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Editorial Comment

The Ghana Journal of Health, Physical education, Recreation, Sports and Dance (GJHPERSD) is a journal that published twice a year by the Department of Health, Physical Education and Recreation, University of Cape Coast, Ghana in which topical issues concerning exercise physiology, administration, health, biomechanical and behavioural aspect of physical and health education are publish. Majority of the articles are derived from researches and scientific investigation. Manuscripts in the present volume are selected by the Editorial Board from among submissions made by interested contributors. In these two issues, articles were compiled on differences in body anthropometry, factors influencing integration of primary school PE curriculum, food hygiene practices, safety measures of oil marketing company and reconciling the grading of students on teaching practice. The final determination is made on the basis of the professional and scientific relevance, need and extent of information to Health and Physical Education. The Editorial Board is receptive to suggestions concerning selections of potential manuscripts and topics worthy of publication. For the present volume, the Editorial Board wishes to acknowledge the contributions of our consultants and reviewers in the manuscripts.

Editorial Board

Ghana Journal of Health, Physical Education
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GHANA JOURNAL OF HEALTH, PHYSICAL EDUCATION RECREATION SPORT AND DANCE

Vision

GJHPERSD is a peer-reviewed, DOUBLE BLIND, Professional Journal intended to meet the needs of Education, Health, Physical Education, Exercise Physiology, Sports Psychology, Nutrition, Sports Education, Sports Administration, and Sports Kinesiology. The journal publishes research that contributes to the knowledge and development of theory as new information, reviews, substantiation or contradiction of precious findings or as application of new or improved techniques to serve as a forum for socioeconomic, educational and ethical issues.

GUIDELINES FOR AUTHORS

The Editorial Board of the Ghana Journal of Health, Physical Education Recreation, Sports and Dance (GJHPERSD) is pleased to invite research articles, from interested scholars in both local and international community for consideration and subsequent publication. The journal is managed by the Department Health, Physical Education Recreation (HPER), under the Faculty of Science and Technology Education of the College of Education Studies, University of Cape Coast, Ghana.

Manuscript submitted to GJOHPERSD must not be published or submitted for publications simultaneously to other journal. Authors are responsible for the scientific content and legal aspect of the articles. There is 15 page limitation for the manuscript, including references. Manuscript acceptance is based on originality of materials significance to GJOHPERSD profession, validity and adherence to the prescribed submission requirements.

Submission of Manuscripts

Manuscript should be submitted electronically as e-mail attachment to

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Manuscript should conform to the Publication manual of the American Psychology Association (APA, 6th edition) style and typed using 12 points Times News Roman with 1.5 line spacing including the following sections in articles. A length of 9-12 pages is a typical size for a manuscript, per the editorial policy of GJOHPERSD.

Title – Capital letters

Authors - Surname followed by initials, academic degree, position, and institutional affiliations of all the authors as well as corresponding author's mail address and telephone numbers.

Abstract - An abstract of not more than 250 words should include the purpose of the study, methods, major findings and conclusions. It should be typed using single line spacing. A maximum of 5 key words typed on a separate page

Text - **The text should** include the following headings

- Introduction
- Methods and Materials
- Results

- Discussion
- Conclusion
- Acknowledgement (if any)
- Reference and
- Appendices (if appropriate)

References – The American Psychological Association (APA 6th edition) format should be used and only references cited in the text should be alphabetically listed in the reference section.

The Review Process

The editor reviews all manuscripts for appropriateness of topics and conformity to GJOHPERSD writing style. If the topic and style are deemed appropriate, manuscripts are sent to at least 2 reviewers (DOUBLE BLIND REVIEW) with expertise in the topic area. Allow four 2 to 4 weeks for the review process.

GJOHPERSD now promotes OPEN ACCESS - OPEN PEER REVIEW SYSTEM and selects the best manuscripts for publication. Thus, the journal promotes total transparency and collaboration between author(s) and reviewer(s). The final decision is taken by the editor based on discussions and clarifications author - reviewer, and based on the final report on the manuscript.

The editorial staff requires that all manuscripts that are sent for publication to be evaluated.

A reviewed manuscript will be subjected to one of four possible outcomes regarding publication in GJOHPERSD.

1. Accept the paper in its current format if manuscript scores 80-100.
2. Accept the paper with minor changes; 65-79.
3. Resubmit with the major changes; 50-64.
4. Reject the manuscript; 0-49.

The decision will be communicated to the author(s) in a strictly anonymous form.

Publication Charges

Articles accepted for publication will attract publication charges that will be communicated to authors. The Accepted articles will be published online on the University E-Journals Website before the print copies. Manuscript will be printed in the earliest appropriate and available issue following acceptance. Authors will receive a complimentary copy of the issue in which their article appears.

A Journal of the Department of Health, Physical Education and Recreation (HPER), University of Cape Coast, Ghana.

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PERCEIVED ROLES OF SEX EDUCATION ON REPRODUCTIVE AND SEXUAL HEALTH HABIT OF IN- SCHOOL ADOLESCENTS IN ILORIN METROPOLIS

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Abstract

The study investigated perceived roles of sex education on reproductive and sexual health habit of in-school adolescents in Ilorin Metropolis. Adolescents' sexual and reproductive health habit is very important as this would determine to a large extent the reproductive health outcome of the adolescents. The study investigated: (i) examine if prevention of unwanted pregnancy will be a perceived role of sex education among in-school adolescents; (ii) investigate whether prevention of STIs will be a perceived role of sex education; (iii) find out if avoidance of risky sexual behaviour will be a perceived role of sex education among in-school adolescents. A descriptive research design was employed for this study. Population for this study comprised all adolescents in all secondary schools in Ilorin metropolis, Kwara State. Multistage sampling technique was used to select 480 respondents. A researcher developed questionnaire validated by three experts from the Department of Health Promotion and Environmental Health Education. A correlation co-efficient of .87r was obtained through test re-test method using Pearson Product Moment Correlation. Data collection was collected by the researcher with four trained research assistants.

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The seven postulated hypotheses were tested using inferential statistics of chi-square at 0.05 alpha level. The findings of this study showed that prevention of unwanted pregnancy was significantly perceived as a role of sex education among in-school adolescents in Ilorin metropolis because calculated χ^2 value of 345.53 is $>$ table χ^2 value of 12.59; STI's prevention was significantly perceived as a role of sex education among in-school adolescents in Ilorin metropolis because calculated χ^2 value of 156.70 is $>$ table χ^2 value of 12.59 and avoidance of risky sexual behaviour was significantly perceived as a role of education among in-school adolescents in Ilorin metropolis because calculated χ^2 value of 337.35 is $>$ table χ^2 value of 32.67. It was concluded that prevention of unwanted pregnancy, STI's prevention and avoidance of risky sexual behaviour will be a perceived role of sex education among in-school adolescents in Ilorin metropolis. It was recommended that sex education should be given adequate priority among other subjects being taught in schools to prevent in-school adolescents from getting involved in sexual risky behaviour that could lead to unwanted pregnancy or contracting sexually transmitted infections which could impaired their educational pursuit and even affect their reproductive system, Sex education should emphasis abstinence to help in-school adolescents delay sexual activities in order to focus on their studies and avoid being dropped out of school as a result of unwanted pregnancy and parents and religious leaders should support the teaching of sex education at home and in school, as well as to provide proper information on sex education to their adolescent children in order to develop positive attitude and belief towards sexual relationship.

Keywords: Perception, Roles, Sex education, Reproductive, Sexual, Health, Habit, Adolescent and Metropolis

Introduction

The onset of adolescence for young people around the world brings not only changes to their bodies but also new vulnerabilities to human rights abuses, particularly in the arenas of sex, marriage and childbearing. Millions of girls are coerced into unwanted sex or marriage, putting them at risk of unwanted pregnancies, unsafe abortions, sexually transmitted infections (STIs) including HIV, and dangerous childbirth. Adolescent boys are at risk of contracting STIs as well. Young people both boys and girls are disproportionately affected by HIV/AIDS (United Nation Population Fund, 2011).

Adolescents' sexual and reproductive health habit is very important as this would determine to a large extent the reproductive health outcome of the adolescents. This means providing access to comprehensive sex education; services to prevent, diagnose and treat STIs; and counselling on family planning. It also means empowering young people to know and exercise their rights including the right to delay marriage and the right to refuse unwanted sexual advances (United Nation Population Fund, 2011).

Kirby, Laris and Rolleri (2007) stated the importance of school sex education, the content of school sex education (anatomy and physiology of genital organs, characteristics of puberty, importance of contraception, education about abstinence, sexually transmitted infections ,effect of sexual abuse, education about personal safety (prevention of sexual abuse) will give the students all information about their body in order to avoid having sex with the opposite sex, in order to prevent unwanted pregnancy at their earlier age. Worldwide, about an estimated figure of 16 million adolescent girls give birth every year, mostly in low and middle income countries (Allen & Philliber, 2001).

The causes of teenage pregnancy/unwanted pregnancy are diverse. In developing countries girls are often under pressure to marry very early and bear children. Some adolescent girls do not know how to avoid becoming pregnant, and are unable to obtain

contraceptives, or are coerced into sexual activity (Allen & Philliber, 2001). Adolescent pregnancy, especially in developing countries, carries increased health risks, and contributes to maintaining the cycle of poverty. The availability and type of sex education for teenagers varies in different parts of the world (Ali & Dwyer, 2011).

