



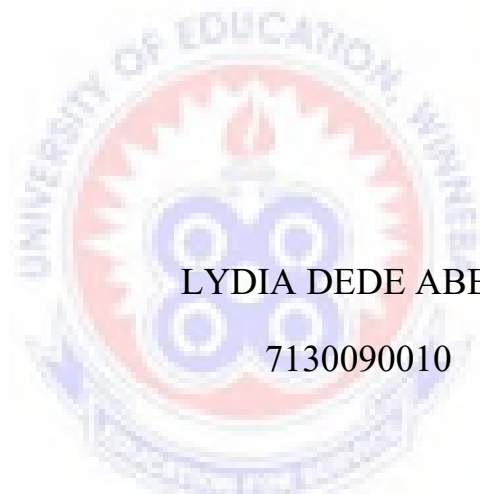
UNIVERSITY OF EDUCATION, WINNEBA

AN INVESTIGATION INTO HEALTH AND SAFETY

MANAGEMENT PRACTICES IN PHYSICAL EDUCATION

CLASSES IN SENIOR HIGH

SCHOOLS, GREATER ACCRA REGION OF GHANA



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FULFILMENT OF THE REQUIREMENT FOR AWARD OF MASTER
DEGREE IN PHYSICAL EDUCATION

DECEMBER, 2015

DECLARATION

STUDENT'S DECLARATION

I Lydia Dede Abbey hereby declare that except references to other peoples work which have been duly cited, this submission is my own work in accordance with the guidelines and supervision of research work laid down by the University of Education, Winneba, Master of Education in Physical Education and that it has never been in whole or part presented elsewhere.

SIGNATURE.....

DATE.....

SUPERVISOR' S DECLARATION

I hereby declare that the research work was supervised in accordance with the guidelines and supervision of research wok laid down by the Graduate school of the University of Education Winneba.

SUPERVISOR

NAME OF SUPERVISOR: DR. PHILIP O. OMOREGIE

SUPERVISOR SIGNATURE.....

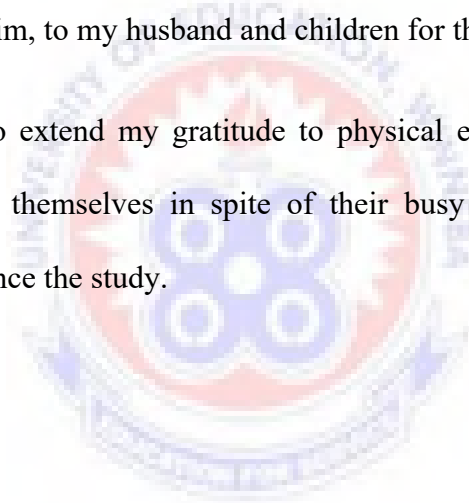
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I cannot fail to extend my gratitude to physical education teachers in Greater Accra, for offering themselves in spite of their busy schedules to provide much information to enhance the study.



DEDICATION

I dedicate this piece of work to the following dear ones. To my loving husband, Mr. Matthias Appalloh Kota, and my children Christine A. Xorlah Appalloh Kota, Xoreseko Appalloh Kota and Elinam Appalloh Kota. To my brothers and sisters,

relatives and friends who assisted in diverse ways to make this work and my studies in general a success.



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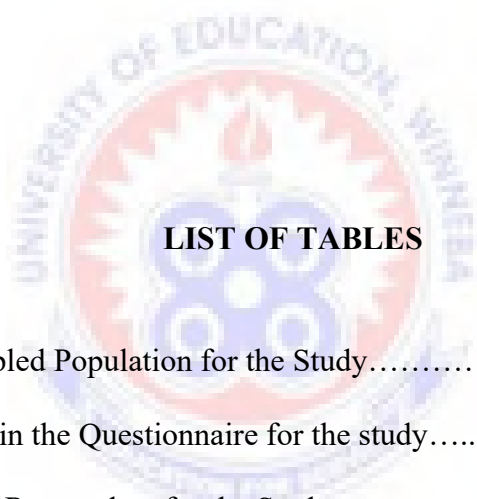
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ABSTRACT

This study investigated Health and Safety Management Practices in Physical Education classes in Senior High Schools in Greater Accra Region. A descriptive survey designed was used. The sampled was one hundred (100) respondents selected from the Senior High Schools in greater Accra using a purposive sampling technique. An adapted instrument of Health and Safety Management Practices Inventory (HSMPI) of forty-five (45) items, 5-points likert scale was used. A reliability coefficient value of 0.89 was obtained. Three research questions were answered and one hypothesis tested at 0.05 significant level. Data collected was analyzed using descriptive statistics of frequency counts, percentages, mean and inferential statistics of Pearson Product Moment Correlation.

The result showed that, emergency/medical care ($M = 33.94$, $SD = 4.34$) was given prominent attention in the health and safety management practices than any others, while participant form ($M = 6.74$, $SD = 2.38$). The result also showed that significant effect exist between emergency/medical care and staff support ($F_{(1, 99)} = 12.93$, $p < .05$). This revealed a significant linearity ($F_{(1, 99)} = 127.32$, $p < .05$) occurred. There was significant effect on management plan on management practices ($F_{(1, 99)} = 5.32$, $p < .05$) with no significant effect of linearity. There was significant positive correlation between Health and Safety policy and emergency/medical care ($r = .198$, $p < .05$); health and safety policy and participant form ($r = .253$, $p < .05$); management practices and participant form ($r = .226$, $p < .05$). It was recommended that safe environment should be provided and written risk management plan managed.

CHAPTER ONE

INTRODUCTION

Background to the Study

A well organized and properly administered physical education programme can have significantly positive effect on lives of its participants. Unfortunately, even well managed activities programmes can and do produce injuries. In today's litigious society, these injuries if serious frequently generate lawsuits. Lawsuits are not only a financial burden but also can be costly in terms of, energy and reputation. Therefore it is vital that, physical education personnel incorporate appropriate procedures and precautions to ensure the safest possible environment for their participants. The process of systematically identifying situations that may expose participants to unreasonable risk or harm and then, taken corrective to reduce or eliminate this exposure is referred to as risk management (Brown, 2001).

Different agencies under different jurisdictions monitor different workplace and employee safety. However, there is no national body, policy or process that governs occupational health and safety management practices in Ghana, (Yankson, 2012). Numerous injuries, illnesses and property damages take place at different institutions and schools but due to under reporting, people are not normally aware of such events as well as their actual or potential consequences when effective corrective actions are required (Yankson, 2012). With an unflinching national leadership, support and commitment, however, the situation as it stands suggests otherwise, in Ghana. If there

are concerns towards the industries and factories, the question is what about the educational sector?

Employers in Ghana are required by the Ghana Labor Act 2003, Act 651 to ensure their employees are not exposed to conditions that would lead them to work related injuries or illnesses (Yankson, 2012). Employees are also required to exhibit their duty of care in ensuring that their works as per the employers' standard operating procedures are incorporated into health and safety requirements at workplaces.

There are number of injuries occurring in physical education practical classes that have prompted a number of institutions to apply, create, evaluate or measure health and safety management practices (Hsiao, 2005). Since 'health and safety management practices is not a total cleared off formula for eliminating accidents and injuries, however it can reduce the number or severity of injuries and accidents in physical education lessons.

Students spend about 70% of their time in the school, thus, Ghana Education Service (GES) board of directors, administration (management), teachers and students must implement health and safety management practices in physical education classes to foster a safe and risk free environment to maximize the level of learning Physical activities and skills. Risk management is more than a safety checklist, (Van der Semissen, 2001). It is a strategy that support ten activity superior in developing plan to prevent legal disputes from occurring and intervening when a potentially litigious situation arises (Masteralexis, Barr & Hurry, 1998).

In physical education the quality of the environment has an impact on the level of physical activities and student's participation, thus health and safety management is a kind of motivation to performance to highest degree of physical, mental, social and emotional wellbeing of workers/teachers, students and visitors in all sectors. Health and

safety had always been part of physical education, thus, it was clearly that, before, during and after every physical education class, there should be health and safety measures in place to manage risk (Hsiao, 2005). Thus first aid box are always provided for before, during and after every physical education classes. Hence, this study investigates health and management practices in physical education classes in Senior High Schools in the Greater Accra Region, Ghana.

1.2. Statement of the Problem

Recently, injuries and accidents have raised significant concerns by several authorities in Ghana, especially during physical education lessons, as a result of which health and safety management practices have become neglected which is increasingly important to schools. Physical education teachers are expected to investigate, implement and adopt strategies of health and safety management practices to reduce or eliminate potential risks. Students especially tend to explore the limit of adventurous activities, thus, substantially increasing the fear of liability among them Hsiao (2005) observed that, it is not possible to have risks free physical activities.

Thus, students have temporarily and permanently been disabled by related accidents as a result of inadequate health and safety management practices put in place on the field, due to the wrongful handling of equipment, negligence to simple procedure in accomplishing task and management not providing the right safety standards or resources for physical education lessons (Yankson, 2012).

Physically challenging environments during physical education classes without proper precaution of health and safety management practices encounter many hazards and other issues that compromise their safety such as improper handling of equipment and conditions that cause injury. This has raised a significant concern about the integrity of physical education. Simply as a result of negligence and lack of knowledge of safety

management care the security of physical education participants has been endangered. It is on this premise that this study is being undertaken to investigate the health and safety management practices consciously carry out by teachers during classes to regulate and reduced the occurrence of injuries due to the negligent practices by physical education teachers.

1.3. Purpose of the Study

Wider views of health and safety is necessary for management of schools to formulate correct policies to meet international standards, compatible with national policies and at the same time, meet the schools objectives of providing quality health care and personal safety. It is in line with this that the research seeks to investigate health and safety management practices in the Senior High Schools in the greater Accra region. It is also to examine the physical education departments/units of the schools and outline various safety hazards staff are exposed to.

1.4. Objectives of the Study

The objective of this study is to;

1. Identify Health and Safety Management Practices in physical education classes in Senior High Schools.
2. Examine the effect of Health and Safety Management Practices on Learning in physical education classes in Senior High Schools.
3. Identify the Staffs Support to Students' Participation in physical education in terms of emergency in Senior High Schools.

1.5. Research Questions

The following research questions were answered;

1. What is the health and safety management practices in physical education classes in the senior High Schools in greater Accra region?

2. Do management practice influences the health and safety plan in Physical Education classes?
3. What is the staff supports to participation in physical education classes in terms emergency?

1.6. Hypothesis

This hypothesis was tested.

1. There is no significant correlation in the health and safety management practices in physical education classes in Senior High Schools.

