
THE ROLE OF SCHOOL INFRASTRUCTURE AND SOCIOECONOMIC BACKGROUND IN PROMOTING SPORTS ACTIVITIES IN BHOPAL

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Abstract: This study examines the role of school infrastructure and socioeconomic background in promoting sports activities among high school students in Bhopal. Sports participation plays a vital role in the physical, psychological, and social development of adolescents. However, access to sports facilities and opportunities is often influenced by institutional resources and family SES. The present research investigates how variations in school infrastructure; such as availability of playgrounds, indoor courts, sports equipment, and trained physical education teachers affect students' engagement in sports activities. Simultaneously, it analyzes the influence of socioeconomic factors including parental income, education level, and occupation on students' participation patterns.

A descriptive survey method was adopted, with data collected from high school students across government and private schools in Bhopal. Structured questionnaires were used to assess SES indicators and frequency in sports participation. Statistical tools such as mean, standard deviation, correlation, and comparative analysis were applied to examine relationships among variables. The findings indicate that students studying in schools with well-developed infrastructure demonstrate higher levels of sports involvement. Moreover, students from higher socioeconomic backgrounds show greater participation in organized and facility-based sports, while those from lower SES groups are more likely to engage in traditional and informal games due to limited access to structured resources.

The study concludes that both school infrastructure and socioeconomic background significantly influence sports participation. Strengthening public school resources and implementing inclusive sports policies can help bridge the participation gap and promote equal opportunities for students across different socioeconomic strata.

Keywords: School Infrastructure, School Facilities, Socioeconomic Status (SES), Sports Participation, High School Students.

1. Introduction

Sports and physical activities play a vital role in the holistic development of adolescents, contributing significantly to their physical fitness, mental well-being, emotional stability, and social skills. At the secondary school level, participation in sports is not only essential for maintaining health but also for fostering teamwork, discipline, leadership qualities, and self-confidence among students. In urban centers like Bhopal, where educational institutions vary widely in terms of facilities and resources, the promotion of sports activities largely depends upon school infrastructure and the socioeconomic background of students [1, 2].

School infrastructure is one of the most influential institutional factors affecting students' participation in sports. Adequate playgrounds, indoor courts, sports equipment, trained physical education teachers, and organized training programs create an enabling environment that encourages students to actively engage in physical activities. Schools with well-developed infrastructure are more likely to host inter-school competitions, provide professional coaching,

and offer exposure to district- and state-level tournaments. Conversely, limited infrastructure; such as lack of open space, insufficient equipment, or absence of qualified instructors can restrict students' opportunities and reduce their motivation to participate in sports activities. Thus, the availability and quality of sports facilities directly influence the level and type of participation among high school students.

Alongside institutional factors, SES plays a critical role in shaping students' access to sports opportunities. Socioeconomic status generally includes indicators such as family income, parental education, and occupation. Students belonging to higher socioeconomic backgrounds often have better access to private coaching, sports academies, high quality equipment, and specialized training facilities. Their parents may also be more educated on the long-term benefits of sports participation and thus provide greater encouragement and financial support. In contrast, students from lower socioeconomic backgrounds may face economic and social constraints that limit their ability to attain sports kits, afford coaching fees, and transportation to training centers. As a result, they may rely primarily on school-provided facilities or informal community playgrounds for participation [3-5].

In a developing urban context like Bhopal, disparities between government and private schools further highlight the impact of infrastructure and socioeconomic conditions. Private schools typically possess better-maintained sports grounds, modern equipment, and structured physical education programs. Government schools, on the other hand, may struggle with limited budgets and inadequate maintenance of facilities. These institutional differences, combined with variations in students' family backgrounds, create unequal opportunities for sports participation across different sections of society [6].

Understanding the relationship between school infrastructure, socioeconomic background, and sports participation is essential for developing inclusive educational and sports policies. By identifying existing gaps and barriers, policymakers and educational authorities can implement targeted interventions, such as upgrading public school facilities, providing financial assistance, and organizing community sports initiatives to ensure equitable access for all students. Therefore, this study seeks to explore how school infrastructure and socioeconomic background collectively influence the promotion of sports activities among high school students in Bhopal, with the aim of contributing to more balanced and inclusive approaches to youth sports development [7, 8].

