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Fitness Activities based on the Physical Fitness of Sports Athletes

Pagadam Zaccaiah[1], Dr. Shubhanghi S. Rokade[2]

[1]Research Scholar, Sunrise University, Alwar

[2]Assistant Professor, Sunrise University, Alwar

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Corresponding author: Pagadam Zaccaiah

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Abstract:

The young place a lower importance on their own health and fitness because of the rise in workload and the perceptible rise in rivalry among them. This study was done to investigate and validate this very justification. This study was conducted to examine the physical activity habits among university students and their perceptions on the same since there aren't many studies that target this particular group of people on this issue. Cross-sectional data on levels of physical activity were gathered as part of descriptive study (self-reported data). The respondents' attitudes, drives, demotivations, eating habits, and perceptions of their state of fitness and health were gathered. 63 women and 59 males made up the 122-person sample. In order to comprehend each of the aims, this research obtained quantitative data using well-structured questionnaires. Data that had the mean, median, mode, and standard deviation determined was analyzed using descriptive statistics, and several correlations were found using the same. It was shown that respondents between the ages of 15 and 26 engage in little physical exercise. In addition, when levels of physical activity were compared between men and women, it was shown that women engaged in lower levels of physical exercise. In order to identify the weight category that each person belongs to, the BMI was also calculated. While the clear majority said that exercising was essential to them, they nevertheless failed to exercise for the recommended number of hours each week. Although people are aware of the benefits of doing exercise and have the right attitude about it, they have lately had trouble actually exercising out. When it came to motivations for exercising, the most well-known ones were to become more fit or grounded or to have a happy attitude. However, the lack of time, energy, and inspiration to exercise were the most generally acknowledged factors in the demotivation to exercise. People who were overweight had several consequences, such as desires for fast food and urges to indulge in it. A majority of the respondents said that they spend money on inexpensive meals at least twice or three times every day. Since they lead busy lives, those aged 15 to 26 are significantly tougher to approach. People might be informed about the value of physical exercise via a tailored intervention.

Keywords: Physical Activity, Fitness, University Students, Food Consumption

Introduction

The definition of quality of life is "Individual assessment of reviews their situation in life in respect to reviews their objectives, aspirations, standards, and concerns in the context of the culture in which they live." The subjective sentiments about one's wellbeing based on significant life decisions may also be considered to be a measure of life quality in relation to achieving the ideal of human existence that is generally considered to be acceptable [1]. Six areas make up WHOQOL's definition of quality of life: physical health, psychological wellness, level of independence, social connections, relationship with the environment, and spiritual condition. Later, WHOQOL was modified into the WHOQOL-BREF instrument, in which the six aspects were again condensed into four domains: (1) social interactions, (2) psychological wellbeing, (3) physical health, and (4) the relationship with the environment.

The capacity to keep up with the demands of physical work and improve one's quality of life are all benefits of physical exercise. the effects of exercise itself, as well as the effects of physical, mental, and social factors. There is a tendency to believe that physical exercise and sport are necessary to get a higher quality of life. 2011: Abduljabar, p. 69. Simple bodily motions might be considered a sort of physical exercise. Daily activities like walking, stepping, running, jumping, and moving from side to side are easy for a normal human being to perform, but for our coworkers who are less fortunate, (the disability) or with special needs, is the loss of limitation of opportunities to take part in normal life in the community on an equal level with other due to physical or social barriers: Children with special needs, may have physical needs; they may also have social needs.The aforementioned issues each provide a unique set of challenges, but on the other side, there are those who find solace in physical exercise, whether they are athletes chosen for Pelota to Peparnas faced in 2016 or regular athletes like PON.

Football may be used as a tool to improve the quality of life for those who are disenfranchised from public life. Football is one of several physical sports that can help people with disabilities. It's not just about helping your team win the game. Football is more than simply a game, according to FIFA's initiative football for hope. Football can unite people, change lives, and motivate whole communities because of its special power and universality.

