

Health Related Physical Activities and their impacts on Health

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Abstract

Regular exercise, walking, cycling, and yoga are all examples of health-related physical activities that can significantly improve overall health and well-being. These activities boost cardiovascular fitness, strengthen muscles, and increase flexibility, lowering the risk of chronic diseases such as diabetes, hypertension, and obesity. They also improve mental health by reducing stress, anxiety, and sadness while encouraging improved sleep and mood management. Physical exercises also boost the immune system and promote healthy ageing. Integrating these behaviors into everyday routines promotes long-term physical and mental resilience, resulting in a healthier lifestyle.

Keywords: Health, physical activities, fitness, yoga, exercise

Introduction

Health-related physical activities include bodily motions that improve or maintain physical fitness, health, and well-being. These include aerobic exercises, resistance training, sports, yoga, and recreational activities. Studies show that they have a significant impact on cardiovascular health, mental wellness, and chronic illness management.

Health-related physical activities are essential for maintaining and improving overall well-being, and they play an important role in the prevention and management of various health disorders. These activities include a variety of exercises and movements aimed at increasing cardiovascular fitness, muscular strength, flexibility, and body composition. Regular participation in such activities has been found to have a positive influence on both physical and mental health, building resistance against chronic illnesses such as obesity, diabetes, and heart disease, as well as improving mood, lowering stress, and improving cognitive performance.

Physical activity can have a transforming influence on cardiovascular health. Aerobic exercises like walking, jogging, and cycling improve heart function by increasing circulation, lowering blood pressure, and lowering cholesterol. This lowers the risk of coronary artery disease and stroke. Furthermore, resistance training increases muscle mass and bone density, which are critical for avoiding osteoporosis and slowing age-related muscle loss, particularly in older adults.

Beyond the physical benefits, health-related physical activities are essential for mental wellness. Regular exercise causes the production of endorphins and neurotransmitters such as serotonin and dopamine, which improve mood and alleviate symptoms of depression and anxiety. Furthermore, practices like yoga and tai chi integrate mindfulness, which promotes relaxation and mental clarity. These advantages extend to cognitive health, as research shows that physical activity enhances memory, and focus, and prevents neurodegenerative disorders such as Alzheimer's.

The social aspect of physical exercises adds to their health benefits. Participating in group sports or fitness courses promotes social connection while lowering feelings of loneliness and isolation, both of which are known risk factors for poor mental and physical health. These relationships foster a sense of camaraderie and motivation, which encourages persistent participation in physical activity.

Health-related physical activities are essential components of a healthy lifestyle, delivering several advantages in the physical, mental, and social domains. By incorporating regular exercise into their daily routines, people can improve their quality of life, prevent chronic illnesses, and lay the groundwork for long-term health.

Review of Related Literature

In terms of cardiovascular health, regular physical activity has been demonstrated to lower the risk of cardiovascular disease (CVD) by reducing blood pressure, cholesterol, and heart function. Aerobic workouts (such as jogging and swimming) are especially beneficial for improving heart health [1, 2].

Physical activity is essential for treating diabetes, hypertension, and obesity. Exercise increases insulin sensitivity, aids in weight management, and lowers inflammatory markers. Strength training increases muscular mass, which improves metabolic health [3, 4]. Weight-bearing activities like running and strength training increase bone density and lower the risk of osteoporosis. Stretching and flexibility exercises improve joint health and help prevent injuries [5, 6].

Controlling stress, anxiety, and depression has a vital impact on mental health. Regular physical activity alleviates sadness and anxiety symptoms by increasing endorphin levels and neuroplasticity. Yoga and mindfulness-based exercises are particularly beneficial in reducing stress [7, 8]. Exercise improves cognitive function, memory, and executive functioning, especially among older persons. It also lowers the risk of neurological disorders such as Alzheimer's and Parkinson's [9-10].

