



## GENDER-BASED ANALYTICAL STUDY OF PARTICIPATION TRENDS IN HIGH SCHOOL SPORTS AND PHYSICAL ACTIVITIES

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### *Abstract*

*Fostering inclusive and equitable environments requires an understanding of gender-based participation trends in high school athletics and physical education. The frequency, preferences, incentives, and obstacles affecting male and female students' participation in sports at two coeducational high schools were investigated in this study. Data were gathered from 40 students (20 males and 20 females) using a mixed-methods approach. Selected students and physical education teachers were interviewed qualitatively to augment the structured questionnaires. According to quantitative analysis, female students were more interested in individual sports and fitness activities, while male students participated more often and favored team sports. Males were more influenced by peer interaction, while females placed more emphasis on health benefits as motivational factors. Qualitative research revealed that obstacles that disproportionately impacted female participation included academic pressures, gender stereotypes, parental discouragement, and inadequate infrastructure. To encourage inclusivity, educators pushed for gender-neutral physical education programs, better facilities, and awareness campaigns. The study emphasizes how important it is to address structural and sociocultural issues in order to improve high school students' equitable participation in sports.*

**Keywords:** *Gender differences, sports participation, high school students, physical activities, barriers, mixed-methods, inclusivity.*



## 1. INTRODUCTION

Adolescents' physical, mental, and social development is greatly aided by sports and physical activities, which are essential elements of a comprehensive educational experience. In addition to improving health and fitness, regular physical activity during high school promotes social interaction, discipline, teamwork, and confidence. Despite the acknowledged advantages, there are frequently noticeable gender differences in high school athletic participation. Male participation in competitive and team sports is typically favored by societal norms, cultural expectations, and institutional factors, whereas stereotypes, a lack of support, and limited access to facilities often restrict female participation. These differences can have long-term effects, impact young girls' physical health and self-esteem, and perpetuate gender inequality in sports and other fields. Therefore, it is crucial to comprehend the trends and underlying causes that affect high school athletic participation for both sexes in order to establish welcoming and encouraging environments. By analyzing the frequency of participation, preferences, motivations, and obstacles encountered by male and female students in coeducational high schools, this study aims to investigate these gender-based trends. By using a mixed-methods approach, the study seeks to offer a comprehensive understanding of how gender influences participation in sports and to uncover practical insights that can guide practice and policy to support fair opportunities for all students.

### 1.1. Background of the Study

Adolescent sports and physical activity participation is essential for fostering social skills, physical health, and general well-being. However, gender differences in participation in sports continue to be a problem in many educational environments, frequently due to societal expectations, cultural norms, and physical constraints. While female students typically encounter obstacles like a lack of support, stereotyping, and inadequate facilities, male students typically receive more encouragement and opportunities to participate in competitive and team-based sports. Developing strategies that support equitable access and inclusive environments in high schools requires an understanding of these gender-based participation trends. In order to guide the creation of policies and programs that can close the gender gap in school sports participation, this study attempts to explore these trends, incentives, and difficulties.



## **1.2. Significance of Sports Participation in Adolescence**

Adolescent sports and physical activity are essential for fostering general health and wellbeing. Regular exercise supports mental health by lowering stress and raising self-esteem while also improving cardiovascular fitness, muscle strength, and flexibility. Beyond the health advantages, playing sports helps develop critical social skills like communication, teamwork, and leadership that support overall personal growth. Schools are the perfect place to promote these kinds of activities because they give students organised chances to participate in a variety of physical activities. Thus, participating actively in sports during the early years of high school establishes the groundwork for personal development and lifelong healthy habits.

## **1.3. Gender Disparities and Challenges in School Sports**

Even with all of the advantages of playing sports, gender inequality is still a major problem in classrooms around the world. Distinct attitudes towards male and female participation in physical activities are often shaped by societal norms and cultural expectations, which tend to favour boys' participation in team and competitive sports. Contrarily, girls encounter obstacles like a lack of support, gender stereotypes, restricted access to suitable facilities, and conflicting academic demands. These factors contribute to lower participation rates among female students and can negatively impact their confidence and interest in sports. Developing inclusive policies and programs that support equal opportunities for all students, regardless of gender, necessitates a thorough understanding of the underlying social, cultural, and infrastructure issues.