People who are less affluent in Indonesia sometimes find themselves on the margins of the community. The term "marginal" connotes a restriction. According to the definition, marginals are those who are unable to adapt and participate in the development process. Lack of support and attention can make it challenging for the marginalized to interact with their surroundings and society, and it can even be challenging to receive fair treatment. As a result, their psychological well-being suffers, which has an effect on the quality of life for those who are disabled. Disabled athletes from the Paralympics and Special Olympics expand their possibilities to display competence, giving them the chance to participate in a successful plenary. The inspiration for the idea came from the requirement for a study on the quality of life of disabled people, both athletes and non-athletes. Paralympic athletes were represented in 2016 by athletes from Pelatda Peparnas West Java, whereas non-athletes were represented by Cipaganti SPLB school students due to the restricted access to these disabled people.

Literature Review

Andreas Åvitsland (2021)to look at the relationships between teenage psychological problems status and one-year changes in body mass index, muscular strength, and cardiorespiratory fitness.Participants in the data collection at two time periods separated by a year were Norwegian 14–15-year-olds (n = 925). The Strengths and Difficulties questionnaire was used to measure psychological challenges, and the dependent variable is follow-up data. Body mass index, physical strength (Eurofit), and cardiorespiratory fitness were all assessed. Physical fitness measures were converted to change scores, which are used in linear mixed effects models as independent variables.No correlation was found between a change in body mass index and psychological issues. The relationship between cardiorespiratory fitness and psychological issues was modulated by gender and socioeconomic position. The relationship between physical strength and psychological issues was mediated by immigration status. A change in muscular strength and psychological difficulties among immigrants (b = 1.97; 95% CI = 4.03 to 0.09; p =.061), as well as a change in cardiorespiratory fitness and psychological difficulties among boys (b = 0.009; 95% CI = 0.015 to 0.003; p =.006), were both associated in a negative way. According to subgroup data, females in the highest socioeconomic category had psychological issues more often (b = 0.014; 95% CI = 0.003 to 0.025; p =.014).Various moderators were required for the organizations for various fitness components. This may suggest that relationships in various subgroups are mediated by various processes. Future research needs to examine moderate relationships.

Salonee Jambusaria (2020)The young place a lower importance on their own health and fitness because of the rise in workload and the perceptible rise in rivalry among them. This study was done to investigate and validate this very justification. This study was conducted to examine the physical activity habits among university students and their perceptions on the same since there aren't many studies that target this particular group of people on this issue. Cross-sectional data on levels of physical activity were gathered as part of descriptive study (self-reported data). The respondents' attitudes, drives, demotivations, eating habits, and perceptions of their state of fitness and health were gathered. 63 women and 59 males made up the 122-person sample. In order to comprehend each of the aims, this research obtained quantitative data using well-structured questionnaires. Data that had the mean, median, mode, and standard deviation determined was analyzed using descriptive statistics, and several correlations were found using the same. It was shown that respondents between the ages of 15 and 26 engage in little physical exercise. In addition, when levels of physical activity were compared between men and women, it was shown that women engaged in lower levels of physical exercise. In order to identify the weight category that each person belongs to, the BMI was also calculated. While the clear majority said that exercising was essential to them, they nevertheless failed to exercise for the recommended number of hours each week. Although people are aware of the benefits of doing exercise and have the right attitude about it, they have lately had trouble actually exercising out. When it came to motivations for exercising, the most well-known ones were to become more fit or grounded or to have a happy attitude. However, the lack of time, energy, and inspiration to exercise were the most generally acknowledged factors in the demotivation to exercise. People who were overweight had several consequences, such

as desires for fast food and urges to indulge in it. A majority of the respondents said that they spend money on inexpensive meals at least twice or three times every day. Since they lead busy lives, those aged 15 to 26 are significantly tougher to approach. People might be informed about the value of physical exercise via a tailored intervention.