Participating in group activities and team sports encourages social connection, minimizing feelings of isolation and loneliness. Health-related activities promote healthier lifestyle choices, such as balanced diets and more restful sleep patterns [11, 12]. The World Health Organization (WHO) recommends that individuals engage in 150-300 minutes of moderate-intensity aerobic physical activity per week. The combination of aerobic, resistance, and flexibility training optimizes benefits [13].

Regular physical activity lowers the risk of cardiovascular disease (CVD) by improving heart function, lowering blood pressure, and increasing cholesterol levels. Aerobic activity, such as walking and cycling, greatly reduces the risk of coronary heart disease and stroke [14].

Physical activities such as yoga, swimming, and running can help relieve symptoms of melancholy, anxiety, and tension. Exercise increases endorphin release, which improves mood and cognitive performance [15]. HRPA helps with weight management and improves insulin sensitivity, lowering the risk of Type 2 diabetes. High-intensity interval training (HIIT) is very helpful for increasing metabolic rate [16]. Physical activities designed for older individuals (e.g., tai chi, resistance training) improve balance, lower fall risk, and slow age-related muscle loss (sarcopenia). They also improve the quality of life and independence [17].

Weight-bearing workouts such as jogging and resistance training increase bone density, lowering the incidence of osteoporosis and fractures, especially in postmenopausal women [18]. Physical activity in children promotes physical development, enhances intellectual achievement, and reduces the incidence of juvenile obesity. Play-based and school-structured activities are especially beneficial [19]. Moderate-intensity physical activities improve immune system function, however, extreme exercise can temporarily inhibit it. Brisk walking improves lymphocyte circulation and reduces inflammation [20].

Methodology

The research methodology for the study on Health-Related Physical Activities (HRPAs) and their Impacts on Health adopted a mixed-methods approach, integrating quantitative and qualitative techniques to ensure a comprehensive analysis. There were 264 responses collected from different regions in Kerala. The study includes two age groups of data aged between 18-21 and 22-38, employing purposive sampling to include individuals with varying levels of physical activity (e.g., pre-contemplation, contemplation, preparation, action and maintenance). This includes demographic information about data collection as well as three categorizations: gender, age groups, and phases of change in physical activity.

Qualitative data was gathered using semi-structured interviews to explore participants' perceptions. Collected data was analysed using descriptive and inferential statistics for quantitative results and thematic analysis for qualitative insights, allowing triangulation of findings to understand the health impacts holistically. Overall, this study relies on descriptive statistics and the chi-square test to provide statistical results.

Results and discussion

Health-related physical activities have a significant and well-documented positive impact on overall health and well-being. Multiple research and guidelines emphasize the significance of regular physical activity in avoiding, controlling, and improving a variety of health issues. This section addresses the results of physical activity and their effects on health.

Table 1: Descriptive Statistics of Psychological Well-Being and its Variables

Collection of Data		
N=264		
Categories		
Gender	Male (M)	149
	Female (F)	115
Categories of Age	18-21year	124
	22-38year	140
Stages of Physical Activity	Pre-contemplation	30
	Contemplation	41
	Preparation	24
	Action (Act)	26
	Maintenance	143

