SCHOOL OF PUBLIC HEALTH

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SEXUAL ABUSE AMONG ADOLESCENTS IN PUBLIC JUNIOR HIGH SCHOOLS WITHIN SEKONDI-TAKORADI METROPOLITAN AREA

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my original work and that no part of it has been presented for another degree in this university or elsewhere.

…… 27-10-2023 ……..

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(STUDENT)

…… 27-10-2023 ……

DR. AGNES M. KOTOH DATE

(SUPERVISOR)

DEDICATION

I dedicate this work to God for his grace and mercies that abound toward me. He was with me throughout this journey. To my family and love ones for their love, care, and support.

ACKNOWLEDGEMENT

I give glory, honour, and adoration to the Almighty God for keeping me strong, and healthy throughout this journey. I am most grateful to my supervisor, Dr. Agnes M. Kotoh for her guidance and support during the period of the project work.

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LIST OF ABBREVIATIONS

AOR	Adjusted Odds Ratio
CI	Confidence Interval
COR	Crude Odds Ratio
HIV	Human Immunodeficiency Virus
JHS	Junior High School
LMICs	Low-and Middle-Income Countries
NGOs	Non-Governmental Organizations
SDGs	Sustainable Development Goals
STIs	Sexually Transmitted Infections
STMA	Sekondi-Takoradi Metropolis
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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ABSTRACT

Background: Sexual abuse is a major public health, human rights, and developmental issue that needs urgent attention, especially among adolescents and young people globally. Among adolescents, sexual abuse has tremendous direct and indirect consequences on the physical, psychological, and psychosocial health of the victims. Yet, little or no study has been conducted to explore sexual abuse among in-school adolescents in the Sekondi-Takoradi Metropolis. The present study sought to examine sexual abuse and its associated factors among in-school adolescents in public junior high schools (JHS) in the Sekondi-Takoradi Metropolis.

Methods: The study utilised an institution-based cross-sectional design to examine sexual abuse among in-school adolescents in public JHS. The study was conducted in the Sekondi-Takoradi Metropolis. A total sample of 400 adolescents in public JHS were recruited using a multistage sampling technique. Pretested semi-structured questionnaires were used to collect data from the adolescents. Frequencies and percentages were used to summarise the results of the categorical variables. A multivariable binary logistic regression analysis was performed to examine the factors associated with sexual abuse among in-school adolescents. The results of the logistic regression analysis were presented using crude odds ratio (COR) and adjusted odds ratio (AOR) with their respective 95% confidence interval (CI). Statistical significance was set at $p<0.05$. Stata software version 17.0 was used for the analysis.

Results: Out of the 400 in-school adolescents included in the study, 212 (53%) were females. The median age was 14 years (IQR: 13-14). More than half of the male (62.03%) and female (58.69%) adolescents had adequate knowledge of sexual abuse. More males (50%) than females (49%) of the adolescents studied had experienced sexual abuse. The age of the female adolescents was associated with sexual abuse. Ga/Adangbe female adolescents were more likely to experience

sexual abuse compared to Akan females [AOR=3.92, CI: 1.09, 14.12]. Females who had ever drunk alcohol had lower odds of experiencing sexual abuse than those who had never drunk alcohol [AOR=0.01, 95%CI: 0.00, 0.008]. Females who had adequate knowledge about sexual abuse had higher odds of experiencing sexual abuse than those who did not know [AOR=8.31, 95%CI: 1.41, 0.019]. Males who lived in self-contained apartments were more likely to experience sexual abuse compared to those in a singled room apartment [AOR=3.14, CI: 1.44, 6.80].

Conclusion: The study has shown that sexual abuse is prevalent among in-school adolescents in the Sekondi-Takoradi Metropolis. Majority of the in-school adolescents were knowledgeable about sexual abuse. The age of the adolescent, ethnic group, living arrangement, ever engaged in sexual intercourse, consumption of alcohol, and knowledge about sexual abuse were associated with sexual abuse. Age-appropriate comprehensive sexual education should be implemented in every basic school. Also, the Ghana Education Service together with the Family Health Unit at the Ghana Health Service should develop reproductive health curricula for basic schools.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Adolescence, defined as the period of life between the ages of 10 and 19 years is a unique era of human development and critical for laying the groundwork for optimal health (World Health Organization (WHO) (WHO, 2021). The stage of adolescence is special and differs markedly from childhood and adulthood. It starts with the appearance of secondary sexual characteristics and progresses to reproductive maturity and the development of adult mental processes and identity (Chime, Orji, Aneke, & Nwoke, 2021). Adolescents are regarded as a vulnerable group that needs special care and protection in societies, yet, they are mostly ignored (Jahan, 2011). Globally, adolescents are faced with health and social issues including violence, particularly, sexual abuse (Chime et al., 2021; WHO, 2020a).

