

Sport participation and injuries among undergraduate students of a Nigerian University

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Abstract

Background: Sports participation is a healthy behaviour but it is not without the risk of injuries. Information on the extent of sport participation and sport injuries among Nigerian university students is sparse.

Objective: To determine the prevalence and types of sport participation and injuries among university students in Nigeria. Factors associated with sport participation among students were also examined.

Methods: A cross-sectional survey was conducted using a self-administered questionnaire to collect information on the frequency and types of sport participation and sport-related injuries among a representative sample of undergraduate students of the University of Lagos, Nigeria.

Results: A sport participation prevalence of 64.2% (95%CI: 59.5 – 68.7) was recorded among students. Football (soccer) (53.2%) had the highest participation rate. Male students (78.4% vs.41.2%) participated more frequently in sports ($p < 0.001$). Overall injury rate was 52.5 injuries/100 students/ year (95%CI: 46.5 – 58.5). The prevalence of injury was 45.7% in male and 12.7% in female students. About half (49.3%) of reported injuries resulted in time loss. The leg and ankle were the most frequently injured body parts for all injuries and most serious injuries. Football recorded the highest prevalence of injury (73.8%).

Conclusion: Sport participation among students was fair and injury rate was considerably high, mostly affecting the lower extremity and most injuries resulting from football participation. This study suggests the need for improved sport participation support among students and the need for the initiation of injury prevention initiatives by stakeholders.

Keywords: *Sport injuries, youth and young adult, injury prevention, sports safety*

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Résumé

Contexte: La participation sportive est un comportement sain, mais ce n'est pas sans risque de blessures. Les informations sur l'étendue de la participation au sport et les blessures liées au sport chez les étudiants universitaires nigériens sont rares.

Objectif: Pour déterminer la prévalence et les types de participation au sport et de blessures parmi les étudiants universitaires au Nigeria. Les facteurs associés à la participation au sport chez les étudiants ont également été examinés.

Méthodes: Une étude transversale a été réalisée à l'aide d'un questionnaire auto-administré pour recueillir des informations sur la fréquence et les types de participation au sport et de blessures liées au sport au sein d'un échantillon représentatif des étudiants en cycle de licence à l'Université de Lagos, au Nigeria.

Résultats: Une prévalence de participation sportive de 64,2% (IC à 95%: 59,5 à 68,7) a été enregistrée chez les étudiants. Le football (53,2%) avait le taux de participation le plus élevé. Les étudiants masculins (78,4% vs.41,2%) participaient plus fréquemment dans les sports ($p < 0,001$). Le taux total de blessures était de 52,5 blessures / 100 étudiants / an (IC à 95%: 46,5 à 58,5). La prévalence des blessures était de 45,7% chez les étudiants et 12,7% chez les étudiantes. Près de la moitié (49,3%) des blessures signalées ont résulté en une perte de temps. La jambe et la cheville sont les parties les plus fréquemment blessées du corps pour toutes les blessures et les blessures les plus graves. Le football a enregistré la plus forte prévalence de blessures (73,8%).

Conclusion: La participation sportive chez les étudiants était adéquate et le taux de blessures était considérablement élevé, affectant principalement l'extrémité inférieure et la plupart des blessures résultant de la participation au football. Cette étude suggère la nécessité d'améliorer le soutien de participation sportif des étudiants et la nécessité de l'ouverture d'initiatives de prévention des blessures par les parties prenantes.

Mots-clés: *les blessures sportives, jeunes et jeunes adultes, prévention de blessure, sécurité sportive*

Introduction

Participation in sports is essential because physical activity has significant health benefits and a decrease in physical activity has been shown to increase the risk of morbidity and mortality from diseases [1-3]. Mass participation in sports and exercise is an effective way for enhancing public health and minimizing poverty and anti-social behaviours among youths [4,5]. Sports participation despite being a healthy behaviour is usually mired by injuries, which may militate against continued participation. Sport injury is an expected consequence of athletic competition and is usually as a result of various risk factors interacting at a given time. Sports injuries particularly lower extremity injuries may result in an increased risk of osteoarthritis later in life [6,7]. Sports injuries cause young people to discontinue recreational sporting activities. Unfortunately this could lead to sub-optimal health in the future and cause long term physical impairments [8].