1.7. Significance of the Study

The importance of this study can be seen in diverse ways. The study could provide bases for the formulation of effective health and safety policies in Senior High Schools. The piece of work will also provide the opportunity for physical education teachers to identify the challenges and their specific respective roles in health and safety issues. It will also provide bases for other institutions in Ghana to adopt the recommendations in the formation of effective health and safety management practices as well. The work will be used as reference material for Ghana Education Service policy makers in making decisions concerning health and safety management practices in physical education classes and appreciate the cost of equipping teachers (management) with the right protective clothing, equipment and facilities to ensure accident free environment for physical education classes.

Findings and recommendation offered should not only add to existing literature for academic purposes, but also provide useful insights and guidelines for enhancing the quality of health and safety in physical education class.

1.8. Delimitation of the Study

The study is delimited to physical education teachers in the Greater Accra Region in the senior high schools in Ghana. The descriptive survey method was adopted and an adopted sixty (60) item questionnaire was used to collect data with descriptive statistics of frequency counts and percentages used to analyzed.

1.9. Limitation of the Study

Physical education teachers were reluctant to answer questions that were critical in providing necessary responses, but efforts were made to educate them in order to fill the questionnaire adequately.

1.10. Definition of Operational Terms.

Risk Assessment in physical education: measuring the likelihood of any harm associated with a facility or activity of participants/students and teacher.

Accident: any unexpected event which can cause damage or harm, it happens without planning or intention.

Safety: it is the quality or condition of being free or protected from danger or harm.

Safe Practice: are the wider responsibilities of the teacher or instructor in charge of physical education to manage risks of student or participants and help them apply the principles of safety to themselves in the class.

Health: is a state of physical, mental, social and emotional well-being accompanied by freedom from illness or pain.

Management: is the skill or practice of controlling, directing and planning an activity, especially a school/institution, students, staff a group or a class.

Management Practices: management practices are the preventive measures that are put in place to maintain health and safety in a school, classes or during activities.

H.S.M.P.I. = Health, Safety, Management, Practices, Instrument

CHAPTER TWO

REVIEW OF LITERATURE

The focus of this study is on health and safety management practices in physical education classes in the senior high schools in greater Accra region. Thus the review of literature is based on related literature corresponding to the study. The related literatures reviewed are listed under the following sub-heading:

2.1 Concept of Health and Physical Education Practices

2.3 Concept of Safety and Physical Education Practices.

2.3. Health and Safety Practices in Physical Education Classes.

i. Health and Safety Policy.

ii. Health and Safety Management Practices.

iii. Equipment and Facility Inspection.

iv. Emergency/Medical Care.

v. Maintenance.

vi. Participants/Student education.

vii. Participants Form.

viii. Staff.

2.5 Organizing Health and Safety Programmes for Senior High School students.

2.5 Implementing Health and Safety Instructional Practices in Schools; First aid Measures

2.6 Health and Safety Rules.

2.8 Negligence by Physical Education Teachers and Students.

2.8 Importance of Health and Safety in the Senior High Schools.

- i. To the Student.
- ii. To the Teacher.
- iii. To the School Administration.
- iv. To the Community.
- v. To the Nation.

2.9 Factors Affecting Health and Safety.

- i. Time.
- ii. Community Attributes.
- iii. Space Available.
- iv. Features of the Field

2.10 Management Commitment to Health and Safety

2.11 Classroom Management in Physical Education

- i. Duty Care.
- ii. Risk Management.
- iii. The Theoretical Frame Work of the Study.

2.1 Concept of Health and Physical Education Practices

The World Health Organization (WHO, 1999) defines health as a “state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”. It is well acknowledged that health is a multidimensional concept and is shaped by biological, physical, psychological, social, economic, cultural and political factors. Access to basic needs like food, safe water supply, housing, and sanitation and health services influences the health status of a population and these are reflected through mortality, morbidity and nutritional indicators.

Health is aimed to provide the required theoretical and practical inputs in order to provide an integrated and holistic understanding and developing positive attitudes,

values, skills and behavior related to health and physical education at the primary, junior secondary Senior Secondary and tertiary levels, (Kellener, 2012) The objective of health include:

1. To help students know and accept individual and collective responsibility for healthy living at home, school and in the community.
2. To help students know their health status, identify health problems and be informed of taking appropriate remedial measures.
3. To create awareness among students about rules of safety in appropriate hazardous situations to avoid accidents and injuries.
4. To acquaint them with first-aid measures about common sickness and injuries.
5. To help students learn correct postural habits in standing, walking, running, sitting and other basic movements so as to avoid postural defects and physical deformities.
6. To help students improve their neuromuscular coordination through participation in a variety of physical activities in order, for physical fitness.
7. To help students strive for excellence in games and sports.

A first-aid kit should be available in the gymnasium. It should be verified regularly by the school nurse, and should be replenished on a regular basis for physical education class. In all physical education activities, student should wear shorts a T-shirt, running shoes and sweat socks. Cut-off jeans, nylons, or pantyhose are not permitted for safety to prevail.

2.2 Concept of Safety and Physical Education Practices

Rules of Safety is the state of being "safe", the condition of being protected against physical, social, spiritual, financial, political, emotional, occupational, psychological, educational or other types or consequences of failure, damage, error, accidents, harm or any other event which could be considered non desirable, Safety refers to protecting

the physical well-being of people (Robert & John, 2004). This can take the form of being protected from the event or from exposure to something that causes ill- health or economic losses. Cascio cited in (Yankson, 2012), safety hazards as those aspects of the work environment that have the potential of immediate and sometimes violent harm to an employee or individual; for example, loss of hearing, eye sight, or body parts, cuts, sprains, bruises, broken bones, and so on. In the case of physical education, it is the physical protection of students and teachers from accident, risk and injury from the use of equipment and facilities.

The working space must be made as safe as possible for, example, removal of projecting objects from football pitches picking off broken bottles, sticks, and items as well as clearing and demarcating the area. Teacher must know the specific safety measures to use for the activities to be taught in a game/sport, (Mallarkey 2012). Appropriate clothing or footwear must be worn by participants or students, with consideration to the season. Rutledge (1997), a wedding ring should be removed and fingernails cut short. All the principles related to safety, accident prevention and risk is significant. It has been established without question that effective leadership reduces accidents. Physical education classes should be organized to follow recognized physical education principles like: warm-up and conditioning exercises to all appropriate safety procedures new skills cooling down and so on. An event safety checklist must be completed prior to the start of any activity there must be an emergency plan to be followed, (Andrew, 2008).

2.4 Health and Safety Practices in Physical Education Classes.

Thus health and safety refer to preventing and protecting people from injury, accident and disease in any form due to hazards and risk that may harm, injure, cause unsafe environment to people or damage equipment or the facilities put in place at the

workplace especially in physical education classes. The International Labor Organization (1996) defines health and safety as a discipline with a broad scope involving many specialized fields. Promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all institutions, in this case, is the classroom and most especially in a Physical Education class. Protection of physical education teachers and their student in the class lies on handling equipment, using a well demarcated, cleared and injury free facility from risks resulting from factors adverse to health before, during and after the physical class, Mallarkey (2012).

Replacing and maintenance of equipment, environment, facility and protective wear and gears to manage health and safety practices before, during and after physical education classes must be adapted to protect the class (Sheelagh, 2015). Health and safety must be included in the environment. Health, safety and well-being in the school environment including culture, personal health and participation in the community will improve the health of students, their families and other members of the community. According to Gunderson cited in (Yankson, 2002) a number of researchers have been developing performance indicators to measure the impacts of a range of institutional practices on performance. Health and safety practices in Physical Education classes' focuses on some key variables of which the physical education teacher must give much attention to a successful health and safety lesson, (Sheelagh, 2015). These variables are discoursed bellow.

i. Health and Safety Policy

It is recognize that, the overall responsibility for health and safety lies with all levels of management having direct responsibility for activities and staff under their control. However, all staff has a legal and moral responsibility to take reasonable care

for the health and safety of themselves and for others who may be affected by their acts or omissions, (Rutledge, 1997).

The physical education Department Policy therefore is to highly recommend that all students, as part of their physical education Kit, should wear studded footwear (hockey or football boots with British Safety Standard studs), mouth guards and shin pads for their hockey lessons and football lessons. Parents/cares may purchase mouth guards and shin pads from a reputable retailer. In the day-to-day management of health and safety in physical education, the physical education teacher/Coordinator's role is to ensure: there is a clear school physical education safety policy. All staff must understand their roles and responsibilities for ensuring safety exist. Health and safety policy and procedures should be monitored and reviewed.

ii. Health and Safety Management in Physical Education Classes.

Management in physical education classes is the act of controlling, directing and planning an activity in a physical education class. The physical educationist must manage his class by including health and safety practices before, during and after every physical education class (Mallarkey, 2012). Before, during and after any physical activity in the school, be it inter house or inter schools, management as well as the physical educationist or physical education teacher must make sure the first aid box is intact. Effective safety management requires an institutional commitment to safe conditions. But more importantly, well designed safety programs can pay dividends for associated costs such as students' compensation and possible fines.

Management must also make sure an emergency plan, participant forms, the staff as well as an inspection team, maintenance of equipment and facility is there for students to be secured in case of injury accident or illness during and after the activities, (Baalpe cited in Rutledge, 1997). First aiders must always be available before during

and after physical education classes. The equipment to be used for physical educational activities must be inspected and make sure they are intact and in good position to be used, (Rutledge, 1997). When any piece of equipment or apparatus is used, a check must be made to ensure that it is in good order, secure, and well-spaced with regard to adjacent items (Mallarkey, 2012). Equipment must be dismantled in accordance with manufacturer's instructions and recognized safe practice procedures after being checked and used by a member of staff familiar with its correct function (Yankson, 2012). Apparatus must be adjusted to suit the physical capabilities of each age range. It must be inspected regularly for wear and tear signs; a qualified competent PE person should carry out inspections before physical education activities. (Hsiao, 2005). Broken apparatus must be put out of use and clearly marked so as to prevent further use until it has been repaired to prevent injury.

iii. Equipment and Facilities Inspection

An activity area should be free from rubbish and obstacles to provide safe footing. Appropriate measures to protect students from injury by dangerous and immovable objects such as goal posts, should be in place. Measures may include covering the object with protective padding or relocating the activity. All equipment should be checked prior to its use to ensure it is safe and free from defects and repaired as necessary (Alberta, 2008). All equipment used must be of a size that is appropriate to the size and strength of the student(s). All students should be required to use protective equipment to prevent injuries in physical activities. Protective equipment should be approved where applicable and appropriate for the physical activities in question. Students should be permitted to bring their own equipment, if possible. It should be ensure that the equipment is in proper working order and suitable for students use. All equipment should be used only in the manner it was intended and teachers should be aware of the

equipment's purpose, its proper operation, and any manufacturer warnings with respect to improper use. When using any equipment that is not described, care must be taken to ensure it is safe for use. (Mallarkey, 2012).