2. Socio-Economic Diversity in Bhopal

Bhopal exhibits a wide range of socio-economic conditions among its school-going population, primarily due to its mixed economic demographic. The city is home to:

1. **Wealthy Families:** Children from affluent households often attend private schools with high-quality infrastructure, advanced teaching methodologies and diverse extracurricular activities. These students typically have access to technology, private tutors, and other resources that support academic and extra curricular excellence.
2. **Middle-Class Families:** A significant portion of Bhopal's population falls within the middle class. Children from these families attend a mix of private and government-aided schools. While they may have access to basic educational resources, financial constraints sometimes limit their participation in additional learning or recreational activities.

3. Economically Disadvantaged Families: Children from low-income households often attend government schools. These families may struggle to afford basic necessities, leading to challenges such as irregular attendance, malnutrition, and limited academic support at home.

3. Impact of SES on Education

The socio-economic status of a child's family has profound implications for their educational journey. High SES families can afford private schooling, ensuring access to modern facilities and qualified educators. Conversely, children from low SES backgrounds may face challenges such as overcrowded classrooms, outdated teaching methods, and insufficient learning materials in government schools. Malnutrition remains a concern among economically disadvantaged children in Bhopal Poor health negatively impacts cognitive development and school performance. Midday meal schemes in government schools help address this issue to some extent. Educated parents in higher SES families are more likely to be involved in their child's education, providing guidance and encouragement. In contrast, low SES parents, often engaged in unskilled labor, may lack the time or education to support their children effectively. High SES children have greater exposure to sports, arts, and other extracurricular activities, fostering holistic development. Low SES children, however, often lack access to such opportunities due to financial and infrastructural limitations.

3.1 Challenges and Disparities

The SES disparities among school children in Bhopal lead to several challenges, including

1. Digital Divide: The COVID-19 pandemic exposed the digital divide, with low SES children unable to access online education due to lack of devices with internet connectivity.

2. Dropout Rates: Economic situations often force children from low-income families to drop out of school to contribute to household income. Social Inequalities: SES differences perpetuate social inequalities, with children from disadvantaged backgrounds facing stigma and discrimination. The socio-economic status of school children in Bhopal is a crucial determinant of their academic and personal development. While the city's diversity creates opportunities for growth, it also highlights significant disparities that need to be addressed. By focusing on inclusive policies, resource allocation, and community support, Bhopal can ensure that every child, irrespective of their socio-economic background, has access to quality education and a bright future.

3.2 Sampling Design

Sample Size : All the high school students from Bhopal City of Madhya Pradesh and of age group between 15 and 18 yrs from 9th to 12th class were considered as the total population of the study. Out of the total population, 400 high school students in the 15–18 years age group were selected using a random sampling method. A total of 40 schools, including both private and government schools, were chosen from Bhopal City for this study. From each school, 10 students, either boys or girls, were selected for study. The purpose of the research was clearly explained to the subjects, and they were motivated to put in their best effort during each attempt.

3.3 Sampling Method

The design of the study was random group design and survey based method.

Criterion measures

Sports participation: Sports participation Measuring sports participation involves collecting data and analyzing it to understand the extent, trends, and impact of involvement in sports activities.

3.4 Data Source

Primary Data Collection:- In this study primary data was collected through physical fitness tests conducted on high school students, Class 9 to 12 and age group 15 to 18 years both girls and boys. Socio-economics Status Scale:- The information regarding socioeconomic status of students was collected by using the Modified Kuppuswamy SocioEconomic Status Scale prepared by Kuppuswamy.

Secondary Data Collection: Published data and the data collected in the past or by other parties are known as secondary data. In this study, secondary data was collected from the general publications, scientific journals, publications of academic institutions, research institutes and books from National and International authors. Secondary sources include books, papers, sports development related government publications and the information collected online through various sports and physical education related blogs.

