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THE CONTRIBUTION OF SCHOOL SPORTS PROGRAMMES TO FEMALE ATHLETES' SUCCESS IN DODOMA CITY, TANZANIA

George Jackson Mbijima*¹, Abel Mtweve², Juliet Nakitto³, Wilfred Muhumuza⁴,
Tidoson Cleophace⁵, Benjamin Temper

Tanzania.

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*Corresponding Author: George Jackson Mbijima

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ABSTRACT

Background: School sports programs play a critical role in promoting female participation and achievement in athletics, yet gender-specific barriers often limit their full potential. Grounded in Sandra Bem's Gender Schema Theory, this study examines how school sports programs in Dodoma City facilitate success for female athletes.

Objectives: To analyze participation patterns, assess athletic and personal development outcomes, and identify major institutional and socio-cultural barriers facing female student-athletes in Dodoma City secondary schools.

Methods: A quantitative cross-sectional study design was employed. Simple random sampling was used to select 414 female athletes across four secondary schools in Dodoma City. Primary data were collected using structured questionnaires and analyzed via SPSS version 26 using descriptive statistics and cross-tabulations.

Results: Football (44.7%) and netball (31.9%) emerged as the most popular sports among participants. While 77.1% of athletes received formal instruction, the vast majority (81.0%) participated primarily at the school level, as higher levels of competition were associated with significantly reduced participation rates. Participation in school sports yielded significant positive outcomes, including school championships, individual awards, enhanced physical fitness, elevated self-confidence, improved teamwork, and developed leadership skills. However, key barriers persist, including inadequate sports infrastructure, a lack of dedicated changing facilities, limited training opportunities, prevailing gender stereotypes, and restricted access to higher-level competitive platforms.

Conclusion: School sports programs in Dodoma City substantially enhance female athletes' achievements, self-efficacy, and career aspirations. To sustain and expand these gains,

targeted interventions are needed, including investments in gender-responsive facility infrastructure, robust coaching development systems, expanded competitive pathways, and policies advocating for equal participation and long-term athletic development.

KEYWORDS: school sports, female athletes.

INTRODUCTION OF THE STUDY

The paper intended to explore the contribution of school sports programmes to female athletes' success. Sports are increasingly recognized as essential in promoting students' holistic development, encompassing physical fitness, mental health, and social skills (Mhina & Mwila, 2025; Msangi & Komba, 2021). Educational systems have progressively integrated sports programs into school curricula, acknowledging their vital role in shaping well-rounded individuals (Tanzania, 2023). School-based sports initiatives are particularly effective in providing early avenues for talent identification and skill development (Ajad & Falaye, 2021). For female students, participation in such programs offers not only a platform for athletic growth but also a supportive environment for empowerment and expression, particularly in sports traditionally dominated by males, such as football (Allan, 2024).

School sports programs have a long history dating back to the 1970s and have played a crucial role in promoting gender equality in athletics (Foundation, 2023). In the United States, the enactment of Title IX in 1972 significantly expanded opportunities for female participation in school sports, and its impact remains evident today (Associations., 2023). Data from the National Federation of State High School Associations show a steady rise in girls' participation in high school football between 2019 and 2023 (Associations., 2023). Structured school sports environments provide girls with access to professional coaching, competitive experiences, and exposure to elite tournaments, all of which are essential for their athletic development (Hextrum et al., 2024). Initiatives such as Girls Flag Football are organized sports programs, primarily developed in countries such as the United States, that involve girls in a non-contact version of American football to challenge traditional gender roles (Football, 2023). These initiatives benefit girls by building confidence, teamwork, and equal participation opportunities, making them a valuable model to adopt in Tanzania to promote inclusion and empowerment in sports (Foundation, 2023).

Similarly, countries such as the United Kingdom and Malaysia have made notable progress in integrating girls into school football programs through supportive policies and targeted interventions (Education, 2019). The UK's School Sport and Activity Action Plan (Creswell

et al.) Promoted female inclusion through mixed-gender training, female-specific coaching, and girls-only tournaments, strengthening pathways to professional and national teams (Trust., 2023). In Malaysia, increased investment since 2020 and policies mandating co-curricular sports have boosted female football participation, leading to higher student engagement and self-esteem (Education, 2024). However, persistent challenges remain across countries, including limited facilities, a shortage of female coaches, funding disparities, and societal attitudes that hinder girls' participation (Giannopoulos, 2024). These issues highlight the need for sustained investment and comprehensive policies to ensure equitable access and long-term development for female football players (UNESCO, 2022).

School sports programs across Africa play a vital role in identifying and nurturing female football talent, though progress remains uneven due to persistent gender disparities (FIFA, 2023). In countries such as Nigeria and South Africa, school-based initiatives demonstrate both opportunities and challenges in promoting female participation (Ayamga et al., 2023). Nigeria's grassroots school competitions and efforts by the Nigeria School Sports Federation support early talent identification and gender equity, yet socio-cultural norms often limit girls' participation and access to training (Federation, 2022). South Africa, by contrast, benefits from more structured policies, government-private sector partnerships, and collaboration with the South African Football Association, which have improved access to facilities and coaching for schoolgirls, although rural-urban inequalities continue to hinder equal development (Association, 2023).

In East Africa, countries including Kenya, Uganda, Rwanda, and Burundi have made notable strides through structured inter-school competitions and regional platforms such as the FEASSSA Championships, which enhance visibility, skills development, and pathways to higher-level football for girls (FEASSSA, 2023). Support from governments, NGOs, and international bodies like FIFA and UNICEF has further strengthened school sports through training, mentorship, and resource provision, while also helping to shift cultural attitudes toward girls in sports (UNICEF, 2023). Despite these advances, challenges such as inadequate funding, limited infrastructure, a shortage of qualified coaches, and deeply rooted cultural beliefs persist (Masinde et al., 2023). Addressing these barriers requires sustained investment, context-specific strategies, and coordinated efforts to ensure school sports programs effectively promote gender equity and long-term female football development across Africa (Muthoni & Mwangi, 2022).

In Tanzania, the integration of sports into education has gained momentum following policy reforms such as the Education and Training Policy of 2014, updated in 2023, which

emphasizes holistic education and gender inclusivity through physical activities (Tanzania, 2014). School sports programs have increasingly contributed to the development of female football players across regions, including Mbeya, Mwanza, Zanzibar, Dar es Salaam, and Dodoma, by providing structured opportunities for participation, skill development, and talent identification through competitions such as UMITASHUMTA involves primary school pupils and UMISSETA brings together secondary school students to participate in various athletic and games activities at regional and national levels (Federation, 2023). While urban areas benefit from better infrastructure and coaching, studies consistently highlight challenges such as cultural beliefs, gender stereotypes, inadequate facilities, limited qualified coaches, and uneven implementation of policies, which constrain sustained athletic progression for girls (Mushi, 2022). Despite growing enthusiasm and institutional support, translating participation into long-term competitive success remains difficult, underscoring the need for strengthened investment, community sensitization, and female-focused coaching and mentorship to overcome socio-cultural and logistical barriers to female football development (Bengo, 2018). Therefore, this study aims to examine how school sports programs in Dodoma City contribute to the success of female athletes and promote equitable participation.