Mueller (2008) stated that sex education is needful and necessary for young ones. Being mindful of the exposure given to the young ones in school, in the media and among their peers; sex education teaches the young ones about sexual intimacy, but also enlighten them on their reproductive systems, birth control and sexually transmitted infections.

According to Baldo (2003), evaluations of comprehensive sex education and HIV/AIDS, STI prevention programmes show that they do not increase rates of sexual initiation, they do not lower the age at which youth initiate sex, and do not increase the frequency of sex or the number of sex partners among sexually active youth(s). Between 1991 and 2001, the U.S. teen birth rate fell from 62 to 41 per 1,000 female teens (Martins, 2003). Some experts attribute 75 percent of the decline to increased contraceptive use and 25 percent to delayed initiation of sex (Hamilton, 2005). Others credit it to increased contraceptive use and delayed initiation of sex about equally regardless, contraceptive use has been critical to reducing teenage pregnancy (National Campaign to Prevent Teen Pregnancy, 2004).

According to Baldo (2003), evaluations of comprehensive sex education and HIV/ STI prevention programmes show that they do not increase rates of sexual initiation, do not lower the age at which youth initiate sex, and do not increase the frequency of sex or the number of sex partners among sexually active youth. Amy (2006) affirmed that sex education is not only important as a developmental process in the life of a child, it arms the child with the tools to understand him or herself better in relation to the immediate environment and the threats that could emerge from such interaction. This is to say that young people would gain incremental knowledge of the ability to protect themselves,

avoidance of risky behaviours and alert people of the threats of sexual exploitation if they are sexually educated.

Research has identified highly effective sex education and HIV prevention programmes that affect multiple behaviours and/or achieve positive health impacts. Behavioural outcomes have included delaying the initiation of sex as well as reducing the frequency of sex, the number of new partners, the incidence of unprotected sex, prevention of unwanted pregnancies and/or increasing the use of condoms and contraception among sexually active participants (Hamilton, 2005).

Jordan, Price and Fitzgerald (2000) in their view observed that Parents influence teen sexual behaviour in a variety of ways, including modeling and maintaining a warm and close relationship that facilitates open communication, monitoring teen activities and encouraging religious beliefs and practices that influence morality and sexual behaviour. Teens want and need more sex education from their parents and parents believe they should be the primary source of sex education followed by outside institution such as schools.

For a very long time, the issue of sex education for young people, particularly in the African region but not exclusively so has remained a taboo. Although, sex is a natural developmental process, many parents, cultures and societies frown at discussing sex with their adolescent children because it is perceived as a generational taboo. The main socio-cultural challenges to sex education for adolescents are affected by taboos surrounding sex such as: denial of premarital sex, social concern about negative impacts of sex education, perceived stigma and embarrassment, reluctance to discuss sexual issues in public, sexual discussion as a socio-cultural taboo, lack of advocacy and legal support, intergenerational gap and religious uncertainties. According to Akande and Akande (2007), many times parents and schools do not teach adolescents about sex education, and if parents and schools do not teach it, adolescents' option is only through their friends, who in turn may not know all the right information. This has led to a lot of problems for adolescents going into relationships at a young age.

Therefore, the researcher conducted this study to investigate the sexual health habit of in-school adolescents in Ilorin metropolis and to examine the role sex education is playing in providing information on prevention of problems that could lead to sexual and reproductive ill- health among in-school adolescents.

Research Questions

The following research questions were raised to guide the study;

1. Will prevention of unwanted pregnancy be a perceived role of sex education among in-school adolescents in Ilorin metropolis?
2. Will prevention of STI's be a perceived role of sex education among in-school adolescents in Ilorin metropolis?
3. Will avoidance of risky sexual behaviour be a perceived role of among in-school adolescents in Ilorin metropolis?

Research Hypotheses

The following research hypotheses were formulated to guide this study:

1. Prevention of unwanted pregnancy will not significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.
2. Prevention of STI's will not significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.
3. Avoidance of risky sexual behaviour will not significantly be a perceived role of among in-school adolescents in Ilorin metropolis.

Purpose of the Study

The purpose of the study is to:

1. examine if prevention of unwanted pregnancy will be a perceived role of sex education among in-school adolescents;
2. investigate whether prevention of STIs will be a perceived role of sex education among in-school adolescents;
3. determine whether avoidance of risky sexual behaviour will be a perceived role of sex education among in-school adolescents;

Methodology

Descriptive research design of the survey type was used to carry out this research. The design is considered to be appropriate because the researcher is interested in finding out the role of sex education on the reproductive and sexual health habit of in-school adolescents in Ilorin metropolis. It is also dealing with existing phenomena that include a large population of study. Oladunni (2005) submitted that descriptive survey design not only explains and interprets current issues and existing conditions but also identifies problems and prevailing practices and makes comparison and evaluation for factual collection of information which tends to be economical for independent research.

The population for this study comprised all adolescents in all secondary schools in Ilorin metropolis, Kwara State. The population of the school is approximately thirty eight thousand, two hundred and forty five (38,245), (Educational Management Information System Kwara State Ministry of Education, 2016).

Multi-stage sampling technique consisting of stratified and simple random sampling techniques was used for the study. Stratified random sampling techniques was used to group schools and students based on location and gender (male and female students) from public owned Senior Secondary School Students in (SSS) one (1) to SSS three (3). Simple random sampling techniques of fish bowl method was used to select eight secondary

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schools from Ilorin metropolis, Kwara State and fish bowl method of sampling technique was used to select 60 (sixty) respondents from each secondary schools. Thirty male and thirty female respondents were drawn from each school that was used for the study. This is made up of 10 male and 10 female from each classes. SSS 1 to SSS 3. A total of 480 adolescents were used for the study.

Table 1: Showing the sample used for the study

S/N	School	SSS 1 Male	SSS 1 Female	SSS 2 Male	SSS 2 Female	SSS 3 Male	SSS 3 Female	Total
1.	C & S, sabo-oke	10	10	10	10	10	10	60
2.	GDSS, oja gboro	10	10	10	10	10	10	60
3.	Taoheed, Basin road	10	10	10	10	10	10	60
4.	GDSS, Tanke	10	10	10	10	10	10	60
5.	United community	10	10	10	10	10	10	60
6.	GDSS, Oke Aluko	10	10	10	10	10	10	60
7.	Community secondary school	10	10	10	10	10	10	60
8.	GDSS, Odo	10	10	10	10	10	10	60

Okun							
Total	80	80	80	80	80	80	480

Source: Researchers field survey (2016).

The research instrument used in this research is a researcher's designed questionnaire tagged Perceived Role of Sex Education on Adolescent Reproductive and Sexual Health Habit among In-School Adolescents (PRSEARASHHIA). The instrument consisted two sections, A and B. Section A required demographic information of the respondents while section B collected information on dependent and independent variables under study. The questionnaire is close ended of four-point Likert rating scale format type of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Ogunniyi (2009) believed that the Likert scale technique enable the respondents to indicate the degree of their beliefs in a given statement. The instrument consisted of 30 items.

Validity is the degree to which a test instrument measures what it is designed to measure. Joppe (2000) opined that validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. The instrument was validated by 3 lecturers in the department of health promotion and environmental health education. The validated instrument was later used for the research work.

In order to determine the reliability of the instrument; the researcher adopted a test re-test method, by which the questionnaire was administered to twenty (20) respondents from another school outside the area of the study (Government Day Secondary School, Karuma,) at an interval of two weeks. The result of the first administration was compared with the result of the second administration using Cronbach's alpha statistical analysis. A correlation coefficient of 0.87 was obtained. This result is high enough to show that the instrument is reliable for the study.

In order to gain recognition and to have access to the participants, the researcher obtained a letter of introduction from

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the Head of the Department of Health Promotion and Environmental Health Education, University of Ilorin. The questionnaire was administered by the researcher and three other trained research assistants.

The respondents were assisted by the researcher and research assistants to fill and return the questionnaire immediately. The completed copies of the questionnaire were collected; coded and analyzed using inferential statistics of Chi-square to analyze the postulated hypotheses set for the study at 0.05alpha level of significance, to either reject or upheld the hypotheses.

Results

Ho1: Prevention of unwanted pregnancy will not significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	DF	CAL. VALUE	TABLE VALUE	REMARK
1	Sex education contribute to the prevention of unwanted pregnancy	99 (20.6%)	189 (39.4%)	106 (22.1%)	86 (17.9%)	480				
2	Loss of blood and abortion can be controlled if sex education is been introduced earlier	116 (24.2%)	188 (39.2%)	132 (27.5%)	44 (9.2%)	480				
3	Early introduction of sex education as a subject in school curriculum enlighten the students on the risk of unwanted pregnancy	131 (27.3%)	206 (42.9%)	93 (19.4%)	50 (10.4%)	480	6	345.53	12.592	Ho Rejected
Column Total		346	583	331	180	1440				

Table 2: Chi-square analysis showing the role of sex education on the prevention of unwanted pregnancy among in-school adolescents in Ilorin metropolis

P < 0.05 alpha level

In the table two, item (1) 99 (20.6%), (2) 116 (24.2%), and (3) 131 (27.3%) the responds were strongly agreed in favour of prevention of unwanted pregnancy significantly perceived as role of sex education among in-school adolescents in Ilorin metropolis.

The findings from the analysis in the table 2 indicated that calculated Chi-square value of 345.53 and the table X^2 value of 12.592 with the degree of freedom of 6 at 0.05 level of significance. Since the calculated X^2 value is greater than the table X^2 value, the null hypothesis was rejected. This implies that sex education significantly plays a role of preventing unwanted pregnancy among in-school adolescents in Ilorin metropolis.

