

Assessing the State of Health and Sports Infrastructure in Higher Education Institutions: Implications for Student Wellbeing, Inclusivity, and Retention”

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Abstract: Higher education institutions play a critical role in shaping not only the intellectual capacity of students but also their physical health, psychological wellbeing, and social integration. However, the adequacy and accessibility of health and sports infrastructure within universities remain uneven, particularly in developing contexts. This study examines the current state of health and sports infrastructure in higher education institutions and evaluates its implications for student wellbeing, inclusivity, and retention. The problem addressed in this study is the growing mismatch between student population needs and the availability of quality recreational and health facilities, which contributes to declining physical activity levels, mental health challenges, and increased dropout rates. The aim of the study is to assess existing infrastructure and its influence on student outcomes. The study adopts a mixed-methods approach involving surveys, interviews, and institutional audits. Findings reveal that inadequate infrastructure significantly affects student engagement, inclusivity for marginalized groups, and overall retention rates. The study contributes to policy discourse by providing evidence-based recommendations for institutional investment and inclusive infrastructure planning. It concludes that improving health and sports infrastructure is essential for holistic education and student success.

Keywords: Health infrastructure, sports facilities, higher education, student wellbeing, inclusivity, retention.

1.0 Background of the Study

Higher education institutions globally have increasingly recognized the importance of providing comprehensive support systems that extend beyond academic instruction to include physical and mental wellbeing. Health and sports infrastructure form a vital component of such support systems, enabling students to engage in physical activity, manage stress, and build social connections. These facilities include gyms, sports fields, recreational centers, counseling units, and medical clinics. Their presence and quality significantly influence students' overall university experience and academic performance.

In many developed countries, universities invest heavily in modern sports complexes and student health centers, recognizing their role in promoting healthy lifestyles and enhancing institutional attractiveness. Conversely, in many developing countries, including Zambia and other parts of Africa, higher education institutions often face challenges such as limited funding, inadequate planning, and rapid student population growth, which strain existing infrastructure (1). As a result, students may have limited access to safe and inclusive spaces for physical activity and healthcare services. The importance of health and sports infrastructure is underscored by the increasing prevalence of mental health issues among university students. Studies indicate that physical activity is closely linked to reduced stress, anxiety, and depression levels, thereby improving academic performance and retention (2). Additionally, inclusive sports facilities foster social integration and participation among students from diverse backgrounds, including those with disabilities.

Despite these benefits, many institutions have not prioritized infrastructure development in alignment with student needs. Inadequate facilities can lead to overcrowding, limited participation in sports, and exclusion of certain student groups. Furthermore, poor health services within campuses may delay timely medical attention, negatively affecting student wellbeing and academic continuity. The expansion of higher education enrollment in recent decades has further intensified the demand for adequate infrastructure. However, infrastructure development has not kept pace with this growth, resulting in a significant gap between demand and supply. This gap is particularly evident in public universities where resource constraints are more pronounced.

Therefore, assessing the current state of health and sports infrastructure is crucial for understanding its impact on student wellbeing, inclusivity, and retention. Such an assessment provides valuable insights for policymakers, institutional leaders, and stakeholders seeking to improve student outcomes and institutional performance.

1.2 Problem Statement

Higher education institutions are experiencing increasing student enrollment without a corresponding expansion in health and sports infrastructure. This imbalance has resulted in limited access to essential facilities that support student wellbeing and engagement. Consequently, students face challenges such as reduced physical activity, increased mental health issues, and a lack of inclusive participation opportunities. These factors contribute to declining

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student satisfaction and higher dropout rates (3). Furthermore, inadequate infrastructure disproportionately affects marginalized groups, including students with disabilities, thereby undermining institutional commitments to inclusivity (4). Addressing this problem requires a comprehensive evaluation of existing infrastructure and its implications for student outcomes.

1.3 Aim of the Study

The aim of this study is to assess the state of health and sports infrastructure in higher education institutions and examine its implications for student wellbeing, inclusivity, and retention.