1.2 Statement of the Problem

Despite significant policy initiatives promoting gender equity in sports globally, female athletes in Tanzania continue to encounter multifaceted systemic barriers that impede their progression from school-level participation to sustainable professional careers (Tanzania, 2014). Contemporary evidence from Tanzania shows that while school sports programs benefit both boys and girls, girls in football still face distinctly sharper challenges that set them apart (Mhina & Mwila, 2025). In many communities, girls who play football are labeled as deviating from traditional gender roles, leading to parental restrictions that rarely affect boys to the same extent (Clement, 2023). Although participation exists across genders, boys dominate organized leagues and transition pathways, while female representation in structured competitions such as those linked to the Tanzania Football Federation remains comparatively low, with fewer visible progression opportunities into elite levels (Mkwizu, 2023). This imbalance is reinforced by limited female-focused leagues, weaker mentorship systems, and fewer role models, making the transition rate from school to competitive levels significantly lower for girls than for boys (Hextrum et al., 2024). As a result, the challenges faced by girls are not only distinct but systemic, highlighting the need for targeted interventions that specifically address cultural stigma, access gaps, and the absence of clear

development pathways for female athletes (Foundation, 2023). Furthermore, economic constraints continue to disproportionately affect female players, with many lacking accesses to scholarships, sponsorships, and financial incentives necessary for career advancement, ultimately contributing to elevated dropout rates and underutilization and the outstanding loss of this female athletic potential(UNESCO, 2021).

The effectiveness of existing school-based sports programs, particularly UMITASHUMTA and UMISSETA, whose primary objective was to, among others, champion equitable participation in sports and talent identification, is clearly lacking in addressing these structural impediments, and what's more, documentation remains inadequately and critically underexplored (UNESCO, 2021). While these initiatives provide foundational training opportunities for young female athletes in Dodoma City, there remains a significant knowledge gap regarding their long-term impact on career progression and professional development for our female athletes (Council, 2024). As if that is not enough, at the entrance into secondary school, specifically at age 14, studies have shown that many girls drop out of sports at twice the rate of boys, underscoring the urgency of understanding how these institutional frameworks can better support sustained participation for our female athletes (Sabo et al., 2021). This study, therefore, seeks to examine the contributions of school sports programs toward female athletic career development, specifically how these programs contribute to the transition from school-level competition to professional or semi-professional careers in female athletes' development in Dodoma.

2.0 Literature review

1.7 Definitions of key terms

School sports programs

School sports programs are organized and structured activities within educational institutions that systematically develop students' athletic skills, physical fitness, and competitive performance through regular training and participation in both curricular and extracurricular events, ranging from school-level matches to regional tournaments like UMITASHUMTA and UMISSETA.

1.7.3 Female athletic success/career success

This is defined as the performance excellence, skill mastery, and career advancement opportunities by women and girls participating in school sports, measured through various indicators including competitive performance, skill progression, leadership roles, scholarship opportunities, and successful transitions to higher levels of competition.

2.2 Theoretical Perspectives

This study applied theoretical perspectives of Gender Schema Theory, examined how institutional structures, societal norms, and personal development intersect to shape the pathways and challenges female athletes face from school-level participation to professional opportunities.

Gender Schema Theory

Sandra Bem's Gender Schema Theory (Starr & Zurbriggen) offers a cognitive lens for understanding how individuals perceive, categorize, and internalize gender roles within their cultural environment. According to this theory, children develop mental frameworks, or schemas, that guide their interpretation of behaviors and expectations as "appropriate" for males or females (Bem, 2018). These schemas contribute how individuals process social information, leading to the reinforcement of gender stereotypes and shaping personal choices, self-perceptions, and behavior. The theory is particularly insightful in explaining why certain activities, such as sports, often become gender-typed and why deviations from these norms can elicit social resistance (Bem, 2018). However, while Gender Schema Theory illuminates the cognitive mechanisms of gender socialization, it may underemphasize the structural and institutional factors, such as laws, policies, and resource distribution, that also perpetuate gender inequalities in society (Bem, 2018).

In the context of female football in Tanzania, the theory helps explain the psychological and cultural barriers limiting women's participation. Traditional gender norms frequently position sports like football as masculine, and girls internalize these messages through gender schemas, which can reduce their perceived competence and discourage engagement in the sport (Clement, 2023). In Dodoma City, these cultural expectations are reinforced both socially and within family structures, creating dual challenges of external discrimination and internalized gendered beliefs (Mushi, 2022). Applying Gender Schema Theory to school sports programs highlights both obstacles and opportunities: programs that actively recognize and celebrate female athletic ability can reshape restrictive gender schemas, foster confidence, and promote equity, whereas programs that reinforce stereotypes may deepen existing barriers. This theoretical perspective underlines the importance of designing school-based interventions that combine skill development, mentorship, and positive role modeling to challenge societal norms and expand career pathways for female athletes, ultimately supporting more inclusive and sustainable participation in Tanzanian sports.

2.5 Review of Specific Literature

The patterns of participation among female athletes in the diversity of sports and the frequency of engagement in school programs.

In the United States, studies examined Teen Sport in America, Part II: Her Participation Matters to investigate the prevalence of female students' participation in school sports programs (Sabo et al., 2021). Using a national survey design, data were collected from a representative sample of teenage athletes across multiple states and analyzed with descriptive statistics and comparative measures between genders (Sabo et al., 2021). The findings revealed that while female participation in school sports contributes positively to academic success, health, and social development, girls' involvement rates remain lower than boys' due to structural barriers such as limited program access and cultural stereotypes (Sabo et al., 2021). The study concludes that expanding equitable opportunities and supportive policies is essential to increasing female athletes' participation in school sports and to maximizing the academic and developmental benefits associated with athletic involvement (Sabo et al., 2021).

In England, the research investigated Girls in Sport: How UK Schools are Levelling the Playing Field, which investigated the prevalence and challenges of female students' participation in school sports programs (Allan, 2024). Using a qualitative research design that combined interviews with educators and analysis of school initiatives, the study explored how both state and independent schools are working to encourage girls' involvement in athletics (Allan, 2024). The findings revealed that despite growing attention to gender equality in sports, female students continue to face barriers such as social pressures, stereotypes, and confidence issues (Allan, 2024). However, schools that implemented inclusive policies and broadened access to traditionally male-dominated sports reported higher participation rates and improved student well-being (Allan, 2024). The study concludes that targeted school-level interventions are essential to increase female athletes' participation and to ensure equitable access to the academic and developmental benefits of sports (Allan, 2024).

In Indonesia, the article Roadblocks to Gender Equality Remain in Indonesian Schools published in East Asia Forum investigated the challenges of female students' participation in school sports and broader educational activities (Giannopoulos, 2024). Using a qualitative policy analysis approach, the study examined national reforms promoting gender equality alongside local governance practices and cultural norms (Giannopoulos, 2024). The findings revealed that although girls often outperform boys in literacy and academic achievement,

entrenched patriarchal traditions and regional disparities limit their participation in extracurricular activities such as sports (Giannopoulos, 2024). The study concludes that targeted reforms, stronger regulation of regional laws, and community engagement are necessary to enhance female students' access to school sports programs and to close the gender gap in participation (Giannopoulos, 2024).

The African perspective in Kogi State, Nigeria, the study conducted titled *Socio-cultural Determinants of Female Students' Participation in School Sports* (Ajad & Falaye, 2021). Using a descriptive survey research design, the researchers sampled 310 female secondary school students out of a population of 3,290 and collected data through structured questionnaires. The findings revealed that socio-cultural factors such as gender stereotypes, cultural norms discouraging female athleticism, and religious restrictions significantly reduced female students' participation in school sports (Ajad & Falaye, 2021). The study concludes that both sexes should be equally encouraged to participate in sports, and that sensitization campaigns are needed to challenge cultural beliefs that hinder female involvement in athletics.