Students must be inspected of their neatness and medical reports for their participatory authenticity; this will determine if the student is fit he/she should be allowed to participate in physical education activities or lessons (Hsiao, 2005). The facility, thus the playing field, courts or studier to be used should all be inspected to make sure all broken bottles, sticks, stones, rubbers and all foreign materials that may cause injury or accidents during physical education lessons must be cleared or picked off for the health and safety of students, teachers and officials. In the cause of the activities, all equipment should be inspected and recommend for use. Students' finger nails should be inspected as well as their rings, ear rings or chain for a healthy and safe participation, for better skill acquisition in a physical education classes (Rutledge, 1997).

iv. Emergency/ Medical Care

Medical preparedness is an issue in the management of health and safety risks management practices. A number of cases were found that the impact of major sporting events is a workload on the emergency services. The majority of cases that were reported were an increase in emergency incidents during major sporting events (Cooke, 2007). It is suggested that between 0.3% and 1.3% of event attendees will require some form of medical care, irrespective of the type or size of the event and the physical layout of the venue. Communication device for emergency purposes should be accessible at base. Supervisors/ physical education teachers should have a list of parent contact/emergency positioning systems. Therefore the management of senior high schools must prepare an emergency medical care for every student. If possible every

school should have a school nurse/ doctor to take care of emergencies aside the first aiders, to boost students' confidence in participating in physical education lessons. (Jamie & James, 2014).

v. Maintenance

The equipment and facilities are routinely checked to identify any signs of wear and tear that may cause injury. All facilities are maintained and keep to its standards at all times. They should be cleared, fenced, protected from erosion and keep neat. Any defective items are immediately taken out of use until repaired or replaced. (Rutledge, 1997). All items purchased comply with the Standards of the nature of its usage and age of students. All items donated or borrowed others must undergo sufficient tests before being used. All equipment must be secured and safely. Areas of storage must be kept tidy and safe access for staff and students.

Equipment deemed to be in a defective state and/or unserviceable “condemned” should be identified by the specialist and confirmed by the inspection team, is taken immediately out of use and correctly disposed of as soon as possible to prevent inappropriate usage. This equipment is labeled with a red label and all staff is informed of this. This is recorded and not appearing on the next audit. (Mallarkey, 2012).

vi. Participants/Students Education on Health and Safety in Physical Education Classes

In every school setting is a formal education, thus the student is thought how to read and write, and hence students must be thought how to handle and move with physical educational equipment by the physical education teacher. Student attendance should be taken before and after each activity/session, (Hsiao, 2005). Teacher should be aware of students with a history of medical and severe allergies, students should never be allowed to use any equipment or facility without instruction by the physical

education teacher or physical education personnel, (Alberta, 2008). Physical education teachers should educate students on effective measures to remove stagnant water in order to prevent the breeding of mosquitoes and insects and stop the spread of diseases by mosquitoes. Students should be taught on how to pay attention to the vicinity of venues where physical education lessons or co-curricular physical activities are held on good environments without hygiene problems, and make room for reports to the relevant parties immediately. Physical education teachers should supervise students to antisepticise the sports equipment venues and changing rooms at regular intervals, for physical education lessons. Co-curricular physical activity avenues must be constantly kept clean and well ventilated. Students should be reminded to bring their own drinking water or use their own containers to collect water from the water dispenser. Students must learn to leave a hygienic life Baalpe cited in (Rutledge, 1997). Personal hygiene must be their basic way of life. Sanitizers must be used immediately after shaking or hugging and should stop sharing under wear and handkerchiefs to enhance health and safety management practices.

vii. **Participant or Student's Agreement Forms for Physical Education Classes.**

Management should ensure students fill participant forms and attached their health insurance cards with their medical history. Parents cannot withdraw their children from prescribed curriculum subjects without formal agreement. They can, however choose whether their child can take part in optional activities outside normal lesson times. Consent forms do not indemnify the teacher should a young person be injured and thus no offer of indemnity by a parent should be accepted. A young person, if injured, can make a claim for compensation retrospectively in their own right within three years of

becoming an adult, thus making the arrangement between teacher and parent meaningless in law Baalpe cited in (Rutledge, 1997).

At the beginning of each academic year, schools should encourage parents to report to the school about the medical history of their wards especially when such history might affect their participation in physical education lessons or other physical activities. Schools management must also ensure that such information are kept for school use only and not to be disclosed to any other parties without prior consent of the parents and student concerned. Physical education teachers and persons in charge of physical activities should refer to the information of students with health problems submitted by parents with recommendations by doctors submitted by parents or guardians concerned. See appendix for sample (Allen et al, 2015).

viii. Staff

The first priority of every physical education teacher is to ensure students' safety. In Physical Education lessons, the physical education teacher must be very crucial in all activities, as they influence not only students' learning but also their safety in the lessons. There must be establishing rules and routines that shape students' behavior which enhance both learning and safety in physical education lessons, it is the most important factor in planning all physical education lessons. The safety of pupils and hence of the environment and equipment must be of paramount importance. All activities taught in physical education have their own safety regulations of which, pupils must be made aware of by the staff (Rutledge, 1997). Healthy conditions as well as taking preventive measures against accidents and injuries is the role of responsible staffs to decide whether a hazard is significant and if so, to determine and implement the necessary precautions to eliminate or minimize the risk in question. Building a healthy nation has been the aim, but students also acquire skills as well as carrier

opportunities from physical education, when Health and safety is enforced. Casio (1996) it is easy to bypass the safe way to work but not to an accident. All teachers should support and take reasonable care of their own students and others health and safety.

Secondary schools must have successfully completed and appropriate level of training, recognized physical education teachers, by the acknowledged national standards of the National Sports Association Governing bodies for the curriculum subjects that are taught. Some qualifications, especially those associated with swimming and some outdoor pursuits will require periodic revalidation. Head teachers must ensure staffs are appropriately and adequately qualified to teach each specific skill, for Health and safety management in schools (Andrew, 2008). To established and acknowledge reliable teaching practice, It is necessary for all staff involved in the teaching of physical education to have at least the minimum recognized qualifications, as a self-regulatory model to standardization as a physical education teacher, (Betul, 2011). There has been a move towards registration of health/fitness professionals that was first established in January 2002 in the United Kingdom under the Register of Exercise Professionals (REPs) scheme (Lloyd, 2005; REPs, 2010b) cited in Betul, (2011). Before being allowed to teach any physical activities, the staff of senior high schools should be empowered by administration to practice health and safety management in their classes during, before, during and after physical education classes e.g. on, first aid. More attention should be paid to students who are comparatively weak and those with special needs by all teachers. Adaptation should be made whenever necessary according to the students learning needs. Students should be prevented from participating in activities that are beyond their physical and mental capabilities by

teachers, especially those with cardiovascular or respiratory problems and should be reminded to report without delay, (Rutledge, 1997).

2.4. Organizing Health and Safety Programs for Senior High Schools Students

Physical Education Classes

Pirani and Reynolds (1976) cited in Sikpa, (2011), indicate that accidents results from a lot causes of unsafe condition on the physical environment. Unsafe conditions include defective equipment, inadequate and lack of protective guides. Accidents often result from an interaction of unsafe acts. Management in collaboration with the Physical education department must organized Health and safety management programs for Senior High Schools, by inviting health personal to give presentations on health, safety and personal hygiene. In the United States, 53 million young people attend nearly 129,000 schools for about 6 hours of classroom time each day up to 13 of the most formative years of their lives, supporting school health programs to improve the health status of our nation's young people, (Lloyd, 2008), cited in Yankson, (2012).

Every day, nearly 5,000 young people try their first cigarette. In 2001, only 32% of high school students participated in daily physical education classes, compared with 42% of students in 1991. Seventy-nine percent of young people do not eat the recommended five servings of fruits and vegetables each day. Each year, more than 900,000 adolescents become pregnant, and about 3 million become infected with a sexually transmitted disease, (Lloyd, 2005). Since every student offers physical education, this programs would help student in terms of hygiene and healthy eating and nutrition, it is important to provide students with opportunities to learn about where their food comes from, how it is produced, why they choose it, the benefits of healthy eating, what food is nutritionally sound and how they can prepare it and when to eat before physical education classes. Organization of health and safety programs would

abreast students with health and safety management practices before, during and after physical education classes.

i. First Aid

According to Peter, (2012), staff must be kept informed of who the qualified first aiders are and where they are to be located in the event of being needed. Numbers will be determined by a local risk assessment. Support staff and Physical Education teachers must attend annual training on first aid. Residential also receive first aid training. All staff responsible for groups of students must be aware and be able to apply the schools procedures for dealing with accidents/incidents and emergencies. The role of the “appointed person” is to manage first aid, ensuring first aid boxes are checked and replenished, maintaining records, communicating with parents and overseeing any first aid situation. All staff should know who this person is within the school. In addition to this, all staff must be able to manage the initial injury situation and know how to summon first aid assistance, training in these techniques should be done quarterly or annually. Disposable plastic gloves should be readily available for use when handling wound in order to avoid direct contact with blood. Guidelines on the Prevention of blood-borne diseases in Schools should always be practice for health and safety management practices in the senior high schools to prevail, Baalpe cited in (Susan, 1997).

2.5. Implementing Health and Safe Practices in Physical Education Classes in Schools

Well-planned physical activity programs reduce the frequency and severity of injuries. By implementing safe instructional practices, such as sequential teaching progressions, as well as the inclusion of developmentally appropriate activities in program preparations, planning and daily teaching, the teacher guards against risks. A guideline alone does not eliminate risk regardless of how well it is written or how effectively it is implemented. Safety awareness, based on up-to-date information, common sense observation, the teacher's ability to maintain a safe learning environment, action and foresight are keys to safety, (Alberta, 2008). Implement health communications strategies to inform decision makers and the public about the role of school health programs in promoting health and academic success among young people, (Lloyd, 2008). The schools should employ ergonomics to study and design the work environment to address physiological and physical demands on individuals. In a work setting, ergonomic studies look at such factors as fatigue, lighting, tools, equipment layout and placement of control (Robert & John, 2004) cited in Sikpa, (2011).