Ho2: Prevention of STI's will not significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE	TABLE VALUE	REMARK
4.	Sex education inclusion in the curriculum provides information of STIs	117 (24.4%)	179 (37.3%)	120 (25.0%)	64 (13.3%)	480				
5.	Early introduction of Sex education to students contributes to the prevention of STIs such as syphilis	153 (31.9%)	171 (35.6%)	98 (20.4%)	58 (12.1%)	480				
6.	Seminar and debates on Sex education in n schools informed and educate students on how to prevent STIs	138 (28.8%)	127 (26.5%)	162 (33.8%)	53 (11.0%)	480	6	156.70	12.592	Ho Rejected
Column Total		408	477	380	175	1440				

Table 3: Chi-square analysis showing the role of sex education in the prevention of STI's among in-school adolescents in Ilorin metropolis.

$P < 0.05$ alpha level

In the table three, item (1) 117 (24.4%), (2) 153 (31.9%), and (3) 138 (28.8%) the responds were strongly agreed that STI's prevention significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis. The findings from the analysis in the table 3 indicated that calculated Chi-square value of 156.70 and the table X^2 value of 12.592 with the degree freedom of 6 at 0.05 level of significance. Since the calculated X^2 value is greater than the table X^2 value, the null hypothesis was rejected. This implies that prevention of STI's will significantly be

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a perceived role of sex education among in-school adolescents in Ilorin metropolis.

Ho 3: Avoidance of risky sexual behaviour will not significantly be a perceived role of education among in-school adolescents in Ilorin metropolis.

Table 4: Chi-square analysis showing avoidance of risky sexual behaviour as perceived role of sex education among in-school adolescents in Ilorin metropolis

S/N	ITEMS	SA	A	D	SD	ROW TOTAL	Df	CAL. VALUE	TABLE VALUE	REMARK
7.	Sex education provides information on how to avoid risky sexual behaviour	131 (27.3%)	138 (28.8%)	146 (30.4%)	65 (13.5%)	480				
8.	Sex education provides information on danger of oral sex	136 (28.3%)	149 (31.0%)	144 (30.0%)	51 (10.6%)	480				
9.	Sex education provides information on danger of unprotected sexual intercourse	120 (25.0%)	142 (29.6%)	161 (33.5%)	57 (11.9%)	480				
10.	Sex education provides information on danger of multiple sexual partners	114 (23.8%)	171 (35.6%)	136 (28.3%)	59 (12.3%)	480				
11.	Sex education provides information on the danger attached to pornography	89 (18.5%)	169 (35.2%)	145 (30.2%)	77 (16.0%)	480	21	337.35	32.671	Ho Rejected
12.	Sex education provides information on the danger of anal sex	137 (28.5%)	151 (31.5%)	112 (23.3%)	80 (16.7%)	480				
13.	Sex education provides information on the danger of masturbation	149 (31.0%)	143 (29.8%)	147 (30.6%)	41 (8.5%)	480				
14.	Sex education provides information on the danger attached to having sexual with intercourse sex workers	138 (28.8%)	127 (26.5%)	162 (33.8%)	53 (11.0%)	480				
	Column Total	1014	1190	1153	483	3840				

In the table four, item 131 (27.3%), 136 (28.3%), 120 (25.0%); 114 (23.8%), 89 (18.5%), 137 (28.5%), 149 (31.0%), and 138 (28.8%) the responds were strongly agreed that Avoidance of risky sexual behaviour significantly be a perceived role of education among in-school adolescents in Ilorin metropolis. The findings from the analysis in table four indicated the calculated Chi-square value of 337.35 and the table X^2 value of 32.67 with the degree of freedom of 21 at 0.05 level of significance. Since the calculated X^2 value is greater than the table X^2 value, the null hypothesis was rejected. This implies that Avoidance of risky sexual behaviour will significantly be a perceived role of education among in-school adolescents in Ilorin metropolis.

Discussion of Findings

The tested hypothesis one revealed that Prevention of unwanted pregnancy will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis. This implies that sex education have significant effect on Prevention of unwanted pregnancy among in-school adolescents in Ilorin metropolis. The result of this study is in support with Kirby Laris and Rolleri (2007) who stated that the importance of school sex education, the content of school sex education (anatomy and physiology of genital organs, characteristics of puberty, importance of contraception ,education about abstinence, sexually transmitted infections ,effect of sexual abuse, education about personal safety (prevention of sexual abuse) will give the students all information that will give them information about the body in order to avoid having sex with the other sex in order to prevent unwanted pregnancy at their earlier age.

The tested hypothesis two revealed that Prevention of STI's will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis. This implies that sex education have significant effect on Prevention of STI's among in-school adolescents in Ilorin metropolis. The result of this study is aligned with Mueller (2008) who stated that sex education is needful and necessary for young ones. Being mindful of the

exposure given to the young ones in school, in the media and among their peers; sex education teaches the young ones about sexual intimacy, but also enlighten them on their reproductive systems, birth control and sexually transmitted infections.

The tested hypothesis three revealed that avoidance of risky sexual behaviour will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis. This implies that Avoidance of risky sexual behaviour will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis. The result of this study is aligned with Jordan, Price and Fitzgerald (2000) in their view observed that Parents influence teen sexual behaviour in a variety of ways, including modeling and maintaining a warm and close relationship that facilitates open communication, monitoring teen activities and encouraging religious beliefs and practices that influence morality and sexual behaviour. Teens want and need more sex education from their parents and parents believe they should be the primary source of sex education followed by outside institution such as schools.

Conclusion

Based on the finding of this study, the following conclusions were drawn:

1. Prevention of unwanted pregnancy will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.
2. Prevention of STI's will significantly be a perceived role of sex education among in-school adolescents in Ilorin metropolis.
3. Avoidance of risky sexual behaviour will significantly be a perceived role of among in-school adolescents in Ilorin metropolis.

Recommendations

Based on the findings of this study, the following were recommended:

1. Sex education should be given adequate priority among other subjects being taught in schools to prevent in-school adolescents from getting involved in sexual risky behaviour that could lead to unwanted pregnancy or contracting sexually transmitted infection which could impair their educational pursuit and even affect their reproductive system
2. Sex education should emphasize abstinence to help in-school adolescents delay sexual activities in order to focus on their studies and avoid being dropped out of school as a result of unwanted pregnancy
3. Parents and religious leaders should support the teaching of sex education at home and in school, as well as to provide proper information on sex education to their adolescent children in order to develop positive attitude and belief towards sexual relationships.

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**EFFECTS OF AEROBIC TRAINING ON
CARDIOVASCULAR PARAMETERS OF DIABETIC
PATIENTS ATTENDING MURTALA MUHAMMED
SPECIALIST HOSPITAL, KANO NIGERIA**

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Abstract

This study investigated the effects of aerobic training on cardiovascular parameters of diabetic patients attending Murtala Muhammed Specialist Hospital, Kano (MMSHK). The population of this study consisted of 522 diabetic patients attending MMSHK. A sample of 24 type 1 and 24 type 2 diabetic patients were purposively selected and randomly assigned into experimental (n=12) and control (n=12) for both types 1 and type 2 diabetic patients. However only 40 of the subjects completed the study 10 each for type 1 and 2 experimental and control groups. The participants in the experimental groups were engaged in run/walk training three times (on alternate days) weekly for 16 weeks. Both experimental and control groups continued their medications. The control groups were advised to continue with their normal sedentary daily life. The systolic BP, diastolic BP, resting HR and Vo_2max of all the subjects were measured before and after the 16 weeks training. Analysis of Covariance (ANCOVA) was used to test the stated hypotheses at 0.05 level of significance. The results revealed a significant reduction in the systolic blood pressure, diastolic blood pressure, resting HR, while the Vo_2max increased significantly after the training among the experimental groups both type 1 and type 2 diabetic patients. The implication of the findings is that engaging diabetes patients both type 1 and type 2 in regular aerobic exercises will surely assist in the management and control

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of the illness due to the prevention of obesity which is known factor of diabetes. Based on the findings of the this study, it is recommended among others, that aerobic exercise (walk/run) should be used as an intervention in the management of both type 1 and 2 diabetes.

Key words: *Cardiovascular parameters, Diabetic patients, Type 1 diabetes, Type 2 diabetes, Aerobic training.*

Introduction

Exercise has multiple short-term and long-term effects on the cardiovascular system. Cardiovascular system is also called the circulatory system. It is made up of the heart, arteries, veins and capillaries. The primary role of the cardiovascular system is to circulate oxygen-rich and glucose-rich blood to cells and to remove cellular waste products such as carbon dioxide from the muscles (Fujimoto, Prasad, & Hastings 2010). Donges, Duffield, and Drinkwater, (2010) stated that the factors regulating cardiovascular function during exercise are complex and diverse.

At the initial stage of aerobic exercise, blood pressure increases as the cardiovascular system works to deliver more oxygen and glucose to working muscles. A long term adaptation to aerobic exercise is a decrease in both systolic and diastolic blood pressures during rest and during sub-maximal exercise. The American College of Sports Medicine encourages regular aerobic exercise as a method of controlling and reducing high blood pressure (Waxman & Nesto, 2002).

This study was therefore conducted to find out if aerobic training will have any effects on the cardiovascular parameters: Resting BP both systolic and diastolic BP, Resting HR and Max oxygen consumption (Vo_{2max}), of insulin and non-insulin dependent diabetes patients attending Murtala Muhammad Specialist Hospital, Kano.

