ORIGINAL ARTICLE

Medical Emergencies in Primary Schools and School Ownership of First Aid Boxes

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ABSTRACT

Introduction: The school system aims at developing pupils academically and socially. In the process of achieving this, pupils are prone to accidents and medical emergencies due to their vulnerabilities. The ability of the school system to respond to these challenges may depend on the availability of well equipped First Aid Boxes (FABs) and the promptness of initiation of first Aid treatment.

Objectives: The study determined the prevalence and types of medical emergencies in primary schools and the level of ownership of FABs.

Methods: Using a multi-stage sampling technique, twenty-two primary schools were studied and a cross sectional study design was employed. Interviewer administered questionnaire and check-list were the instruments of data collection. SPSS statistical software version 16.0 was used for the analysis.

Results: The 22 primary schools had a total population of 6,933 pupils; (4.9%) of the 139,494 population of the district. Twenty seven percent of the respondents experienced bruises, falls, and cuts; (22.7%) fever, cuts and episodes of convulsion; (13.6%) fever, bruises, stomach pains, falls and fractures. About (59.1%) of the primary schools had FABs with only (45.5%) of these schools with FABs containing the basic items.

Conclusion: This study has brought to light the level of ownership of FABs in primary schools as well as prevalence and types of medical emergencies in primary schools. In view of this, actions need to be taken to address the identified gaps.

INTRODUCTION

The school system is the gate way to educational pursuits and aims to equip the enrolee academically, socially, spiritually, morally etc; with the desire that the vast knowledge that may be acquired during the course of the interaction will be put to productive use by the students during and even after attaining the desired qualification from such school system. The child in school spends more of their active time in the school system than at home. The average school-aged child spends 28% of the day and 14% of his or her total annual hours in school.[1]

Despite the enormous foreseen advantages embedded in the school system, it is not completely devoid of health challenges to the enrolee if adequate measures are not put in place. A healthy child is active due to the high metabolic activities and may be prone to accidents even during play in school from games, routine class physical exercise sessions, break time interaction with friends which on the other hand may also may have been exacerbated by the underlying health background of the child, and/or by the unhealthy conditions in schools. Accidents or injuries sustained may result in some temporary or permanent disabilities. Injuries are the

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leading cause of death and disability in the United States, especially among children, with 70% of injury deaths occurring in school-aged youth (5–19 years of age). It is estimated that 10% to 25% of injuries to children occur while they are in school.[2]

Whatever the background cause of emergencies in schools, adequate and proper plan should be instituted to cater for any medical emergencies that may arise. Emergency preparedness involves devising a plan for school personnel and students to respond promptly and properly when an emergency occurs which poses threats to the safety and security of both people and facilities.[3] Part of such emergency preparedness by school ought to include availability of well equipped First Aid Boxes (FABs).

Globally an estimated 2,400 children die every day due to injury and violence and many more are disabled or require substantial medical intervention. In high income countries injuries still account for 40% of all child deaths between ages 1-14.[5] As a way of emphasis, pupils are prone to accidents and medical emergencies due to their vulnerabilities (inquisitiveness, more hyperactive than adults, peer influence, explorative etc). In a medical emergency, staff should take emergency action without waiting for parent/guardian consent[5] especially when such needs a prompt and urgent intervention. This is to ensure that complications do not arise because delays in these circumstances could compromise safety.[5] However, the ability of the school system to respond to these challenges may depend on the competence and availability of required resources such as trained medical personnel, well equipped First Aid Boxes (FABs) and the promptness of initiation of first aid treatment. Pupils and students in some primary and all-age schools across the island in Jamaica are being put at risk daily because of the failure of the relevant authorities to ensure that health personnel and equipment are in place to administer even basic first aid.[6] With the background knowledge of all these, the study thus aimed at assessing the prevalence and types of medical emergencies in primary schools and the level of ownership of FABs.

METHODOLOGY

A descriptive cross sectional study design was used to study all the existing twenty two primary schools in Gindiri 1 district during the period of the research. A multi-stage sampling technique was employed to select the study area (Gindiri 1 district) from the list of all the 7 (Gindiri I, Gindiri II, Langai, Kadunu, Chasok, Kasuwa Ali and Jeneret) districts that make up the Gindiri ward in Mangu Local Government Area (LGA) of Plateau state, Nigeria. An interviewer administered questionnaire and check-list were the research tools used. SPSS statistical software version 16.0 was used for the analysis.

