

ASSESSING THE IMPACT OF PHYSICAL EDUCATION ON ADOLESCENT PHYSICAL ACTIVITY ENGAGEMENT

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ABSTRACT

This research investigates the influence of physical education on teenage physical activity participation, exploring activity choice, participation patterns, and determinants. Based on a descriptive research approach, data was gathered from 150 teenagers via guided questionnaires and processed through descriptive statistics. Findings reveal the most favored activities are sports, especially football and basketball (33.3%), followed by outdoor recreation and strength training (23.3% each), with aerobics being the least (20%). Levels of engagement reveal that 40% of the adolescents are involved in high physical activity levels (>5 hours/week), while 36.7% involve themselves moderately (3-5 hours/week) and 23.3% involve themselves with low levels of activity (<3 hours/week). The research emphasizes the contribution of organized school-based programs to promoting participation but also calls for specific interventions to enhance participation among low-active adolescents. Facilitating greater access to a range of activities, boosting motivation through social interaction, and enhancing awareness of the value of physical activity are critical in promoting a healthier and more active life among young people.

Keywords: Adolescent Physical Activity, Physical Education Programs, Sports Participation, Engagement Levels, Exercise Preferences, School-Based Interventions, Fitness And Well-Being, Sedentary Behavior.

1. INTRODUCTION

Physical education is an integral part of adolescent growth, influencing not just physical well-being but also mental and social health. Adolescence is a pivotal period in life when people form long-term habits that have a direct bearing on their overall health and lifestyle. Participation in organized physical education programs improves the fitness levels, motor skills, and coordination of students, leading to a lifelong interest in an active lifestyle. Schools have a key role to play in this regard, as they are where children get to enjoy structured and safe spaces to engage in sports, physical training, and play. Engaging in physical activity on a regular basis has been associated with better cardiovascular health, stronger muscles and bones, and a healthy immune system, lowering the risk of obesity and lifestyle diseases. In addition, studies confirm that physical education has a beneficial impact on mental health and cognitive development, curbing stress, anxiety, and depression, enhancing concentration, school performance, and self-control. In spite of these extensively reported advantages, large numbers of teenagers do not engage in sufficient levels of physical activity, typically caused by sedentary lifestyles, screen distractions, and a lack of access to sports facilities. Solving these problems necessitates a thorough comprehension of the role physical education plays in promoting participation in physical activities and determining ways to increase participation among young people.

This research aims to assess the effect of physical education on physical activity participation among adolescents, examining activity preferences, trends in participation, and predictors of levels of engagement. Through the evaluation of the types of activities adolescents are interested in—team sports, aerobics, strength training, and outdoor recreation—this research is beneficial in determining how organized programs affect students' exercise routines. Additionally, it examines the contribution of schools, teachers, and after-school programs to building a supportive setting that encourages habitual physical activity. As childhood obesity, cardiovascular illnesses, and low fitness levels on the rise, it is now more critical than ever to make sure that physical education programs are effective, inclusive, and stimulating. The results of this research will provide a useful guide for parents, policymakers, and educators in designing targeted interventions, policies, and programs to motivate adolescents toward an active and healthier lifestyle. Through the promotion of organized physical education and elimination of barriers to access, this research supports the ultimate aim of promoting adolescent health and well-being through sustainable and effective physical activity participation.

2. LITERATURE REVIEW

Chen et al. (2018) performed a study investigating the correlation between physical fitness for health and the level of physical activity among students in elementary schools. Their results proved that physical education programs of a structured nature greatly improved students' fitness levels and rates of participation in a range of physical activities. The research pointed out that interventions conducted in schools, including properly planned physical education

lessons and extracurricular sporting activities, were important in the promotion of an active lifestyle from childhood. The study also indicated that the participation in physical education programs early in life contributed to the development of lifelong healthy lifestyles, lessening the likelihood of obesity and lifestyle diseases.

Dong et al. (2019) carried out a massive retrospective study of 1.5 million Chinese children and adolescents to evaluate long-term trends in physical fitness, growth, and nutrition. They found that there was a continuous decline in the level of physical fitness over a period of three decades, and the reasons were changing lifestyle patterns, decreased participation in physical activities, and increased sedentary behavior because of advancements in modern technology. The research emphasized the necessity for policy-based interventions, like state-sponsored physical education and exercise awareness campaigns, to reverse the adverse trends and promote greater youth participation in sports. The research further highlighted the alarming rise in childhood obesity and lack of physical stamina, reinforcing the pressing need for systematic interventions to regain youthful fitness levels.

Fernandez-Rio et al. (2020) examined the applicability of gamification methods to physical education, determining their feasibility and effectiveness both for the students and the instructors. According to their results, the integration of gamified aspects, including points-based rewards, leaderboards, and interactive challenges, increased the motivation, participation, and fun of the students in physical education classes to a large extent. The research indicated gamification prompted students to engage more actively in physical education, so exercise became more of a fun game than a necessary requirement. The research also indicated implementation difficulties, such as technical issues, reluctance from conventional teachers, and mixed teacher opinions about the long-term efficacy of gamification. For successful integration of gamification into physical education, the research focused on the necessity of appropriate planning, curriculum integration, and training programs for teachers to maintain its sustainability and impact.