Sexual abuse is a major public health, human rights, and developmental issue needing urgent attention (Tenkorang, Amo-Adjei, Kumi-Kyereme, & Kundhi, 2021). Due to the geographical and cultural variation across societies, it is difficult to define and measure sexual abuse. However, sexual abuse can be manifested in a variety of ways, including attempts to obtain sexual favors without consent, unwanted sexual comments, jokes, and advances, threats of harm, or the use of coercion or physical force to gain sexual contact and advantage (Tenkorang et al., 2021). Among adolescents, sexual abuse is regarded as a silent epidemic due to the frequent occurrence many of which are not reported (Mullinax, 2018).

Available data show that between 30 and 40 percent of teenage females suffer sexual assault before the age of 15 whilst 20 percent of boys experience sexual violence by the age of 19 (Mullinax, 2018). The WHO posits that 1 in 5 women and 1 in 13 men report having been abused sexually as

a child (WHO, 2020b). In the same report, it was revealed that 120 million girls and young women under 20 years of age have suffered one or more forms of forced sexual contact. Although evidence depicts that both males and females experience sexual abuse, the majority of the victims were females with males often regarded as perpetrators (Greathouse et al., 2015).

Studies conducted among adolescents demonstrated that disparities exist in the prevalence of sexual abuse. For instance, a study conducted among Swiss adolescents showed that 40.2% and 17.2% of girls and boys respectively, reported having experienced at least one type of sexual abuse during childhood (Mohler-Kuo et al., 2014). In the same report, it was revealed that the lifetime prevalence rates were 35.1% and 14.9% for sexual abuse without physical contact, 14.9% and 4.8% with physical contact without penetration, and 2.5% and 0.6% with penetration among girls and boys respectively (Mohler-Kuo et al., 2014). In Nepal, the prevalence of sexual abuse was 18.4 percent (Sharma & Magar, 2018).

In sub-Sahara Africa, adolescents experience sexual abuse similar to other regions. Udigwe et al. (2021) reported sexual abuse prevalence among adolescents to be 12% in Anambra State, Nigeria. A different study in Ife/Ijesa Zone of Osun State, Nigeria showed 23.7% and 20.8% of adolescents studied had experienced sexual abuse and rape respectively (Ogunfowokan & Fajemilehin, 2015). Also, a community-based study found that the prevalence of sexual abuse was higher among adolescents in slum areas in Lagos State (76.8%) compared to non-slum areas (58.3%) (Akinsulire, 2017). Additionally, 10 percent of adolescents in Johannesburg, South Africa were sexually abused in a study conducted by Otwombe et al. (2015).

Evidence suggests that sexual abuse among adolescents is associated with direct and indirect negative consequences such as mental health, physical health, behavioural, and social wellbeing (WHO, 2011). Relative to adolescent boys, girls are disproportionately affected by sexual violence

and coercion. They are vulnerable to sexual and reproductive health risks such as unintended pregnancies, unsafe abortions, and sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), during vaginal contact (Adigeb & Mbua, 2015; Ali & Ali, 2014; WHO, 2011). Also, sexual violence among adolescents is associated with psycho-socio-emotional effects such as stress, anxiety, depression, and posttraumatic stress disorder (Kyale, 2021; Adigeb & Mbua, 2015; Ali & Ali, 2014). Sexual violence can impede the educational achievement of the victims through low academic motivation and poor self-esteem (Adigeb & Mbua, 2015; Ali & Ali, 2014).

Ghana is not exempted from the menace of sexual abuse among adolescents but data on the prevalence is scanty (Quarshie, 2021). Evidence suggests that the factors driving sexual abuse are complex and may be different for adolescent boys and girls. For instance, demographic characteristics, socioeconomic status, substance use, and familial ties are identified as important drivers of sexual abuse among adolescents (Emond, 2020; Bordoh et al., 2016; Sumner et al., 2016). Other studies have identified age, gender, care arrangement, parental absence, polygamous homes, parental level of education, school and schooling environment, unemployment of parents, poverty, and poor parent-child relationship (Müller et al., 2021; Quarshie, 2021; Bordoh et al., 2016; Veenema, Thornton, & Corley, 2015).