Methods

Participants

The participants for this study consisted of 48 diabetic patients, both insulin and non insulin dependent, drawn through purposive sampling technique. The selection was based on volunteers (those who were willing and consented to participate in the exercise training).

Twenty four (24) each were insulin dependent and non insulin dependent patients. Each group was then randomly assigned into the experimental and control groups. Thus the eventual four groups had 12 participants each.

Variables Measured

The variables measured were: Blood pressure, systolic and diastolic BP, resting heart rate and Vo2max.

Training Procedure

There were four independent groups: Experimental and Control groups from insulin and non-insulin dependent diabetic patients. The control groups from both insulin and non-insulin dependent diabetic patients were not engaged in any form of formal physical training. They went about their regular day to day activities. The experimental groups of both insulin and non-insulin dependent diabetic patients went through 16 weeks of aerobic training (run/walk exercise) at Sani Abacha Stadium Kano, three alternate days a week at a progressive intensity of 50% to 80% of the maximal heart rate of the participants, as recommended by ISAK (2006). Adhama (2014), conducted a study on eight weeks using 45% - 85% maximum heart rate of diabetics patients, while Yar'zenver (2008), also conducted a study for twelve weeks using 40% - 80% Maximal Heart Rate. However the Training Heart Rate of the current study was 50% to 80% of their Maximal Heart Rates . The training zone of a 37 years old thus as follows:

Maximal Heart Rate MHR = $220 - 37 = 183$ beats per minute
Initial Training Heart Rate IHR = $183 \times .50 = 92$ beats per minute
Final Training Heart Rate FHR = $183 \times .80 = 146$ beats per minute.
Each of the participants wore a digital heart rate wrist watch. Each participant also had an orientation on his target heart rate based on his maximal heart rate. For the convenience of the participants, the training programme was conducted from 7am- 8am of every Monday, Wednesday and Friday. Before commencing the training, each participant was allowed 5-10 minutes warm-up (legs, hands and neck stretching and sit and reach exercises).

The percent heart rate range method was used and thus the three progressions (that is initial, improvement and maintenance) of each participant were individualized during the period of run/walk exercise. During the exercise with the help of four trained research assistants spread round the track, care was taken to ensure prompt identification of such signs and symptoms as weakness, dizziness and lack of muscular coordination. Participant with any of these

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signs was asked to slow down or stop for recovery before continuing. HR was taken prior to the start and at the end of the training to ensure the training intensity was adhered to. Intensity was progressively increased every 2 weeks by 5% from the 50% MHR till the 80% FHR was achieved.

The post-test measurements were taken at the end of the 16 weeks for both the experimental and the control groups. Two laboratory technologists from main lab of MMSHK served as special research assistants who recorded the pre and post exercise cardiovascular parameters.

The Analysis of Covariance (ANCOVA) was used to analyse the data collected at 0.05 level of confidence.

Results and Discussion

The study was conducted with 48 diabetic participants, 10 from each of the four (4) groups, but in the course of the study 40 diabetic participants completed the study, and their scores (pre and post tests) were analyzed.

The findings are presented as follows:

Variables	Type I				Type II				df	Mean Square	f	p
	Experimental n =12		Control n =12		Experimental n =12		Control n =12					
	Pre	Post	Pre	Post	Pre	Post	Pre	Post				
Systolic BP	138.12	139.02	133.13	135.12	140.83	128.52	153.14	155.13	3	97.62	3.61*	0.01
Diastolic BP	87.03	82.52	85.53	90.51	85.54	87.02	85.53	95.52	3	125.44	5.08*	0.01
Resting Heart Rate	92.02	83.31	94.11	97.42	92.02	84.42	94.11	96.14	3	28.03	29.59*	0.01
Vo _{2max}	1200	1450	1100	1050	1100	1650	1150	1100	3	-9.50	4.45*	0.04

*Significant at the .05 alpha level ($p < 0.05$) table-value: $f(3) = 2.88$

Table 1 indicates a significant ($P < 0.05$) effect of aerobic training on all the selected cardiovascular parameters: The results showed significant reductions in the systolic BP, diastolic BP and resting HR after the sixteen weeks of aerobic training, while the Vo_{2max} of both the insulin and non-insulin dependent diabetic participants significantly increased after the 16 weeks of aerobic training. Due

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to significant effects of aerobic training on systolic BP, diastolic BP, HR and Vo2max of both the insulin and non-insulin dependent diabetic participants, the null hypothesis was rejected.

Table: 2: Summary of Post-Hoc Analysis on Cardiovascular Parameters among Groups

Variables	Groups	Mean difference
.Systolic BP	Type I Experimental	6.35
	Type II Experimental	8.04
	Type II Control	.474
	Type I Control	3.21
Diastolic BP	Type I Experimental	5.88
	Type II Experimental	5.84
	Type II Control	.217
	Type I Control	.024
Resting HR	Type I Experimental	9.09
	Type II Experimental	8.85
	Type II Control	129
	Type I Control	233
Vo2max	Type I Experimental	22.09
	Type II Experimental	16.07

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159	Type II Control	8.80
.302	Type I Control	16.02

*P<0.05

Table 2 shows the summary of the post hoc analysis among the groups. The post hoc analysis showed that even though both the insulin dependent and the non-insulin dependent diabetes mellitus patients had significant reductions in the blood pressures and resting heart rate, after the training, the Type II group had more significant reduction than the type I participants in their systolic BP, while the type I participants had more significant reduction in their diastolic BP and the Resting HR respectively. On the other hand, the Vo2max of the type I group increased significantly more than that of the type II group.

DISCUSSION

The results of this study indicated a significant reduction of the systolic BP, of the experimental groups of insulin dependent and non-insulin dependent diabetics. This finding did agree with the works of Wokoma (2011), who in his study on hypertension in non-insulin dependent diabetics in Kano Nigerians, found that there were significant reductions in the systolic BP of the trained groups, while the control groups had a significant increase in their systolic BP. Yasuda, et al. (1992), in his study on effects of exercise on systolic and diastolic BP in middle-aged asymptomatic non-insulin-dependent diabetics, also found that there was a significant decrease in systolic BP of the exercise group and a significant increase in the control group.

The current study also revealed a significant reduction in the diastolic BP, of the experimental groups of insulin dependent and non-insulin dependent diabetic patients after the 16 weeks of the aerobic training. This finding strongly corroborates the work of Wokoma (2011), who again found significant reductions in the diastolic BP of the experimental group, while the control group

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had significant increase in their diastolic BP. Poirier, et al. (2001), also documented an inverse relationship between levels of exercise and diastolic pressure.

Aerobic training was also found to have significant effect on the resting HR, of the experimental groups of insulin dependent and non-insulin dependent diabetes mellitus patients in the current study. This finding is in consonance with the work of Fujimoto, et al. (2010), and Rakowski et al. (2006), who equally found significant reductions in their trained group, while the control group had a significant increase in resting HR.

In the current study, the 16 weeks aerobic training result in a significant increase in the VO₂max of the insulin dependent and non-insulin dependent diabetes mellitus participants. The findings of this study is in agreement with the study of Goodyear and Kahn (2009), who discovered that regular aerobic training leads to a significant increase in VO₂max.

On the whole, the aerobic training in the current study was significantly beneficial to the cardiovascular fitness of both the insulin and non-insulin dependent diabetic patients.

CONCLUSION

From the findings of this study, the following conclusion was drawn:

Systolic blood pressure, diastolic blood pressure and resting heart rate of both the insulin and non-insulin dependent diabetic patients attending Murtala Muhammad Specialist Hospital, Kano significantly reduced after sixteen (16) weeks of aerobic exercise. While their Vo₂max (their aerobic capacity) significantly increased.

Recommendation

Based on the findings of this study it is recommended that regular aerobic exercises be included in the management of diabetes

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**LEGAL LIABILITY IN THE ADMINISTRATION OF
SPORTS AND PHYSICAL EDUCATION PROGRAMMES
IN NIGERIA SCHOOLS**

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Abstract

Sport administrators, sport coaches and physical educators in schools are expected to be well grounded in their profession. They are expected to work within their limit and minimize occurrence of accidents and severity of injuries if not out rightly eliminate it in physical education and sport settings. More than any other subject in the school curriculum, physical education and sport programmes expose students to risky situations, which sometimes result in accidents and injuries. These may sometimes result in litigations against the physical education teacher or the school authority, and if found guilty, a teacher may pay heavy damages for his negligence and may also lose his job. School authority may also be found to be vicariously liable with the burden of payment of heavy compensation. This paper presents an exposition of legal issues in the administration of physical education and sports in Nigeria schools. While this paper is not attempting to make an attorney out of a physical educator or sport administrator, the paper adopted a theoretical approach to explaining the need to be conscious of what

Legal Liability in the Administration of Sports and Physical Education programmes in Nigeria Schools

is legally expected of a professional physical educator or a sport coach because parents and students in Nigeria are becoming more legalistic nowadays. This paper explains the roles of professionals in the field of sports and physical education in preventing accidents and injuries, so as to reduce situations that can lead to litigation. The paper also tries to awaken the consciousness of the professionals on the defenses they can put up in case of any litigation emanating from the discharge of their duties and the expected standards of care, which a physical educator must demonstrate in a physical education lesson or during sport outing.

Keywords: sport, litigation, liability, administration, negligence, injury.