2.6. Health and Safety Rules for Physical Education Classes

Accidents can happen and as a teacher you need to be aware of the health and safety at Work Regulations 1992 cited in (Susan, 1997), and the need to fill in Risk Assessment forms. Work with a set of general rules in all your lessons. The following are some things you need to think about in terms of safe practice in physical education: the teacher must know of any infirmity, physical disability, injury or allergy of any student which could affect his performance in the session, as well as being aware of accident-prone students and environment. The teacher must plan lessons appropriate to

the age, sex and experience of the pupils and be aware of limitations brought about by fatigue, fear or recklessness, (Rutledge, 1997). Alberta, (2008) reviewed that, the working space must be made as safe as possible; the teacher must know the safety regulations which are specific to activities being taught. Most practical activities require a warm up prior to the session. The physical education teacher must put laid down rules and routines prior to, within and after every physical education class. These rules should make students responsible and safety conscious to check equipment and facilities before lessons, (Mallarkey 2012) and (Rutledge, 1997).

2.7.Negligence of the Physical Education Teacher and Students in Class

Negligence can be defined as the omission to do something that a reasonable man would do, as a teacher; it is unlikely that you would be considered to be negligent when you provide first aid care to a casualty without following accepted first aid guidelines (Betull, 2011). The teacher must set down rules and routines, supervised vigilantly, teach the appropriate skill with maximum content knowledge, with good equipment on good grounds for health and safety. The teacher as well as the students must pay attention to the class in order not to be negligent to sustain injuries (Hsiao, 2005).

2.8. Importance of Health and Safety in the Senior High Schools

Children and adolescents must be healthy in order to learn, and must learn in order to be healthy. The knowledge, attitudes, and skills developed as a result of effective comprehensive school health and safety education programs. It enables individuals to make informed choices that affect personal, family, and community health for a lifetime. Different physical activities have different safety requirements, but they share many common requisites, (Andrew, 2008). It is advisable for schools to have thorough and comprehensive considerations, taking into account of students' health and safety' ability, the planning stage as measures of risk management. At the same time, it is

necessary to develop possible solutions, and prepare a contingency plan to enhance participants' safety awareness, Baalpe cited in (Rutledge, 1997). Schools should note that, this safety awareness has a great impact on the individual or students, teacher, school, the community, Ghana Education Service and the nation as a whole.

i. To the Student

Health and safety management practices help students to abreast with personal hygiene and also play safety where necessary, most especially in physical Education classes (Dumfries & Galloway, 2015).

ii. To the Teacher

Health and safety also help physical education teachers and physical educationist to always have good times with their students for better acquisition of knowledge with confidence and safe practice time, (Dumfries & Galloway, 2015). This is important because the physical education teacher gets relevant medical information of his/her students from their participation forms signed by parents. Based on the Physical Education teacher's experience, he/she knows the formal procedures in place? Store the information in their professional portfolio for reference, and write up an accident report to management, Rutledge cited in (Baalpe, 1995)

iii. To the School Administration

The implementation of health and safety management practices in schools would enhance the administration to promote support and ensure safe delivery of physical education in their schools; this will include ensuring that appropriate staffs, including physical education specialists, take account of the advice contained in the authority's physical education policy as well as that contained within national guidance and other authority policies. The administration will ensure that the resources needed to enable students participate in physical education programs, are in place. Health and safety

enforcement by the administration would facilitate partnership between active schools, sport development and physically more active students and staff to save hospital bills and casualties funds by the administration, (Sheelagh, 2015). Safe facility and equipment for physical education boost students' confidence take part and also releases the administration from parental attacks due to injury of their wards in physical activities so that together, a health nation is built through physical education.

iv. To the Community

A good sanitation of the school would also influence the life of the society/community around. For example a health and safety club, keep fit club and so on, would influence the community around to practice the same when the clubs hold programs in and around the school, for example programmes like clean ups. To help the community/society, to live healthy, prevent diseases, injuries accidents and live long in the community due health and safety management practices in the Senior High Schools. It would also reduce cost of hospital due to physical activity, expenditure but build a healthier nation (Baalpe cited in (Rutledge, 1997), the students would also transfer the knowledge they had in health and safety to their various homes.

2.8.5. To the Nation

School health programs can play a critical role in promoting healthy behaviors while enhancing academic performance. School health guidelines emphasize multiple strategies to prevent tobacco use, promote physical activity and healthy eating habit to reduce the rate of obesity among young people (Sikpa, 2011). The guidelines also identify priorities for state decision makers to consider recommendations, address policy development, curriculum development and selection, instructional strategies, environmental changes, direct interventions, professional development and community involvement, and linkages among coordinated school health program, (Lloyd, 2005).

2.9. The Effects of Health and Safety Management in the Senior High Schools Physical Education Classes.

A growing research literature supports the proposition that people who live in activity friendly environments are more likely to be more physically active during their leisure time. Owen et al. (2004), summarizes important findings that, the safety of recreational spaces is an important factor in physical education activities. Others also affecting health and safety management practices in the senior high schools is funds, availability of time and the community attributes as well as the features of the field or playground.

i. Funds

Although responsibility for health and safety cannot be out sourced or delegated, schools do not have to operate on their own. External support, delivered by expert advisors can help to overcome concerns and import good practice, (Mallarkey, 2012). Schools in greater Accra complain of funds to purchase proper equipment, maintained facilities, buy protective wears and fund health and safety programmes in the Senior High Schools for save physical activities.

ii. Time

Time use by studies shows that, Americans have an average of 35 to 40 hours of free time per week. Nielsen (2010) cited in (Sikpa, 2011), exercise and sports, account for only about 8.5 hours per month. In Ghana, it is about 44 hours of free time, yet people as well as students do not have time for their health and safety. Ghanaians have little time for physical activities as well as Physical Education classes in the schools. Meanwhile, the subject is to educate and produce physically fit and strong individuals for the nation in future.

Some schools academic board and management wish to eliminate physical education completely from the time table. Time allocated to physical education is very small as compared to other subjects not to talk of providing health and safety precautions for physical education classes (Alberta, 2008).

iii. Community Attributes

These issues are linked by the idea of the school extending its function within the local community. That this is considered desirable shown by a number of studies, which use observation of such community involvement as indicators of an improved school. (Brace, 2004) noted, parental involvement and extra-curricular activities is an evidence of the improvement in schools he studied. Good environment for physical activities in schools which communities sponsor health and safety programs, builds an actively strong and healthy community and nation, (Toby, 2005). Teachers often know that there was a need to improve relationships with parents, while others argue for the importance of involving parents and the wider community in school design activities.

iv. Space Available

The number and area of parks and playgrounds in a community are positively related to physical activity level. There are no available spaces for the construction of playing fields gymnasium for physical education classes in the schools and the communities as well. Although the number and area of parks in a community can have a positive influence on physical activity, large parks are no more likely to be found. All fields in the schools are being used for buildings administration blocks and classrooms and also houses in the communities. For example, a study of four neighborhoods in Ontario found no relationship between the size of parks and their use for physical activity (Kaczynski et al. 2008) cited in (Sikpa 2011). The lack of parks in many communities is caused by the shrinkage of schoolyards as install portable classrooms

and as land becomes increasingly scarce and expensive. Schools' physical education programs are being cut, and many children lack access to safe recreation facilities.

v. The Features of the Field

Certain features of parks promote physical activity. A literature review by Toby, (2005), observed that visitors' activities and energy expenditures in 28 parks in Chicago parks with soccer fields, tennis, basketball courts, volleyball courts, racquetball courts, and playgrounds were associated with moderate to vigorous levels of physical activity.

In Ghana, the stadia's are an eye saw not to talk about the fields of play in the senior high schools. Most playing fields are homes to reptiles and animals. They are only cleared when it is time for sporting activities. The playing fields are bushy, rough hilly and are not standard. Schools could not provide gyms, standard, leveled, well demarcated, stamp free, field and equipment for physical education classes. Most schools in the Greater Accra region have no proper field for physical education lessons, they use under trees which is a restriction to the teacher and the activities to teach. The playground should be wide and well demarcated and clear from all obstacles for safety before, during and after physical education lessons for the benefit all participants, visitors and the people around (Mallarkey, 2012).

2.10. Management Commitment to Health and Safety

Management is responsible for health and safety issues within the school/institutions because they control the assignment of resources, establish and enforce the policies to the subordinates'. From my point of view, health and safety is the responsibility of management, though an important role is played by the student and

teachers as a team in order to achieve the overall objectives of Ghana Education Service.

Management commitment remains a component of contemporary safety climate research. According to Less (2002), this commitment can manifest itself through. Management participation in safety committees, consideration of safety in job design, review of pace of work, accident investigation and follow-up actions, priority assigned for safety programs etc. The motivation of teaching in a healthy and safety environment is a function of both the individual's own commitment for safety as well as how management's expressed concern for safety.

2.11. Classroom Management in Physical Education Lessons

Regardless of where you work, or what industry you work in, you will generally find a well-documented health and safety procedure established to not only meet legislation requirements but actually do something to protect teachers and their students from injury. Unlike Classroom based classes where the hazards are relatively small in number, those teachers who specialize in physical education have an ever present safety risk, before, during and after the actual class, (Kellener, 2012).

Teacher Knowledge of management is so critical to teacher success and satisfaction, as well as to student learning. How do teachers learn to implement these recommended practices and effectively manage such a complex environment? Andrew (2008), and kulinna et al (2013) found that teachers rarely credited their university programs with employing evidenced-based on strategies like decreases student opportunity to off -task and increases student opportunity for on-task behaviors and learning time. The next section on teacher knowledge provides some insights into the mechanisms for learning effective management principles. Kulinna and colleagues (2013) reported that modifying physical education practices to fit the classroom can

help teachers. Five management principles for the classroom are (1) the start and stop signals are different (e.g., verbal command or bell, (2) when, where, before in what directions (3) put students into groups (4) give instructions and (5) get equipment ready. Such strategies like decreases student opportunity to be off -task and increases student opportunity for on-task behaviors and learning time. (ALT-PE) instrument (Siedentop, Tousignant, & Parker, 1982).

The next section on teacher knowledge provides some insights into the mechanisms for effective management principles. One of the goals of class management is to maximize student opportunity to learn; thus understanding how teachers use their time to create those student opportunities can provide insights into both learning and management practices. Examining teacher' behaviors can illustrate their organizational and managerial ability. Much of which is about teacher use of time from observations on using the Academic Learning Time–Physical Education

Also, a typical physical education class starts with setting up equipment; it represents an ever present risk to the safety of y students. The storage of physical education equipment should not be taken for granted. There are a few steps to take to ensure that no injuries occur at this stage: Ensure Walkways are clear, with eyes usually on the equipment at work, it can be easy to ignore ground hazards. But one false step could make a student slip and injure him/her and others. There's no need to send the whole class to fetch equipment. The more students are in the crowded, the more confusion that can occur. Students can easily get distracted in a group. The same applies to the end of the class when equipment is being returned to where they were taken. Faulty equipment can also be susceptible to problems at any time due to overuse or being misused in previous lessons. Equipment should be regularly checked for faults so that they can be identified before an incident occurs. Make sure of the required

protocol for contacting emergency services and administering First Aid. (Kellener, 2012).