3. RESEARCH METHODOLOGY

This research applies a descriptive research design on a sample of 150 teenagers, employing structured questionnaires to collect data. Descriptive statistics were applied in the examination of physical activity preferences and levels of engagement, which brought out patterns and the necessity for targeted intervention.

3.1 Research Design

The research uses a descriptive research design to evaluate the influence of physical education on adolescent participation in physical activities. The design allows for the gathering of quantitative data to examine trends in favored physical activities and participation levels. It assists in comprehending the patterns, preferred ones, and factors that influence adolescent involvement in physical activities.

3.2 Data Collection

The data were gathered with a guided questionnaire containing queries regarding the preferred physical activity and the levels of weekly involvement. The questionnaire was formatted to include categorical as well as numerical responses to enable objective determination of trends in physical activity among adolescents. The questionnaire was administered at schools and local sports centers to adolescents participating in various types of physical education programs.

3.3 Sample Size and Sampling Technique

The study used a population of 150 adolescents, who were randomly sampled to yield a representative sample of participants. The inclusion criteria included students between the age of 12 and 18 years who are active participants in physical education activities. The sample aimed to yield a mixture of participants in sports, those who take fitness activities, and those who are relatively inactive, so that the levels of engagement could be comprehensively assessed..

3.4 Data Analysis

The data was analyzed through descriptive statistical techniques such as frequency distribution and percentage analysis. Distribution of physical activity preferences and participation levels was presented through tables and graphical representation. The findings were interpreted to determine patterns of adolescent physical activity behavior and the contribution of physical education to promotion of participation. The analysis also highlighted the importance of targeted interventions to enhance participation among low-active adolescents through increased access, motivation, and awareness about the benefits of physical activity.

4. DATA ANALYSIS AND INTERPRETATION

Table 1 shows statistics on the favorite type of physical activities among 150 adolescent participants. According to the survey, Sports (Football, Basketball, etc.) is the favorite choice, and 50 respondents (33.3%) prefer it. Outdoor Recreation (Running, Cycling, Hiking) and Strength Training (Gym, Resistance Training) are similarly liked, with 35 respondents in each category (23.3%). Aerobics (Zumba, Dance, etc.) is the least favorite activity, preferred by 30

respondents (20.0%).

Table 1: Preferred Physical Activity Type

Activity Type	Number of Respondents	Percentage (%)
Sports (Football, Basketball, etc.)	50	33.3%
Aerobics (Zumba, Dance, etc.)	30	20.0%
Strength Training (Gym, Resistance Training)	35	23.3%
Outdoor Recreation (Running, Cycling, Hiking)	35	23.3%
Total	150	100%

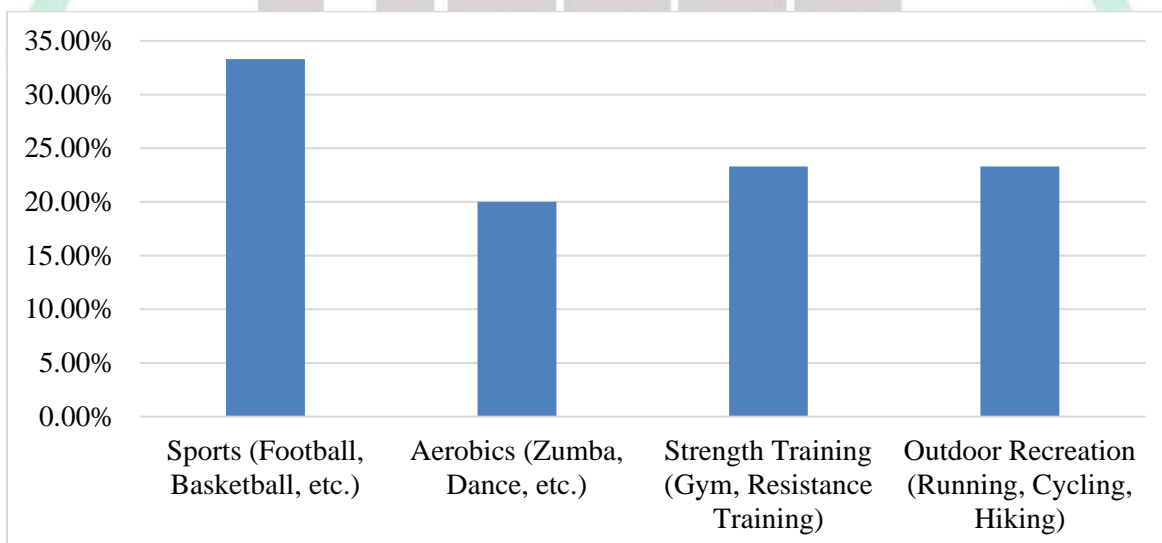


Figure 1: Graphical representation of Preferred Physical Activity Type

The information indicates that sports activities that involve teams are the most appealing to teenagers, probably because they are competitive and provide scope for social interaction. Strength training and outdoor activities are moderately popular, showing an increase in interest in fitness-oriented and endurance-based activities. The lesser popularity of aerobics could be due to a lack of interest or lesser exposure to these activities, particularly among male respondents.

