

# Awareness of Safety Measures of Prevention of Accident in School Field and Laboratory Among Secondary School Teachers in Owerri-Werst Local Government Area, Imo State

IWUAGWU MARVIS CHIDINMA<sup>1</sup>, ONYINYECHI MARY OKORIE<sup>2</sup>, AJOKU BRIGHT CHIBUNNA<sup>3</sup>, CHIKADIBIA KIZITO ODINAKA<sup>4</sup>, UGONMA WINNIE DOZIE<sup>5</sup>  
<sup>1, 2, 3, 4, 5</sup>Department of Public Health, Federal University of Technology Owerri

## **Abstract- Background:**

*School safety measures in accident prevention, is the plan for the protection that is given to the stakeholders within the school, learners, educators and managers from crime and accidents; by means of well-drawn safety measures and policies which should be well managed. Safety is the degree of protection against danger damage and loss. The study investigated the awareness of safety measures in the laboratory and in the school field among secondary school teachers in Owerri West LGA, Imo state, Nigeria*

## **Methods:**

*The study utilized a descriptive research design. The population of the study consisted of 232 teachers in existing public secondary schools in Owerri- West Local Government Area. A self-structured instrument was used for data collection. Data collected was analyzed using descriptive statistics of frequencies, percentages and arithmetic mean as well as, inferential statistics of chi-square at 0.05 level of significance and at appropriate degree of freedom.*

## **Results:**

*Results revealed that the gender and school type of the respondents. It revealed that 54.1% of the respondents are male while 45.9% are female teachers. In terms of the type of school, 70.3% of the respondents are public school teachers while 29.7% are private school teachers. The findings revealed that school teachers in Owerri- West LGA, Imo State are aware of most of the safety measures in the laboratory and this is because the grand mean value of 3.11 falls within the aware range additionally, school teachers in Owerri- West LGA, Imo State are mostly aware of the safety measures in the school*

*field in, this is because the grand mean value of 3.22 falls within the aware range.*

## **Conclusion:**

*Based on the findings of this study, it was concluded that the school teachers in Owerri- West LGA, Imo state are mostly aware of the safety measures in the laboratory as well as school field. Both male and female teachers from both public and private schools are aware of the safety measures in accident prevention in secondary school.*

## I. INTRODUCTION

School safety measures in accident prevention are a vital function of school administration and safety measures in accident prevention, is the plan for the protection that is given to the stakeholders within the school, learners, educators and managers from crime and accidents; by means of well-drawn safety measures and policies which should be well managed [4]. More so, the school principal has to plan, organize, direct; control and evaluate staff and material resources to achieve the objectives of the school [2]. [5], opined that it is essential for scholars and staff to feel safe at school and it is the reason schools should have safety rules in accident prevention in the school. However, most people get injured during physical education class than during other lessons in the school [7] due to lack of awareness about safety hazards and raising awareness about accidents increases the ability to perceive, to feel or to be conscious of events, thoughts and emotions and it is safe to be aware of something [1]. Additionally, Hornby, (2025) opined that awareness means significantly knowing that something exists, nothing its importance and the implications of the existence [11].

Furthermore, many risk factors have been identified to influence the accidents among teachers such as sociodemographic, psychosocial and occupational characteristics of the teachers [8]. Sociodemographic variables like gender, age, and body mass index (BMI) [9] have been considered as associated factors with the development of work-related musculoskeletal disorders among school teachers. Several studies reported that psychosocial factors like high work demands, low job control, perception of a high stress level at work, job dissatisfaction, monotonous work, lack of social support had a significant association with work-related accidents among school teachers [10].

Accident safety measures in the school can be explained as a situation where students and teachers are not exposed to any form of danger or risk of physical or moral aggression, accident theft or deportation [6]. Considering the potential impact of safety measures in the prevention of accidents, this study investigated the awareness of safety measures in the laboratory and in the school field among secondary school teachers in Owerri West LGA, Imo state, Nigeria. This study is an excerpt from a larger study.

## II. METHODS

### Study area

The research was carried out in Owerri-West Local Government Area. Owerri- West has its administrative headquarters in Umuguma. It has 21 autonomous communities. They are: Nekede, Ihiagwa, Emeabiam, Eziobodo, Okolochi, Obinze, Umuanunu, Dindi, Umuguma, Ofuruola, Ola ukwu, Avu, Umuokpo, Ndegwu, Amakohia Ubi, Irete, Ezi irete. It has an area square meter of 114km<sup>2</sup> and a population of about one hundred and seventy thousand, nine hundred and two 170,902 (at the 2006 census). Their major occupations include; trading and farming and they are also good in craft work. It also falls within the Eastern senatorial zone alongside Owerri north, Owerri municipal, Ikeduru, Mbaitoli, Aboh Mbaise, Ezinihitte mbaise, Abor Mbaise, Ngor okpala Local Government Areas. It also forms a Federal constituency alongside Owerri municipal and Owerri North local government areas. The local government area is bounded in the north by Ohaji/Egbema. To the south, it is bounded by Ngor

okpala and Owerri municipal local government area to the east. They are known for attaining different levels of education such as non-formal education, primary, secondary and tertiary education. Presently, there 10 Government Secondary schools in Owerri West LGA and all the autonomous communities have functioning health centers.