Introduction

Legal liability is a state of being responsible for an injury or harm caused to another person according to the law. Bucher and Krotee (2002) described liability as the condition of affairs that gives rise to an obligation to do a particular thing to be enforceable by court action. William (2006) simply puts liability as a state of being legally responsible for the harm one causes another person. Babalola and Alayode (2012) defined legal liability as one taking responsibility for an act of omission or commission. A physical educator or sport manager is liable when he/she fails to carry out his obligation or responsibility professionally and such failure results in harm to another person most especially his student or athletes. If any harm is done to a student or an athlete under the leadership of a physical education teacher, that teacher is liable, and such an individual athlete or student may seek redress in a law court and damages may be awarded against the teacher and, or the school.

Accidents and injuries are common in the field of physical education. The inherent hazards in physical education classes and sports settings make physical education teacher and coaches to be prone to litigations than any other subject teacher in the school environment. Spengler and Hronek (2011) stated that sports contain all the elements necessary to make those activities subject to accidents and subsequent lawsuits. Sport activities generally are competitive and fast-paced in which body contact is hardly avoidable in many competitive situations. Sports and physical education settings involve movements where there can be falls or collisions; it involves the use of equipment, some of which are dangerous if not properly handled and the use of facilities like swimming pool and others make the threat of legal entanglements to be more in physical education classes more than any other in a school setting. Allen (2013) states:

The thing that exposes physical education teachers and coaches to more liability than classroom teacher is 'movement'. The amount of student movement in (other) classroom is

limited; therefore the classroom teacher does not have the liability exposure of a physical education teacher or a coach. Add to that fact, PE teachers and coaches deal with many students moving at the same time. Students also have to mix their movements with the use of projectiles like balls, javelin, shot put, discus etc ... and various instruments that propel these projectiles to high speed like bats, rackets, golf clubs etc, which can cause injury...

Therefore the chances of students and athletes sustaining injury are higher in physical education and sport setting. Injury can occur in the field of play, play grounds, swimming pools, gymnasium, and golf courses or even from accidents on the way to match venues, camping or other outdoor activities. Physical or psychological injury that may arise from accidents in physical education and sport settings makes physical education teacher or coaches to be susceptible to litigation. All physical education and sport programmes involve risk taking. This implies that there could be accidents when taking part in the programmes, but preventable efforts humanly possible must be seen to have been taken by teachers or coaches. Hence, it is necessary for them to avoid accident-provoking circumstances at all times during the course of their duties to avoid litigation. Besides, it should be borne in minds that in case of litigation emanating from injuries in physical education and sport settings, the court is not looking for all injuries to be avoided. The court is looking for a teacher who is reasonably prudent in teaching and overseeing the activities of his students. There is an increasing awareness about rights of pupils and students in educational institutions globally. Parents and students are taking teachers, school authority and even government to court to seek redress if they noticed infringement on their rights. William (2006) observed that in recent years, negligence suits against teachers, coaches, athletic trainers, school officials and physicians arising out of sport injuries have increased both in frequency and in the amount of damages awarded. This is happening because

students and parents of students in schools are becoming more sophisticated about their rights. Also, the number of qualified lawyers who can handle cases is ever increasing, thus individuals have easy access to lawyers who can institute cases for them sometimes without cost. More importantly, there is a gradual erosion of the doctrine of sovereign or governmental immunity, which stipulates that 'a king could do no wrong'. This principle used to protect government agents. Many teachers and school authorities have been hiding under the protection of this principle since they are representing the government. However, Bucher and Krotee (2002) stated that governmental immunity has been modified, abrogated or subjected to exception by either legislation or judicial decision. This has made some students to sue and claim damages for injuries they sustained as a result of negligence of the teacher or the school authority.

In Nigeria, litigation against physical education teachers or coaches is not yet very popular. There are not many concluded court cases in this regard. Perhaps, people who suffer harm don't go to court because of the cost of hiring attorneys, fear, and ignorance of their rights or it could be because of the culture of brotherhood that permeates the entire society. These may make students who suffered wrong from negligence of their schools and teachers not to seek redress or compensation. One fact cannot be denied, students and student-athletes sustain injuries which could be avoided in physical education and sport settings in schools in Nigeria. In ideal situations, some of those accidents in the field of sport are good causes for litigation. The fact that students hardly seek redress does not mean that students don't sustain injuries as a result of carelessness of their physical education teacher or coach. Pupils in primary schools suffer injuries in physical education classes taught mostly by unqualified teacher. The teacher, school authority and the Ministry of Education are liable in this type of situation if pupils sustained injuries in physical education classes taught by unqualified teachers. Students in Nigeria schools often sustain injuries during practice for Inter-House sport and other sporting competitions. Sometimes, students sustain injuries from the practice of games they have not been adequately or

progressively taught how to play. Students sustain injuries from faulty equipment; students-athletes get involve in vehicular accidents on their ways to competition venues. These and many other areas may put coaches and physical educators at risk of litigation.

One fact cannot be taken out of Nigeria today - Nigerians are becoming more litigious than before. Parents and students are becoming aware of their rights on a daily basis. Nigerians no longer hesitate to press charges against anybody who wronged them. The number of qualified lawyers in Nigeria is increasing on yearly basis. This is bringing courts nearer to people than what we had two or three decades ago. Besides Spengler and Hronek (2011) stated that highway billboards and newspaper legal adverts encourage and entice people to file suits. The authors further stated that advertising legal services with bold headlines that generally states: INJURED? IT COST YOU NOTHING TO TALK TO US, WE ARE PAID ONLY IF YOU COLLECT is a tempting statement for a student or parent that has high medical bill to pick or that is angry about the accident. Lawyers were not known to advertise themselves in the past, but nowadays, signposts bill boards and other forms of advertisements by lawyers to get noticed are very prominent in the streets. Also there are free legal services for vulnerable groups in Nigeria. An aggrieved student can explore this and institute legal case against a physical education teacher. Moreover, Internet has turned the world into a global village, as a result of this, students and parents have access to how similar problems were resolved in other countries and this may prompt them to assert their rights or seek redress in law courts. To this end, physical educators, coaches, sport administrators and other stakeholders in sport should wake-up and always do what is professionally right in the course of discharging their duties. Nigeria is changing and so also the attitude and the propensity to sue is changing. When people begin to have easy access to courts in Nigeria, they will be more inclined to sue. What was overlooked in the past may be a source of litigation today.

Therefore, it is obligatory on the physical educator and coaches to ensure the safety and well-being of students and athletes at all times once they are under their care. Physical educators need to abreast of development in their profession as well as how recent development in law affects their profession. Physical educators must know what the law demands of them. While this paper is not a substitute for law books or legal advice from experts, it provides an insight into areas that can give rise to litigation in physical education and sport settings and how the teacher can prevent it as well as how the defendant (the teacher/coach) can minimize the success of the plaintiff or students or student-athlete in law court

The Law of Tort

Tort is a Latin derivative from *tortus* or *torquere* which means ‘twisted’ ‘wrong’ or ‘crooked’. In legal parlance, it is a legal wrong for which the law provides remedy. It is a legal wrong resulting in direct or indirect injury to another individual or to property or to one’s reputation (Bucher and Krotee 2002). The law of tort is based on the legal premise that individuals are liable for the consequences of their action or inaction if such conduct results in injury to another person. Winfield cited by Keenan (1986) stated that ‘tortious liability arises from a duty primarily fixed by law: this duty is towards persons generally and its breach is redressible by an action for unliquidated damages’. This implies a civil wrong in which an individual breaches a duty owed to persons generally as fixed by law and its breach can be corrected by an action for damages. Abisoye & Ige (2008) described a tort as a breach of a civil duty imposed by law and owed towards all persons, the breach of which is usually redressed by an award of unliquidated damages, injunction or other appropriate civil remedy. The authors further explained that a tort is a purely civil wrong which gives rise to civil proceedings, the purpose of such proceedings being not to punish wrong doers for the protection of the public at large, but to give the individual plaintiff compensation for the damage which he has suffered as a result of the defendant’s wrongful conduct. In explaining the concept of tort further, Nakpodia (2012) stated that everyone is expected to behave in a straightforward manner and

when one deviates from the straight path into crooked ways, he has committed a tort. Hence, tort is a conduct which is twisted or crooked and not straight. This law is always applied when a physical educator or a coach performs his duty in a twisted, crooked and an unprofessional way that results in harm to his students or other persons. Physical educators are expected to conduct their duties without injuring their students or athletes. However, if a student sustained injury as a result of the negligent act of the physical educator, he may be required by a court to pay money usually called damages to the injured student so that he would ultimately suffer pain from his action. There is likelihood of the law of tort to catch up with a physical educator or a coach who is ignorant of the law or who ignores the rules.

The essence of law of tort of tort is in many folds, especially as it affect physical education and sport settings. The law provides a channel for compensating victims of injury and loss (Abisoye and Ige 2008). A student who sustained injury as a result of carelessness on the part of the teacher or coach may be compensated for the injury sustained. It serves as deterrence for other people or coaches. Other teachers, coaches and stakeholders would know their limit and expected behavior in similar situation. Law of tort provides an avenue for vindication. A physical educator or a coach who regards himself innocent or not liable can be vindicated by a court. Generally, law of tort provides punishment for a wrongful conduct in form of damages or fines.

A coach or physical educator may find himself entangled with litigation for various reasons. It could be because of his ignorance of the law, which is never an excuse. It could be because of failure to do what he is expected to do or doing what he supposed not to do. A physical educator could also be charged for ignoring the law. Bucher and Krotee (2002) stated that ‘failure to inspect facilities and equipment on a regular basis, failure to properly repair faulty equipment, omitting warning and hazard signs or failing to issue warning statements during strenuous and potentially hazardous activities are domains of litigation that have produced individual awards in excess of \$1 million’. Therefore a coach or physical

educator should be wary of acts that could lead to litigation during the course of his duties.