4. Observation and Analysis

Above table 1 shows information pertaining to attendance of high school students of Bhopal city in sports activities. It is observed that 21.3% respondents have high attendance rate in the sports activities while 44.0% respondents reported average level of attendance. Furthermore 34.8% respondents show a low level of attendance. On the basis of the study results it is evident that most ($p < 0.05$) of the school students of Bhopal city have average attendance rate in the sports activities.

Table 1: Attendance in sports activities

Response	Nos.	Per
High	85	21.3
Average	176	44.0
Low	139	34.8
Total	400	100.0

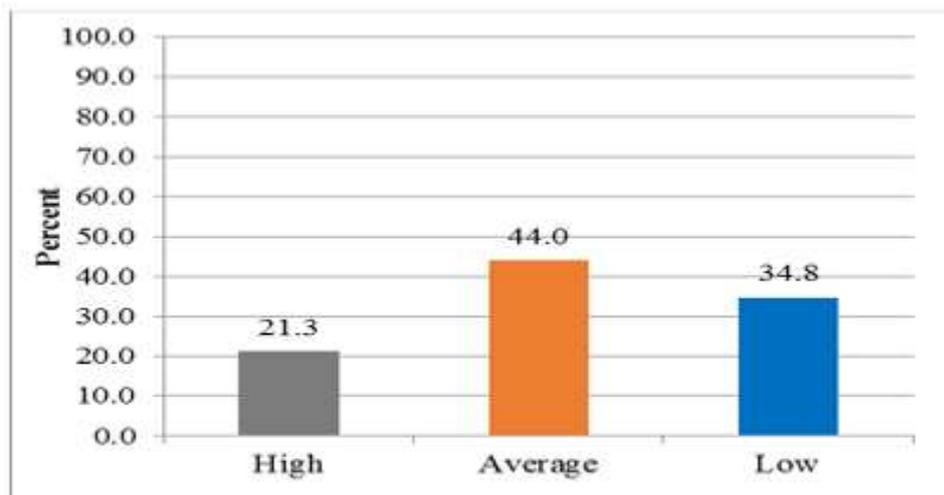


Figure 1: Attendance in sports activities

Table 2: Students proficiency in specific sports skills

Response	Nos.	Per
High	134	33.5
Average	162	40.5
Low	104	26.0
Total	400	100.0

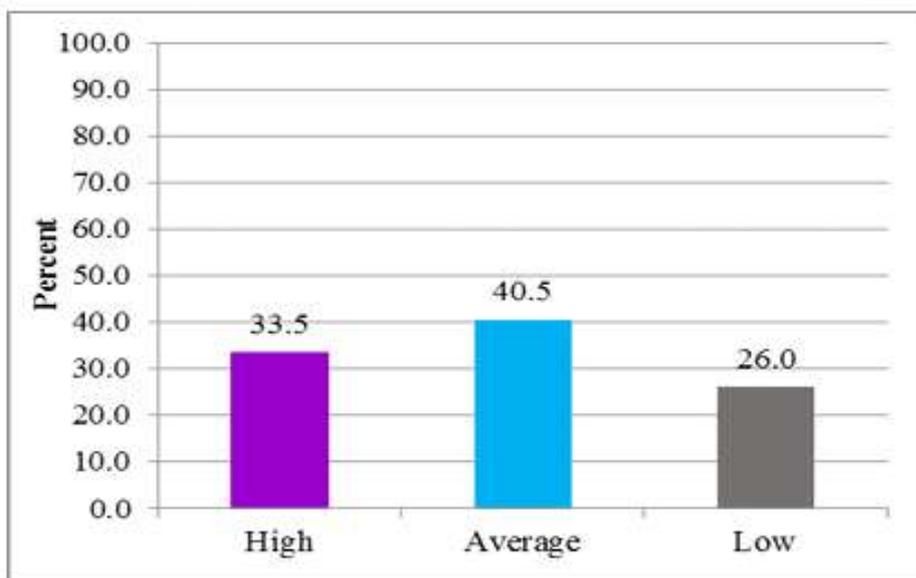


Figure 2: Students proficiency in specific sports skills

Above table 2 shows information pertaining to proficiency of the high school students of Bhopal city in specific sports skills. It is observed that 33.5% respondents are highly proficient in specific sports skills while 40.5% respondents reported average level of proficiency. Furthermore 26.0% respondents shows a low level of proficiency. On the basis of the study results it is evident that most ($p < 0.05$) of the school students of Bhopal city have average attendance rate in specific sports skill.