Table 2 describes adolescent levels of physical activity participation by duration per week. Data are categorized as Low (<3 hours/week), Moderate (3-5 hours/week), and High (>5 hours/week) levels. Most of the participants (60 participants, 40.0%) participate in physical activity for over 5 hours a week (High level), reflecting an active level of engagement. A moderate intensity (3-5 hours/week) is reported by 55 respondents (36.7%), whereas 35 respondents (23.3%) indicate low physical activity participation (<3 hours/week).

Table 2: Adolescent Physical Activity Engagement Levels

Activity Engagement Level	Number of Respondents	Percentage (%)
Low (<3 hours/week)	35	23.3%
Moderate (3-5 hours/week)	55	36.7%
High (>5 hours/week)	60	40.0%
Total	150	100%

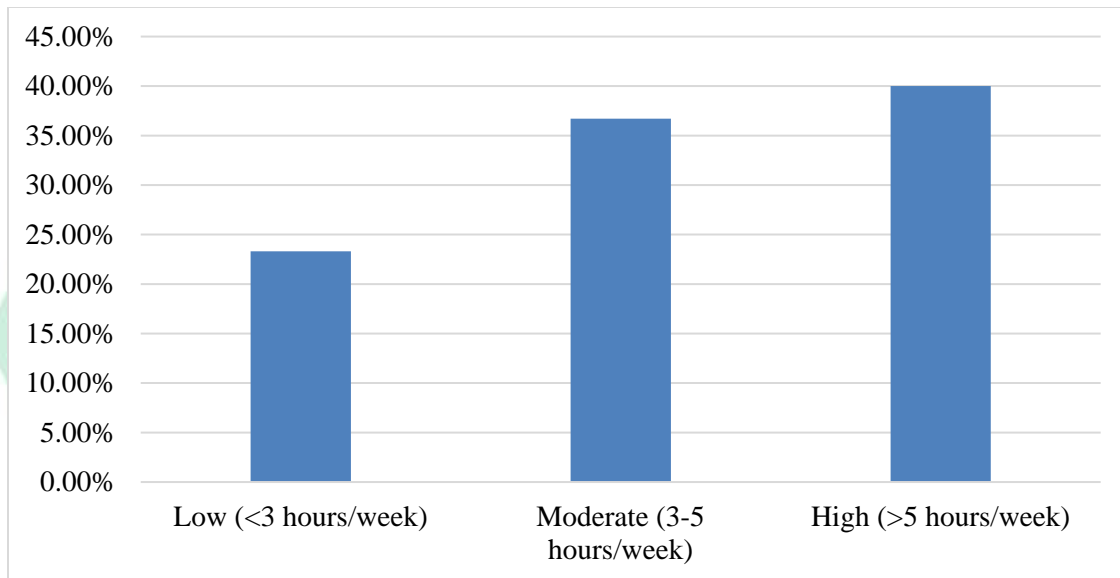


Figure 2: Graphical representation of Adolescent Physical Activity Engagement Levels

Results indicate that 76.7% of teenagers have moderate to high levels of physical activity, following guideline recommendations, whereas 23.3% of teenagers exhibit low participation, representing sedentary lifestyle or poor access to activity. Levels are affected by school activities, individual interest, and facility availability. Although actively involved students are common, there is a need for interventions specifically to enhance low-active teenager participation through improved access, social support, and awareness campaigns.

5. CONCLUSION

The results of this research emphasize the prospective role of physical education in influencing adolescent physical activity participation. Team sports, like football and basketball, are reported to be the most popular activities, and this implies that competition and social interaction are of particular importance in stimulating adolescents to participate. Strength training and recreation outdoors also have a significant number of students attending, demonstrating a growing appreciation for fitness and endurance activities. The lesser preference for aerobics, though, indicates possible gaps in exposure or interest, which might need focused promotional efforts. Moreover, despite most (76.7%) of adolescents having moderate to high levels of physical activity, a significant proportion (23.3%) are still inactive, calling for more vigorous interventions to overcome limitations like accessibility, motivation, and awareness. It is essential that schools, teachers, and policy makers make greater efforts towards making more accessible and interesting physical education programs for varying interests and ensuring long-term engagement. The augmentation of school-based programs, increased access to buildings, and creating an active living culture can also play a huge role in improving adolescent health and well-being.

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