Furthermore, in Kenya, a study titled *Peer and Family Support as Determinants of Female Participation in Sports among Trainees in Teacher Training Colleges* (Masinde et al., 2023). Using a descriptive survey design, data were collected from female trainees in teacher training colleges and analyzed with inferential statistics. The findings revealed that peer encouragement and family support significantly contributed to female students' willingness to participate in sports, while a lack of support contributed to under-representation. The study concludes that strengthening social support systems is essential to increasing female participation in school sports programs (Masinde et al., 2023).

In Uganda, an investigation into *Institutional Support and Female Students' Participation in Sports Co-Curricular Activities at Makerere University: A Case Study of the School of Education*. Using a case study design, the research employed questionnaires and interviews to assess how institutional policies, facilities, and administrative support affected female students' involvement in sports (Bengo, 2018). The findings showed that inadequate facilities, limited funding, and weak institutional encouragement hindered female participation. The study concludes that stronger institutional support and resource allocation are critical to improving female students' engagement in sports (Bengo, 2018).

In Tanzania, a study titled *"Extracurricular Activities: Prospects and Challenges among Female Students in Secondary Schools in Chanika Ward"* (Clement & Mwila, 2023). Using a descriptive survey design, data were collected from female secondary school students and

analyzed with descriptive statistics (Clement & Mwila, 2023). The findings revealed that although extracurricular activities, including sports, enhance intellectual, physical, emotional, and social growth, female students' participation is hindered by cultural norms, lack of resources, and insufficient encouragement from schools. The study concludes that improving facilities, sensitizing communities, and strengthening school support systems are essential to increase female students' participation in sports and extracurricular programs (Clement & Mwila, 2023).

The level of athletic success and career milestones attained by female athletes through their involvement in school sports programs

In the United States, the investigation of Sports 4 Life: Expanding Access and Opportunities for Girls in Sports under the Women's Sports Foundation initiative. Using a mixed-methods approach that combined national survey data with program evaluation reports, the study assessed the Contribution of structured school and community sports programs to female athletes' development. The findings revealed that participation in structured sports programs significantly improved girls' physical health, academic performance, self-esteem, and leadership skills, but also showed that African-American and Latina girls had lower participation rates due to systemic barriers (Foundation, 2023). The study concludes that structured sports programs are vital in promoting equity, resilience, and educational success among female athletes, and calls for targeted interventions to expand access for marginalized groups.

In Britain, the Youth Sport Trust evaluated the Girls Active program, which was designed to enhance female students' participation in structured school sports programs (Trust., 2023). Using a mixed-methods approach that combined surveys, focus groups, and school-based evaluations, the study assessed how structured interventions contribute to girls' involvement in physical education and extracurricular sports. The findings revealed that programs emphasizing self-confidence, peer support, and student-led design of sports activities substantially increased female athletes' participation rates (Trust., 2023). Moreover, schools implementing Girls Active reported improvements in students' physical health, emotional well-being, and leadership skills. The study concludes that structured school sports programs tailored to girls' needs are effective in overcoming barriers such as stereotypes and low confidence, thereby promoting equity and sustained participation in athletics.

In India, CSR India conducted a study titled Sports for Empowering Girls 2017–2024 to investigate the Contribution of structured school sports programs among female athletes in

Haryana and Delhi-NCR (CSR, 2024). Using a program evaluation methodology that combined surveys, community sensitization reports, and participation records from sub-district, district, and zonal tournaments, the study assessed how structured sports initiatives contributed to girls' educational and social outcomes (CSR, 2024). The findings revealed that participation in organized school sports programs significantly improved female students' confidence, agency, and social standing, while also challenging community stereotypes about girls in athletics. The study concludes that structured sports programs are effective tools for promoting gender equality, enhancing academic engagement, and preparing female athletes to join district and zonal teams.

In South Africa, Her Form conducted a study titled *Localizing Her Form Empowering South Africa's Next Generation of Female Athletes* to investigate the Contribution of structured school sports programs among female students (HerForm., 2024). Using a qualitative case study approach in collaboration with Herschel Preparatory School and St. Cyprian's School in Cape Town, the program assessed how structured training modules and evidence-based resources contributed to female athletes' participation and development. The findings revealed that structured sports programs enhanced girls' confidence, resilience, and leadership skills, while also fostering greater academic engagement and social inclusion. The study concludes that structured school sports programs tailored to female athletes' needs are effective in overcoming cultural stereotypes and institutional barriers, thereby promoting equity and sustained participation in athletics (Education, 2019).

In Kenya, a study titled *Sport Participation Motives of Kenyan Female University Athletes*, published in the *African Journal for Physical, Health Education, Recreation and Dance* (Study, 2022). Using a descriptive survey design, the researchers collected data from female athletes participating in university championships and analyzed responses with descriptive and inferential statistics. The findings revealed that structured school and university sports programs contributed significantly to female athletes' motivation, confidence, and persistence in athletics, with key motives including health benefits, social interaction, and academic recognition. The study concludes that structured sports programs are vital in sustaining female athletes' participation and enhancing their academic and personal development.

In Tanzania, Mhina and Mwila conducted a study titled *Enhancing Learning through Athletics in Tanzanian Public Primary Schools: A Case of Kinondoni Municipality*, published in the *Journal of Asian Primary Education* (Mhina & Mwila, 2025). Using a mixed-methods approach with questionnaires and interviews, the researchers investigated the Contribution of structured school sports programs to female students' academic and personal growth. The

findings revealed that participation in organized athletics improved students' concentration, discipline, and teamwork, while also fostering confidence and resilience among female athletes. The study concludes that structured school sports programs are essential for holistic development, enhancing both academic success and emotional well-being, and recommends expanding resources and institutional support to increase female students' participation.

The factors associated with the success of female athletes who participate in school sports programs

In the United States, Hextrum conducted a study titled *Inequalities in Girls' High School Sports Participation: How Social Class, Race/Ethnicity, and Gender Route Opportunities to Play and Persist in Athletics* published in *Sociological Focus* (Hextrum et al., 2024). Using a mixed-methods approach that combined national survey data with qualitative interviews, the researchers investigated factors associated with female student-athletes' progression from school sports programs. The findings revealed that while structured school sports programs provide benefits such as improved retention, graduation rates, and social status, progression is uneven: girls from higher socioeconomic backgrounds and majority racial groups were more likely to persist, while those from marginalized communities faced barriers such as limited resources, cultural stereotypes, and reduced institutional support. The study concludes that addressing structural inequalities and expanding equitable access are critical to ensuring female athletes' sustained progression through school sports programs.

In Indonesia, a study titled *The Role of School Sports Programs in Promoting Female Students' Participation and Academic Engagement* published in the *Indonesian Journal of Physical Education and Sport* (Nugroho & Prasetyo, 2022). Using a descriptive survey design, the researchers collected data from female students in several secondary schools in Yogyakarta and analyzed responses with descriptive statistics and regression analysis. The findings revealed that structured school sports programs significantly enhanced female students' confidence, teamwork, and academic motivation, while also reducing absenteeism. However, cultural stereotypes and limited facilities remained barriers to full participation. The study concludes that structured school sports programs are vital for empowering female athletes in Indonesia, fostering both academic success and social inclusion.