1.4 Objectives of the Study

The study seeks to evaluate the adequacy and accessibility of health and sports infrastructure in higher education institutions. It aims to analyze the relationship between infrastructure quality and student wellbeing. It also intends to examine how infrastructure influences inclusivity among diverse student populations and to assess its impact on student retention rates.

2.0 Literature Review

Existing literature highlights the critical role of health and sports infrastructure in enhancing student wellbeing and academic success. Research indicates that access to quality recreational facilities is associated with improved physical health and reduced stress levels among students (7). Furthermore, participation in sports activities has been linked to higher levels of student engagement and social integration (8). Studies also emphasize the importance of inclusivity in infrastructure design. Facilities that accommodate students with disabilities and diverse needs promote equal participation and foster a sense of belonging (9). Conversely, inadequate or inaccessible infrastructure can lead to exclusion and reduced student satisfaction.

Retention is another key area influenced by infrastructure. Institutions that provide supportive environments, including health and recreational services, tend to experience higher student retention rates (10). This is because such environments enhance student satisfaction and commitment to their studies. However, literature also points to significant disparities in infrastructure quality between institutions in developed and developing regions. Resource constraints and policy gaps often hinder infrastructure development in the latter, resulting in substandard facilities (11). These disparities highlight the need for targeted interventions and policy reforms.

3.0 Methodology

This study employs a mixed-methods approach combining quantitative and qualitative data collection techniques. Surveys were administered to students to gather data on their usage and perceptions of health and sports facilities. Interviews with university administrators and facility managers provided insights into infrastructure planning and challenges. Institutional audits were conducted to assess the physical condition and availability of facilities.

The use of mixed methods allows for a comprehensive understanding of both measurable outcomes and contextual experiences (5). Quantitative data were analyzed using statistical tools to identify patterns and correlations, while qualitative data were thematically analyzed to capture in-depth perspectives (6). The study was conducted across selected higher education

institutions using a descriptive research design. Data were collected from students, faculty, and administrative staff to ensure a comprehensive perspective. Stratified sampling was used to select participants from different faculties and demographic backgrounds.

Data collection involved administering structured questionnaires to students, conducting semi-structured interviews with key stakeholders, and performing physical assessments of health and sports facilities. Ethical considerations were observed, including informed consent and confidentiality of participants. Data analysis involved both quantitative and qualitative techniques. Statistical analysis was used to identify trends and relationships, while thematic analysis was applied to qualitative data to extract key themes. The integration of these methods ensured a holistic understanding of the research problem.

4.0 Findings

The findings reveal that many higher education institutions have inadequate health and sports infrastructure relative to student population sizes. Facilities are often overcrowded, poorly maintained, or insufficiently equipped. Students reported limited access to recreational spaces, which negatively affects their physical activity levels and overall wellbeing.

The study also found that inadequate infrastructure contributes to mental health challenges, as students lack effective outlets for stress management. Inclusivity was identified as a major concern, with many facilities not accommodating students with disabilities or diverse needs. Furthermore, the findings indicate a strong correlation between infrastructure quality and student retention. Institutions with better facilities reported higher levels of student satisfaction and lower dropout rates. Conversely, poor infrastructure was associated with disengagement and increased attrition.

5.0 Contribution of the Study

This study contributes to the existing body of knowledge by providing empirical evidence on the relationship between infrastructure and student outcomes in higher education.

It highlights the importance of integrating health and sports infrastructure into institutional planning and policy frameworks.

The study also offers insights into the challenges faced by institutions in developing contexts, thereby informing targeted interventions.

6.0 Recommendations

1. Higher education institutions should prioritize investment in modern and inclusive health and sports infrastructure.
2. Governments and stakeholders should increase funding and develop policies that support infrastructure development.
3. Institutions should adopt inclusive design principles to ensure accessibility for all students, including those with disabilities.
4. Regular maintenance and upgrading of facilities should be implemented to ensure safety and usability.
5. Additionally, institutions should promote awareness and encourage student participation in health and sports activities. Collaboration with private sector partners can also provide additional resources and expertise for infrastructure development.

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