

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study



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**ABSTRACT:** The purpose of this study was to examine the role of sport in improving physical health and fitness by exercising. This research is a type of qualitative research and belongs to the category of literature study, in which the researcher uses literature, either in the form of books, notes, or research reports from previous researchers. Sports Health is a group of sciences that discusses all health problems related to sports. Physical fitness is the suitability of the physical condition for the tasks that must be carried out physically or physically based on the physical requirements that are anatomical, physiological, anatomical suitability and physiological suitability

**KEYWORDS:** Health, Physical Fitness

### I. INTRODUCTION

The development of an increasingly advanced era certainly has an impact on one's life. However, in this sophisticated modern era, humans are increasingly reluctant to move their bodies. In carrying out daily activities humans as living beings need a fit body condition because if someone has a fit body a job will be obtained with maximum results (Heryanto & Sudijandoko, 2019). In everyday life, physical fitness will describe a person's life in a harmonious, vibrant and creative way. In other words, a fit person is a person who has a healthy, bright outlook on life both for now and for the future. Currently in Indonesia, people's interest in doing sports is increasing both in public places, on the roads and on sports fields. In addition, various recreational sports groups have sprung up such as cycling, climbing, trekking, fishing and physical fitness centers. On the other hand, the progress of science and technology makes it easy for people to carry out various daily activities so that people tend to be less mobile which can result in a level of physical fitness (Sudiana, 2014).

Regular exercise trains the body to better distribute blood to the muscles during exercise, thereby reducing the heart's workload. Exercise with certain movements that involve the muscles of the body will be able to maintain muscle strength, joint function, blood vessels remain elastic and remain open, thus facilitating blood flow to parts of the body, helping to train lung development, but what needs to be considered is to maintain healthy vessels constricted blood affects digestion and the work of other organs, while dilated vessels in working muscles allow blood to flow to where it is needed (Pribadi, 2015).

Exercising definitely requires energy in the implementation process, the endurance that a person has is very influential in the process of carrying out sports activities, and endurance is very dependent on oxygen, because the body that is used to move requires oxygen intake in the process of carrying out sports activities so that it does not experience fatigue, so Oxygen plays a very vital role, not only for breathing but also for supplying muscles while doing activities, but all of that can happen if we have good lung capacity (Syahda et al., 2016).

The spirit of exercise will also affect the level of physical fitness of the community. Physical fitness refers to the ability to carry out daily activities vigorously without feeling overly tired, as well still have enough energy to carry out activities (Tarmizi et al., 2020).

Physical fitness is closely associated with physical activity. Physical fitness at the age of children and adolescents is considered an important indicator of health-related and mental outcomes and is conceptualized as an integrated measure of cardiorespiratory fitness, flexibility, muscle fitness, and body composition (Lutfillah & Wibowo, 2021).

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

Someone who has a good level of physical fitness will have a VO value<sup>2</sup>Max who is taller and can perform stronger physical activities than people who are not in good condition (Titania & Zulrafi, 2022). Physical fitness is the suitability of physical conditions for tasks that must be carried out physically or physically based on physical requirements that are anatomical, physiological, anatomical suitability and physiological suitability (Dewi et al., 2020). The level of one's physical fitness will have an impact on physical and mental readiness to be able to accept the workload (Santika, 2017). The physical fitness that humans need to carry out work activities for each individual is not the same, according to the motion and work performed (Khudeivi et al., 2023). Physical fitness gives a person the ability to do productive work every day without excessive fatigue and still have energy reserves to properly enjoy his leisure time or carry out sudden activities (Kasan et al., 2020).

Physical fitness is closely related to health in sports. Health is a condition where we are far away or free from disease. It is expensive when compared to other things (Anam, 2016). Health sports can be carried out in bulk, for example: fast walking or slow running (jogging), aerobics, breathing exercises and other similar mass sports (Saputra, 2020). Sports Health increases the degree of Healthy Dynamic (Healthy in motion), of course also Healthy Static (Healthy when still), but not necessarily the other way around, like to exercise: prevent disease, live a healthy and enjoyable life. Lazy to exercise: invite disease, not exercising: neglect (Lauh, 2014). The concept of Health Sports is intensive, stress-free, short (10-30 minutes non-stop), adequate, massive, easy, inexpensive, festive and physiological (useful and safe), mass: an event for friendship, an event for enlightening stress, an event for social communication (Puspitasari et al., 2018). So health sports make humans physically, spiritually and socially healthy, namely completely healthy according to the WHO Healthy concept which means enough, that is, enough in time (10-30 minutes without stopping) and sufficient in intensity (Saputra, 2020). ). In the case of sports in the form of walking, then the intensity of walking should be like someone who is walk in a hurry, but of course according to the ability of each. Adequate health exercise intensity, namely if the exercise pulse reaches 65-80% DNM according to age (Maximum Pulse Rate according to age = 220- age in years).