In Ghana, a study titled *Challenges Facing Female Students' Participation in Sports: Evidence from Zamse Senior High/Technical School*, published in the *International Journal of Academic Multidisciplinary Research* (Ayamga et al., 2023). Using a descriptive survey design, the researchers collected data from female students through questionnaires and

interviews, and analyzed responses with descriptive statistics. The findings revealed that although structured school sports programs provide opportunities for health, confidence, and academic engagement, female students' participation was hindered by cultural stereotypes, inadequate facilities, and a lack of parental support. The study concludes that addressing socio-cultural barriers and improving resources are essential to enhance female athletes' progression and sustained involvement in school sports programs.

In Kenya, a study titled *The Impact of Structured School Sports Programs on Female Students' Participation and Academic Performance in Nairobi Secondary Schools* (Muthoni & Mwangi, 2022). Using a descriptive survey design, the researchers collected data from 250 female students across five secondary schools and analyzed responses with both descriptive and inferential statistics. The findings revealed that structured school sports programs significantly enhanced female students' confidence, teamwork, and resilience, while also improving their academic engagement and discipline. However, barriers such as inadequate facilities, cultural stereotypes, and limited parental support reduced participation levels. The study concludes that structured sports programs are essential for empowering female athletes in Kenya, and recommends increased investment in facilities, mentorship, and gender-sensitive policies to sustain female students' progression in athletics.

One of the commonly studied factors in the literature is the availability of sports facilities and equipment. Research shows that schools with adequate playgrounds, sports equipment, and training environments tend to produce better-performing female athletes. Adequate facilities allow students to practice regularly, develop their skills, and improve their physical fitness. On the other hand, a lack of facilities reduces practice time and limits opportunities for skill development. Several studies indicate that insufficient sports infrastructure discourages female participation in school sports and negatively affects performance outcomes. For example, Khan et al. 2021 and UNESCO (Chaw ansky 2020)-for literature review. reported that limited access to sports facilities is one of the major barriers preventing girls from actively participating in school sports programs. Therefore, the availability and accessibility of sports facilities are important determinants of female athletes' success.

Coaching quality and training frequency have also been widely examined in previous studies as important factors influencing female athletes' success. Qualified coaches play a critical role in helping athletes develop technical skills, improve performance, and maintain motivation. Literature indicates that regular training sessions and professional coaching improve athletes' physical fitness and competitive readiness. Schools with structured training programs often report higher levels of participation and better performance among female

athletes. Bailey et al. ((Chaw ansky 2020))-for literature review. found that students who receive consistent coaching and structured training demonstrate improved athletic performance and higher levels of confidence during competitions. This suggests that coaching quality and training frequency are essential elements for improving female athletes' success in school sports programs.

School support and administrative commitment have also been identified as important factors affecting female athletes' performance. School administrations that allocate time for sports activities, provide resources, and encourage female participation tend to produce more successful athletes. Supportive school environments create opportunities for students to train regularly and participate in competitions. UNICEF ("Abstracts of the 8th Tanzania Health Summit, October 2021 : Dodoma, Tanzania. 11-13, October 2021") reported that schools with supportive leadership structures and active sports programs demonstrate improved participation and achievement among female athletes. Additionally, parental and community support play a significant role in influencing female athletes' success. Parents who encourage their daughters to participate in sports help increase motivation and confidence. However, cultural beliefs and social expectations in some communities discourage female participation in sports, which negatively affects performance. (Chawansky 2020) noted that community attitudes toward girls' participation in sports can either promote or hinder female athletes' success.

Furthermore, motivation, time allocation, and participation in competitions are also important factors influencing female athletes' success. Students with strong personal interest and motivation tend to participate more actively and perform better in sports activities. Motivation may be influenced by rewards, recognition, scholarships, and opportunities for advancement. Deci and Ryan 2020 emphasized that intrinsic motivation plays a significant role in improving athletic performance. However, heavy academic workloads often limit training time and reduce performance levels among female athletes. Watson et al. (2020) found that balancing academic responsibilities and sports participation remains a major challenge for student athletes. In addition, participation in competitions and exposure improves performance and confidence. Female athletes who participate in inter-school, district, and regional competitions gain experience and enhance their skills. Bailey et al. (Chaw ansky 2020)-for literature review.reported that competition exposure helps athletes improve performance and gain recognition, which contributes to higher success in school sports programs.

In Tanzania, a study titled *Enhancing Learning through Athletics in Tanzanian Public Primary Schools: A Case of Kinondoni Municipality* (Mhina & Mwila, 2025). Using a mixed-methods approach with questionnaires and interviews, the researchers examined how structured athletic programs in public primary schools contribute to students' learning effectiveness. The findings revealed that participation in organized athletics improved concentration, discipline, teamwork, and resilience among female students, while also fostering confidence and academic engagement. However, challenges such as limited facilities and cultural stereotypes restricted full participation. The study concludes that structured school sports programs are essential for holistic development, enhancing both academic success and emotional well-being.

2.6 Research Gap

The reviewed literature indicates that female participation in sports programs at schools has been a focus of research globally. The emphasis has been on different continents like America, Europe, Asia, and Africa. The main findings have shown the effectiveness of sports programs for female participants at schools in achieving better results in academics, physical well-being, self-esteem, leadership qualities, and overall development. The issues that have been highlighted as potential drawbacks for female participation in sports have been socio-cultural settings, gender bias, and unavailability of sports infrastructure, unsupportive institutions, and a lack of motivation. Nevertheless, despite existing knowledge on this issue, there still exist numerous crucial knowledge gaps.

Meanwhile, a handful of studies have taken place in the country of Tanzania; the geographical distribution of existing studies is primarily in areas that include Chanika Ward and Kinondoni Municipality, and tend towards overall extracurricular or primary school settings (Clement & Mwila, 2023). There clearly appears to be no available empirical evidence that seeks to investigate the overall level of female engagement in sports programs offered in secondary schools within Dodoma City. Such parameters clearly contribute to the availability of overall knowledge related to the established patterns in the capital city. Even though international research highly prioritizes the positive impact of organized school sport programs on the development of female athletes academically and personally, there is a need for localized research in Tanzania that critically evaluates the organizational impact of these sports programs on the development of female athletes in urban public secondary schools like those in Dodoma City. Current research on the topic in Tanzania generally focuses on the

impact without considering whether the structure of the organizational endeavors makes an impact on the development of the female athletes (Mhina & Mwila, 2025).

Moreover, whereas several studies have emerged on barriers to participation, less attention has focused on the factors that contribute to the progression of female student-athletes originating from the Tanzanian social context within the context of Tanzanian schools for the possible advancement of female participants in sport in Dodoma City (Njenge et al., 2021). Additionally, the interaction of factors contributing to the progression and advancement of female participants in Dodoma City has not been thoroughly examined. Accordingly, this research tries to bridge the gaps by investigating the extent of female engagement in school sports activities, evaluating the impact of well-structured school sports activities, and determining the factors underlying the advancement of female student athletes in Dodoma City, Tanzania. By shifting the emphasis from a broad, general setting to a local environment, this research seeks to produce location-specific evidence.