RESULTS

Twenty two primary schools were studied; with a total population of 6,933 pupils; (4.9%) of the 139,494 population of the district. The administrative heads of all the schools were the key informants that provided the information; they had a work experience that ranged between 1-21 years however majority of them with7 years experience. Eight (36.4%) of the schools are owned by the local government, while 10 (45.5%) and 4 (18.2%) are owned by individual and faith based organizations respectively. Twenty seven percent of the respondents experienced bruises, falls, and cuts; (22.7%) fever, cuts and episodes of convulsion; (13.6%) fever, bruises, stomach pains, falls and fractures. About (59.1%) of the primary schools had FABs with only (45.5%) of these schools with FABs containing the basic items.

DISCUSSION

Ensuring that children are safe at school ought to be a top priority for education professionals and parents alike, with many going so far as to argue that first aid should be added to the school curriculum. Acknowledging the importance of health and safety, and in particular first aid, can make a significant difference to the safety of staff, visitors and pupils.[7] Education is a perceived way to success onto which strands of ignorance, poverty can be eliminated. The importance of primary education cannot be overemphasized especially on a child, which serves as

a formidable foundation in the child's journey through life and development. No wonder the millennium summit of 2000 had as one of its goals tagged Millennium Development Goals (MDGs), the provision of universal basic education. As much as great importance is attached to education as been crucial to a child's development, it is equally important to ensure that a child is exposed to such educational pursuit in an atmosphere devoid of minimal health risk or preferably where emergence of sudden health challenges can be adequately taken care of. Healthcare problems in low and middle income countries are multifaceted and result from a combination of factors among them being injury which causes disease. Accidents are the most preventable of the major causes of death and disability among the young and the middle aged who have many healthy and productive years ahead of them. According to the World Health Organization (WHO) global health estimates of 2013, injuries were the third broad cause of death in the low and middle income countries.[8] Children love to play, even when such is organized by the schools in form of sports and physical education activities, the potential for injury is still high. Sports-related injuries account for a significant proportion of all injuries among adolescents.[9] In another study by Jespersen E et al, it found out that the most common injuries in school-aged children are ligamentous sprains, contusions, muscle/tendon strains, fractures and different types of overuse injuries, located primarily in lower extremities but also in upper extremities. It also observed that different types of physical activities engender different types of injuries and those different times of the year invite different types and intensities of physical activities.[10]

However, in a study by Al-Bajjali et al, traumatic dental injury was however found to be an important public dental health problem among schoolchildren, [11] but whatever the type, injuries generally among school children is a very common occurrence as evident by the episodes recorded in this study. Though gender specific episodes were not assessed but the occurrence may be slightly higher in males than female and it may be more severe in the younger that older age groups. Despite these occurrences, less than a half of the few with a potential remedy (FABs) had the basic content necessary to attain to an emergency situation. Many school authorities do not give accident prevention and care the needed attention it deserves, such is the example in Kenya in a cross sectional study of ten schools, where it found out that injury is not recognized as a major public health issue by the local authorities due to lack of robust data on injury burden, which inhibits the development of effective preventive strategies for injury prevention.[8] Comply with stipulated regulations is what most schools are doing and not the lack of awareness of the importance of FABs. For example, the Health and Safety (First-Aid) Regulations for schools since 1981 set out that schools must provide adequate and appropriate equipment, facilities and qualified first aid personnel.[9] It is important that school should not only be interested in impacting knowledge on its pupils but that such exposures should be carried out in an environment where even when the harm cannot be obviously seen it should be mitigated and prepared for; improvements in basic safety precautions should include formulating improved preventive measures to reduce the number of new or recurring injuries.[12] Such cases as cuts, fractures were recorded in this study, but bandaged which could be used to temporarily create a splint prior to when a definitive care could be rendered were not present it the FABs accessed. Keeping a first-aid kit in every school or household is very important so that when a problem occurs, precious time is not lost in assembling material. The time between any injury and giving first-aid is the "golden window" period, so that maximum benefit of the first-aid is derived.[13]

CONCLUSION

Childhood injury is largely preventable yet continues to be a significant public health issue. The proprietors of schools should provide FABs and make frantic efforts to employ, delegate and regularly train personnel on the use of FABs in order to ensure that in case of an emergency health challenges, the health of the pupils will not be jeopardized before a more definitive care is sought.

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