Nigeria has the highest number of football players in Africa and most of the players are youth [9]. Sports participation appears to be on the increase especially among youths and young adults in Nigeria. However, the extent of participation remains unknown [10]. The 2013 Nigerian report card on physical activity showed that about half of Nigerian children and youth engage in health enhancing activities such as active transport and active play (41%–60%) [10]. The report card however acknowledged that information on the frequency of participation in organised sports by the children and youths is lacking [10]. In other studies, slightly over half (57%) of senior civil servants in Lagos State (aged 18 and 65 years) were reported to participate in health enhancing physical activity [11], and a prevalence of 59% was reported for a sample of undergraduate students (aged 16 – 39 years) in Oyo State, Nigeria [12].

Determining population specific injury prevention programmes is imperative for reducing the risk of injuries among participants. Identification of pattern and risk factors for injuries in a given population is a first step in risk mitigation [13]. Unfortunately in Nigeria information to guide such interventions is sparse. This step is important to initiate strategies for prevention and make participation in sports safe; regardless of the level or type of sport practised. This study therefore assessed the frequency of sport participation and associated factors and evaluated sport injuries among undergraduate students in one of Nigeria's top universities.

Methods

Study design and population

A cross-sectional survey of a representative sample of undergraduate students of the University of Lagos,

Lagos, Nigeria was completed. The University of Lagos is one of the first generation universities in Nigeria with students from all the six geopolitical zones of Nigeria.

A proportional stratified sampling technique was used to select students from the 12 faculties of the university. With a consideration for 20% participant attrition, a sample size of 480 was estimated from a standard normal deviate of 1.96 and a sport injury prevalence of 59% attributable to the study population; as derived from a similar study [12]. Thus, 40 students (439/12) were randomly recruited from the departments of each of the 12 faculties through September and November 2014.

Study questionnaire and procedure for data collection

Study questionnaire was adapted from a questionnaire used in a previous similar study [14]. The questions were adapted to address the specific objectives of the study. The questionnaire comprised sections that addressed participants' demographics, social characteristics, sports participation, exposure time to sporting activities, type and frequency of sporting activity and sport-related injuries sustained in the past one year. Sport injury was defined as a positive response to the question "In the past one year have you had at least one injury related to sports participation?" This questionnaire also inquired about respondents' most serious sport injury in the past year (any significant injury that resulted in seeking medical attention and staying off any form of physical activity), the body part injured and injury severity (mild: < 1 week; moderate: 1 to 4 weeks and severe: > 4 weeks of time off participation in sport due to injury – also referred to as time loss injury) and characteristics of the injury.

The study questionnaire was self-administered and completed in the participants' departmental lecture halls/rooms with one of the researchers and a research assistant in attendance to assist participants who needed clarifications on some questions. All participants signed an informed consent form and ethical approval was obtained from the Lagos University Teaching Hospital's Health Research and Ethics Committee.

Statistical methods

Descriptive statistics using mean and standard deviation, frequency and percentages were used to summarize parametric data. Relationships between non-parametric variables were analysed using chi-square. All data were analysed using SPSS (Statistical Package for Social Sciences) Version 21.0 (SPSS Inc, Chicago, IL). The level of significance was set at α - level of 0.05.

Results

Study participants

The participants included 276 male (63.7%) and 157 female (36.3%) students aged 21.35 ± 3.40 years (range 16 - 39 years). Four hundred and forty-two (92%) of the 480 administered copies of study questionnaire were returned, of which 433 (97%) were analysed. Participants were mostly youth (77.1%). Characteristics of participating students are presented in table 1.

Table 1: Descriptive characteristics of participants

| Characteristics | N | % |
|-------------------------|-----|------|
| N=433 | | |
| <i>Gender</i> | | |
| Male | 276 | 63.7 |
| Female | 157 | 36.3 |
| <i>Age (yrs)</i> | | |
| 16 - 24 | 334 | 77.1 |
| ≥ 25 | 65 | 15.0 |
| Missing | 34 | 7.9 |
| <i>Ethnicity</i> | | |
| Yoruba | 299 | 69.1 |
| Igbo | 80 | 18.5 |
| Hausa | 10 | 2.3 |
| Others | 37 | 8.5 |
| Missing | 7 | 1.6 |
| <i>Level</i> | | |
| 100 | 60 | 13.9 |
| 200 | 123 | 28.4 |
| 300 | 102 | 23.6 |
| 400 | 108 | 24.9 |
| 500 | 34 | 7.9 |
| 600 | 6 | 1.4 |
| <i>Faculty</i> | | |
| Arts | 36 | 8.3 |
| Basic Medical Sciences | 35 | 8.1 |
| Business administration | 38 | 8.8 |
| Clinical Sciences | 37 | 8.5 |
| Dental Sciences | 35 | 8.1 |
| Education | 37 | 8.5 |
| Engineering | 37 | 8.5 |
| Environmental Sciences | 38 | 8.8 |
| Law | 38 | 8.8 |
| Pharmacy | 29 | 6.7 |
| Sciences | 37 | 8.5 |
| Social Sciences | 37 | 8.5 |

