cognitive benefits in the elderly. Regular exercise is linked to improved memory, attention, and executive function (Erickson et al., 2011). The positive impact on cognitive health is particularly relevant in the context of preventing or delaying age-related cognitive decline.

EFFECTS OF REGULAR PHYSICAL ACTIVITIES ON LONGEVITY OF THE ELDERLY

Regular physical activity is essential for the longevity of the elderly. According to Bains (2020), 150 minutes of exercise or more each week increased life expectancy by about 7 years over those regardless of weight, age, sex, and health conditions. The following are other effects of regular physical activities on the elderly:

- **Cardiovascular Health**

Regular physical activity plays a pivotal role in maintaining cardiovascular health, a crucial factor in determining overall lifespan (Booth et al., 2012). Aerobic exercises, such as brisk walking or swimming, contribute to improved heart function, reduced blood pressure, and a lower risk of cardiovascular diseases, ultimately influencing longevity.

- **Metabolic Health**

Engaging in regular physical activities positively impacts metabolic health, including blood glucose regulation and insulin sensitivity (Rejeski et al., 2017). Managing these aspects through exercise helps mitigate the risk of developing chronic conditions such as diabetes, contributing to a longer and healthier life.



- **Immune Function**

Physical activity has been linked to enhanced immune function, which becomes increasingly important in preventing infections and illnesses in older age (Simpson et al., 2020). Regular exercise supports the immune system's ability to defend against pathogens, potentially influencing lifespan by reducing the impact of infectious diseases.

- **Cognitive Benefits**

Physical activity is associated with cognitive benefits, including improved memory, attention, and executive function (Kramer et al., 2006). Preserving cognitive function through regular exercise may contribute to maintaining independence and a higher quality of life in the later years, impacting overall longevity.

- **Psychological Well-being**

Regular physical activity is linked to positive mental health outcomes, reducing the risk of depression and anxiety in the elderly (Penedo and Dahn, 2005). Mental well-being is interconnected with physical health and may indirectly influence lifespan by promoting a more active and fulfilling lifestyle.

RECOMMENDED TIME FOR PHYSICAL ACTIVITIES BY THE ELDERLY

As an older adult, regular physical activity is one of the most important things to do for your health. It can prevent or delay many of the health problems that seem to come with age. Physical activities also increase health benefits. Jason (2023) stated that some believe that getting up early to squeeze in a morning workout is the way to go, while others believe the afternoon or early evenings are best for their body. But there is no best time. The best time to exercise depends on the person. It is recommended that "seniors should partake in a mixture of exercises, including cardio and strength training, which encourages routine, both for simplicity and for accountability." Johnson (2022) mentioned that the best time of day for anyone to exercise is the time that works best for them.

RECOMMENDED DURATION FOR ELDERLY ENGAGEMENT IN PHYSICAL ACTIVITIES

An older adult in the range of 65 and above should at least schedule 150 minutes a week of moderate-intensity activity such as brisk walking and at least 2 days a week of activities that strengthen muscles. Adults with chronic conditions and disabilities should get at least 150 minutes (for example, 30 minutes 5 days a week) of moderate-intensity aerobic physical activity a week and at least 2 days a week of muscle-strengthening activities that include all major muscle groups. 150 minutes of physical activity each week sounds like a lot for an elderly person, but it might not be done all at once (Center for Disease Control and Prevention, 2021).



CONCLUSION

In conclusion, regular physical activities have proven to be a vital determinant of both fitness and extended life span among the elderly. Numerous studies affirm the positive impact of exercise on cardiovascular health, muscle strength, and cognitive function. Engaging in physical activities for as little as 150 minutes per week has been associated with a significant increase in life expectancy. Beyond the physical benefits, the social dimension of group exercises contributes to mental well-being and a sense of community. As societies age, promoting and facilitating regular physical activity emerges as a key strategy for enhancing the overall well-being and longevity of the elderly population.

RECOMMENDATIONS

- Government should ensure the availability of accessible and senior-friendly recreational facilities. This includes parks, walking paths, and fitness centers equipped with amenities that cater to the unique needs of older individuals, fostering a more inclusive environment.
- Encourage community-based fitness initiatives to promote social interaction among the elderly. Group activities not only contribute to physical well-being but also provide a support system, reducing feelings of isolation and enhancing mental health.
- Launch public awareness campaigns emphasizing the importance of regular physical activities for the elderly. Disseminate information about the specific benefits of exercise on cardiovascular health, muscle strength, cognitive function, and life expectancy.



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