



**QUALITIES OF FIRST AIDER AS DETERMINANTS
OF INJURY CONDITIONS DURING INTRAMURAL SPORTS
PRACTICES AMONG PUBLIC SECONDARY SCHOOLS
IN OYO, OYO STATE, NIGERIA**

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Abstract:

This study aimed to investigate the qualities of first aider as determinants of injury conditions during intramural sports practices among public secondary schools in Oyo, Oyo State. The descriptive survey research design was adopted for this study. The population for this study consists of both staff and senior secondary school students participating in intramural sports. The sample size for this study was four hundred and fifty (450) respondents sampled through multistage procedures. The instrument used for data collection was a self-developed questionnaire with three scales and reliability values as follows: Knowledge as Quality of First Aider Scale (KQFAS) = 0.70, Communication Skill as Quality of First Aider Scale (CSQFAS) = 0.77, and Injury Condition Scale (ICS) = 0.79 through Cronbach's Alpha respectively. The demographic data of the respondents were analyzed with frequency counts and percentages while inferential statistic of multiple regressions was used to test the hypotheses at 0.05 alpha level. The demographic data of the respondents were analyzed with descriptive statistics while inferential statistics of multiple regression was used to test the hypotheses at 0.05 alpha level of significance. The two null hypotheses tested were rejected which indicated that qualities of first aider are determinants of injury conditions during intramural sports practices among public secondary schools in Oyo. It was, recommended that the government should have a policy that would compulsory first aid training for all and sundry in the public secondary schools in order to be acquainted with the necessary qualities of a first aider.

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1. Introduction

The number of students participating in intramural sports has greatly increased as a result of benefits being derived from such activities in the institution of learning. Participation in intramural sports offers various benefits, including enjoyment, improved competence, enhanced physical appearance and fitness levels, and personal development. Despite the benefits of intramural sports, there are also increased risks, which include athlete injury.

Nurul, and Mohammad (2022) opined that intramural sports have an increased rate of injury compared to that of their counterparts' extra-curricular activities. sports injuries are also one of the major health problems affecting adolescents, whereby athletes trained in schools have a much higher rate of sports injuries than ordinary students. Most of the injuries sustained during intramural sports practices range from acute to minor injuries such as ankle, and hamstrings (Baharuddin, *et al.*, 2020). Acute injury refers to an injury that occurs suddenly, often as a result of a specific incident or trauma. This type of injury can cause various conditions such as cuts and abrasions, concussions, fractures, ankle sprains, and strains (National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2021). Cuts and abrasions are injuries that involve the breaking of the skin, resulting in bleeding and damage to the outer layers of the body. A concussion is a type of brain injury that occurs when the brain is shaken inside the skull, often due to a blow to the head. Fractures are breaks or cracks in bones, which can occur due to a fall, impact, or excessive force applied to the bone. Ankle sprains and strains are injuries to the ligaments and muscles around the ankle joint, often caused by twisting or overstretching. On the other hand, chronic injury is caused by poor and repeated use of joints and muscle groups over a prolonged period.

Tarantino and Brancaccio (2019) submitted that this type of injury develops gradually over time and is often associated with activities or movements that put excessive stress on the body. For example, repetitive motions or improper technique during sports or physical activities can lead to chronic injuries. Additionally, structural abnormalities in the body, such as misalignment of bones or imbalances in muscle strength, can contribute to the development of chronic injuries.

However, because of the voluntary nature of intramural sports, many individual students participated either as athletes or volunteer first aiders who do not have most of the qualities required to administer effective and efficient first aid during intramural sports such as knowledge, communication skills, and competency, to minimize the aggravation of injury conditions sustained during intramural sports. Talpey and Siesmaa (2017) opined that certified strength and conditioning coaches are integral components of implementing injury prevention programs and prescribe targeted training to maximize injury prevention in athletes.

Shanley *et al.* (2019) said the availability of competent athletic trainers and first aiders has also been shown to reduce rates and extent of sports injuries. More than 14 million people receive first aid training every year universally, (Bert, Axel, Hans, and Philippe (2019), this information indicates that there is a significant effort to educate and empower individuals with the ability to respond effectively in emergencies, in terms of knowledge and skills, to be able to reduce the worsen conditions of injury before the arrival of medical personnel such as performing cardiopulmonary resuscitation (CPR), controlling bleeding or provides basic life support.

First aid is an intervention that can be carried out by a person nearby immediately with minimal or without medical equipment (Kumar, *et al.*, 2013). Therefore, this makes it imperative to have knowledge and communication skills in first aid. The hallmark aim of first aid is to stop or reverse the possible harm at a given time, especially during intramural sports before reaching the appropriate healthcare provider ([Manjusha](#) and [Prashant](#), 2020). First-aid assistance can be given in all areas such as homes, schools, workplaces, and sports arena. Beyond health affairs, first aid knowledge and communication skills also increase the social responsibility of the society and strengthen values (Winoto, & Bistara, 2019).