Migle Baceviciene (2019) The overall goal of the current research was to investigate the relationships between teenagers' psychosomatic health complaints (PHC) and their lifestyles, including how physical activity, sports engagement, and attitudes about one's own physical activity and physical fitness are related. The population-based cross-sectional research included 3284 adolescents aged 11 to 19 (mean age 14.9 2.0; 48.6% male). Lifestyle, sports involvement, physical activity, sense of physical fitness, and PHC were all covered by self-administered questionnaires. Female gender (OR = 1.92; 95% CI = 1.57-2.35), smoking (OR = 1.31; 95%PI = 1.01-1.68), alcohol consumption (OR = 1.60; 95%PI = 1.30-1.97), unhealthy foods (OR = 1.14; 95%PI = 1.04-1.26), hours of internet use (OR = 1.14; 95%PI = 1.07-1.21), and poor personal fitness perception (OR = 1.60; 95% CI = 1.27-2.02) were associated with PHC in adolescents. Even after adjusting for age, gender, and BMI, lower physical activity and self-perceived inadequate physical activity, poor physical fitness perception, and not engaging in sports were linked to more somatic and psychological problems. Sports and physical activity participation did not alter PHC in adolescents engaging in unhealthy behavior. However, PHC was reduced among teenagers who reported an unhealthy lifestyle when they had a favorable impression of their own physical activity and fitness.PHC was greater among adolescents with worse health-related behavioral characteristics. Participation in sports and physical exercise was linked to decreased PHC. The associations between PHC and unhealthy lifestyle were altered by adolescents who believed they were sufficiently physically active and those who thought they were physically fit. These adolescents had lower PHC despite having unhealthy habits like excessive screen time, alcohol use, smoking, and eating unhealthily. In order to fully understand the relationships between teenage behaviors and PHC, it is crucial to investigate cognitive variables. These findings are significant for health promotion and educational initiatives targeted at enhancing teenagers' psychological wellbeing and adoption of healthy lifestyles.

Sarahjane Belton (2014) Despite the well-known advantages of regular physical exercise for health and wellbeing, several studies indicate that young people's levels of physical activity are low and sharply fall throughout puberty. The present study's objective was to collect information on young people in order to guide the creation of a focused physical activity intervention.256 young people (53% male, 12.40 0.51 years old) were studied cross-sectionally for their levels of physical activity, psychological correlates of physical activity, anthropometric features, and competence in basic movement skills. Focus group interviews were conducted with a subsample (n = 59) to learn about their perspectives of health and to find out what motivates and what discourages them from engaging in physical exercise.The majority of young people (67%) did not meet the daily minimum recommendation of 60 minutes of physical exercise, and 99.5% did not master the basic movement competency necessary for their age. According to BMI statistics, 25% of young people were considered overweight or obese. Between low, moderate, and high active individuals, self-efficacy and physical activity attitude

ratings were substantially different (p 0.05). With active youth associating nutrition, exercise, energy, and sports with the definition of "being healthy," and inactive youth associating primarily nutritional concepts with "being healthy," both groups of young people reported differences in their perceptions of health and their barriers to engaging in physical activity.According to data, it is necessary to address low basic movement skill competency and inadequate health-related activity knowledge in order to increase young physical activity levels. Based on the results of the current investigation, the Y-PATH intervention was created; the intervention's structure is described in full.

Structure Is Described in Full.

Method

Research objects

$$(u_{i,j}, v_{i,j}, \eta_{i,j}) = (x_{i,j}, y_{i,j}, z_{i,j}) \begin{bmatrix} x & y & y \\ y & x & y \\ -x & -y & x \end{bmatrix} \quad (1)$$

The coordinates of the j joint point in the i frame in the three-dimensional coordinate system of the human body center and the image coordinate system, respectively, are (ui,j, vi,j, i,j) and (xi,j, yi,j, zi,j). Assume that there is such a coordinate system origin. Within the range of the junction of the two diagonals, there is a square region Q.4 Any of the following two points' joint coordinates (ui, j, vi, j, and i, j) may all be present in this range at once. Each one of them complies with formula (2) in turn:

$$\begin{cases} u_{i,j} \in [-l/3, l/3] \\ v_{i,j} \in [-l/3, l/3] \\ \eta_{i,j} \in [-l/3, l/3] \end{cases} \quad (2)$$