## **1.4. Research Objectives**

- To examine the frequency and consistency of sports participation among male and female high school students.
- To identify the types of sports and physical activities preferred by male and female students.
- To analyze the key motivational factors influencing sports participation across genders.
- To explore the barriers and socio-cultural factors that affect sports participation, particularly among female students.

## 2. LITERATURE REVIEW

**Luque-Casado et al. (2021)** conducted a thorough analysis of the behavioural regulation mechanisms that underlie participation in physical activity, with a particular emphasis on the ways in which gender affects these behaviours. Their research showed that a notable gender gap remained, with female adolescents consistently engaging in less physical activity than their male counterparts, even though there was a general understanding of the advantages of physical activity. They contended that conventional frameworks for encouraging physical activity were inadequate since they failed to take into consideration the unique social, cultural, and psychological obstacles that girls had to overcome. The authors argued that in order to effectively close this gap and increase participation rates among female youth, a paradigm shift was required, moving towards gender-sensitive strategies that actively address motivational differences, societal expectations, and support systems.

**Chen et al. (2021)** examined trends in gender-based physical education class attendance, sports participation, and adherence to physical activity guidelines among adolescents in the United States over a ten-year period (2009–2019). According to their extensive survey-based study, male adolescents were more likely than female adolescents to report being physically active and participating in sports, and this difference tended to increase over time. The study also found that female students were less likely to participate in physical education and organised sports, which may indicate systemic problems like unequal resource distribution, social norms, and possibly a lack of support or motivation. In order to lessen gender-based health disparities, their findings emphasised the critical need for focused interventions and policies that encourage female adolescents to engage in physical activity.

**Moreno-Llamas, García-Mayor, and De la Cruz-Sánchez (2022)** investigated the connection between gender inequality in society and the disparities in men's and women's rates of physical activity participation. Their study, which used cross-national data, discovered a definite correlation: women's participation in sports and physical activities was much lower in nations with higher levels of gender inequality. The study emphasised how these disparities were caused by a combination of institutional discrimination, economic barriers, and deeply ingrained cultural norms. The authors underlined the significance of more comprehensive structural changes and gender-sensitive regulations to promote fair sports participation by pointing out the macro-level social factors that influence women's physical activity levels.



**Tanaka et al. (2021)** looked at the latest patterns in high school athletic participation among American girls and the implications for injury prevention and awareness. While female participation rates in high school athletics had increased, their longitudinal study revealed that, in comparison to boys, girls frequently experienced disparities in coaching quality, facility access, and injury prevention education. The study highlighted that without concurrent enhancements to the safety and support networks designed especially for female athletes, greater participation on its own was insufficient. In order to maintain female athletes' participation and wellbeing in competitive sports settings, they pushed for more inclusive sports programs that acknowledged gender-specific risks and encouraged injury prevention techniques.

**Ribeiro, Farias, and Mesquita (2024)** examined the efficacy of equity-driven pedagogical scaffolding in physical education classes. Their study demonstrated that female students' engagement and excitement for sports increased dramatically when teachers used inclusive curricula and supportive teaching strategies intended to combat gender biases. The authors described how providing a range of sports options, fostering a non-competitive environment, and aggressively combating stereotypes are examples of equitable pedagogical approaches that help girls feel competent and like they belong. According to their findings, school-level educational interventions could be extremely important in promoting equal participation opportunities and breaking down traditional gender norms.

**Hextrum, Knoester, and Tompsett (2024)** investigated the ways in which girls' involvement in high school athletics was impacted by intersecting social inequalities pertaining to gender, race/ethnicity, and class. According to their research, girls from marginalised backgrounds had fewer opportunities to participate in and stay involved in athletic programs due to a combination of factors such as discrimination, cultural expectations, and limited access to resources. According to the study, minority and low-income female students were less likely to persist in participating in sports as a result of these intersectional disadvantages. For all girls, regardless of background, to have equal access to and benefits from sports participation, the authors argued for comprehensive policy approaches that address these intersecting inequities holistically, encouraging inclusivity and offering specialised support.

### 3. RESEARCH METHODOLOGY

Understanding gender-based participation trends in high school sports and physical activities is crucial in addressing disparities and promoting inclusive school environments. This study aimed to explore the patterns, preferences, and influencing factors that differentiate the participation of male and female students in sports and physical activities at the high school level. The methodology employed was designed to capture both quantitative and qualitative data within a limited yet representative sample.