Both knowledge and communication skills of first aid if they could be annexed can bring the difference between temporary or permanent injury, rapid recovery, or long-term (Shivabasayya & Gulappa, 2020). The skills of a first-aider are competencies that enable an aid professional to respond to individuals who are unwell or have an injury. Some accidents don't necessitate a professional's treatment and providing first aid can help prevent things from getting worse by offering essential care. The communication skill is one of the first aid skills that an individual requires to respond to emergencies effectively: communicating efficiently during emergencies enables you to calm and reassure individuals experiencing distress. This skill applies when asking appropriate questions about signs and symptoms if the victim is still conscious and listening effectively for their response. It helps first-aiders make appropriate diagnoses and manage the patients accordingly. The First-aider should also have the right and quantity knowledge as well as communication skills about what he is doing, and be encouraging and reassuring to the victims (World Health organization, 2011). It is on this note that the researcher intends to study and ascertain the qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State.

2. Statement of the Problems

Most of the studies conducted on first aid are yet to address the qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools. However, sports injuries are common and can happen suddenly, so it is important to have someone knowledgeable as well as having communication skills in basic first aid to always be on the ground during intramural sports activities most

especially, during practice sessions. The risk of getting hurt is an everyday reality for athletes during intramural sports practices, therefore, there is a need for somebody who is well-versed in first aid to save lives and promote quick recovery as the case may demand during intramural sports practices. It is on this note that the researcher intends to study the qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State.

2.1 Objective of the Study

The main objective of this study was to ascertain the qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.

The specific objectives of this study were:

- 1) To ascertain the contribution of knowledge as the quality of first aider in determining injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State
- 2) To examine the contribution of communication skills as qualities of first aider in determining injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State.

2.2 Hypotheses

The following hypotheses were tested in this study:

- 1) There will be no significant relative contribution of Knowledge and Communication skill qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.
- 2) There will be no significant composite contribution of Knowledge and Communication skill qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.

3. Methodology

The descriptive survey research design was adopted for this study. The population for the study consisted of both staff and senior public secondary school students' participants in intramural sports. The sample size for this study was four hundred and fifty (450) respondents sampled from three (3) Local Government areas of Oyo through multistage procedures. In the first stage, a simple random sampling technique using a fish bowl without replacement was used to select three schools each from the three Local Governments, thereafter, stratify sampling technique was equally used to group staff and students into active and non-active participants in intramural sports practices while convenient sampling technique was used to select fifty (50) respondents from each of the nine (9) schools selected that filled the questionnaire.

The instrument used for data collection was a self-developed questionnaire which was in two sections (Section A and B). Section A was on characteristics data of the respondents, while section B was structured in line with the independent variables of qualities of first aider as well as a dependent variable of injury conditions with the modified four points Likert scale of summative rating to show the extent of agreement or disagreement viz: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with 4, 3, 2 and 1 values respectively. The instrument has three scales with reliability values as follows: Knowledge as Quality of First Aider Scale (KQFAS) = 0.70, Communication Skill as Quality of First Aider Scale (CSQFAS) = 0.77, and Injury Conditions Scale (ICS) = 0.79 through Cronbach’s alpha respectively.

The characteristics data of the respondents were analyzed with frequency counts and percentages while inferential statistic of multiple regressions was used to test the hypotheses at 0.05 alpha level.

4. Results and Discussion of the Findings

Table 1: Characteristics of the Respondents

Characteristics of Respondents	Frequency	Percentage (%)
Status		
Staff	150	33.3
Students	300	66.7
Total	450	100.0
Sex		
Male	220	48.9
Female	230	51.1
Total	450	100
Age		
16-20 years	294	65.3
21-25 years	5	1.1
26-30 years	15	3.3
31-35 years	16	3.6
36-40 years	14	3.1
41-45 years	22	4.9
46-50 years	36	8.0
51- above years	48	10.7
Total	450	100
Level of Awareness about First Aid		
High	310	68.9
Low	140	31.1
Total	450	100.0

Table 1 above shows that 150 participants (33.3%) were staff while 300 participants that represent (66.7%) were students. The table also indicated that 220 participants (48.9%) were male while 230 participants (51.1%) were females. The table has equally shown that 294 participants (65.3%) fall between ages 16-20 years, 05 (1.1%) respondents were

between 21-25 years, 15 (3.3%) respondents were between ages 26-30 years, 16 (3.6%) respondents fall between ages 31-35 years, 14 (3.1%) respondents were between ages 36-40 years, 22 (4.9%) respondents were between ages 41-45, 36 (8.0%) respondents were between ages 46-50 years and 48 (10.7%) respondents were above ages 51 years old. In conclusion, the table showed, the level of awareness of the respondents about first aid as follows: 310 (68.9%) of the participants have a high level of awareness about first aid while 140 (31.1%) of the participants have a low level of awareness about the first aid. The implication of this is that all the respondents have an idea of what first aid is all about but at different levels, which would have assisted them in responding to the questionnaires appropriately.

4.1 Testing of Hypotheses

This section dealt with testing and analysis of each formulated hypothesis.

Hypothesis 1: There will be no significant relative contribution of Knowledge and Communication skill qualities of first aider as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.