Sport participation

Students' sport participation rates and characteristics are summarized in table 2. A total of 278 students [prevalence: 64.2% (95%CI: 59.5 - 68.7)] participated in at least one sport in the previous year. Football

(53.2%) had the highest participation rate. About a third (72.3%) participated in other forms of exercise besides sport. Gym exercise was the most common (45.3%) form of other exercise done followed by walking (26.3%) (table 2). Football and tennis were the most common sports of participation among males (62.0%) and females (9.7%) respectively.

Table 2: Descriptive characteristics of participants

| Characteristics | N | % |
|--|-----|------|
| <i>Sport participation</i> | | |
| Yes | 278 | 64.2 |
| No | 155 | 35.8 |
| <i>Sport of participation</i> | | |
| Football | 185 | 53.2 |
| Basket ball | 36 | 10.3 |
| Volleyball | 30 | 8.6 |
| Lawn tennis | 42 | 12.1 |
| Track and field | 38 | 10.9 |
| Others | 17 | 4.9 |
| Total | 348 | 100 |
| <i>Exposure rate</i> | | |
| Daily | 28 | 10.4 |
| Twice/thrice a week | 88 | 32.8 |
| Once a week/fortnight | 84 | 31.3 |
| Once in a month | 29 | 10.8 |
| Others | 39 | 14.5 |
| Total | 268 | 100 |
| <i>Hours of participation in sport (exposure time)</i> | | |
| Less than an hour | 85 | 30.6 |
| 2 hours | 120 | 43.2 |
| 3 hours | 40 | 14.4 |
| 4 hours and more | 33 | 11.8 |
| Total | 278 | 100 |
| <i>How long have you been participating in sports?</i> | | |
| Less than a year | 68 | 24.9 |
| 1 - 3 years | 47 | 17.2 |
| 4 - 6 years | 46 | 16.8 |
| Over 7 years | 112 | 41.0 |
| Total | 273 | 100 |
| <i>Do you participate in other form of exercise apart from sports?</i> | | |
| Yes | 289 | 72.3 |
| No | 111 | 27.8 |
| Total | 400 | 100 |
| <i>Which type of exercise is it?</i> | | |
| Gym exercise | 131 | 45.3 |
| Dance | 42 | 14.5 |
| Yoga | 15 | 5.2 |
| Brisk walking/walking | 76 | 26.3 |
| Others | 25 | 8.7 |
| Total | 289 | 100 |