METHODOLOGY

The study employed a cross-sectional research design using a quantitative approach to examine the contribution of school sports programmes to female athletes' success in Dodoma City, Tanzania. The study was conducted in four selected secondary schools: Dodoma, Makole, Fountain Gate, and Kikuyu Secondary Schools. The target population comprised female student-athletes in Forms II–VI who had participated in school sports programmes for at least two years. A sample size of 414 respondents was obtained from an eligible population of 2,620 female students, using Yamane's (1967) sample size formula. A multistage sampling procedure was employed to select the study area and schools, while eligible respondents were selected through systematic random sampling and simple random sampling, with proportional allocation to ensure representation across the selected schools. Primary data were collected using structured questionnaires administered by trained research assistants, with KoboToolbox integrated with ODK Collect to facilitate electronic data collection. Pre-testing, piloting, and research assistant training were undertaken to enhance the validity, reliability, and consistency of the data collection process (Cohen et al., 2018; Creswell & Poth, 2018).

The collected data were retrieved from KoboToolbox, cleaned, coded, and analysed using the Statistical Package for the Social Sciences (SPSS), Version 26. Descriptive statistics, including frequencies, percentages, means, standard deviations, and cross-tabulations, were used to examine female athletes' participation patterns and levels of athletic achievement.

Furthermore, bivariate and multivariate binary logistic regression analyses were conducted to identify factors associated with athletic achievement, operationalised as receiving at least one competitive award or recognition. Variables meeting the bivariate screening criterion of $p < 0.25$ were entered simultaneously into the multivariate model, and adjusted odds ratios (AORs) with 95% confidence intervals were reported, with statistical significance determined at $p < 0.05$. Multicollinearity and categorical cell-size adequacy were assessed before modelling. Ethical principles, including informed consent, voluntary participation, confidentiality, and anonymity, were maintained throughout the study (Hosmer et al., 2013; Pallant, 2020).

RESULTS AND DISCUSSION

4.1 The Patterns of Participation Among Female Athletes in School Sports Programs in Dodoma City, Tanzania

4.1.1 Sports Participated in During the Year's Competitions

The study aimed to understand the sport they mostly participated in according to their level/class. The data show that football was the leading sport in Form Two with about 67 (16.2%) of respondents, followed by Form Three with about 45 (10.5%) of all responses as demonstrated in Table 2 below. These findings confirm that football is the dominant sporting discipline among the female athletes sampled for this study.

Table 1. Sports Participated in During the Year's Competitions.

Sport	Form Two		Form Three		Form Four		Form Six		Total	
	n	%	N	%	n	%	n	%	n	%
Football	67	16.2	45	10.9	52	12.6	3	0.7	167	40.3
Netball	43	10.4	45	10.9	29	7.0	4	1.0	121	29.2
Handball	4	1.0	7	1.7	10	2.4	0	0.0	21	5.1
Basketball	6	1.4	12	2.9	3	0.7	0	0.0	21	5.1
Volleyball	5	1.2	7	1.7	8	1.9	0	0.0	20	4.8
Athletics	8	1.9	8	1.9	0	0.0	0	0.0	16	3.9
Other	10	2.4	21	5.1	11	2.7	6	1.4	48	11.6
Total	143	34.5	145	35.0	113	27.3	13	3.1	414	100.0

(* other =Table Tennis, Chess, Swimming and Cricket)

Source: Field Data (2026)

4.1.2 Sports Participated in Competition by School

The study sought to establish how participation in various sports competitions was distributed across the sampled secondary schools. Respondents were asked to indicate the specific sport category in which they participated during the year's inter-school competitions, and their

responses were cross-tabulated by school to determine whether participation trends were uniform or institution-specific.

The findings revealed that the majority of respondents 196 (42.5%) participated in football, making it the most widely reported sport across the four schools, followed by netball with 146 (31.7%) of the responses. Conversely, participation in other sports such as table tennis and chess was minimal, with only 5 (1.1%) respondents reporting engagement in these activities across all four schools as presented to the Table 3 below. This variation may be attributed to differences in institutional sporting culture, availability of facilities and equipment, and the gender composition of students in each school, which appear to shape the extent to which particular sports.

Table 2. Sports Participated in Competition by School.

Sport Participated in Competition	Dodoma Secondary School		Makole Secondary School		Fountain Gate Secondary School		Kikuyu Secondary School		Total	
	N	%	N	%	N	%	N	%	N	%
Football	42	9.11	75	16.27	36	7.81	43	9.33	196	42.5
Netball	59	12.80	40	8.68	16	3.47	31	6.72	146	31.7
Volleyball	11	2.39	9	1.95	6	1.30	5	1.08	31	6.7
Handball	13	2.82	3	0.65	2	0.43	10	2.17	28	6.1
Basketball	6	1.30	2	0.43	16	3.47	3	0.65	27	5.9
Athletics (Track and Field)	5	1.08	3	0.65	6	1.30	4	0.87	18	3.9
Cricket	2	0.43	6	1.30	2	0.43	0	0.00	10	2.2
Others	2	0.43	1	0.22	2	0.43	0	0.00	5	1.1
Total	140	30.37	139	30.15	86	18.66	96	20.82	461	100.0

(*Other= Table Tennis, Chess)

Source: Field Data (2026)

4.1.3 Availability of Sports Equipment for Training and Competitions

The findings indicate that schools constituted the major source of sports equipment, as reported by 177(42.8%) of the respondents, representing the highest proportion among the identified providers, followed by parents or family members with 99(23.9%) of the responses. In contrast, personal purchases by respondents accounted for 8(1.9%), while sports associations/federations and sponsors/donors each constituted only 1(0.2%), representing the lowest proportions as presented in the Table 4 below. These findings suggest that schools played a relatively significant role in facilitating access to sports equipment among the

respondents, whereas contributions from sports associations/federations and sponsors/donors were comparatively limited, as presented in the table below.

Table 3. Availability of Sports Equipment and Providers of Sports Equipment.

	Type of support provided					
	competition		Both competition and training		Total	
Providers of Sports Equipment	n	%	n	%	n	%
School	177	42.8%	84	20.3%	261	63.0%
Parent/Family	99	23.9%	36	8.7%	135	32.6%
Personal purchase (Self)	8	1.9%	8	1.9%	16	3.9%
Sports Association/Federation	1	0.2%	0	0%	1	0.2%
Sponsor/Donor	1	0.2%	0	0%	1	0.2%
Total	286	69.1%	128	30.9%	414	100.0%

N = 414.

Source: Field Data (2026)

4.1.4 Sport gear support and type of support they provide

The study sought to establish the extent to which respondents relied on various providers for their sports-related needs. Respondents were asked to indicate who supplied their personal sports gear and the corresponding forms of support received. The data revealed that parents'/family members were the predominant providers, particularly in financial support 185(93.6%) and sports equipment 170(79.1%), underscoring the central role of family in sustaining student participation in sports. Schools emerged as a distant second source of support, while district councils, sponsors/donors, and friends/relatives were the least mentioned, with financial support from these sources recorded at only 2 0.8%, as presented in Table 5 below. This disparity may be attributed to the limited institutional support structures available, leaving the responsibility largely with families. The full distribution of providers and support categories.

Table 4. Providers of Personal Sports Gear and the type of support they receive.