The term Sports Health is used to translate the original term, namely Sports Medicine which means actually from Sports Medicine is Sports Medicine. However, if the term used is Sports Medicine, then that field seems to be a specialty for doctors. Even though it is quite widely known that the Health sector involves a wider scope of the Human Resources profession which includes for example Scholars/Experts/Sports Scientists, Physical and Sports Education Teachers, Sports Health Coaches and Achievement Sports Coaches, Massage Experts (Masseur), Ahli Gizi, Ahli Ilmu Faal, Ahli Anatomy Anthropometry, Ahli Kinesiology Biomechanics, Orthopedists, Medical Rehabilitation Specialists and Doctors in general.

Maintaining a healthy body by doing physical activity by exercising regularly in order to improve physical fitness, besides that by maintaining physical fitness, people must know what the benefits of body health are for the future, lots of simple sports to maintain body fitness such as gymnastics, jogging, cycling, swimming, roads and others (Majid, 2020). Sport and health cannot be separated, because they have a close and interrelated relationship (Alfirdaus & Susanto, 2021). If everyone is diligent in exercising then everyone can have a healthy body, because exercise is a means to improve health and well-being throughout life (Gayman et al., 2017).

**Table 1. Clarification of Asia Pacific Body Mass Index Criteria**

Clarification	Body Mass Index
<i>Underweight</i> (underweight)	<18,5
Normal	18,5 – 22,9
<i>Overweight</i> (overweight)	≥ 23
At risk	23 - 24,9
Obesity I	25 - 29,9
Obesity II	≥ 30

Nutritional status is an indicator of children's health. period five years (infancy) is an important period when children need sufficiency nutrition to support physical growth (Puspitasari et al., 2018). Nutritional status is an expression of a state of balance in the form of certain variables or variables It is said that nutritional status is an indicator of good and bad daily food provision. Good nutritional status is needed to maintain fitness and health levels, help the growth of children and support the

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

development of sportsmen's achievements. Nutritional status is influenced by food consumption and physical activity of a person (Soraya et al., 2017).

**Table II. BMI Indication (WHO)**

Bmi	Weight Status
<i>Below 18.5</i>	<i>UnderWeightt</i>
18.5 – 24.9	Normal
25.0 – 29.9	<i>OverWeight</i>
<i>30.0 and Above</i>	<i>Obese</i>

### II. RESEARCH METHODS

This research uses the method literature review. Literature review is a literature review that forms the basis for the reasons researchers decide to choose a particular theme or title that collects from several previous studies (Ridwan & Irawan, 2018). The data collection technique in this study uses web-based internet by focusing on articles that are relevant to this research. The data used is secondary data in the sense that researchers do not go directly to the field.

It should be noted that the procedure for searching articles that are relevant to this research uses a sinta database with the help of a machine Google Chrome and Google Scholar. The article search system uses keywords derived from the title of this research. There were 25 articles found during the article search process, but of the 25 articles found, only 5 articles were used as a reference for researchers to conduct a review. This is because 21 articles were not included in this study. The researcher also emphasized that all the data used for this research was sourced from database national or sinta with the provisions of the last 10 years so that its existence is still relevant today.

### III. DISCUSSION

No	Name	Title	Objective
1	(Pane, 2015)	The Role Of Sport In Improving Health	Aims to educate knowledge about the role of sports
2	(Darmawan, 2017)	Efforts to Improve Students' Physical Fitness Through Physical Education	Aims for improvement in management physical education at school
3	(Dewi et al., 2020)	Motivation of Health and Recreation Physical Education Study Program Students to Maintain Physical Fitness During the Covid-19 Pandemic	Aim to analyze motivation of students of physical education study program, health and recreation faculties of sports and health to maintain physical fitness during the co-19 pandemic
4	(Daulay & Nasution, 2021)	Socialization of Activities on the Importance of Sports Health in Supporting Learning Process Activities in the Medan International Asy-Syafiya'iyah Middle School Environment 2021	Aim for 1) Cultivating sports for the community, 2) Socializing how and when to exercise is good, 3) Providing the benefits of sports to the community
5	(Prasetyo, 2013)	Public Awareness of Exercising for Health Improvement and National Development	Aim to do exercise to improve Immunity and Health Tuuh