### Study design and sampling

A descriptive research design was used for this study. [12] also used similar study design to determine safety precautions in science laboratories thus the rationale for adopting this study design. The entire population of two hundred and thirty-two (232) teachers in Owerri-West Local Government Area was used for the study because the entire population happened to be within the reach of the researcher. There were no sample and sampling techniques

### Data Collection

A structured questionnaire was used for this study and reliability test was done using test re-test method. Data collection process lasted for two weeks. prior to the data collection process, a signed letter of introduction was handed over to the principal of the school to seek for permission to carry out the study. On the approved dates, the researcher visited and distributed the instrument on face-to-face basis to the teachers with the help of the dean of study and guidance counselors.

### Data Analysis

Data collected was analyzed using descriptive statistics of frequencies, percentages and arithmetic mean as well as inferential statistics of chi-square at 0.05 level of significance and at appropriate degree of freedom. Tables were used for presentation of data. Data was uploaded into the Statistical Package for Social Sciences (SPSS) software (version 23).

## III. RESULTS

Table 1: Demographic profile of the respondents

Variable	Frequency	Percent (%)
Gender		
Male	124	54.1
Female	105	45.9

Type of School		
Public School	161	70.3
Private School	68	29.7

are male while 45.9% are female teachers. In terms of the type of school, 70.3% of the respondents are public school teachers while 29.7% are private school teachers.

Table 1 shows the gender and school type of the respondents. It revealed that 54.1% of the respondents

Table 2: Mean awareness of safety measures in the laboratory

S/N	Items	Mean	SD	Remarks
1	Supervising the students in the laboratory during practical	3.10	0.692	Aware
2	Provision of fire extinguisher in the laboratory to prevent accident	2.36	0.710	Not aware
3	Proper labeling of chemicals in the laboratory	3.53	0.617	Aware
4	Proper arrangement of chemicals and apparatus in the laboratory	2.90	0.599	Aware
5	Proper cleaning of the floor to avoid fall	3.68	0.634	Aware
	Grand Mean	3.11	0.650	Aware

Table 2 shows the responses on the awareness of safety measures in the laboratory among secondary school teachers in Owerri- West LGA, Imo State. The result revealed that school teachers in Owerri- West LGA, Imo State are aware of most of the safety

measures in the laboratory in Table 2. This is because the grand mean value of 3.11 falls within the aware range. The standard deviation (SD) shows that the respondents are homogenous in their responses.

Table 3: Mean awareness of safety measures in the school field

S/N	Items	Mean	SD	Remarks
1	Adequate supervision by the teachers during sports period	3.42	0.495	Aware
2	School field should always be cut low avoid snake bite	3.80	0.398	Aware
3	Adequate maintenance of sports equipment/facilities	3.02	0.407	Aware
4	Level of emergency preparedness should be very high in the school such as cautions and signs	2.16	0.372	Not aware
5	Closing pot holes in the filed	3.26	0.572	Aware
6	Obeying the rules and regulations guiding the sports	3.64	0.480	Aware
	Grand Mean	3.22	0.454	Aware

Table 3 shows the responses on the awareness of safety measures in the school field among secondary school teachers in Owerri- West LGA, Imo State. The result revealed that school teachers in Owerri- West LGA, Imo State are mostly aware of the safety measures in the school field in Table 3. This is because the grand mean value of 3.22 falls within the aware range. The standard deviation (SD) shows that the respondents are homogenous in their responses.

#### IV. DISCUSSION

The result revealed that school teachers in Owerri- West LGA, Imo State are aware that supervising the students in the laboratory during practical, provision of fire extinguisher in the laboratory to prevent accident, proper labeling of chemicals in the laboratory, proper arrangement of chemicals and apparatus in the laboratory and proper cleaning of the

floor to avoid fall are some of the safety measures in the laboratory. This means that the school teachers are aware of most of the safety measures in the school laboratory. Thus, the present study could conclude that the level of awareness of teachers at Owerri- West on safety measures in the school laboratory is not very different from that of the other groups to which similar studies were applied. Accordingly, the mechanisms and programs of developing safety measures awareness in the laboratory in the different educational institutions shall be developed.

The result revealed that school teachers in Owerri-West LGA, Imo State are aware that adequate supervision by the teachers during sports period, school field should always be cut low avoid snake bite, adequate maintenance of sports equipment/facilities, level of emergency preparedness should be very high in the school such as cautions and signs, closing pot holes in the field as well as obeying the rules and regulations guiding the sports are the safety measures in the school field. This is an indication that the school teachers in the study area are mostly aware of the safety measures in the school field. This is not surprising because the participants are school teachers who are mostly aware of sporting activities in school including that of the safety measures in the school field. In the current study indicates that school teachers in the study area are mostly aware of the safety measures in the school field. This is expected due to the fact that social networks may be one of the main sources to the teachers regarding school field safety measures.

#### CONCLUSION

Based on the findings of this study, it was concluded that the school teachers in Owerri- West LGA, Imo state are mostly aware of the safety measures in the laboratory as well as school field and both male and female teachers from both public and private schools are aware of the safety measures in accident prevention in secondary school.

#### RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1. Health educators and technicians should diversify the sources of awareness and education for laboratory safety through social media.
2. The teaching of safety measure education should be regarded as an important form of social service in the community or society at large.
3. Safety measure awareness should be used as a means or opportunity for proper counseling in secondary schools.
4. The government or school management should intensify enlightenment campaigns so as to make teachers aware of the importance of safety measure promotion.

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