Additionally, if the particular sport you are instructing that day requires any specific safety gear, ensure they are used and dress as required. It's easy to injure cold muscles. That is why warm up before physical education classes are required. Your class shouldn't be any different. Start off with a few stretches and some light physical activity before the main lesson. Be sure to allow time at the end of the lesson to properly 'cool down' and stretch again. The big bonus here is that teaches the proper technique, and ensures the class doesn't suffer any injuries. Most injuries during physical education are caused by improper technique. Stick to the basics and the fundamentals of the game for maximum safety. Be alert and supervise the students and activities. It is important to be actively vigilant with the class. If students are struggling with poor technique, address it and demonstrate the correct one. Stop the use of equipment that may be defective and examine it after the class. Look for injuries. Some students want to keep playing despite developing an injury, where others may be too embarrassed to say something. Minor injuries can worsen if not treated.

Health and safety can come in other forms than just those listed. Nothing is more important than the health and safety of your students and it is your responsibility as teachers to ensure that they remain healthy and stay safe. Most can be avoided with simple common-sense, but it never hurts to review the health and safety scorecard of your physical education classes.

i. Duty of Care

As a physical education teacher, you do automatically have a legal obligation to provide first aid care to person in the class; have a “duty of care” for students. People who may have an existing “duty of care are teachers and family members. Start to provide first aid care for casualties then established a voluntary “duty of care” and do all that is safe to care for the casualty until emergency or medical assistance arrives.

ii. Risk Management

Risk may occur as the consequences of negligence or non-compliance with the rules, regulations and standards of health and safety management practices in the physical education classes in the educational system, (Betul, 2011). Risk that is not managed can course injuries and accident during exercise or physical activities in physical education lessons. Even though all human actions involve a certain amount and degree of risk and it would be impossible to eliminate all risks, they can be minimized by the way people perceive and reacting in an attempt to recover (Mallarkey, 2015). Today, risk management is no longer a safety procedure conducted by common sense or experience, but an organized plan based on health and safety as a fundamental legal concept, through which institutions or schools attempts to control and encounter the risks it faces before during and after physical education classes. It is possible to find a variety of definitions for risk management in the literature. The Risk Management Standard (2004) defines risk management as the culture, processes and structures that are directed towards the effective management of potential opportunities to improve performance and taking into consideration the health and safety procedures to protect students, teachers and anybody involved (Hsiao, 2012).

Health and safety management practices define the philosophy of an institution and requirements that ensure all are aligned without respect with people and its objectives

of safety precautions. The systems and processes are only as good as the leadership and commitment individuals demonstrate every day on the work, (Jamie & James, 2014).

In conclusion, investigating health and safety management practices in physical education classes in the greater Accra region could be enforced and practice by management, students, the community and the nation as a whole.

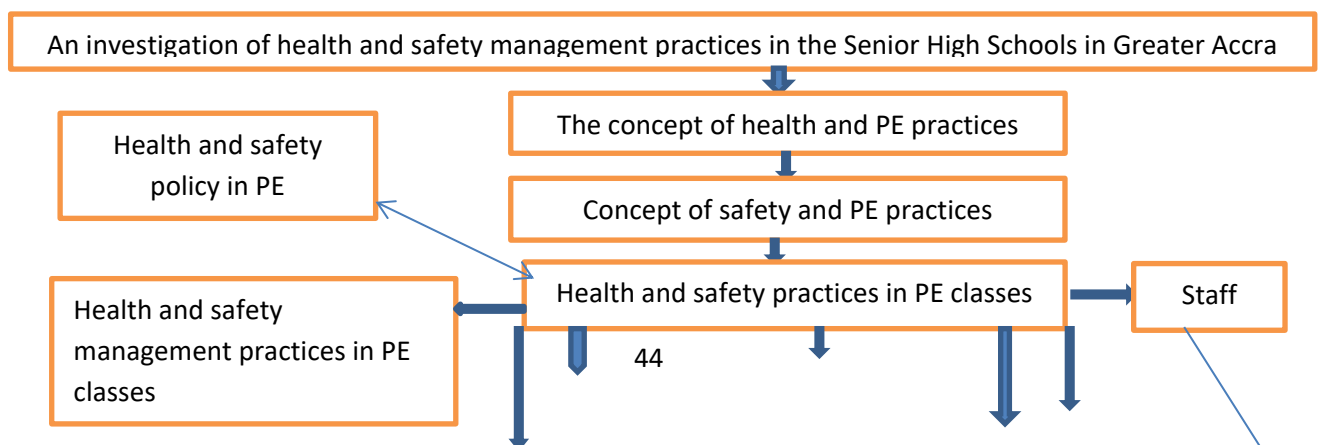
Summary of the Related Literature Reviewed

The theories and literatures reviewed by others, the researcher discoursed the various sub-topics above. Below is the theoretical framework indicating the arrangement of the discursions step by step on health and safety management practices in the Senior High Schools in the greater Accra region. It was reviewed as follows; concept of health and physical education practices, concept of safety and physical education practices, health and safety practices in physical education classes, under this are the following sub topics; health and safety policy, health and safety management practices, equipment and facility inspection, emergency medical care, maintenance, participants/students education, participants form and staff. The third topic was organizing health and safety programmes for senior high school students, followed by implanting health and safety instructional practices in schools with a sub topic, first aid. Followed by health and safety rules, negligence by physical education teachers and students, importance of health and safety in the senior high schools with following sub topics; to the student, to the teacher, to the school administration, to the community and to the nation. Factors affecting health and safety are also treated as a topic with the following sub topics; time, community attributes, space available and features of the playing ground/field. Then, management commitment to health and safety and classroom management in in physical education with duty care and risk management

as its sub topics. Thus the arrangement of the theoretical framework of the literature reviewed, Refer on the next page.



THE CONCEPTUAL FRAMEWORK



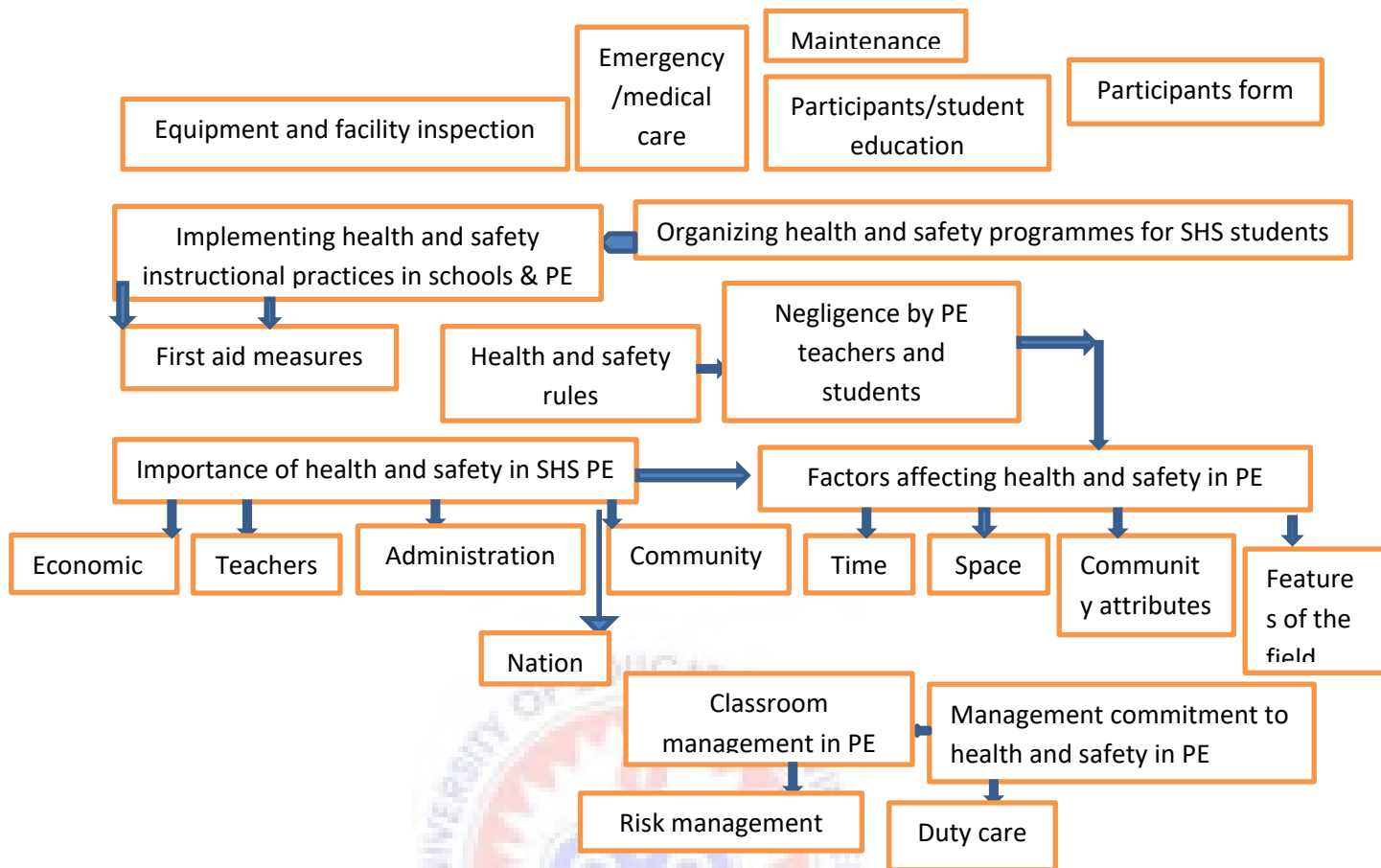


Fig. 1: Conceptual Framework of the research study

CHAPTER THREE

METHODOLOGY

This chapter describes the methods and procedures used to collect and analyze data in order to investigating the health and safety management practices in PE classes in the senior high schools in the greater Accra region. This chapter includes:

1. Research Design.

2. Population.
3. Sample and Sampling Technique.
4. Instrument.
5. Pilot Study.
6. Validity and Reliability of the Instrument.
7. Procedure for Data Collection.
8. Data Analysis Procedure.

2.8.The Research Design

The study employed descriptive survey design approach. According to Sarantakos (2004), surveys are methods of data collection in which information is gathered through oral or written interviews and could be structured, more formal or a combination of the approach. Descriptive surveys focus on eliciting information about the nature and status of specific phenomena at a given time. It involves collecting data in order to test hypotheses about the current state of affairs of the subject under study (Gay, 1992). According to Newman (2003), cited in (Yankson, 2012).