Tort of negligence in Physical education and sport settings

The aspect of law of tort that mostly applies to the primary liability of a physical educator or a coach is negligence. William (2006) stated that when an athletic trainer is sued, the complaint typically is for the tort of negligence. Allen (2013) equally stated that the law that applies to the primary liability exposure of a P.E teacher or a coach is negligence. In ordinary language, negligence may simply mean not done intentionally (Keenan 1996). To a layman, negligence may mean carelessness. Legal Services Commission of South Australia cited by West (2014) described negligence as doing or failing to do something that a reasonable person would or would not do in a certain situation and which causes another person damage, injury or loss. Newnham (2000) stated that negligence is part of tort law and deals with grievances between individuals where one party has suffered as a result of something the other party did or did not do. The author further stated that the purpose of negligence is to receive compensation for the injury sustained. Baron Alderson in *Blyth v. Birmingham Waterworks Co.* cited by Keenan (1996) States:

Negligence is the omission to do something which a reasonable man guided upon those considerations which ordinarily regulate the conduct of human affairs would do, or something which a prudent and reasonable man would not do.^{p385}

In a simple language negligence is a conduct that falls below the standard expected of a prudent person. It is a conduct that that results in the creation of an unreasonable risk or harm to others. When a physical educator or a coach does something that a reasonably prudent physical educator or person would not do or he fails to do something that a reasonably prudent physical educator or person would do under the same circumstances or similar he

may be guilty of negligence. Technically, negligence in physical education and sport settings may emanate from nonfeasance which can also be referred to as an *act of omission*. This happens when a Physical educator fails to perform a legal duty. For instance, if a physical educator fails to provide spotting during gymnastic activities or if he fails to remove faulty equipment during the class and a student sustained injury as a result of his failure to do what is right or if he fails to refer an injured person to the hospital or clinic. It could also emanate from malfeasance (*act of commission*) when a physical educator does what is not legally his duty to do. For instance, a physical educator is not legally permissible to give injection to an injured athlete, if he does, he may be sued. Lastly, legal wrong in sport or physical education setting could emanate from misfeasance, when a physical educator improperly does what he is legally required to do. For instance if a physical educator fails to follow progression in the teaching of a sport skill and an injury occur to a student or if he administered a first aid procedure wrongly, he may be liable.

The tort of negligence in physical education and sport settings has three main ingredients which the student or athlete (plaintiff) must prove before the teacher or coach (defendant) could be found guilty. First, there must be duty to care which the defendant owes the plaintiff. Second, there must be breach of duty owed by the defendant, and third, there must be injury or loss as a result of the breach of duty by the defendant. These three elements must be proved, failure to prove one, means that the physical educator or coach is not guilty of negligence. Negligence is not actionable *per se* (Keenan 1996), it is what comes out of the negligent act. Capel (2002) stated that no claim will succeed in respect of what is strictly an accident. This implies that after taking all the precautions and acting professionally in every situation, a teacher cannot be guilty of what is beyond his control.

Duty to care

As long as a student is under a physical educator or a coach, the teacher has a duty to care for that student. He is under obligation to give physical, emotional and mental care to the student. Bucher and Krotee (2002) stated that a physical educator or coach has a professional duty to the students with whom he or she works. Mebradu (2011) described duty of care as a duty or service aimed at protecting the interest of others from wrongful act or tort of negligence. The physical educator assumes the responsibility for physical and psychological well-being of the students immediately they leave normal classroom setting for physical education class until the students return to the normal classroom for other subjects. Whether the physical education class will take place, in the field, indoors or swimming pool, teacher's standards of care are expected to conform to what a superior parent would do. A superior parent is the one who has both the knowledge of child parenting as well as the technical knowledge of the classroom situation which his child is subjected to. Hence he is said to be a superior parent. While the doctrine of *in loco parentis* is a common principle known to teachers, it must be noted that the legal responsibility of a physical education teacher in many respects go beyond that of a parent. The standard of care owed by teacher is much higher than the standard of a reasonable parent. A coach or physical educator is a superior parent because he combines the skill of parenting with that of a professional physical educator. A parent may not be fully aware of inherent danger in a sport or physical exercise, but a physical educator is expected to know and insulate his student from such danger. Hence supra parental care is expected of a physical educator to his students. Duty of care is not limited to classroom situation, it is extended to outdoor pursuits like camping and sporting competitions outside the school.

Breach of duty

This is another element of negligence that must be proved by the plaintiff. After it has been established that a physical educator has a duty of care, the court determines whether there was a breach. A breach of duty of care occurs when a physical education teacher fails to meet the required standard of care or when his conduct falls below the expected standard on the occasion. The standard required is a legal standard of acting as a reasonable man (Keenan 1986). The standard required is not that of a particularly conscientious man but that of the average prudent man in the eyes of the court (*Daniels v. White and Sons* cited by Keenan 1986). In physical education and sport settings there are standards which an expert in the field must observe. The environment in which a physical education lesson is taking place must be safe. This includes the playing arenas and the equipment to be used. They must be appropriate to the age and level of the students. Any damaged equipment should not be used. The standard of care also involves adequate supervision of students. This includes the ability of the teacher to discipline, organize and observe his students. He is expected to be at vantage position that will make him to discern faulty movements that could result in injuries. Students must never be left unsupervised at any time even when the teacher has a visitor or his attention is needed by other person even for split seconds. Standard of care also involves quality instruction as well as teaching progression. Capel (1997) stated that a physical educator or coach must know specific rules for the activity, warn students of particular danger and set up safe routines with pupils and use appropriate lesson plans. Physical activities must be taught according to the age and ability of the students. A student who missed a previous practical class should not be allowed to join the rest of the class until he has mastered the skills taught in the previous lesson. Failure of a physical educator or a coach to observe these standards may jeopardize the safety of students and the teacher will be liable.

For instance, in *Devon Hussack vs Chilliwack School District* cited by Gervais (2010), the Supreme Court of British Columbia held that the Chilliwack School District was liable for

the injury sustained by a student in his Grade 7 school year while playing field hockey in physical education class. The student was a chronic absentee who had missed over one-third of the school year. He had also missed the entire three-week long field hockey unit at the time of the accident. A pass in physical education was mandatory for the student to be promoted to the next grade. This student had background knowledge in ice and floor hockey but no experience in field hockey. In a bid to assist the student, the teacher felt Devon could bring his experience in ice and floor hockey to play so that he can be promoted to the next class. He allowed him to join the class and played. The teacher gave adequate instructions and emphasized the rules of field hockey again to the students before they started to play. Unfortunately during play, while Devon was trying to charge from the back of another player (which was against the rule of the game) he was struck in the nose and he was immediately taken to the hospital. There were complications but no brain injury. The student later sued the school and the teacher for negligently failing to progressively teach and coach him in the necessary skills needed to play field hockey. After a long argument from both the plaintiff and the defendants, the court found that the actions of the physical education teacher were unreasonable because he failed to progressively train and coach the student in field hockey. The court ruled that the student lacked the necessary 'skills' building blocks' that were put in place in previous lessons when Devon was absent. Thus the teacher breached his duty to care and the school was also liable. The student was awarded \$1,365,000 (i.e ₦491, 400,000 at today's exchange rate of ₦360/\$1 in Nigeria) in damages. This decision is noteworthy for physical educators. Even if a student is at the risk of failing examination, safety of student must always be given priority; students must acquire necessary building-block skills. It is the duty of the teacher to protect his students first, other things like passing examinations is secondary.

Injury resulting from the breach of duty

The plaintiff must show that he has suffered some loss or injury as a result of breach of duty to care by the teacher. It is not

enough to say that a student suffered an injury in a physical education class; the question to be asked is whether the injury was caused by the negligence of the teacher? Remote causes of the accident would be considered by the law court. For a teacher to be guilty of negligence, there must be direct links among the three elements. There must be a link to show that the teacher owes the student a duty and there was a breach of that duty and the breach of that duty resulted in accident which caused injury to the student. Injuries in sport and physical education settings could be physical and emotional. Therefore a student could sue a teacher for psychological damage without an sign of physical injury.

In all of these, the burden of proof in negligence usually lies on the student or plaintiff, except where the situation is so glaring or 'the thing speaks for itself' (*res ipsa loquitur*). Even with the principle of *res ipsa loquitur* Keenan (1986) stated that just because the principle of *res ipsa loquitur* applies, it is not certain that the plaintiff will succeed because the court is not bound to find the defendant negligent if the defendant is able to prove how the accident happened and that he was not negligent.