#### 3.1. Research Design

The study used a mixed-methods approach and a descriptive analytical research design. Structured questionnaires were used to collect quantitative data, and short interviews with chosen participants were used to obtain qualitative insights. Comparing participation levels and identifying gender-based trends and obstacles influencing participation in sports and physical activities were made possible by the design.

#### 3.2. Sample

Participants were chosen from two coeducational high schools using a purposive sampling technique. There were 40 students in the sample, 20 of whom were male and 20 of whom were female, and they ranged in age from 14 to 17. To guarantee maturity and pertinence in their answers, students were selected from Grades 9 and 10. For qualitative input, four physical education teachers were also included, two from each school.

#### 3.3. Data Collection

Data were collected over a two-week period using the following methods:

- **Questionnaire Survey:** Students were given a structured questionnaire to complete in order to gather information on their motivational factors, preferred sports, frequency of participation, and perceived benefits.
- **Semi-structured interviews:** To investigate underlying attitudes, cultural influences, and gender perceptions influencing sports participation, a set of students and physical education teachers participated in brief (10–15 minute) interviews.
- **Observation:** To add behavioural insights to survey responses, informal observation of physical education classes and sports periods was also conducted.

Parental and school consent was obtained prior to data collection, and participants were assured of confidentiality and voluntary participation.

### 3.4. Statistical Analysis

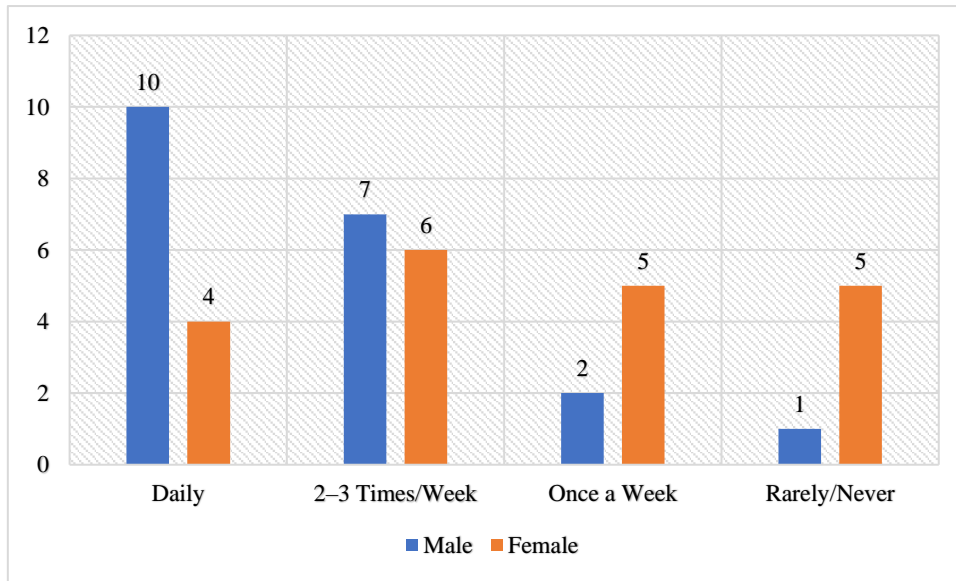
Descriptive statistics like frequency distribution, percentages, and mean scores were used to analyse the quantitative data and summarise participation trends. To ascertain whether gender differences in sports participation were statistically significant, a chi-square test was used. To find recurring themes and gender-specific narratives, qualitative interview responses were transcribed and subjected to thematic analysis.

## 4. DATA ANALYSIS

The data gathered from 40 high school students (20 male and 20 female) and 4 physical education teachers is analysed and interpreted in this section. Examining disparities in sports and physical activity participation by gender was the goal. The results are categorised thematically into areas such as barriers, motivational factors, preferred sports, and frequency of participation. Qualitative data from interviews were grouped thematically, and quantitative data were tabulated and examined using the Chi-square test and descriptive statistics.