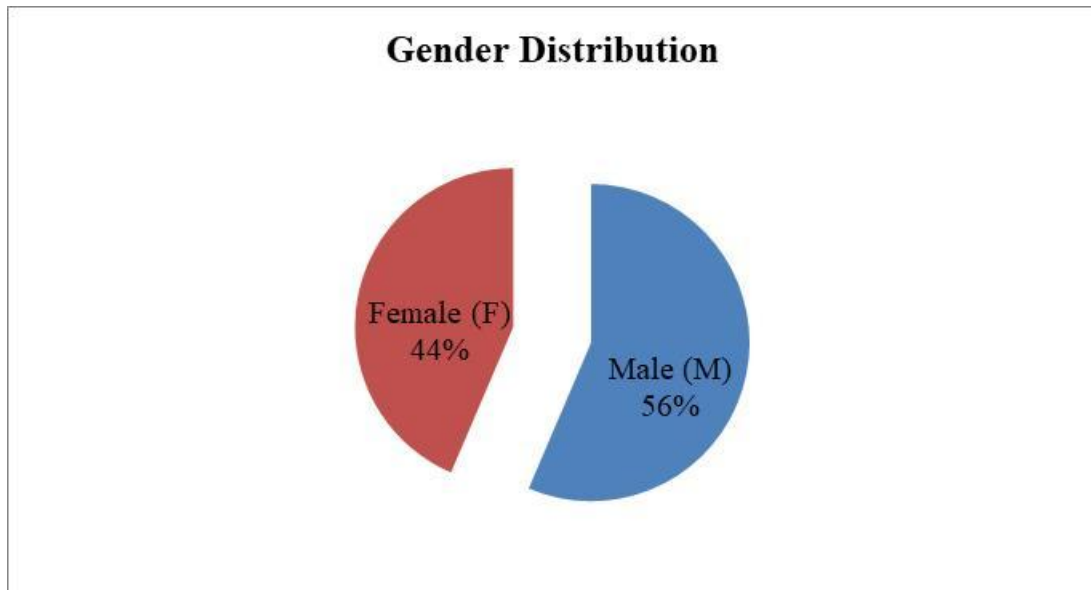


Fig 1: Overall collected data was divided into genders. The male contribution was 56% and the female was 44%.

Table 2: Mean and standard deviation for stages of physical activity

	Mean N=264	Standard Deviation
Positive Relations With Others (PRO)	58.28	10.39
Autonomy	52.41	8.13
Environmental Mastery	57.53	8.59
Personal Growth	60.05	8.9
Purpose in Life	58.57	8.85
Self-Acceptance	56.63	9.59
Psychological Well-Being Scale (PWBS)	343.47	44

Table 2 shows that positive relationships with others, autonomy, environmental mastery, personal growth, life purpose, self-acceptance, and psychological well-being.

Table 3: Physical Activities impacts on health and life

Areas of Life	Mean	Standard Deviation
	N=264	
Health	2.85	2.53
Self-esteem	3.13	2.17
Goals and Values	2.81	2.09
Money	2.06	2.24
Work	2.43	2.71
Play	2.13	2.23
Learning	2.62	2.05
Creativity	2.05	2.18
Helping	2.8	2.03
Love	2.84	2.49
Friends	2.99	2.38
Children	2.95	2.92
Relatives	2.44	2.12
Home	3.75	2.51
Neighbourhood	1.52	2.11
Community	1.59	1.9
Quality of Life Inventory (QOLI)	40.89	19.78

Table 3 displays descriptive information about quality of life and its various aspects. The mean value in all areas of life ranged from 1.52 to 3.75, with a standard deviation of 1.90 to 2.71. The mean value of the Quality of Life Inventory was 40.89, with a standard deviation of 19.78.

Table 4: Chi-Square Test for Physical Activities and their impacts on health

	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	278.72	320	0.954
Likelihood Ratio	270.67	320	0.979
Linear-by-Linear Association	0.007	1	0.934
N of Valid Cases	264		

Table 4 shows the test of independence computed on 264 people between Quality of Life and Stages of Physical Activity. The chi-square test of independence assumes that Quality of Life and Stages of Physical Activity are independent.

Conclusion

Health-related physical activities have a major impact on overall health, lowering the burden of chronic diseases, boosting mental well-being, and increasing quality of life. Incorporating regular physical activity into everyday activities remains an important component of public health policies. There are numerous variables of positive psychology, including flow, optimism, hope, happiness, quality of life, and psychological well-being. Because all determinants of positive psychology are outside the scope of the current study. Various determinants have been briefly described. Health-related physical activities are an essential component of preventive medicine and health promotion. They not only protect against sickness, but also improve physical, mental, and social well-being. Individuals and public health systems should prioritize living an active lifestyle, regardless of age or ability.

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