Where l is the side length of the feature area. Its value is shown in formula (3):

$$l = \max\left(\frac{\max(u_{i,j}) - u_{i,j}}{u_{i,j} - \min(u_{i,j})}, \frac{\max(v_{i,j}) - v_{i,j}}{v_{i,j} - \min(v_{i,j})}, \frac{\max(\eta_{i,j}) - \eta_{i,j}}{\eta_{i,j} - \min(\eta_{i,j})}\right) \quad (3)$$

In this study, a total of 12 elite athletes were chosen at random to be the research subjects. Additionally, the control group of 12 athletes who did not take part in any running drills was chosen.2

The experimental

Every morning at about seven, the group worked out. Each workout usually lasts for less than an hour. The workout is somewhat intense. One day before the test and eight weeks after the physical program, we finished testing the experimental indications. Recognizing fitness activity in running This study uses a projection transformation approach to gather motion and skeletal data under the projection of the human body's central coordinate system.3 The homogeneous coordinate projection of the athlete's body center is represented in formula (1):

Assuming that the feature area Q′ contains K motion trajectory feature points, the scaling projection area transformation is shown in formula (4):

$$\begin{bmatrix} u_k \\ v_k \\ \eta_k \end{bmatrix} = \begin{bmatrix} l'/l & l & 0 \\ l' & l'/l & l \\ 0 & l' & 1 \end{bmatrix} \begin{bmatrix} u_{i,j} \\ v_{i,j} \\ \eta_{i,j} \end{bmatrix} \quad (4)$$

Among them, (uk, vk, ηk) represents the coordinates of the k(1≤k≤K) action feature point.

Mathematical and statistical methods

The mean and standard deviation may be used to represent the data in this article.5 Excel and SPSS statistical analysis tools are mostly used in this study to complete the summarization, processing, and in-depth data analysis of statistical data. A code of ethics is not necessary for this kind of research.

Results and Discussions

Physical fitness measurements result of 32 sports science as follows:

Table 1: The Result of Multistage Fitness Test

Interval Class	Frequency	Cumulative Frequency
27.1-31.1	6	6
31.2-35.2	6	12
35.3-39.3	7	19
39.4-43.4	7	26
43.5-47.5	3	29
48.6-52.6	3	32

This study's objective was to evaluate university students' levels of physical fitness. According to this research, female students have a sufficient level of physical fitness with a score of 34.05 (Table II), while mail students have a strong level of physical fitness with a score of 45.50 (Table IV).

Table 2: The Average of Female Students Physical Fitness Level

Number of Sample	Total Physical Fitness Result	Average
N=21	715	34.05

According to the results of a multistage fitness test, 14.29% of people have exceptional physical fitness levels, 28.57% have good physical fitness levels, 33.33% have good physical levels, and 23.81% have poor physical levels (Table III).

Table 3: The Classification Norm of Physical Fitness Level For female

Physical Fitness Level Classification Norm	Frequency
Very Poor (< 25)	0
Poor (25.0-30.9)	5
Fair/Adequate (31.0-34.9)	6
Good (35.0-38.9)	7
Excellent (39.0-41.9)	3
Superior (>41.9)	0

Table 4: The Average of Male Students Physical Fitness Level

Number of Sample	Total Physical Fitness Result	Average
N=11	500	45.50

As much as 63.64% of people have an acceptable degree of physical fitness, 18.18% have a good level, and 18.18% have an exceptional level, per the results of a multistage fitness test (Table V).

Table 5: The Classification Norm of Physical Fitness Level Formale

Physical Fitness Level Classification Norm	Frequency
Very Poor (< 35)	0
Poor (35.0-38.3)	0
Fair/Adequate (38.4-45.1)	7
Good (45.2-50.9)	2
Excellent (51.0-55.9)	2
Superior (>55.9)	0