5. Result and Interpretation

Table 3: SES status and overall sports participation of students

SES Status		Overall Sports Participation			Total
		High	Average	Low	
Upper	Count	18	0	0	18
	% of Total	4.5%	0.0%	0.0%	4.5%
Upper middle	Count	75	98	0	173
	% of Total	18.8%	24.5%	0.0%	43.3%
Lower middle	Count	0	105	19	124
	% of Total	0.0%	26.3%	4.8%	31.0%
Upper lower	Count	0	0	48	48
	% of Total	0.0%	0.0%	12.0%	12.0%
Lower	Count	0	0	37	37
	% of Total	0.0%	0.0%	9.3%	9.3%
Total	Count	93	203	104	400
	% of Total	23.3%	50.8%	26.0%	100.0%

Table 4: SES status and overall sports participation of students

V	Value	DF	Asymp. Sig. (2-sided)
Pearson Chi-Square	439.970 ^a	8	0.000
Likelihood Ratio	483.942	8	0.000
Linear-by-Linear Association	266.298	1	.000
N of Valid Cases	400		

Chi-Square Tests: The Chi-Square (χ^2) Test is a non-parametric statistical test used to determine whether there is a significant association between categorical variables.

It is widely used in research studies such as:

- Socioeconomic Status (SES) vs Sports Participation
- Gender vs Type of Game Played
- Type of School vs Participation Level
- Defective vs Non-Defective Modules (in classification studies)

Table 5: Chi-Square Tests

	Value	Approx. Sig.
Nominal by Nominal	Phi	1.049
	Cramer's V	.742
N of Valid Cases	400	.000

From the chi-square statistic (Table 6), it is clear that there is a significant association between SES status and overall sports participation. Hence the hypothesis which states that, "There is

no significant relationship between the level of participation of high school students among high, medium and low SES” is rejected.

Table 6: SES status and Game played by the students

SES Status		Game played by the student		Total
		Team Game	Individual Game	
Upper	Count	18	0	18
	% of Total	4.5%	0.0%	4.5%
Upper middle	Count	173	0	173
	% of Total	43.3%	0.0%	43.3%
Lower middle	Count	93	31	124
	% of Total	23.3%	7.8%	31.0%
Upper lower	Count	0	48	48
	% of Total	0.0%	12.0%	12.0%
Lower	Count	0	37	37
	% of Total	0.0%	9.3%	9.3%
Total	Count	284	116	400
	% of Total	71.0%	29.0%	100.0%

6. Conclusion

The present study examined the role of school infrastructure and socioeconomic background in promoting sports activities among high school students in Bhopal. The findings clearly indicate that both institutional and family-level factors significantly influence students' participation in sports. Adequate school infrastructure—including playgrounds, indoor courts, sports equipment, and trained physical education teachers—creates a supportive environment that motivates students to actively engage in physical activities. Schools with better facilities tend to provide more structured training programs and competitive exposure, leading to higher levels of participation and performance.

At the same time, SES plays a crucial role in determining students' access to sports opportunities. Students from higher socioeconomic backgrounds generally benefit from financial support, private coaching, and parental encouragement, which enhance their participation in organized and competitive sports. In contrast, students from lower SES groups often face economic and resource-related constraints that limit their access to quality training and facilities. These disparities highlight the combined effect of infrastructure availability and family background in shaping sports engagement patterns.

The study concludes that promoting equitable sports participation requires coordinated efforts from educational authorities and policymakers. Strengthening sports infrastructure in government schools, providing financial assistance to economically disadvantaged students, and organizing inclusive community sports programs can help bridge the participation gap. Ensuring equal access to sports opportunities will not only improve students' physical and mental health but also contribute to their overall personality development and social integration.

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