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

Sport plays a very important role in improving Health and Physical Fitness. Therefore, in particular Health Sports should be used as the main material in the implementation of quality development of human resources through an approach from the physical aspect. High creativity is needed to make various forms of movement activity, so that health sports are not boring, but the basic concept must still be Health Sports. The very positive psychological impact of implementing Health Sports in Schooling/Educational Institutions is a sense of equality and togetherness among fellow actors, because they all feel able and able to do Health Sports well together. Conversely, if branch sports are applied (eg table tennis, tennis, badminton, etc.) this can cause many students/people to feel marginalized from sports activities because they feel unable to participate, especially when it has to do with social aspects. Economical due to the high cost of facilities, infrastructure and implementation. A further impact of feeling marginalized is the emergence of hatred or indifference to sports. This condition is a psychological condition that is very unfavorable for the development and dissemination of sport in society. With good management, the atmosphere on the field when doing health sports will greatly increase the passion and zest for life of the perpetrators. Thus, the potential of Sport (Health) really needs to be understood by all interested parties in fostering and improving the degree of public health, which is a manifestation of improving the quality of human resources.

In carrying out daily activities, humans are usually hampered by the appearance of symptoms related to the condition of their bodies, while humans must maintain their lives with activities that can produce a source of life such as work, trade and so on (Darmawan, 2017). Physical fitness is one of the main assets that must be owned by humans, because by having a good level of physical fitness, humans will find it easier to carry out activities or work, conversely with a low level of physical fitness, humans will have difficulty in carrying out all daily activities because Physical fitness has a very important role in human life.

Physical fitness cannot be separated from nutritional factors (foodstuffs), because food is needed by the body for energy sources, building body cells, biocatalyst components, and metabolism. Food must be in accordance with what is needed by the body both quantitatively and qualitatively. Quantitative means that the comparison between carbohydrates, fats and proteins eaten must be in accordance with one's activities. In normal people carbohydrates are given 55-60%, fat is given 20-30% of total calories and protein is needed 1 gram/body weight, while athletes can be given 10-15% of total calories. Furthermore, qualitatively, it means the ingredients that are always present in food (carbohydrates, fats, proteins, vitamins, minerals, and water) and the amount can be given more if needed. The scope of physical fitness includes: Anatomical Fitness, Physiological Fitness, Physiological Fitness. A person who has Anatomical Fitness to do business or activity when it meets requirements for the completeness of the members needed to carry out an activity (having a good body shape). If someone is said to have Physiological Fitness is if he can do the job efficiently, without significant fatigue and can recover (recovery) quickly if fatigue arises from doing these activities. All activities require muscle activity, although not the same for various kinds of activities. In brief Physiological Fitness is the will of the body to be able to function optimally.

The way to improve one's health and physical fitness is through exercise. Exercise is a systematic sporting activity for a long time, progressively improved and individually aimed at achieving predetermined goals. Through practice one can achieve the desired goal. physical condition training (physical conditioning) is very important to maintain or improve the degree of health and physical fitness (physical fitness) (Darmawan, 2017)

To improve the quality of health through sports activities, do aerobic exercise such as brisk walking, jogging in place, aerobic exercise and so on in a measurable manner. In addition, to achieve better results, exercise for health must be in line with the exercise program. Physical fitness will be obtained by someone through the struggle not to hit stop and can not go through the shortcut. After we know the characteristics of good and low physical fitness, we can feel for ourselves how roughly the quality of physical fitness is. Next, what components of physical condition need to be improved so that physical health and fitness improve: 1). Cardiovascular Endurance, 2). Muscular endurance, 3). Muscle strength, 4). Flexibility, 5). Body composition, 6). Speed, 7). Agility, 8). Balance, 9). power, 10). Coordination. In the 10 components of physical condition, we can measure physical fitness with measuring instruments that have reliability and validity as follows.