Survey systematically asks subjects the same questions about a situation and measure several variables for purposes of gaining insights about previous behaviors', experiences or characteristics. A survey has the additional advantage of being relatively less expensive in terms of funds requirements, time and number as well as the kinds of participants required for successful analysis (Yankson, 2012). The descriptive survey is also very useful for generalizing from a sample to a population so that inference can be made about the characteristics, attributes or behaviour of the population. The descriptive survey design was in the researchers view, the most appropriate and helpful in determining the perception and attitude of respondents on the variables studied.

3.2 Population

The populations for this study are all physical education teachers in the senior high schools in the greater Accra region.

3.3 Sample and Sampling Technique

The total sample for the study is one hundred (100) physical education teachers in Senior High Schools in the greater Accra region. The study used a non-probability of purposive sampling technique to select the sample, this is based on prior information that, they would provide the data needed.

The homogeneous sample sharing the same characteristics, Lisa (2008) cited in (Yankson, 2012) stated that, there are some objectives and interest that characterizes asking about issues from most people in the population what they think about it. The region is divided into four (4) zones with a population of 26 teachers and four (4) head teachers in zone one (1). Twenty four (24) teachers and four (4) head teachers in zone two (2), twenty five (25) teachers and three (3) head teachers in zone three (3) and twenty five teachers and five (5) head teachers in zone four (4). See table 3.1 below; showing the distribution of sampled of respondents.

Table: 3.1: Showing the Sampled Population for the Study

Zone	Population of PE teachers (T)	100%
1	26	26
2	24	24
3	25	25
4	25	25
Total	100	100

3.4. Instrument

The main instrument used for the study was a sixty (60) items adapted from (Hsiao 2012). According to Fraenkel and Warren (2002) cited in Yankson (2012), getting a sufficient number of questionnaire completed and returned for meaningful analysis is one of the techniques in using descriptive survey design.

Questionnaire serve as the method of gathering data which is descriptive of current events, conditions or attributes of a population at a particular point in time. This took the form of a list of questions given to respondents to answer with the rationale of getting data on the topic under study.

The questions in the questionnaire took the forms of; close ended questions. The close ended questions offered a set of alternative answers from which the respondents were asked to choose the one that most closely represents their views. It is to be emphasized that questionnaire allowed respondents time to think through the questions to provide the relevant answers.

The questionnaire was based on eight (8) sub-scales, apart from the demographic and general information sections the rest were on health and safety management practices. These are as follows in table 3.2., below. A total of 45 items including demographic and general information were used for the study. Because these variables play key roles in PE classes, so, they should be given maximum attention before, during and after PE lessons.

Table 3.2: Showing Variables in the Questionnaire used for the Study.

VARIABLES	NUMBER OF ITERMS
Health and safety policy	6
Health and safety management practices	7
Facility and equipment inspection	6
Maintenance	5
Emergency/ medical care	8
Participants form	2
Participants/students education	6
Staff.	5

Total	45
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3.5. Pilot Testing of the Instrument

A pilot study, project or experiment is a small scale preliminary study conducted in order to evaluate feasibility, time, cost, adverse events, and affect size (statistical variability) in an attempt to predict an appropriate sample size and improve upon the study design prior to performance of a full-scale. The researcher conducted a pretesting of the draft questionnaire with few potential respondents in an informal manner before following up with the full scale questionnaire administration. To check for accuracy, completeness of data and ensure quality, questionnaire and interview guide were numbered serially. Research assistants who retrieved completed questionnaire checked thoroughly to ensure that respondents answered questionnaire.

3.6. Validity of the instrument

The first version of the Health, Safety, Management, Practices, and Instrument consisted of 100 items. First, face validity of the questionnaire was conducted with a pilot study. Face validity refers to whether the test looks valid to the technically untrained observers (Anastasi, 1988, p.144). On one hand, Courtney (1978, p. 51) suggests that for most purposes 30 to 100 interviews is adequate for a pilot study. Sudman (1983, p. 181), on the other hand, suggests that “a pilot test of 20-50 case is usually sufficient to discover the major flows in a questionnaire before they demand the main study”. According to Sheatsley (1983, p. 226) “it takes no more than 12-25 cases to reveal the major difficulties and weaknesses in a test questionnaire”. In this light, HSMPI was pilot tested and by 30 randomly selected individuals who were randomly assigned to use both pencil and paper.

The feedback received from the pilot groups was used to ensure the questions were comprehensible, and the respondents could understand the routings instructions

(Brace, 2004, pp.164-165). The feedback received from the pilot groups were also used in order to ensure the validity of the instruments, the structured sets of questionnaire were referred to the supervisor, an experts in the fields of PE, health education and psychology for vetting so as to ensure its appropriateness, relevance and clarity. This helped in the content validation process of the instrument.

3.7. Reliability of Instrument:

Internal consistency was used in order to ascertain reliability of 30 of the HSMPI dimensions including demographic information and general opinions about health and safety management practices in physical education. Internal consistency measures to what extent the items that attempt to measure a single conceptual domain provide consistent or similar responses (Brace, 2008). For this purpose Pearson Correlation was used as a measure of significance based on correlation between items measuring a single conceptual domain by Pearson Correlation. After the revision and validation of the research instruments, test retest measure of reliability was applied to the sets of questionnaire (The physical education teachers) and reliability coefficient of 0.89 was obtained. These were considered high enough to ensure reliability of the instruments.

3.8. Procedure for Data Collection

Data collection in a research is the stage where the necessary data useful according to the purposes and objectives of the research are gathered from the field. This is done by administering the Health Safety Management P practices Instrument questionnaire to only physical education teachers in the Senior High School in the greater Accra region to respond to, for the data to be collected. The main sources of data for the research work were primary and secondary sources. The procedure for collecting primary data is the questionnaire administered to the physical education teachers in the

four zones, during inters zonal competitions. The study made use of primary data at the chapter four, which is the analysis stage. Secondary source includes data from published and unpublished books, magazines, journals and websites.

3.9 Data Analysis Procedures

The data collected was analyzed using the descriptive statistics of frequency counts mean and standard deviation for the demographic information and research questions. The inferential statistics of Analysis of Variance (ANOVA) and test of Linearity was used research question three (RQ3), and Pearson Product Moment correlation (PPMC) was used for the hypothesis at .05 significant levels.



CHAPTER FOUR

RESULT, FINDINGS AND DISCURSSION

The study was designed to investigate health and safety management practices in physical education classes in the senior high schools in the greater Accra region, in Senior High Schools. The results are discussed in accordance with the research questions and hypothesis set.

4.1: Demographic Information

Table 4.1: Showing the Gender of respondents for the study.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	48	48.0	48.0	48.0
	Female	52	52.0	52.0	100.0
Total		100	100.0	100.0	

The variables involved are gender of respondents, age, educational background and the number of years they have worked. Data obtained have been presented in tables. Showing the descriptive statistics of respondents on gender, table 4.1 above indicates that, 48 individuals representing 48% were males whilst 52 individuals representing 52% were females, who took part in the responds.

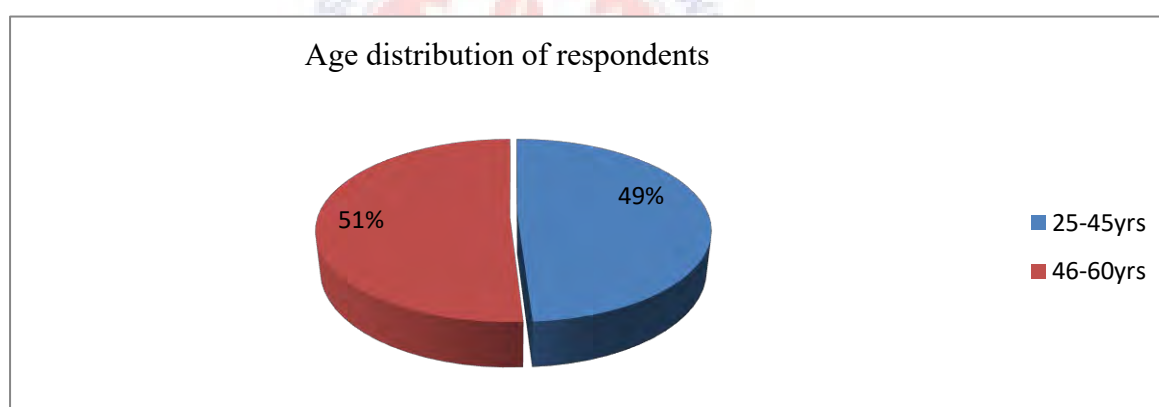


Fig. 2: Age distribution of respondents, source: Field Survey Data, 2015

Fig 2: Above, indicated the ages of the respondents in the study area. forty- nine (49%) of the respondent were between the ages of 25-45 years whilst 51% were between 46-60 years at the time the interview were sought.

The respondents were asked to state their years of teaching experience as it is one significant contributing factor that may influence their practical understanding of health and safety management practices in physical education classes.

Table 4.2: Showing the descriptive statistic of years of teaching experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-20yrs	59	59.0	59.0	59.0
	21-40yrs	41	41.0	41.0	100.0
Total		100	100.0	100.0	

From the table above, 59% of the respondents had taught for a period between 1-20 years whilst 41% had taught for a period between 21-40years.

Similarly, as part of the social appraisal, the educational levels of the respondents were sought as it plays a significant role in comprehensive understanding of issues relating to health and safety management practices in physical education.

Table 4.3: Showing the Educational level of respondents for the study.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	5	5.0	5.0	5.0
	First Degree	94	94.0	94.0	99.0
	Master's degree	1	1.0	1.0	100.0
Total		100	100.0	100.0	

See table 4.3 above indicated majority of the respondents representing 94% had had a first degree in physical education, 5% had had Diploma whilst the remaining 1% had had a Master's degree in physical education as at the time of the interviews were sought.

Table 4.4: Showing if school have a health and safety management plan for PE classes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	57	57.0	57.0	57.0
	No	43	43.0	43.0	100.0
Total		100	100.0	100.0	

The respondents were asked whether their schools have a health and safety management plans for physical education lessons, 57% answered in the affirmative whilst the remaining 43% did not have a health and safety management plans in place

in their respective schools. This is an indication that quite a sizeable amount of schools do not have health and safety management plan in place from table 4.4 above.

The respondents were asked to state the number of injuries that have ever occurred during their physical education classes.

Table 4.5: Showing how many injuries have ever occurred during your PE classes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-10	95	95.0	95.0	95.0
	11-20	4	4.0	4.0	99.0
	None	1	1.0	1.0	100.0
Total		100	100.0	100.0	

The table 4.5 above illustrated the frequencies of the response from the respondents. From table 4.5, it can be observed that 95 respondents which represent 95% indicated that they had had between 1-10 injuries occurring during their physical education classes whilst 4% had recorded 11-20 injuries. Approximately 1% however had recorded no injuries at the time of the interview for physical education classes.