**Table 1:** Frequency of Participation in Sports Activities

Gender	Daily	2–3 Times/Week	Once a Week	Rarely/Never	Total
Male	10	7	2	1	20
Female	4	6	5	5	20

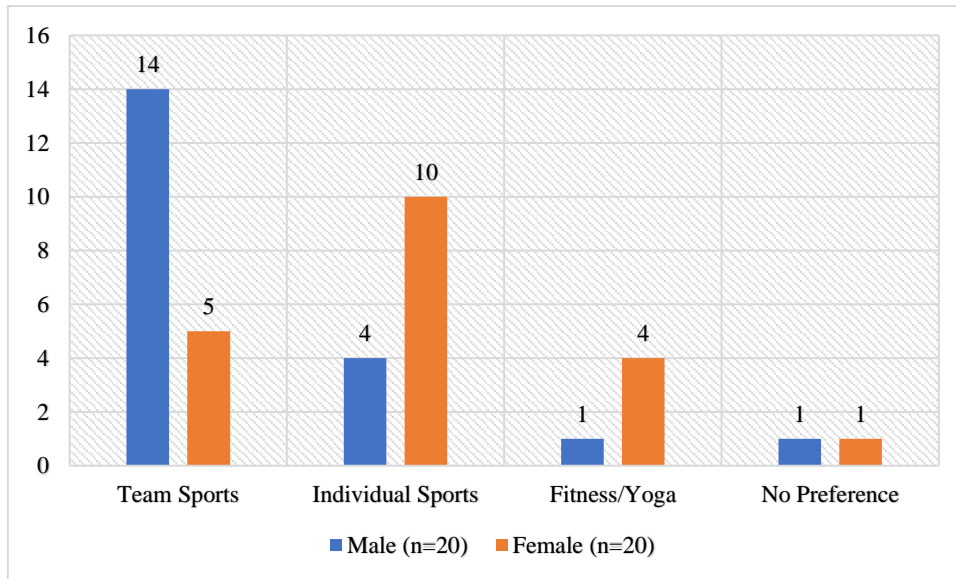


**Figure 1:** Graphical Representation of Participation in Sports Activities

The frequency of sports participation among male and female high school students is shown in Table 1. 85% (17 out of 20) of male students participate in regular sports activities daily or two to three times per week, according to the data. Only 50% of female students, on the other hand, reported comparable levels of involvement, and a sizable percentage (25%) said they rarely or never played sports. Given that male students engage in physical activity more frequently and consistently than their female counterparts, this suggests a discernible gender gap in sports participation.

**Table 2:** Type of Sports Preferred by Students

Sport Type	Male (n=20)	Female (n=20)
Team Sports	14	5
Individual Sports	4	10
Fitness/Yoga	1	4
No Preference	1	1