Technology and science are advancing quickly nowadays. People are now adjusting to the digital age. The phrase "digital age" refers to the development of digital gadgets and computer information technology networks, particularly the internet. The generation Z period is the age of digitalization. The generation following Millennials is known as Generation Z. Mid-1990s to early 2000s are commonly used as the beginning birth years by demographers and scholars. The majority of Generation Z is used to technology and social media, having utilized the Internet from a young age. Since they were born, technology and information have been a part of generation Z's existence. Access to knowledge, particularly the Internet, has influenced their values, worldviews, and sense of purpose in life . People nowadays are provided with a variety of amenities to suit their basic necessities. The community's everyday activities, particularly those of children and adolescents, are impacted by the amenities already in place. Children and teenagers start to move less, which has an impact on their physical health and fitness. People with poor physical and mental health are less productive in their everyday lives, at work, and in their academic endeavors. According to Rismayanthi, studies have shown a connection between students at Wismor FIK UNY who are physically healthy and their academic success. It demonstrates that physical fitness has a significant role in academic success.

Students' lifestyles should include healthy food and exercise routines since research has linked these behaviors to academic performance. For instance, students who adopt healthy eating habits are less likely to miss class and more likely to perform well on tests of cognitive functioning. According to research, children who engage in physical activity have better brain function, are more focused and self-assured, and conduct more responsibly in the classroom. It is crucial that students of all ages follow their age-appropriate dietary and exercise guidelines in order to maximize their academic capacity and general wellbeing. However, it is crucial for college-aged students to establish healthy eating and exercise routines early on in their academic careers because these routines are likely to stick with them into adulthood and have a significant impact on future health outcomes and disease susceptibility.

The following variables influence one's degree of physical fitness: (1) age, Children's physical fitness improved till reaching a maximum at the age of 25–30 years, after which there was a 0.8–1% loss in the functional ability of the whole body, however this decline may be halved by exercise; (2) sex, Boys often have higher levels of physical fitness than girls. Boys are more active than females, which explains why. guys often have a similar degree of physical fitness as females up to puberty, but after puberty, guys typically have a substantially higher level of physical fitness; (three) Diet, A person's physical fitness may

be impacted by a balanced diet (12 percent protein, 50 percent carbohydrates, and 38 percent fat), which can fulfill the body's nutritional demands; (4) good sleep and rest, which attempts to restore the body's condition after activity; and (5) Physical exertion or activity, The right quantity of exercise and training techniques may lead to successful outcomes if physical activities are performed in accordance with the principles of exercise.

People who have a high degree of physical fitness will be in excellent health. Physical fitness is an important component of sustaining health. The following elements affected the student's degree of physical fitness: Outside of class, pupils are not active enough. Achieving the highest level of physical fitness may be facilitated by engaging in physical and sporting activities in a suitable, consistent, and continuous manner. Regular practice will improve your physical fitness. Increased mobility, a lack of fatigue, a gain in abilities, and other benefits were attained. Stressful class and job schedules, a lack of free time, peer or family pressure, crowded campus gyms, and an excessive dependence on buses or other conveniently available motorized vehicles for mobility are all factors that might hinder an active lifestyle in a college setting. Numerous cognitive factors, including self-efficacy, the perception of pleasure from physical activity, and self-motivation, are also known to have an impact on a person's internal drive to keep up a regular exercise routine. Self-efficacy has received particular attention among the previously mentioned characteristics since research has shown that it is closely associated to physical activity engagement.

Conclusion

University students between the ages of 15 and 26 engage in less physical exercise than is recommended. This conclusion is similar with research from (Ajibade, 2011), which also indicated that girls engage in less physical activity than males do. The BMI was also computed to determine the weight range that each person falls within. Despite the fact that the majority of respondents said they valued exercise, they did not exercise often enough. Although individuals are aware of the benefits of exercise and have the correct attitude toward it, they haven't been effective in actually engaging in it. The most prevalent motivations for exercising were to feel better about oneself, get stronger or fitter. But the most frequent reasons for losing desire to exercise were running out of time, energy, and drive. On the basis of the results, it can be concluded that there is a major need to raise awareness of the value of physical exercise in everyday life as well as its advantages. To increase and maintain the levels of physical activity engaged in by university students, targeted interventions must be delivered to them. It's also important to raise awareness of university students' food consumption habits.

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