Defenses against negligence

No sport coach or physical education teacher would like accident to occur in his class. In fact coaches and physical educators hate to see their athletes and students sustained injury. Sometimes accidents are inevitable, and injuries from accidents in sport are common. Athletes, students or their parents may want to claim damages for injuries sustained during the course of the programme. Bucher and Krotee (2002) stated that damages for negligence are compensatory or money to pay medical bill, rehabilitation, and other expenses related to the incident. To avoid or reduce the payment of damages, a physical educator must put up a spirited effort to defend himself through a sound lawyer, otherwise he should go for out of court settlement if he's convince that he is guilty so as to avoid undue stress and cost of attorney. There are many ways in which the physical educator can defend himself. Some of these include:

Contributory negligence. Students and athletes have duty to be prudent and act reasonably for their own safety. Sometimes when accident occurs, both student and teacher have been negligent and this raises the doctrine of *contributory negligence*. Kodilinye cited by Babalola and Alayode (2012) explained contributory negligence as negligence of the plaintiff himself which combines with the defendant's negligence in bringing about the injury to the plaintiff. This implies that both the plaintiff and the defendant did not conduct themselves in a way that a reasonable or a prudent person will behave prior to the accident that caused the injury. If the plaintiff had acted reasonable the accident wouldn't have occurred or the degree of injury would have been minimal. Contributory negligence can be argued in two ways vis-a-vis: the plaintiff contributed to the accident or the plaintiff contributed to the resulting damage. Failure of a batsman to wear helmet or leg pads in cricket game after he has been instructed to do so will amount to contributory negligence if the athlete sustained injury during the course of the game, and the damages that may be awarded in the law court could be reduced. Keenan (1986) stated that a person may contribute to the damage he suffered although he is not to blame for the accident. Hence liability is apportionable between the plaintiff (student) and the defendant (teacher). However there is a caveat for coaches and physical education teachers here, a young child or minor will seldom, if ever, be guilty of contributory negligence (*Jones v Lawrence, 1969* cited by Keenan, 1986).

Volenti non fit injuria (To one who is willing no harm is done). This is also known as doctrine of the assumption of risk, that is, the plaintiff has willingly assumed the risk before taking part in the physical activity and no injury is done to one who consents. Risk is present in any physical activity and sport, an athlete who willingly submitted himself to the activity should not blame his coach or teacher for the injury sustained. In sport and physical education settings, athletes must be fully aware of the risks involved so that they can make informed decisions. Once an athlete is fully aware of the risks in a sport or physical activity, and

voluntarily participates in such activity or sport, he has assumed full responsibility for his action and his right has been voluntarily surrendered or waived. For instance if an athlete **Y** takes part in rugby game or boxing, he must be presumed to accept the rough tactics which are characteristics and normal part of the game, and any damage caused would not give rise to an action (*Simms v Leigh Rugby football club, 1969* cited by Keenan 1996).

However, Bucher and Krootee (2002) gave a warning here, that a defense of assumption of risk is valuable only when parties know of the risks, understand the nature of the risks and freely choose to incur the risk. Australian Professional Liability-Education (2000) cited by Newnham (2000) further cautions that “a school or parent cannot on behalf of a child contract out of a basic common law right to sue for an injury”. This implies that, even if parents signed for a child to participate in physical activities, and an injury occurred, that agreement does not exempt the child who is a minor from claiming his right and a school or teacher who relied on the signed agreement by parents is extremely unlikely to succeed. In all, for the principle of *volenti non fit injuria* to hold, the defendant must prove that the plaintiff knew of the risk, and he must show evidence that the plaintiff agreed to accept the risk. It should however be noted that Keenan (1986) stated that it does not follow that because a person has knowledge of a potential he assents to it.

Acts of God. When an accident occurs from the course of nature, which has no human causation and it is beyond the foresight of the coach or physical educator, the defendant can argue for protection under acts of God. The situation is beyond human prudence or the control of the coach. Keenan (1996) stated that it is something in the course of nature so unexpected in its consequences that the damage caused must be regarded as too remote to form a basis for legal liability. In sport setting, if lightning killed or injured an athlete or student, it would be an act of God because it is beyond the control of the teacher.

However, this argument may not hold if the coach deliberately allowed the athletes to play in an open field under storm and rains.

Sovereign immunity. A king can do no wrong. This defense is based on the principle that neither the government nor any individual who is employed by the government can be held liable for negligence. Since physical educators in public schools are employed by government they are immune from prosecution for negligent act. This argument is gradually fading out in modern day. Even government can now be sued when the right of individual is infringed. In Nigeria, a teacher should not rely on this defense.

Implications for administration of physical education and sports

Physical education and sport programmes are inherently risky; nonetheless, they are interesting parts of the school curriculum. Physical educators and coaches must pay attention to the following points which are not exhaustively listed and discussed, to reduce accidents and minimize the risk of litigations: physical educators and coaches must,

1. be familiar with the health status of the students and athletes. He must be aware of students who have special medical conditions like Diabetes, Allergies, Injuries, Heart Conditions, Epilepsy, Disability, and prudently decide whether they should take part in physical activities or not.
2. not permit injured student or athlete to continue with the activity. Request for medical clearance of a student or athlete who had been previously injured.
3. not withhold information about risks inherent in a sport from their students
4. not force any student or athlete to perform beyond his/her capacity
5. not entertain visitor or allow anybody to distract him during practical session, even if the principal needs his attention. In other words, he must not leave students unsupervised at any time.

6. Properly conditioned the athletes or students through various warm-up activities before any rigorous activity.
7. ensure that equipment and facilities are proper for the activity and safe for students use at all time. Any faulty equipment must be removed and put out of use until it is fixed.
8. record accidents and injuries sustained in school's accident report sheet and report the incident to the appropriate authorities. He must also take action by sending the injured athlete to hospital for proper medical examination.
9. know the limitation of his expertise in the skill he is teaching as well as his knowledge of first aid and work within the scope of his knowledge..
10. ensure progressive teaching of practical skills and ensure that a student who missed a class should not be allowed to join the rest of the class in the next practical lesson until he has been taught the skills he missed in the previous lesson. It will be unsafe for a student to participate in a practical lesson without having the building blocks of the activity in place.
11. ensure that students wear protective equipment and make sure that the equipment are properly fitted before students engage in the activity.
12. be sure to give proper instruction and warnings to students before the commencement of the class. He/she must ensure that students maintain discipline at all time
13. ensure that school bus or hired vehicle conveying the students to a competition venue or camp site is in good condition
14. report accidents to the appropriate authorities immediately after the class.

There are rules and ethics that guide teaching profession. A physical education teacher should know that because of the nature of his subject, more is required from him than an average or ordinary teacher teaching any other subject. While the list of what

a physical education teacher or a coach should do or not do as presented above is in exhaustive, a physical educator must place the safety of his students at the premium. He must be prudent, careful, insightful, attentive and discerning.

Conclusion

It is impossible to take risk out of physical activities and sport. In fact taking risk out of physical education classes and sports is tantamount to taking pleasure or fun out the activities. However, Physical education teachers and coaches have legal responsibility to ensure the safety of students under their care they are expected to act within the confine principles guiding their profession. They must provide excellent leadership that is more than a careful and reasonable parent. They must be cautious and be wise in providing guidance. They are expected to have foresight so as to notice and predict danger. Their carelessness can caused death, severe injuries or psychological trauma to students and they may severely pay for the damage done either by losing their jobs; pay severe damages or lose their reputation.

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Pre-service Teacher Preparation for Early Childhood Education in Ghana: A Review of Literature

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Abstract

As a result of the continued interest in the expansion of early childhood education opportunities in Ghana, questions have arisen about how to prepare teachers for work in this context. This literature review explores the state of pre service teacher preparation for early childhood education in Ghana. Findings from the review show that Ghana faces a lot of challenges including lack of trained teachers, poor infrastructure, and poorly developed teaching and learning. The first formal declaration to address early childhood education in Ghana came in the form of the Gold Coast Colony Education Department schedule of 1930, which included a syllabus for infant classes as part of a primary schedule. The syllabus included instruction based on games, physical exercises, spoken English, singing, and arithmetic (McWilliam, H.O.A., & Kwamena-Po, M. A. (1975). After Ghana gained independence in 1957, the Education Act of 1961 was enacted to designate preschool as the responsibility of the Ministry of Education, and also declared compulsory basic education (Kindergarten- Middle school) as free for all children from age Four (4) to age Fifteen(15). Four years later, the Nursery and Kindergarten Unit of the Ghana Education Service was created. The purpose of that unit was to develop preschools, nurseries, Kindergartens, as well as assist in the evaluation, control, and

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registration of these institutions. The idea of employing teaching staff who were trained teachers and professionals, led to the establishment of the National Nursery Teachers' Training Centre in Accra in 1965 to train early childhood personnel (Morrison 2002). By the year 1975, the Department of Social Welfare supervised 488 day care centres and the Ghana Education Service supervised 567 nursery schools and Kindergartens which enrolled 56,089 children. In an effort to regulate these early childhood centres and their programmes, the Department of Social Welfare established guidelines, which required centres to apply for permit and therefore register with the Department of Social Welfare. The Children's Act of 1989 was therefore established and put into effect.

Keywords: Pre-service, teacher preparation

Introduction

Currently, there is collaboration among various groups and entities that supervise various early childhood development programmes. These groups include the Department of Social Welfare, 31st December Women's Movement, Ghana Education Service, and the Ministry of Health (Republic of Ghana Ministry of Women and Children's Affairs,. It is believed that if all these groups and organizations cooperate with one another, the resources could be better utilized and therefore more facilities could be created to serve more students.

Once Early Childhood Education facilities were built, there must be teachers that had the background and training to provide adequate instruction. Utilising teachers that were trained at similar centres will also provide for a means of evaluating schools and day care centres, as well as providing a certain standard. To do this, the Ghana Education Service adopted the "train the trainer" method, and in September 1999 the Institute of Caregivers was opened to provide training for a fee. Presently, Colleges of Education, as well as the University of Cape Coast (UCC), and University of Education, Winneba (UEW), offer programmes in Early Childhood Education. According to the UNESCO International Bureau of Education Country profile report on Early Childhood Care and Education in Ghana (2006), among the 22,044 early childhood teachers, only 22.2% had received professional training. Despite the rapid expansion of preschool services, the quality of instruction was of great concern.