The respondent from the above the 4.6, revealed that, the number of injuries varied within twelve months (12).

Table 4.6: Showing if the number of injuries increased, stayed the same or decreased from 12months now?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	43	43.0	43.0	43.0
	No	57	57.0	57.0	100.0
	Total	100	100.0	100.0	

This is because, forty three (43), representing 43% agreed that the number of injuries increased, stayed the same or decreased from twelve (12) months.

Whiles fifty seven (57), representing 57% indicated that, there is no increased, nor stayed the same or decreased of injuries in physical education classes from twelve

months now. Majority of the respondents say there are injuries but it does not increased, stayed the same or decrease from twelve months.

Similarly, the respondents were asked to identify which area of activities during PE classes has the highest number of reported accidents or injuries.

Table 4.7: Showing area of activities during PE classes that has the highest number of reported accident/injuries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Gymnastic floor	4	4.0	4.0	4.0
	handball court	29	29.0	29.0	33.0
	football field	56	56.0	56.0	89.0
	athletic oval	7	7.0	7.0	96.0
	None	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

Table 4.7, above showed the response from the respondents with regards to the highest number of reported accident/injuries recorded. Majority representing 56% said that most of the accidents or injuries normally occur on the football court, 29% said volleyball court with 4% and 7% occurring at Gymnastic floor and athletic oval respectively, with 4% stated none of the above.

4.2: Research Question 1: What is the Health and Safety Management Practices in Physical Education Classes in the Senior High Schools in the Greater Accra Region?

Table 4.8: Showing descriptive statistic of Health and Safety Management Practices in Physical Education Classes analysis.

	N	Minimum	Maximum	Mean	Std Deviation
Management Practices	100	19.00	35.00	28.6900	4.05192
Health and Safety Policy	100	7.00	28.00	18.8500	5.64143
Facility and Equipment	100	6.00	30.00	22.5600	6.54328
Maintenance	100	10.00	25.00	20.5500	3.92448
Emergency /Medical Care	100	18.00	40.00	33.9400	4.34107
Participants Form	100	2.00	10.00	6.7400	2.37674
Participants/Students Education	100	11.00	30.00	25.7900	4.97122
Staff	100	11.00	25.00	19.0500	3.89606

Valid N (listed)	100
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The results on table 4.8 above showed that emergency/medical care were major concern in health and safety management practices with a higher mean ($M = 33.94$, $SD = 4.34$); management practices follow with a mean ($M = 28.69$, $SD = 4.05$); participants/students education ($M = 25.79$, $SD = 4.97$); facility and equipment ($M = 22.56$, $SD = 6.54$); maintenance ($M = 20.55$, $SD = 3.92$); staff ($M = 19.05$, $SD = 3.90$); health and safety policy ($M = 18.85$, $SD = 5.64$); while participant form had the lowest mean ($M = 6.74$, $SD = 2.38$). This indicated that more attention is given to emergency/medical care, management practices, participants/students education, facility/equipment and maintenance of health and safety management practices in physical education classes in the Senior High Schools.

4.3: Research Questions 2: Do management practice influence the health and safety plan in Physical Education classes?

Table 4.9: Showing Analysis of Variance of management practices on management plan in physical education classes.

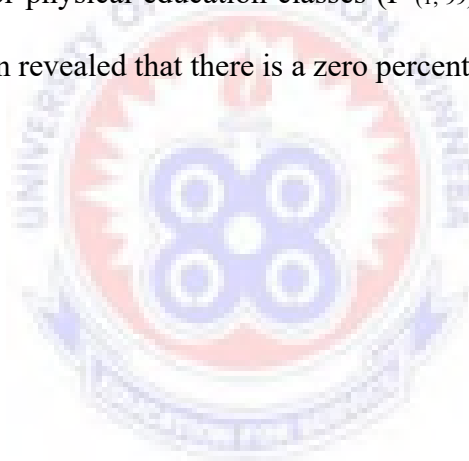
			Sum of Squares	df	Mean Square	F	Sig
Do your school have a health and safety management plan for PE* Management Practices.	Between groups	(combined)	11.454	14	.818	5.327	.000
		Linearity	.001	1	.001	.007	.933
		Deviation from linearity	11.453	13	.881	5.736	.000
	Within groups		13.056	85	.154		

Total	24.510	99
P< .05		

Measures of Association

	R	R Squared	Eta	Eta Squared
Do your school have a health and safety management plan for PE* Management Practices	.007	.000	.684	.467

The result on table 4.9 showed that management practices was significant to management plan for physical education classes ($F_{(1, 99)} = 5.33, p < .05$). Though, the effect of contribution revealed that there is a zero percentage (0%) to the variance with $Eta = .684$.



4.4: Research Question 3: what is the staffs support to students' participation in Physical Education classes in terms of emergency?

Table 4.10: Showing analysis of variance of staff support to participation and emergency/medical care in physical education classes.

			Sum of Squares	df	Mean Square	F	Sig
Emergency/Medical Care	Between groups	(combined)	1234.158	13	94.935	12.929	.000
Staff		Linearity	934.910	1	934.910	127.323	.000
		Deviation from linearity	299.248	12	24.937	3.396	.000
	Within groups		631.482	86	7.343		

Total	1865.640	99
P< .05		

Measures of Association

	R	R Squared	Eta	Eta Squared
Emergency medical care * Staff	.708	.501	.813	.662

The result on table 4.10 above shows that the staffs support was significant to emergency/medical care ($F_{(1,99)}=12.95, p<.05$), this also reported a significant linearity of the independent and dependent variables ($F_{(13,99)}=127.32, p<.05$). Thus, the result revealed that 50% contribution of the variance accounted for in the study.

3.7.1. Hypothesis

The hypothesis results (see Appendix A: pp. 64) revealed that, health and safety policy and emergency/medical care was significantly correlated ($r = .198, p<.05$); health and safety policy and participants form was significantly correlated ($r = .253, p<.05$); management practices and participants form was significantly correlated ($r = .226, p<.05$), while other variables examined were significantly correlated at $p<.01$. This shows that attention and adequate care are provided in the health and safety management practices in physical education classes in senior high school. Hence, responsibility are on the shoulder of the school management to give every participants in physical education classes' proper and adequate care.

3.8. Discussion of Findings

The result revealed that, the number of years taught in physical education class has influences on health and safety management practices of the respondents with 59% evidence that teachers that have taught for several years utilized checklist when conducting health and safety inspection in physical education class, and thus carry out

regular inspection of equipment for Physical Education class, with constant inspection report documented on files. Thus, since experience is accounted for as the best teacher, age and teaching experience influences health and safety management practices. This findings agreed with Hsiao (2005), that the number of years thought influences the better implementation of risk management practices.

The findings on research question one indicated that, there are health and safety management practices in Senior High Schools with prominent attention given to emergency/medical care, management practices, participants/students education, facility and equipment and maintenance. This agreed with Yankson (2012) that, incidents occur due to human errors caused by illiteracy, poor supervision and technical flaws at work, which very often lead to accidents occurrences in activities ancillary to the main purpose of the institution. Health and safety management practices exist but are not properly implemented.

The result on research question two showed that significant exist between the variables but the linearity of the significant is not effective, thus the contribution is not seeing in terms of effort and attention placed on it. This support Hsiao, (2005) that, supervisors/directors are more concerned with facility and equipment maintenance of for legal protection, because there is no lawsuit enforcement on health and safety in schools, therefore does not compel secondary school management to implement health and safety leading to injuries due to the unfavorable conditions of the playing area/court in physical education classes, which may affects learning. The outcomes of this finding also agrees with Bridges and Roquemore (1996), that, a department should have a written risk management plan to best assess the potential danger and develop a solution to it.

The result further agrees with Yankson (2012), that, safety improvement of an institution is the responsibility of top management, and as a result investigation should be carried out to find out the root cause of accidents and other occurrences to improve learning. It is an important role played by workers in reporting accidents and adhering to safety rule and regulations to help achieve the overall objectives of institutions.

The research question three showed that there was significant with significant effect of linearity recorded between the variables. This agrees with Lee and Jones (2004) that, risk is chronic thus all human actions include it and even though it can be increased, decreased or transferred due to different circumstances, it is highly ever eliminated. Thus the staff support to participants can reduce or eliminate risk. The results of this study also agree with the World Health Organization (2002) which intimated that health, safety and wellbeing of workers and the sustainability of the institution should be paramount by considering the psychosocial learning environment, including institutions ways of participating in the community to improve the health of workers, their families and other members of the community.

The findings agree with Gregg (2000) that, the effective supervisor attempts to describe and have the participants recognize and understand the likelihood of inherent risk of physical activity thereby decreasing potential litigation. This result agrees with Skipa (2011) findings that, it is the duties of all employees to report to the authorities if he or she suspects his/her health has been compromised in any way in the discharge of his/her duties for immediate action to be taken. The findings though agree with several researches carried out but disagreed with Arnold (1989) that, enforced risk management may be the best defense, yet against the consequences of inadequate supervision. This supported Young and Jamieson (1999) whose findings implied that

colleges and universities offer future physical activity supervisors on a comprehensive risk management curriculum which is aligned with current decisions and standards.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The study investigated health and safety management practices in Physical Education classes in the Senior High Schools in greater Accra region, Ghana. This chapter summarizes the research findings, conclusions and recommendations.

5.1. Summary

The research was made up of five main chapters. The first chapter dealt with the background of the study which focuses on the general information of the topic,

including the statement of the problem, purpose, significance and objective of the study, research question, hypothesis, delimitation and operational definition of terms.

The chapter two focuses on the related literature, in which several findings were made by researchers about the topic of the study, some suggested ways of which health and safety management practices can be improved. It is interesting to know that anytime safety is well managed before during and after Physical Education classes, safety is assured.

Chapter three focuses on the methodology of the study which identifies and described the population, sample and sampling technique, instrumentation, validity, reliability, pilot study, data collection and data analysis. Physical Education teachers in greater Accra were purposively selected with a sample population hundred used for the study. Only questionnaires were used to collect data.

The data was grouped as frequency data percentages, mean and standard deviation for the analysis. Pearson correlation was used to determine whether there was a significant difference between the sub variables in the questionnaire. Data was classified using tables and pie charts against their corresponding frequencies.

The study revealed that, the respondents who participated in their schools has health and safety management practices in place, a safety policy as well as a safety unit. It again came to the fore when majority of the respondents reveal that, their schools has an accident book or similar accident record system in which accidents are recorded. However, some disagreed that the institution/schools has procedures for reporting injuries and illness during physical education classes.