Provider of Personal Sports Gear	Sports equipment		Uniforms/kits		Transport		Coaching/technical guidance		Food		Financial support		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Parent/Family	185	79.10%	170	72.60%	98	41.90%	92	39.30%	82	35.00%	46	19.70%	219	93.60%
School	3	16.7	3	14.5	2	11.1	21	9.00%	1	6.00	8	3.40	4	17.1

	9	0%	4	0%	6	0%			4	%		%	0	0%
Self	2 5	10.7 0%	2 5	10.7 0%	2 2	9.40 %	9	3.80%	1 3	5.60 %	6	2.60 %	2 7	11.5 0%
Sports Club/Academy	5	2.10 %	4	1.70 %	3	1.30 %	2	0.90%	3	1.30 %	2	0.90 %	5	2.10 %
Others	6	0.02 7	5	0.02 2	5	0.02 2	5	0.022	3	0.01 3	2	0.00 8	6	0.02 7
Total	2 6 0	1.11 3	2 3 8	1.01 7	1 5 4	0.65 9	12 9	0.552	1 1 5	0.49 2	6 4	0.27 4	2 9 7	1.27

(* Others=District Council, Sponsor/Donor, Friends/Relatives)

Source: Field Data (2026)

4.1.5 Balancing Sports Participation with Academic Classes

The study set out to establish how well respondents managed sports participation alongside their academic commitments, given that this balance reflects the sustainability of a school sports programme. Respondents were asked what they usually did when class schedules and sports activities coincided. Findings showed that most respondents 250(60.4%) chose to prioritize academic classes, while a further 71(17.1%) gave mixed responses. Notably fewer respondents, 4(1.0%) admitted to missing training sessions entirely, as indicated in Table 6 below. This tendency likely reflects the greater institutional weight placed on academics relative to sports, prompting learners to consistently favor classroom attendance whenever the two demands conflict.

Table 5. Balancing Sports Participation with Academic Classes.

Participating in sports programmes	Yes		No	Total	
When Academic Schedule Clashes with Sports	n	%	n	n	%
Prioritizes academic classes	190	45.9%	60	250	60.4%
Mixed/multiple responses	66	15.9%	5	71	17.1%
Prioritizes sports (misses' classes)	45	10.9%	20	65	15.7%
School organises special class	17	4.1%	2	19	4.6%
Misses class	4	1.0%	1	5	1.2%
Misses training	3	0.7%	1	4	1.0%
Total	325	78.5%	89	414	100.0%

Source: Field Data (2026)

4.2 Level of Athletic Success Attained by Female Athletes

4.2.1 Access to Coaching Support and gender of preference

The study aimed to examine the level of access athletes had to coaching support, as well as their preferred coach gender. Findings showed that most respondents (77.1%) had access to a coach, while nearly half (48.3%) favored male coaches over female coaches (35.5%). Notably, having no gender preference was the least common response (16.2%), possibly reflecting entrenched perceptions of coaching competence linked to gender. Further details are presented in Table 7 below.

Table 7. Athlete preference of available coach.

Availability of Coach	Coach of Preference							
	Male coach		Female coach		Any		Total	
	n	%	n	%	n	%	n	%
Yes	166	40.1%	112	27.1%	41	9.9%	319	77.1%
No	34	8.2%	35	8.5%	26	6.3%	95	22.9%
Total	200	48.3%	147	35.5%	67	16.2%	414	100.0%

4.2.2 The highest achievement among the respondents across their respective levels

The study aimed to establish the highest level of achievement recorded by respondents in relation to their participation in sports. Respondents were asked to identify the level at which they had attained their most notable sporting accomplishment. The findings show that most respondents achieved recognition as Champions/Winners at the school level (24.9%), followed by Best Player at the same level (16.9%). This contrasted sharply with the Fair Play Award, which was the least reported achievement at 0.5%, as shown in Table 8 below. This disparity may be explained by the fact that school-level competitions are more common and inclusive, whereas higher-level competitions are more selective, limiting opportunities for recognition.

Table 8. The highest achievement levels of competition.

Achievement	Level of participation													
	School		Ward		District		Regional		National		East African		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Champion/Winner	103	24.9	104	2.4	41	1.0	92	2.2	92	2.2	205	0.5	137	33.1
Best Player	70	16.9	144	3.4	52	1.2	52	1.2	102	0.2	00	0.0	95	22.9
Athletes selected to next	47	11.4	102	0.2	205	0.5	205	0.5	00	0.0	00	0.0	52	12.6

level														
Runners-up	29	7.0	2	0.5	2	0.5	4	1.0	3	0.7	0	0.0	40	9.7
Top Scorer	13	3.1	2	0.5	2	0.5	1	0.2	1	0.2	0	0.0	19	4.6
Best Goalkeeper	17	4.1	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	18	4.3
Quarter-finalist	6	1.4	1	0.2	2	0.5	1	0.2	0	0.0	0	0.0	10	2.4
Most Valuable Player (MVP)	8	1.9	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	9	2.2
Semi-finalist	5	1.2	0	0.0	3	0.7	1	0.2	0	0.0	0	0.0	9	2.2
Third Place	3	0.7	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	5	1.2
Fair Play Award	2	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5
Other	16	3.9	1	0.2	1	0.2	0	0.0	0	0.0	0	0.0	18	4.3
Total	319	77.1	33	8.0	22	5.3	24	5.8	14	3.4	2	0.5	414	100.0

Source: Field Data (2026)

4.2.3 Respondents' Greatest Sporting Achievement

The study aimed to understand which sporting accomplishments respondents themselves perceived as the pinnacle of their athletic careers, rather than relying solely on structured achievement data. Respondents were accordingly asked to indicate their single most significant sporting success to date. The findings reveal that football accounted for the highest proportion of reported achievements, with 16.0% of respondents identifying as champions or winners and 12.9% as the most accomplished players, consistent with its predominance in participation at 45.5%. This was followed by netball, where 11.6% and 9.1% of respondents reported similar recognition, corresponding to a participation rate of 33.9%. Conversely, the Fair Play Award and Third Place were the least reported, each at merely 0.3%, as further detailed in Table 8 below. This disparity may be attributed to lower participation in disciplines such as table tennis and cricket, coupled with limited institutionalization of such recognitions within local sporting structures.

Table 6. Respondents' Greatest Success as per sports.

Greatest Sporting achievement	Football		Netball		Basketball		Volleyball		Handball		Athletics (Track and Field)		Cricket		Table Tennis		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Champion/Winner	51	16.0%	29	9.1%	30	0.9%	61	1.9%	56	1.6%	72	2.2%	26	0.6%	13	0.3%	140	32.6%
Best Player	41	12.9%	37	11.6%	20	0.6%	30	0.9%	69	1.9%	00	0.0%	00	0.0%	00	0.0%	89	27.9%
Runners-up	16	5.0%	10	3.1%	00	0.0%	10	0.3%	00	0.0%	69	1.9%	13	0.3%	00	0.0%	34	10.7%
Selected to other level	16	5.0%	60	1.9%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	13	0.3%	00	0.0%	23	7.2%
Top Scorer	10	0.3%	72	2.2%	50	1.6%	20	0.6%	13	0.3%	00	0.0%	13	0.3%	00	0.0%	17	5.3%
Best Goalkeeper	10	3.1%	30	0.9%	20	0.6%	10	0.3%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	16	5.0%
Other (specify)	30	0.9%	50	1.6%	20	0.6%	10	0.3%	13	0.3%	00	0.0%	00	0.0%	00	0.0%	12	3.8%
Semi-finalist	40	1.3%	30	0.9%	10	0.3%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	80	2.5%
Most Valuable Player (MVP)	00	0.0%	30	0.9%	50	1.6%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	80	2.5%
Quarter-finalist	10	0.3%	40	1.3%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	50	1.6%
Third Place	10	0.3%	10	0.3%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	20	0.6%
Fair Play Award	10	0.3%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	00	0.0%	10	0.3%
Total	145	45.5%	108	33.9%	200	6.3%	144	4.4%	131	4.1%	131	4.1%	56	1.6%	13	0.3%	319	100.0%

Source: Field Data (2026)

4.3 The Factors Associated with Female Athletes' Achievement

4.3.1 Factor analysis associated with Achievement

This section examines which of these factors are statistically associated with female athletes' achievement when considered jointly. A two-stage logistic regression procedure was applied. In the first stage, factors were tested individually against achievement (bivariate screening), and only those attaining a p-value of 0.20 or less were retained. In the second stage, the retained factors were entered simultaneously into a multivariate logistic regression model, and only those attaining a p-value of 0.05 or less in the adjusted model were considered statistically significant predictors of achievement.