### 1. Cardiovascular Endurance

Cardiovascular endurance, namely the pumping capacity of the heart and pulmonary respiration processes to distribute oxygen throughout the body. Instruments used in measuring cardiovascular endurance, namely Multistage Fitness Test with a validity value of 0.915 and a reliability value of 0.868

### 2. Muscle Endurance

Muscular endurance is the ability of a muscle or group of muscles to perform repeated contractions over a long period of time. The instrument used to measure muscle endurance viz Flexed-Arm Hang with a validity value of 0.932 and a reliability of 0.804

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

### 3. Muscle Strength

Muscle strength is the ability to produce a number of forces quickly, usually an athlete and a non-athlete have different levels of muscle strength. An instrument used to measure muscle strength by using hand grip dynamometer test validity of 0.880 and test reliability of 0.938 and back and leg dynamometer test validity of 0.82 and test reliability of 0.93

### 4. Flexibility

Flexibility is the joint's ability to move with full ROM (Range Of Motion), easily, without obstacles, and pain. Instruments used in the measurement of Flexibility namely Sit And Reach with a validity value of 0.993, and a reliability value of 0.997.

### 5. Body Composition

Measurement of body composition is a measurement aimed at detecting the body's need for food intake and obtaining information relevant to efforts to prevent and treat disease. The instruments used in measuring body composition are tools Scan on land.

### 6. Speeds

Speed is the ability to perform successive movements of the same rank in a short time, or the ability to cover a distance in the shortest possible time. In the speed test and measurement using a 30 meter run test with a validity value of 0.98 and a reliability of 0.96.

### 7. Agility

Agility is the ability to change direction or body position quickly which is done together with other movements. The instrument used to measure agility is running back and forth or shuttle run with a distance of 20 meters which has a reliability value of 0.93 and a validity of 0.87.

### 8. Balance

Balance is the ability to maintain the attitude and position of the body quickly when standing (static balance) or when doing movement (dynamic balance). The instrument used in measuring balance by using strok stand which has a reliability value of 0.87 and a validity value of 0.93.

### 9. Power

Power is a very important biomotor component, because power will determine how hard a person hits, how hard a person kicks, how fast a person runs, and how far a person takes repulsion. In measuring power using the Vertical Friday instrument which has a validity value: 0.78 and a reliability value: 0.93.

### 10. Coordination

Coordination is a very complex biomotor ability. The instrument used in the Coordination measurement is the Ball Catching Test with a validity value of 0.92 and a reliability value of 0.83.

The components mentioned above are enhanced through sports activities both aerobic and anaerobic. The exercise must be given in such a way that all of these components experience an increase in quality so that the exercise is not only carried out only aerobic or only anaerobic exercise. Errors like this are often encountered in everyday life so that health and physical fitness do not increase significantly as expected. At a time when fitness is a goal in sports, it is important to design training strategies in a targeted and physically appropriate way. Exercise plays a major role in determining a person's health status, while not exercising can trigger risk factors for various diseases in the future. Perfect health is not only a state free from disease, but also a state of optimal health, that is, a state in which a person can carry out daily activities without undue fatigue and has reserve capacity for emergencies. Of course health sports can be done individually, but if done in groups it is more interesting, lively and inspiring. The atmosphere in sports (health) is significantly weakened. Rigidity is caused by differences in intelligence and socio-economic status of the actors, and the goal of the group is to improve social welfare, because everyone meets each other.

If sport develops and penetrates into society, then the next stage of sport will become a community need. People who understand sports do not need to be forced or ordered to do sports. But in reality the social situation in Indonesia has not yet reached that level (awareness and need for training). If people perceive sports as a necessity, then people will learn more about sports and how to do sports properly for health purposes, thereby improving their health (Prasetyo, 2013).

The ability to undergo physical activity that is heavier than usual can be known by describing a person's health status. This is also needed before carrying out a fitness test so that the respondent's health status can be controlled. To find out health status, namely a health check or medical check-up which includes: blood pressure and pulse checks, blood tests, urological examinations, hormone examinations, and bone density examinations.

## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

### IV. CONCLUSIONS

Health and physical fitness are interrelated with each other so that in improving body health and physical fitness by exercising regularly and programmed so as to achieve the desired target. Physical or physical activity carried out in accordance with the principles of exercise, the correct dose of exercise, and the correct training method will produce good results. Physical activity prevents symptoms of atrophy because the body is not given activity. Atrophy is defined as loss or wasting of muscle shape due to loss of muscle fibers. Basically it can occur both physiologically and pathologically

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## The Role of Sport in Improving Physical Health and Fitness: A Literature Study

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