It again emerged that; all respondents affirmed to safety procedures put in place would have a positive impact on learning. However, the respondents did not have health and safety manual to guide their operations It is important to report accidents to

the appropriate authorities for redress to find solutions to avoid same or similar accidents in the future. One major requirement in any health and safety management practices is to constitute a safety committee. It was found out from the analysis that most schools do not have safety committee that involves all staff to deal with health and safety issues in senior high schools.

Health and safety should be the concern of each student, teacher and management and not only physical education classes, can only be achieved when serious education and training is carried out. It was also found that the school does not have a schedule for training staff on health and safety in most schools. The result revealed a lack of health and safety management practices in physical education classes in senior high schools provided a clear direction for future studies. The results also suggest that, physical education teachers as well as management should have a fundamental concept and knowledge of health and safety management practices in physical education classes and sports law in order to provide a better safe environment for participants in physical education classes. This should be introduced and develop in Ghanaian schools.

The result of the study would assist management as well as physical education teachers in formulating policies relevant to physical education classes to avoid injuries in physical education classes in all sectors in Ghanaian schools.

5.2. Conclusion

It can be concluded that health and safety management practices in Senior High Schools in greater Accra Ghana, is not in “best practices”. This is because; Physical Education personnel and management do not practiced health and safety as a very key component or a priority but practiced it shadily. Meanwhile the safety of students is primarily important at any educational institution. The study, deduced these

in research question one. The study also revealed that, health and safety management practices motivate learning, in research question two. Therefore, if an institution does not adequately invest in the competence of its tutors, its operations, in term of health and safety, it would affect learning.

Moreover, there is the need for staff to support participants in terms of emergency. As the findings in research question three revealed, other staff members support participants in term of emergency during physical education classes significantly. The findings of the hypothesis of the study by the Pearson Moment Correlation Product revealed that, there is no significant correlation in the health and safety management practices in physical education classes in the Senior High Schools, on the independent and dependent variables. In all, implementing and practicing health and safety management practices in schools would enhance safety and reduced or even eliminate risk in physical education classes in the Senior High Schools in Accra.

5.3. Recommendations

Based on the result of findings, the following recommendations are made.

1. The implementation of health and safety management practices should be the priority of management with a proper polices.
2. There should be a drastic measure taken by management against cases of accidents to enhance health and safety, in physical education classes.
3. The needs for periodic staff education on injury prevention and safety management practices during physical education classes.

4. Management should provide environments that are ideal and adequate for practices.
5. Institutions should put in place active health and safety committees which should be given full mandate to implement health and safety rules in senior high school.

5.4 Suggestions for Further Research

It would be in violation of all the established benefits and values that learners expects from participation in physical education class activities. Hence, in order to maintain roles concerning legal duties for safety in school sport and assess the risk management practices implemented. Further research can be carry out by examine risk management practices of sports coaches and administrators in higher institution.



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APPENDIX A

Table 4.7; showing Pearson correlations statistics of the study.

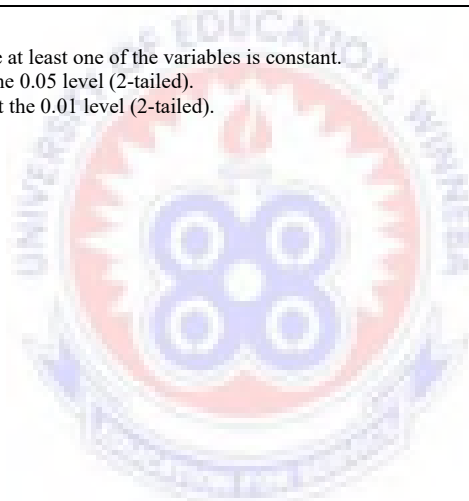
		Health and safety policy	Health and safety management practices	and Facility and equipment	maintenance	Emergency medical care	Participants form	Participants/students education	staff
Health and safety policy	Pearson correlation sig(2-tailed) n	*a 0	*a 0	*a 0	*a 0	*a 0	*a 0	*a 0	*a 0
Health and safety management practices	Pearson correlation sig(2-tailed) n	*a 0	1 100	-.081 .422 100	.128 .205 100	.076 .451 100	.253* .011 100	.350** .000 100	.056 .580 100
Facility and equipment	Pearson correlation sig(2-tailed) n	*a 0	-.081 .422 100	1 100	-.012 .905 100	.520** .000 100	.226* .023 100	.380** .000 100	.478** .000 100

Maintenance	Pearson correlation sig.(2-tailed) n	*a	-128 .205 100	-012 .905 100	1 100	553** .000 100	472** .000 100	289** .004 100	171 .085 100
Emergency medical care	Pearson correlation sig.(2-tailed) n	*a	-076 .451 100	.520** .000 100	.553** .000 100	1 100	.631** .000 100	.368** .000 100	.574** .000 100
Participants form	Pearson correlation sig.(2-tailed) n	*a	.253* .011 100	.226* .023 100	.472** .000 100	.631** .000 100	1 100	.368** .000 100	.669** .000 100
Participants/student education	Pearson correlation sig.(2-tailed) n	*a	.350** .000 100	.380** .000 100	.289** .004 100	.668** .000 100	.368** .000 100	1 100	.399** .000 100
Staff	Pearson correlation sig.(2-tailed) n	*a	.056 .580 100	.478** .000 100	.171 .089 100	.574** .000 100	.669** .000 100	.399** .000 100	1 100

a. cannot be computed because at least one of the variables is constant.

*.correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).



APPENDIX B

QUESTIONNAIRE

ON

Health and Safety Management Practices Inventory [HSMPI].

I am a master student of the Department of Health Physical Education, Recreation and Sports, University of Education Winneba. I am investigating health and safety management practices in the SHS in the greater Accra region. This questionnaire is to investigate health and safety management practices in the senior high schools in the greater Accra region. I would like your statement to be as objective as possible regarding to the subject matter. The purpose of the study is purely academic and is not

in any attempt to intrude into your privacy. You are assured that all the information provided will be confidential.

Thanks for your cooperation by responding sincerely to this questionnaire to achieve the objective of this project in your school.

Lydia.

Demographic data

Instruction; Please tick (✓) in the appropriate box.

- 1 .Gender: Male Female
2. Age: a.25-45 years b. 46-60years
3. Educational level: a. S.H.S b. Diploma c. Degree d. Others (Specify)
4. Please state your status in the school: a. headmaster\ mistress b. head of department
c. PE teacher.
5. Years of teaching experiences a. 1-20yrs b. 21- 40yrs c. 41-60yrs.

General information

6. Your school have a health and safety management plan for PE classes? Yes No
7. How many injuries have ever occurred during your PE classes? a.1-10 b. 11-20 c. 21—30
8. Has the number of injuries increased, stayed the same or decreased from 12 months now? Yes No
9. What area of activities during PE classes has the highest number of reported accident/injuries? a. Gymnastic floor b. handball court c. football field d. athletic oval e. volleyball court f. Basketball court.
10. Type of institution; a. public b. private c. others
11. The total population of students who offer PE; male----- female-----
12. The daily average number of students in a PE class; male----- female-----.
13. Students appearance for PE classes. a. bad b. poor c. good .

14. Students health status in terms of food, neatness and dressing for PE classes. a. bad []

b. poor [] c. Good [].

15. The nature of your school grounds/field/court for PE classes. a. bad [] b. poor [] c.

good [].

Instruction: read the statement in each column and tick as appropriate to you in the table below on health and safety management practices.

1=Disagree, 2=strongly Disagree, 3=Undecided, 4=Agree, and 5=Strongly Agree.

Instruction: Please tick (√) in the appropriate box the number

S/N	Health and safety policy.	1	2	3	4	5
16.	The school/institution has a health safety policy?					
17.	The school has a written health and safety policy that includes the environment?					
18.	The schools have a written health and safety policy available to all students and staff?					
19.	Students are oriented on personal hygiene by the school authority?					
20.	The school has a procedure for students to report pains or other diseases in relation to PE classes for health and safety?					
21.	The school has an accident record book for PE lessons?					
	Management practices.					
22.	Implementation of health and safety act in schools will make students and staff feel safe in SHS PE classes					
23.	Adequate and comfortable environment as well as safety practices affect learning positively					
24.	The PE department is sufficiently equipped to maintain health and safety in PE lessons					
25.	The practice of health and safety will protect students and others from injuries and illness in PE class.					
26.	To enhance learning, health and safety training/education must be provided to all students and staff during induction services?					
27.	Favorable environmental conditions (less noise, suitable temperature etc.) at the schools would increase the intensity of learning a skill in PE.					

28.	All students and teachers are given the opportunity to practice Health and safety.					
	Facility and equipment					
29.	Conduct regular facility inspection.					
30.	Keep inspection reports on file.					
31.	Utilized checklists when conducting health and safety inspection in PE classes.					
32.	Regularly inspect equipment for PE classes.					
33.	Regularly inspect all courts and fields to maintain health and safety standards for PE.					
34.	Inspect facility and equipment quality within the authorized standard.					
	Maintenance					
35.	Utilized building and equipment maintenance schedules prior to PE classes.					
36.	Prevent participants from using the defective equipment's prior to repairs for PE lessons.					
37.	Keep facilities and equipment's clean and safe for PE.					
38.	Maintained all damaged equipment and facilities properly for health and safety in PE classes.					
39.	Collect all equipment's after PE classes, keep them in good shape and safely for the next class.					
	Emergency/ medical care.					
40.	Make first aid kits readily accessible for all PE activities.					
41.	Prepares for emergency medical services.					
42.	Takes concerns on possible liability of students who sustain injuries during PE classes.					
43.	Has a school doctor/nurse.					
44.	Requires PE teachers to report injuries sustained by students to management.					
45.	Insists that an injured person seeks medical care.					
46.	Requires PE teachers to regularly update first aid, CPR and emergency care and insist on the good use of it.					
47.	Insists that they are trained in basic first aid/CPR					
	Participant form					
48.	Ask participants to fill a medical history report form prior to PE classes.					
49.	Uses a participants agreement form before PE classes.					
	Participants/students education					
50.	Inform students on the specific dangers of the activities in PE classes.					
51.	Give instructions to students on the proper use of equipment and facilities in PE classes.					
52.	Give safe education and instruction to students during PE lessons.					
53.	Use warning signs when using facilities and equipment wrongly.					
54.	Set down rules for the use of equipment and facilities					
55.	Have a specific dress code for PE classes.					
	Staff					
56.	Allow the other teachers to support the PE personnel in terms of injuries/casualty.					
57.	Allow the staff to help to intensify health and safety for PE classes.					

58.	Securities perform their duties according to the guided manual of the school during PE.					
59.	There is a health committee in charge of first aid in case of injury during PE.					
60.	Management takes part of student's hospital bill when they get injured in PE classes.					