The findings show that the availability of dedicated changing rooms at the facility level could not be tested at this stage because only one of the 414 respondents reported this facility being present, producing a quasi-complete separation of the outcome; this in itself corroborates the near-total absence of the facility already observed in Table 21. Of the remaining nine factors tested, seven attained a p-value of 0.20 or less and were accordingly carried forward to the multivariate stage, as presented in Table 20 below.

Table 7. Bivariate Screening of Factors Associated with Female Athletes' Achievement.

Factor	n	OR	p-value
Football field availability	414	0.771	0.300
Football field condition	332	1.466	0.106
Facility-related injury	414	2.649	<0.001
Dedicated changing rooms/washrooms for female athletes	414	1.544	0.049
Privacy/security challenge experienced	414	0.492	0.010
Equal facility access for boys and girls	414	1.988	0.001
Facility-sharing arrangement affects training	414	0.830	0.350
No academic support for missed classes	414	0.254	<0.001
Received negative comments due to participation	414	1.654	0.033

Source: Field Data (2026)

From the findings, it was observed that facility-related injury recorded the strongest bivariate association with achievement (OR = 2.649, $p < 0.001$), followed by the absence of academic support for missed classes (OR = 0.254, $p < 0.001$) and equal facility access for boys and girls (OR = 1.988, $p = 0.001$). This implies that experiences of facility-related injury, academic accommodation policy, and equitable facility access are the factors most strongly

linked to achievement at the bivariate level, whereas football field availability and the effect of facility-sharing arrangements on training did not meet the retention threshold and were dropped from further analysis. The evidence suggests that a broad range of infrastructural, institutional, and social factors identified descriptively in the preceding sections converge on a smaller set of factors once tested statistically, warranting the multivariate adjustment presented next.

The seven factors retained from the bivariate screening were entered simultaneously into a multivariate logistic regression model ($n = 332$, following listwise deletion of respondents for whom football field condition was not applicable). The overall model was statistically significant (χ^2 likelihood-ratio $p < 0.001$), correctly distinguishing achievers from non-achievers to a modest but meaningful degree (pseudo- $R^2 = 0.122$). The results are presented in Table 33 below.

Table 8. Multivariate Logistic Regression of Factors Associated with Female Athletes' Achievement.

Factor	B	AOR	95% CI	p-value
Football field condition	-0.007	0.993	0.556–1.776	0.982
Facility-related injury	1.146	3.145	1.942–5.092	<0.001
Dedicated changing rooms/washrooms	0.063	1.065	0.564–2.011	0.846
Privacy/security challenge experienced	-0.541	0.582	0.284–1.193	0.139
Equal facility access for boys and girls	0.342	1.407	0.794–2.496	0.242
No academic support for missed classes	-1.439	0.237	0.110–0.511	<0.001
Received negative comments	0.379	1.460	0.833–2.561	0.186

Source: Field Data (2026)

The results demonstrate that, after adjusting for the other factors in the model, only two of the seven retained factors remained statistically significant predictors of achievement at the 0.05 level: facility-related injury (AOR = 3.145, 95% CI = 1.942–5.092, $p < 0.001$) and the absence of academic support for missed classes (AOR = 0.237, 95% CI = 0.110–0.511, $p < 0.001$). This implies that, of all the factors examined in this study, institutional academic accommodation policy exerts the most consistent protective association with achievement: respondents attending schools that provide no structured academic support when competitions clash with classes were markedly less likely to be classified as achievers than

those whose schools rescheduled examinations, provided remedial lessons, or offered academic counselling.

The positive association between facility-related injury and achievement, while statistically robust, should be interpreted with caution rather than taken to mean that injury promotes achievement. The evidence suggests this pattern more plausibly reflects an exposure effect: athletes who train and compete most intensively, and are therefore most likely to accumulate the awards and selections that constitute the achievement measure used here, are simultaneously the athletes most exposed to the poorly maintained facilities documented in Table 22, and thus more likely to report a facility-related injury. This finding should accordingly be read alongside Section 4.4.3 as evidence of a confounded relationship rather than a causal protective pathway, and is a point warranting explicit discussion

It was further observed that facility condition, dedicated changing rooms, privacy or security challenges, equal facility access, and receipt of negative comments, although each individually associated with achievement at the bivariate stage, lost statistical significance once adjusted for the other factors in the model. This pattern indicates that the bivariate associations recorded for these five factors were substantially confounded by the two dominant factors identified above, namely exposure-related injury and the presence or absence of institutional academic support, rather than representing independent structural determinants of achievement in their own right.

FINDINGS DISCUSSION AND CONCLUSION

The Patterns of Participation Among Female Athletes in School Sports Programmes in Dodoma City, Tanzania

In this objective, the findings revealed that female athletic participation in Dodoma City was heavily concentrated in two team sports, with football commanding the largest share of participation at 40.3 percent and the greatest share of self-reported sporting success at 45.5 percent, while netball followed distantly at 29.2 percent participation and 33.9 percent success. The findings further indicated that schools and parents together supplied the overwhelming majority of sports equipment, that girls in Form Two and Form Three carried most of the participation burden, and that a substantial majority of respondents, 78.5 percent, were able to combine athletic and academic obligations, most commonly by giving academic classes priority whenever the two clashed. These are prominent findings because they expose a participation base that is simultaneously narrow in sporting breadth and heavily dependent on informal, family-level resourcing rather than institutional or federation-level structures, a

combination that carries serious implications for the long-term sustainability of female sport in the district.

This concentration of participation in football and netball is consistent with the study by (Chumba et al., 2019), who argued that historical patterns of gender socialisation in African sport channel female athletes toward a narrow set of socially sanctioned team disciplines, with football increasingly serving as a vehicle through which women contest, rather than simply inherit, gendered sporting space. The finding on equipment and financial dependency similarly agrees with the study by (Simwanza, 2026), who reported that Tanzanian secondary school sports programmes rely substantially on government capitation grants together with parental and family contributions, with formal sponsorship and club-level support remaining marginal. However, the finding contrasts with the study by (Kazungu, 2016), who found that physical education and organised school sport in Tanzania are structurally underprovided, with only a small fraction of the country's secondary schools offering physical education at all, a situation attributable to inadequate facilities, poorly qualified staff, and a curriculum culture that treats sport as a non-academic add-on. Whereas Kazungu's evidence would predict weak and inconsistent participation, the present study found a comparatively functioning, if narrow, participation base, suggesting that Dodoma's urban secondary schools may be somewhat better resourced than the national picture that Kazungu described. On the question of balancing sport with academics, the finding that most respondents prioritised classes over sport when the two clashed is consistent with the study by (Milambo & Pacho, 2021) conducted among secondary school students in Nyamagana district, who found that structured sport participation, when properly managed by schools, complemented rather than undermined students' academic performance.