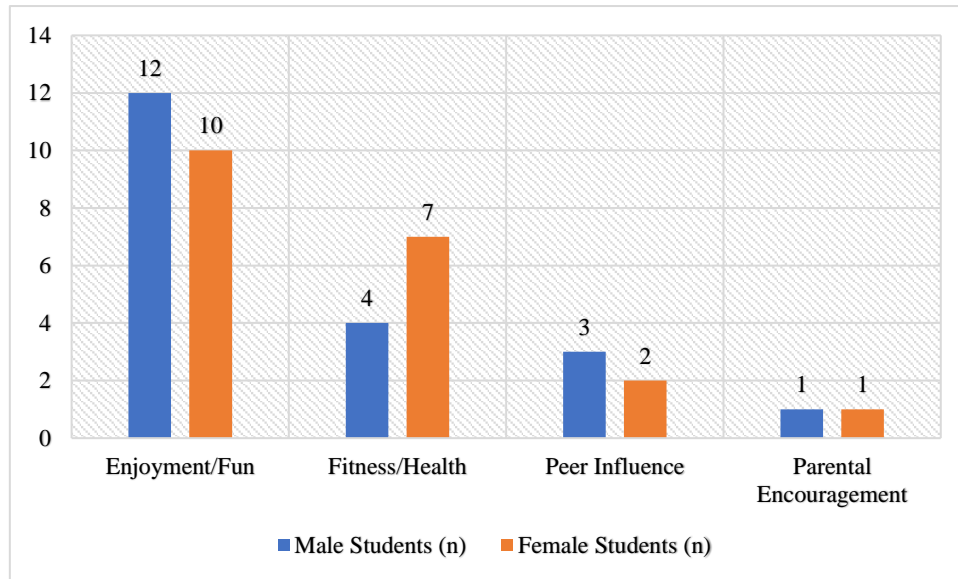


**Figure 2:** Graphical Representation of Type of Sports Preferred by Students

High school students' preferences for different sports are clearly based on their gender, as shown in Table 2. The majority of male students (70%) preferred team sports like cricket and football, indicating a strong preference for physical activities that are competitive and group-based. On the other hand, female students showed a preference for fitness/yoga activities (20%) and individual sports (50%) indicating a propensity for more individualised or non-competitive physical activities. The small percentage of students who have no preference suggests that the majority of students, both male and female, have clear sports interests, albeit ones that are influenced by social factors and varying motivations.

**Table 3:** Motivational Factors for Participation

Motivational Factor	Male Students (n)	Female Students (n)
Enjoyment/Fun	12	10
Fitness/Health	4	7
Peer Influence	3	2
Parental Encouragement	1	1



**Figure 3:** Graphical Representation of Motivational Factors for Participation

The motivational factors influencing male and female students' participation in sports differ noticeably, as shown in Table 3. The intrinsic value of sports is highlighted by the fact that the majority of students, both male (12) and female (10), cited enjoyment or fun as their main motivation. Nonetheless, more female students (7) than male students (4) cited health and fitness as major motivators, indicating that health consciousness may be more important in promoting female involvement. Parental encouragement was the least mentioned factor by both groups, suggesting that families had little influence over students' decisions to participate in physical activities. Peer influence was slightly more common among males (3) than females (2).

#### 4. Barriers to Participation (Qualitative Insights)

Thematic Analysis of Interviews Revealed the Following Barriers:

**Table 4:** Barriers to Participation

Theme	Illustrative Quotes
Lack of Encouragement	“My parents think girls should focus on studies.” – Female student
Gender Stereotyping	“Football is considered a boys’ game in our school.” – Female student
Uniform/Infrastructural Issues	“We don’t have proper changing rooms.” – PE Teacher
Academic Pressure	“Class 10 students often skip sports to study.” – Male student



The main obstacles preventing students from participating in sports and other physical activities, especially among female students, are highlighted in Table 4. The lack of support, particularly from parents, is a reflection of society's propensity to value girls' academic performance over their involvement in extracurricular activities. Because some sports, like football, are seen as being dominated by men, gender stereotyping further limits participation. Furthermore, the comfort and willingness of female students to participate in physical activity are disproportionately impacted by infrastructure deficiencies, such as inadequate changing facilities. The conflicting demands of curricular and extracurricular priorities were highlighted by the observation that academic pressure was a barrier for both genders, especially for students in higher grades.

#### **4.1. Teacher Perspectives**

Male students typically receive more support and encouragement from their peers, families, and the larger community to engage in sports and physical activities, according to the unanimous opinion of the four physical education teachers who participated in the study's interviews. Boys who receive this social reinforcement frequently become more self-assured and remain involved over time. On the other hand, they noted that because of dominant gender norms, female students usually experience discouragement and lack of similar support. In addition to targeted awareness campaigns that aim to dispel stereotypes and promote inclusivity, the teachers stressed that improved sports infrastructure, including safe changing rooms, accessible equipment, and female-friendly environments, could greatly increase female participation. The teachers also fervently supported the adoption of gender-neutral physical education curricula. To promote equal opportunities for engagement and skill development, they recommended curriculum revisions that would guarantee all students, regardless of gender, are exposed to a range of sports and physical activities in an objective and encouraging environment.

#### **5. CONCLUSION**

Male students participate in team sports more frequently than female students, who typically favour individual and fitness-focused activities, according to the study, which successfully highlighted notable gender-based disparities in high school athletic participation. Gender-specific motivational factors differed slightly, with enjoyment driving participation in both

groups and health consciousness being more important for women. Critical obstacles that disproportionately affect female students' participation in physical activities were also identified by the study, including academic pressures, lack of encouragement, societal stereotypes, and inadequate infrastructure. These results highlight the critical need for enhanced sports facilities, gender-neutral physical education curricula, and focused awareness campaigns to promote inclusive engagement and close the gender gap in school athletics. All things considered, the study offers insightful information for advancing fair chances for all students to gain from sports and physical exercise.

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