Positioning the review of literature on pre service teacher preparation for early childhood education in the context of a global perspective

As a result of the continued interest shown by government, the Ministry of Education, Ministry of Health, parents, and other stakeholders in the expansion of early childhood education opportunities, questions have arisen about how to prepare teachers

for work in this context. This review explored literature on pre-service teacher preparation for early childhood education in Ghana.

Ghana's initial teacher training colleges (now known and called Colleges of Education) do not have adequate specialized coursework for preparation and development of early childhood teachers (Agbeyega & Deku, 2011). This is because the nation's Universities, which serve as the training and preparation grounds for the Colleges, initially did not have programmes for preparing such teachers. According to Agbenyega and Deku (2011) majority of teachers received their early childhood teacher training through in-service programmes while on the job. The Ministry of Education's Nursery and Kindergarten Unit established in 1965 has been offering specialised early childhood teacher education programmes (MOE 2004). Given this commitment by government and the Ministry of Education, Agbenyega and Deku (2011) concluded that there was still much to be done in reaching the goal of a systematic early childhood pre service training programme for teachers needed in the area of early childhood education.

My search for appropriate articles open access and peer reviewed journals for the review focused on search items such as early childhood education, Ghana, Teacher Preparation, and Pre-service Teacher Preparation since 2009. The criteria for inclusion and exclusion of search terms for the literature review concentrated on only peer reviewed articles that have been published since 2009.

According to Ghana's Ministry of Education (2004), the government of Ghana has set up a National Nursery Teachers' Training Centre where teachers who specialize in nursery education and nursery attendants are trained. The preschool or nursery teacher-training course lasts three months after which a certificate is awarded. The basic level initial teacher-training course in Colleges of Education lasts three years after which a teachers' diploma is awarded to successful candidates. In addition to the National Nursery Teacher Training Centre, the University of Cape Coast (UCC), and University of Education, Winneba, also provide a four – year degree programme in Early Childhood Education.

Initial teacher education in Ghana (also known as pre service teacher training) takes place largely or exclusively in institutions of higher education such as the universities, or Colleges of Education. It may be organized according to two basic models. In the first model, a student first obtains a qualification in one or more subjects, often an undergraduate Bachelor's degree from the traditionally non-education oriented Universities such as University of Ghana, Legon, or Kwame Nkrumah University of Science and Technology. Subsequent to securing employment as a teacher, the student continues schoolwork over an additional two-year period either by Distance Education, or by Sandwich during which period, such candidates take an eight-week residential course in education related courses in any of the education oriented Universities such as University of Cape Coast (UCC), or University of Education, Winneba (UEW) resulting in qualification to teach. The eight-week residential course is done for two consecutive years. In the alternative model, a student simultaneously studies one or more subjects, and the ways of teaching that subject concurrently, leading to a combined Bachelor's degree and a teaching credential from the education oriented Universities thereby qualifying as a teacher of that subject.

Concluding their paper on “Building new identities in teacher preparation for inclusive education in Ghana”, Agbenyega and Deku (2011) situated their paper in the general lack of adequate teacher preparation including teachers in early childhood education for Ghana's basic schools. They therefore proposed a new framework for teacher preparation in the light of the report of the Presidential Commission on the review of education in Ghana (MOE 2004), The report stated the objective of teacher education as the training and development of the right type of teacher who is competent, committed, and dedicated. Such a teacher should be able to:

1. Develop attitudes, values, and dispositions that create a conducive environment for quality teaching and learning in schools.
2. Apply, extend, and synthesize various forms of knowledge.

3. Facilitate learning and motivate individual learners to fully realize their potential.
4. Promote inclusive education at all levels.
5. Adequately prepare the learner to participate fully in the national development effort.

The question of what knowledge, attitudes, behaviours, and skills an early childhood education teacher should possess is a subject of much debate in Ghana. This is because early childhood education is a unique area that requires a distinct set of skills in its teacher preparation to enable such teachers perform well. However, generally, teacher education curricula can be broken down into four major areas:

1. Foundational knowledge in education – related aspects of philosophy of education, history of education, educational psychology, and sociology of education.
2. Skills in assessing student learning and supporting the learning of all subjects, using technology to improve teaching and learning, and supporting students with special needs.
3. Content area and methods knowledge, and skills often including ways of teaching and assessing a specific subject in which case this area may overlap with the first (foundational) level.

There is increasing debate about how to know in advance what kinds of knowledge and skills Ghanaian children need when they enter adult life, and or what the needs of society would be since the dynamics of politics in Ghana keep changing. It therefore becomes harder to know what kinds of knowledge and skills teachers should have. There is however extensive knowledge and research about the developmental needs of young children and therefore there is a comprehensive understanding of young children and their development that should inform the necessary skills sets needed by teachers. Increasingly, emphasis is being placed upon developing social skills and social competencies, which cut across traditional subject boundaries.

According to the Ghana Education Service (GES), Ghana has made tremendous gains in the area of early childhood education, but there are significant challenges in scaling up the quality of the early childhood education programme. In line with the recommendations of the Dakar World Forum for Education, and the Millennium Development Goals (MDGs), the government of Ghana mainstreamed Kindergarten into basic education, and through the Education Strategic Plan (ESP), 2010 – 2020, has prioritized expanding and improving comprehensive early childhood care and education. (GES 2016). In accordance with this provision, a five – year operational plan for transforming the sector was set up that included teacher training, pedagogy, and parental involvement. In the plan, twenty seven thousand (27,000) Kindergarten teachers were to receive mass transformational training based on a new vision and pedagogy of activity based learning, and child – centred, child – led approaches. Colleges of Education, the University of Cape Coast, and University of Education, Winneba, were to turn out each year two thousand, and three hundred (2,300) early childhood education specialist trained teachers, and finally, an established assessment, monitoring, and evaluation put in place.

The Ghana Education Service as part of the Education Reform of 1987, and the report of the President’s Committee of 2004 has organized several seminars and conferences with stakeholders on what the most effective strategies for educating and training the nation’s teachers. Reports from such conferences and seminars have shown that policy makers teacher educators, and other stakeholders seek a systematic and comprehensive preparation and training that meet the requirements for efficient teacher performance.

Significance of the Review

The early childhood sector in Ghana faces many challenges including lack of trained teachers, poor infrastructure, poorly developed teaching and learning, and issues regarding the

implementation of language policy among others. The Children's Act (1998), and the 2004 ECCD Policy which are strengthened by the 1992 Constitution of the Republic of Ghana and demonstrate the commitment to the promotion of pre service teacher preparation for early childhood education. The focus of teacher preparation and teacher education is on optimizing pre service teachers' knowledge of children's total development in the areas of personal awareness, emotional well – being, socialization, communication, cognitive, and perceptual motor skills.

Situating the review in the broader scholarly literature of early childhood education, evidence has shown that Kindergarten and for that matter early childhood education was developed as a non – academic approach to early learning and education, and the belief in the importance of connecting learning to real life. In Ghana, the Basic Education Act of 2004 cites early childhood education, which has to do with pre primary education given to children between ages one and five, as an integral part of basic education. It indeed represents the first important step in achieving the goals of Education For All (EFA).

The authors of the various works have reflected on the work of teachers, both in their preparation and in terms of their on-going professional learning and development. The indications were clear in their works that there should be culturally responsive and grounded programmes for teacher education to enable teachers gain greater insight into the diversities that are apparent in children's lives so that they are able to provide contexts in which individuals feel that their identity is honoured and respected. What this means in the Ghanaian context is that, curricula and programmes for early childhood teacher preparation should be context specific to the needs and cultural aspirations of the communities from which the children are found. It must recognize the diverse qualities of children and their families in a global context of educational opportunities for children.

Policy makers including the Ghana Education Service, Ministry of Education, and the Ministry of Women and Children's Affairs are awakened by the call for better and efficient ways of preparing pre service teachers for early childhood education. Stakeholders including parents, and non-governmental organizations (NGOs) also have a responsibility to sit up and ensure that they all put their hands to the wheels for the preparation of pre service teachers for early childhood education.

Teacher educators as well as pre service trainees also have to view the responsibility place on their shoulders as a call to national duty and to perform to the best of their ability. The Ministry of Education is the sector responsible for education at all levels (Kindergarten- University), while the Ghana Education Service is responsible for pre-tertiary education. Non-governmental organizations are bodies, agencies and institutions that are privately owned, and do enjoy government subvention.

Conclusion

In accordance with the provisions of the Education Strategic Plan (ESP), a five-year plan to transform teacher preparation, pedagogy, and government involvement in early childhood education has been formulated. There is also a commitment on the part of government towards reaching the goal of a systematic early childhood training programme as part of the Free Compulsory Universal Basic Education (FCUBE) agenda. The Early Childhood Care and Development (ECCD) Policy of Ghana focuses on building the capacity of ECCD practitioners and instructors among its goals and objectives. To achieve this, teacher education institutions such as the University of Cape Coast (UCC), University of Education, Winneba (UEW), and the Colleges of Education need to expand and maximize use of their facilities, as well as prepare researchers and early childhood teachers and leaders who can assume critical roles in advancing early childhood education throughout the nation. The importance and position of a highly prepared team of teachers for early childhood education in

Ghana cannot be overemphasized, and everything must be done to ensure that the state of pre service teacher preparation for early childhood education in Ghana is improved.

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