The implication of these findings for the Tanzanian schooling context is that female school sport in Dodoma City is participatory but narrowly channelled, resting on family goodwill and school discretion rather than on a diversified, institutionally guaranteed sporting offer. For localities beyond Dodoma, particularly rural districts with weaker capitation funding, the pattern documented by (Kazungu, 2016), suggests that the relatively favourable picture found here may not generalise, and that female participation elsewhere in Tanzania could be considerably more fragile. These findings may be because football and netball require comparatively low-cost equipment and are already embedded in the inter-school and zonal competition calendar, making them the disciplines that under-resourced schools and families can most readily sustain, while sports requiring specialised facilities or equipment remain effectively closed to most female students regardless of individual interest or talent.

5.1 The Level of Athletic Achievement Among Female Athletes

In this objective, the findings revealed a pronounced funnel effect in athletic achievement, with the overwhelming majority of respondents, 77.1 percent, recording their highest level of recognition at the school level, a proportion that narrowed sharply to single digit percentages at ward, district, regional and national level and collapsed almost entirely, to 0.5 percent, at East African level. Coaching access was comparatively high at 77.1 percent, yet coach gender preference was heavily skewed toward male coaches at 48.3 percent against only 27.1 percent for female coaches, with the remainder expressing no preference. This is a critical finding because it shows that the barrier to female athletic advancement in Dodoma City is not primarily an absence of coaching, but a structural ceiling that prevents recognition from converting into progression beyond the school gate.

This steep narrowing of the achievement pathway is consistent with the study by (Adom-Aboagye, 2022), who argued that structural and representational barriers accumulate for African women in sport precisely at the point where school and community level participation should transition into representative and federation level structures, leaving talented athletes stranded below the tier at which formal identification systems operate. The skew toward male coaches recorded in this study also agrees with the study by (Adom-Aboagye, 2022) who documented the continued marginalisation of women within African sport coaching and linked this scarcity to lost role modelling opportunities for young female athletes. This is reinforced by the study by Mashilo and (Mashilo & Kubayi, 2024), who found that South African female school athletes' trust in their coaches was shaped by perceived competence, justice and commitment, qualities that athletes in male-dominated coaching environments do not automatically extend to coaches based on gender alone, implying that the male-leaning preference recorded in Dodoma may reflect athletes' assessment of who is actually available and credentialed rather than a categorical rejection of female coaches. Contrastingly, the study by (Kazungu, 2016), found that the near absence of formal physical education structures in most Tanzanian secondary schools limits opportunities for any coaching relationship, of either gender, to develop systematically, a more foundational constraint than gender preference alone.

The implication of these findings for Dodoma City and comparable Tanzanian localities is that raising the achievement ceiling for female athletes will depend less on expanding coaching access, which is already comparatively strong, and more on building deliberate pathways that carry athletes from school level recognition into district, regional and national competitive structures, alongside a conscious effort to grow the pool of qualified female

coaches available to mentor them. These findings may be because talent identification and progression structures beyond the school level in Tanzania remain concentrated in a small number of urban centres and federation linked academies, so that even athletes who excel within their school have few formal channels through which that excellence can be scouted, funded or converted into higher level opportunity, while the scarcity of female coaches reflects the same broader societal and institutional barriers to women's advancement in sport leadership that the literature has long documented across the African continent.

The Factors Associated with Female Athletes' Achievement

In this objective, the findings revealed that after adjusting for confounding factors in a multivariate logistic regression model, only two of nine candidate factors remained statistically significant predictors of achievement, namely facility related injury, which was associated with markedly higher odds of achievement, and the absence of institutional academic support for missed classes, which was associated with sharply lower odds of achievement. Five further factors that appeared significant at the bivariate stage, including facility condition, availability of dedicated changing rooms, privacy and security concerns, equitable facility access, and exposure to negative comments, lost significance once these two dominant factors were controlled for. This is a striking and, on its surface, counterintuitive finding because it suggests that being injured is statistically associated with succeeding, a result that demands careful interpretation rather than face value acceptance.

The positive association between facility-related injury and achievement is consistent with the study by (van Loggerenberg et al. n.d.), who found that adolescent athletes who train and compete most intensively accumulate a disproportionate share of both sporting recognition and injury exposure, since greater training volume increases opportunities for both outcomes simultaneously. This exposure-based explanation is further supported by the study by (LeBrun et al., 2018), who estimated that over 23 million African adolescents sustain sports injuries annually and reported injury rates for Tanzanian adolescents specifically, underscoring that injury is a pervasive feature of adolescent sporting life across the region rather than an isolated hazard tied to any one facility or school. Contrastingly, the finding that academic support functions as a protective factor departs from the emphasis of (Kazungu, 2016), whose account of Tanzanian secondary schools centred on facility and curriculum deficits as the primary constraint on sport, with academic accommodation policy receiving comparatively little attention, a gap that the present study's regression evidence suggests deserves far greater weight in future policy discussion. The finding is, however, consistent

with the support-oriented emphasis of (Simwanza, 2026) who identified institutional and parental support structures, rather than facilities alone, as decisive for whether Tanzanian secondary school sports programmes translate into positive outcomes for participants.

The implication of these findings for schools, sports administrators and policy makers in Dodoma City and similar Tanzanian localities is that the two levers most worth institutional attention are not necessarily the ones most visible in everyday observation, namely pitch quality or changing room provision, but rather injury management and consistent academic accommodation policy across all schools, since these are the factors that this study's adjusted model identified as genuinely decisive rather than merely descriptively associated with achievement. These findings may be because facility conditions, security concerns, and unequal access are experienced unevenly across the four schools sampled and are consequently absorbed into, rather than independent of, the two dominant factors once those are accounted for statistically, while schools that lack a structured policy for accommodating missed classes effectively force high-achieving athletes to choose between competition and academic standing, a choice whose costs fall disproportionately on the very students this study identifies as achievers.

CONCLUSION

With respect to the first objective, the study concludes that Football and netball dominate the participation landscape, support is sustained chiefly through schools and families rather than external sponsors, and most athletes can combine sport with academic obligations. The structural preconditions for participation are therefore substantially in place, even though the range of disciplines actively supported remains narrow.

With respect to the second objective, the study concludes that athletic achievement narrows sharply as athletes move from school to national competition, with virtually no representation at the international level. Coaching access is comparatively widespread but shallow in intensity, and gaps in female coaching representation and injury management further constrain the conversion of participation into achievement. The near-universal aspiration among athletes to remain involved in sport beyond school, set against these narrow outcomes, indicates that motivation is not the binding constraint on achievement; institutional depth and continuity of support are.

The third objective, the study concludes that the factors most consistently associated with athletes' achievement are structural and infrastructural rather than attitudinal. The chronic shortage of gender-responsive ancillary facilities, inconsistent academic accommodation

policy, and the persistence of peer-level discouragement collectively constrain athletes' progression, even where playing surfaces and general institutional support are adequate. Taken together, the findings support the overall conclusion that school sports programmes in Dodoma City provide a genuine but incomplete platform for female athletes' success, one whose value is currently capped by facility, coaching and policy gaps rather than by athletes' own aspiration or effort.

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