Table 3: Sport participation by demographic characteristics

| **Characteristics | Sport participation (Yes) n (%) | Sport participation (No) n (%) | Total n (%) | P-value |
|-------------------------------|---------------------------------|--------------------------------|-------------|---------|
| <i>Gender</i> | | | | |
| Male | 214 (78.4) | 59 (21.6) | 273 (100) | <0.001* |
| Female | 63 (41.2) | 90 (58.8) | 153 (100) | |
| <i>Age (years)</i> | | | | |
| 16 - 22 | 176 (61.8) | 109 (38.2) | 285 (100) | 0.961 |
| 23 - 29 | 70 (71.4) | 28 (28.6) | 98 (100) | |
| 30 - 36 | 9 (75.0) | 3 (25.0) | 12 (100) | |
| >36 | 2 (50.0) | 2 (50.0) | 4 (100) | |
| <i>BMI (kg/m²)</i> | | | | |
| < 18.5 | 103 (70.1) | 44 (29.9) | 147 (100) | 0.386 |
| 18.6 - 24.9 | 79 (68.7) | 36 (31.3) | 115 (100) | |
| 25.0 - 30.0 | 13 (65.0) | 7 (35.0) | 20 (100) | |
| >30.6 | 3 (75.0) | 1 (25.0) | 4 (100) | |
| <i>Ethnicity</i> | | | | |
| Yoruba | 198 (66.2) | 101 (33.8) | 299 (100) | 0.883 |
| Igbo | 50 (62.5) | 30 (37.5) | 80 (100) | |
| Hausa | 6 (60.0) | 4 (10.0) | 10 (100) | |
| Specify others | 23 (62.2) | 14 (37.8) | 37 (100) | |
| <i>Level</i> | | | | |
| 100 | 31 (52.5) | 28 (47.5) | 59 (100) | 0.145 |
| 200 | 83 (68.0) | 39 (32.0) | 122 (100) | |
| 300 | 60 (60.6) | 39 (39.4) | 99 (100) | |
| 400 | 77 (72.6) | 29 (27.4) | 106 (100) | |
| 500 | 23 (67.6) | 11 (32.4) | 34 (100) | |
| 600 | 4 (66.7) | 2 (33.3) | 6 (100) | |
| <i>Faculty</i> | | | | |
| Arts | 18 (50.0) | 18 (50.0) | 36 (100) | 0.362 |
| Basic medical sciences | 25 (71.0) | 10 (28.6) | 32 (100) | |
| Business administration | 28 (73.7) | 10 (26.3) | 27 (100) | |
| Clinical sciences | 26 (70.3) | 11 (29.7) | 37 (100) | |
| Dental sciences | 19 (55.9) | 15 (44.1) | 34 (100) | |
| Education | 25 (69.4) | 11 (30.6) | 36 (100) | |
| Engineering | 25 (67.6) | 12 (32.4) | 27 (100) | |
| Environmental sciences | 26 (68.4) | 12 (31.6) | 38 (100) | |
| Law | 21 (56.8) | 16 (43.2) | 37 (100) | |
| Pharmacy | 14 (51.9) | 13 (48.1) | 27 (100) | |
| Sciences | 26 (70.3) | 11 (29.7) | 37 (100) | |
| Social sciences | 25 (71.4) | 10 (28.6) | 35 (100) | |

*Significant at $p < 0.05$

**Data missing in subcategories of some variables

Sport participation and associated factors

Tables 3 and 4 present the relationship between respondents' socio-demographic characteristics and sport participation. Sex ($X^2 = 59.70$; $p < 0.001$), alcohol consumption ($X^2 = 7.48$; $p = 0.005$) and stressful event in the past one year ($X^2 = 8.07$; $p = 0.006$) were

significantly associated with sport participation. Male students participated more frequently in sports than females. Students who drink alcohol participated more in sports than those who do not drink and students who had a stressful year had more sports participation than those who did not have respectively.

Table 4: Sport participation by social characteristics

| **Characteristics | Sport participation (Yes) n (%) | Sport participation (No) n (%) | Total n (%) | P-value |
|--------------------------------------|---------------------------------|--------------------------------|-------------|---------|
| <i>Accommodation</i> | | | | |
| Student's hostel | 209 (67.2) | 102 (32.8) | 311 (100) | 0.096 |
| Off-campus | 63 (58.3) | 45 (41.7) | 108 (100) | |
| <i>Smoking</i> | | | | |
| Yes | 13 (81.3) | 3 (18.8) | 16 (100) | 0.163 |
| No | 263 (64.3) | 146 (35.7) | 409 (100) | |
| <i>Alcohol consumption</i> | | | | |
| Yes | 88 (75.2) | 29 (24.8) | 117 (100) | 0.006* |
| No | 188 (61.0) | 120 (39.0) | 308 (100) | |
| <i>Stressful Year</i> | | | | |
| Yes | 211 (69.4) | 93 (30.6) | 304 (100) | 0.005* |
| No | 64 (54.7) | 53 (45.3) | 117 (100) | |
| <i>Knowledge of safety practices</i> | | | | |
| Yes | 234 (95.9) | 10 (4.1) | 244 (100) | 0.659 |
| No | 33 (94.3) | 2 (5.7) | 35 (100) | |
| <i>Academic grade</i> | | | | |
| 3rd Class | 5 (45.5) | 6 (54.5) | 11 (100) | 0.269 |
| 2nd class lower | 53 (67.9) | 25 (32.1) | 78 (100) | |
| 2nd class upper | 112 (69.6) | 49 (30.4) | 60 (100) | |
| 1st class | 26 (72.2) | 10 (27.8) | 36 (100) | |
| <i>Highest parents' education</i> | | | | |
| < Secondary school | 18 (72.0) | 7 (28.0) | 25 (100) | 0.397 |
| Secondary school | 61 (61.6) | 38 (38.4) | 97 (100) | |
| OND | 20 (74.1) | 7 (25.9) | 27 (100) | |
| HND | 12 (52.2) | 11 (47.8) | 23 (100) | |
| University | 152 (67.9) | 72 (32.1) | 234 (100) | |
| Others | 7 (953.8) | 6 (46.2) | 13 (100) | |