Table 2: Shown the relative contributions of knowledge and communication skill qualities of the first aider as a determinant of injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State

Coefficients						
	Unstandardized Coefficients		Standardized Coefficients		T	Sig. (p-value)
	B	Std. Error	Beta (β)	Std. Error		
(Constant)	7.621	.271			11.432	.000
Knowledge	.024	.035	.050	.024	5.671	.001
Communication Skill	.042	.051	.033	.045	4.426	.005

Table 2 shows the relative contribution of each of the independent variables on the dependent variable, expressed as beta (β) weights, viz: knowledge has the highest contribution of ($t=5.671$, ($\beta=.050$, $p<.05$) while communication skill has the least contribution of ($t=4.426$, ($\beta=.033$, $p<.05$) respectively. This indicated that both independent variables of knowledge and communication skills have relatively significant contributions to the dependent variable of injury conditions. Therefore, the null hypothesis was rejected.

Hypothesis 2: There will be no significant composite contribution of Knowledge and Communication skill qualities of first aider as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.

Table 3: The composite contributions of knowledge and communication skill qualities of the first aider as a determinant of injury conditions during intramural sports practices among public secondary schools in Oyo Area of Oyo State

	Sum of Squares	Df	Mean Square	F	Sig. (p-value)
Regression	65.952	3	14.452	9.736	.001
Residual	2573.357	576	5.136		
Total	2639.309	579			

R = .536; R Square = .435; Adjusted R Square = .427

Table 3 above showed significant composite contributions of knowledge and communication skill qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State.

It could be observed that the correlation was strong ($R = .536$). The adjusted R-square indicated that 42.7% of the variance accounted for knowledge and communication skill qualities of first aiders as a determinant of injury conditions during intramural sports practices among public secondary schools in the Oyo area of Oyo State. Also, the table showed the effectiveness of the determinant with the F-ratio 9.736 and significant alpha (.001).

4.2 Discussion of Findings

The findings of this study were in agreement with the findings of Savarirajan (2017) who opined that an ignorant decision or action by the first aider could pose a danger to the victims of an emergency. Moreover, first aid skills such as knowledge and communication skills among others are necessary when handling emergency injury cases, which could pose a threat to the life of intramural sport participants during practices. The first aider equally needs to have adequate knowledge and skills about what he is doing and assure the victims of quick and soonest recovery.

Shivabasayya & Gulappa (2020) submitted that the knowledge of first aid when properly applied can mean the difference between temporary or permanent injury, rapid recovery, or long-term disability and the difference between life & death. In contrast, in most of the public secondary schools where teachers and learners lack proper training and knowledge in first aid, there would always be a low level of emergency care practices that may make injury conditions worse. Basic first-aid knowledge skills are important for everyday situations because emergencies and injuries can happen anytime and anywhere during intramural sports practices, Geharaj and Pradeep (2022). Knowing how to respond to an emergency can help save a life, prevent further harm, and comfort the injured person until professional help arrives.

Additionally, findings from the study, equally, showed that communication skills play significant roles in ensuring first aiders share important and effective information about a victim's condition, treatment plan, and prognosis. Sharkiya (2023) opined that effective communication is crucial to first aid as it impacts the quality of care, patient satisfaction, and trust between first aiders and victims, playing various roles in decision-making, information exchange, relationship management, addressing doubts and

emotions, and promoting self-management. The communication skills of first aiders will afford them, the opportunity of enhancing better conditions for victim's injuries. Effective communication plays a crucial role in reducing medical errors and patient injury.

When first aiders can communicate clearly and effectively with their victims, they can better understand their injury conditions, treatment plans, and any potential risks or side effects, Choudhary and Gupta (2015). This understanding can help victims make informed decisions and take appropriate actions to manage their emergency conditions. On the other hand, poor communication skills can have negative consequences. Victims may have difficulty understanding their treatment plans or may not fully adhere to them, leading to decreased adherence to treatment. This can result in suboptimal injury outcomes and potentially worsen the victim's condition. Additionally, poor communication can contribute to victims' dissatisfaction. When victims feel that their concerns are not being heard or understood, they may become frustrated or dissatisfied with their first-aid experience.

5. Conclusion

Based on the findings of the study, it was concluded that there was a significant relative contribution of both knowledge and communication skill qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State. The findings also revealed that there was a composite contribution of Knowledge and communication skill qualities of first aiders as determinants of injury conditions during intramural sports practices among public secondary schools in the Oyo Area of Oyo State.

5.1 Recommendations

- 1) There is a need for orientation and workshop programmes for staff and students on basic knowledge of first aid that would enhance the quality of services to be delivered by the first aid during intramural sports practices.
- 2) The school authority should include a first aid programme in the school activities most especially during the extracurricular period where both staff and students would have access and be exposed to a series of information on knowledge and effective communication skills for first aid.
- 3) The government should come up with a policy that would make first aid training compulsory for all and sundry in public secondary schools to be acquainted with the necessary qualities expected of a first aider such as knowledge and communication skills among others.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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