*Significant

**Data missing in subcategories of some variables

Sport injuries

Out of the 278 students who participated in sports, 146 [prevalence: 52.5% (95%CI: 46.5 – 58.5)] had at least one sport injury in the past year. Overall, the prevalence of injury in male students was 45.7% and 12.7% in female students. Table 5 summarizes the characteristics of all sports injuries among students. Most (40.4%) of the students had only one injury and about half (49.3%) of these injuries were time loss injuries. Most of the injuries were minimal in severity (37%) and were as a result of direct contact with another player or object (64.4%). Ligament sprain (19.9%), fracture (15.8%), bruises (13.7%) and muscle strain (8.9%) were the most common types of injury. The leg (20.5%) and ankle (15.1%) were the most frequently injured body parts. Table 6 presents the sport-specific injury rates by sex

and distribution of most serious injury by sex and body part. Overall, football (73.8%) had the highest prevalence of injury. The more serious injuries affected the leg (19.4%), ankle (16.4%) and knee (13.8%) joints.

Discussion

The result of this study showed that a fair number of the students participated in at least one sporting activity in the previous year. One out of 2 students would sustain a sport-related injury in the course of a year. Overall, football was the most common sport of participation and with the highest prevalence of injury among students.

To our knowledge, this study is one of the first to document the rate and types of sport participation among university students who engage in recreational sports in Nigeria. Studies in this setting are generally

Table 5: Characteristics of all sport injuries reported by students

| Characteristics N = 146 | Frequency | Percentage |
|------------------------------------|-----------|------------|
| <i>No. of injuries</i> | | |
| 1 | 59 | 40.4 |
| 2 | 47 | 32.2 |
| 3 | 10 | 6.8 |
| 4 or more | 30 | 20.6 |
| <i>Time loss injury</i> | | |
| Yes | 72 | 49.3 |
| No | 74 | 50.7 |
| <i>Severity of injury</i> | | |
| Mild | 54 | 37.0 |
| Moderate | 64 | 43.8 |
| Severe | 28 | 19.2 |
| <i>First time injury</i> | | |
| Yes | 36 | 24.7 |
| No | 110 | 75.3 |
| <i>Mechanism of injury</i> | | |
| Direct collision with someone else | 94 | 64.4 |
| Collision with an object | 31 | 21.2 |
| Non-contact | 21 | 14.4 |
| <i>Type of injury</i> | | |
| Ligament sprain | 29 | 19.9 |
| Fracture | 23 | 15.8 |
| Wounds and bruises | 20 | 13.7 |
| Muscle strain | 13 | 8.9 |
| Rupture of tendon or ligament | 11 | 7.8 |
| Laceration | 10 | 6.8 |
| Others | 8 | 5.4 |
| Skin lesion | 6 | 4.1 |
| Concussion | 5 | 3.0 |
| Back pain | 4 | 2.7 |
| Dislocation | 3 | 2.1 |
| Patella tendinopathy | 3 | 2.1 |
| Dental injuries | 3 | 2.1 |
| Contusion | 3 | 2.1 |
| Jammed fingers | 3 | 2.1 |
| Neck injuries | 2 | 1.4 |

sparse; most studies have hitherto generally reported on physical activity with no specific information on sport participation [10-12,15]. Thus, comparison of findings from present study with other studies is limited. A physical activity prevalence of 59% reported among undergraduate students of the University of Ibadan is similar to the sport participation prevalence reported in our study [10]. The actual prevalence of sport participation among University of Ibadan students was

Table 6: Sport-specific injury rates and distribution of most serious injury by body parts

| | Total/overall (%) | Male (%) | Female (%) |
|---|-------------------|----------|------------|
| <i>*Sport-specific injury rates</i> | | | |
| Football | 73.4 | 71.0 | 2.8 |
| Track and field | 37.2 | 5.4 | 31.8 |
| Tennis | 21.3 | 3.1 | 18.2 |
| Volleyball | 20.5 | 2.3 | 9.1 |
| Not specified | 10.6 | 1.5 | 9.1 |
| Basket ball | 6.1 | 6.1 | 0.0 |
| <i>Most serious injury by body part</i> | | | |
| Leg | 19.4 | 20.8 | 18.0 |
| Ankle | 16.4 | 14.6 | 18.2 |
| Knee | 13.8 | 13.9 | 13.6 |
| Hand | 9.9 | 6.2 | 13.6 |
| Head/Neck | 8.0 | 7.0 | 9.0 |
| Wrist | 6.8 | 4.6 | 9.0 |
| Hip/Groin | 6.1 | 7.7 | 4.6 |
| Upper Arm | 5.3 | 1.5 | 9.0 |
| Foot/Tee | 5.0 | 10.0 | 0.0 |
| Trunk | 4.6 | 4.6 | 4.6 |
| Shoulder | 2.0 | 3.9 | 0.0 |
| Thigh | 1.6 | 3.1 | 0.0 |
| Fore Arm | 1.1 | 2.3 | 0.0 |

* Multiple choice allowed

however not reported in the study. Physical activity participation has been shown to be higher in developed countries than developing countries [15] and this is consistent with our findings. The sports participation rate documented in this study (64%) is much lower than that reported for high school students in Canada where up to 94% of the participants took part in sporting activities in the previous year [14]. Differences in sport and physical activity participation have been demonstrated to relate to cultural factors and stage of economic development [15]. Further, the huge difference in the rate of participation may also be attributable to the age difference; younger people tend to engage in sports and recreational activities more frequently than older persons [10,11,16].

It is unsurprising that football recorded the highest participation rate knowing that football is the most popular sport in Nigeria [9]. A focus on football injury prevention is warranted to promote safe participation. It is recognised that more males participate in sports than females [16-19]; our findings

corroborate this. This may be due to a higher level of motivation for sport participation among male students [19]. Furthermore, this study suggests that students who indulge in alcohol consumption would have more sports participation than those that do not and students who get stressed in school would have more participation than those who do not. Participation in physical activity is an established means of coping with stress [15, 20, 21]. It is plausible that such students perceived sports participation as a means for relaxation and this might have driven their level of sports participation.

Results from this study suggest that 1 of 4 students is expected to sustain a serious sport-related injury that would stop him or her from participating in sport for a period of time depending on the severity of the injury. This has health implications for the injured students. Sport injury has been linked to decreased sport participation and is associated with all-cause morbidity, overweight/obesity and post-traumatic osteoarthritis [7, 8, 19]. Developing injury prevention strategies for this group of young adults is crucial and would have long-term public health benefits.

Our finding of a higher prevalence of injuries among males than females is consistent with previous studies [14, 18]. The high rate of football injuries among male students could partly be as a result of the unsuitable playing surfaces in the university environment. Qualitative observation of sports/recreational facilities at the University revealed that students play on sandy and concrete surfaces and the main football pitches on campus are completely deprived of grass and are not in good shape because of poor maintenance. Other factors such as unsuitable shoe wears, wrong playing techniques, improper nutrition and inadequate rehydration may also be contributory [22] as students may not be aware of simple prevention tips. There is a need for future studies to investigate potential risk factors for sports injuries in similar settings.

This study revealed that the lower extremity, particularly leg, knee and ankle were the most injured body parts for all injuries and most severe injuries. This is consistent with literature for regular athletes and non-athletes [14, 16-18]. Ligament sprain was the most common type of injury reported for all injuries, which is in congruence with previous studies [16, 17, 23]. Bone fracture was recorded as the second most frequent type of injury. This is worrisome, as this type of injury often requires orthopaedic attention and rehabilitation for individuals to return to functional activities of daily

living and sports; unfortunately this type of care is not available for students on campus.

This study is one of the first to present information on the level of sports participation and injuries among Nigerian youths and young adults in a university setting. A limitation of this study however is the use of self-reported questionnaire, which is prone to under-reporting due to recall and social desirability bias. Furthermore, the accuracy of the diagnosis and severity of injuries reported is limited to students' judgement and perception of their injuries.

Conclusion

Sports participation among undergraduate students was fair and sport injury rate was high; mostly affecting the lower extremity and most injuries resulting from football participation. Time-loss injuries accounted for up to half of injuries and injury pattern was similar to those of regular athletes. This study suggests the need for an improved sports participation support and promotion among students and the need for the initiation of injury prevention initiatives by stakeholders. Injury prevention strategies should be targeted at the lower extremity with priority on football in this population of recreational athletes.

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