1.2 Problem statement

Sexual abuse among adolescents has tremendous direct and indirect consequences on the physical, psychological, and psychosocial health of the victims (WHO, 2019). Prominent among the negative consequences include unintended pregnancy, sexually transmitted infections, deaths, injury and fractures, and mental health problems such as depression, anxiety, and posttraumatic stress disorder (WHO, 2019). These consequences can abruptly interrupt the educational career of

the adolescent. Data from the United Nations Children's Fund (UNICEF) (2022) shows that more than 20 percent of adolescent girls reported experiencing sexual violence including rape and sexual coercion within 12 months before the survey. Additionally, 4 percent of adolescent girls experienced sexual abuse by family members and relatives whilst 22 percent were abused by both domestic and non-domestic individuals in Ghana (UNICEF, 2022).

Furthermore, limited evidence exists on sexual abuse among adolescents in Ghana. Out of the few reports, the majority are from media agencies (Abbey, 2020; Quarshie et al., 2018; Quarshie et al., 2017). However, little data is available on the prevalence of sexual abuse among adolescents (Quarshie, 2021). Also, the few data on sexual abuse among adolescents in Ghana employed retrospective cross-sectional design and surveys; which does not determine the current prevalence. (Tenkorang et al., 2020; UNICEF, 2022). These notwithstanding, most of the reports emphasized female adolescents' sexual abuse to the neglect of males; hence there is a lack of in-depth understanding of the phenomenon among female and male adolescents.

Moreover, to the best of my knowledge, no study has been conducted to explore sexual abuse among in-school male and female adolescents in the Sekondi-Takoradi Metropolis. This study thus seeks to determine the prevalence of and factors associated with sexual abuse among in-school boys and girls in the Sekondi-Takoradi Metropolis. The results would add to literature and inform interventions that can address all dimensions of the factors associated with sexual abuse to protect both female and male adolescents in Ghana and other low-and middle-income countries (LMICs) from sexual abuse.

1.3 Significance of the study

This study is the first of its kind to examine sexual abuse among school-going adolescents in the Sekondi-Takoradi Metropolis. There is little information or data on male adolescent sexual

violence, indicating a gap in the literature. In addressing this gap, Quarshie (2021) reported that the prevalence of sexual violence was 17.6% among adolescents (males = 10.4%; females = 24.3%) in the Greater Accra Region. The findings from the study will provide data for sexual abuse among adolescent girls and boys in the Sekondi-Takoradi Metropolis. Also, findings will contribute to the formulation of comprehensive policies and inform the development of appropriate strategies to prevent sexual abuse among adolescents. Furthermore, the results will serve as a wake-up call to the Ministry of Health, Ghana Health Service, Ghana Education Service, Ministry of Gender, Children and Social Protection, and other agencies on how best to deal with sexual abuse and ultimately contribute to attaining sustainable development goal (SDG) 5 (gender equality) and 3 (ensure healthy lives and promote well-being for all at all ages). This is because, addressing sexual violence against adolescents will prevent them from experiencing the negative physical, mental, and reproductive health risks associated with experiencing sexual violence. Similarly, sexual violence, most especially against girls violates their rights and this limits the achievement of the SDG 5 target 2 (eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation). Additionally, the findings from the study will serve as reference material for practitioners, researchers, and non-governmental organizations (NGOs) interested in adolescent well-being as well as inform further research.

1.4 Objectives of the study

1.4.1 General objective

The study sought to examine sexual abuse among adolescents in public Junior High Schools (JHS) in the Sekondi-Takoradi Metropolis.

1.4.2 Specific objectives

Specifically, the study sought to:

1. Assess adolescents' level of knowledge of sexual abuse
2. Determine the prevalence of sexual abuse among adolescents in public JHS
3. Examine factors associated with sexual abuse among adolescents in public JHS

1.5 Research questions

1. What is adolescents' level of knowledge of sexual abuse?
2. What is the prevalence of sexual abuse among adolescents in JHS?
3. What are the factors associated with sexual abuse among adolescents in JHS?

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This section reviewed studies done on sexual abuse of adolescents among public basic schools from journals, and database resources, among others. It covers adolescents' level of knowledge of sexual abuse, the prevalence of sexual abuse among students, perpetrators of sexual abuse against adolescents in public basic schools, and the factors associated with sexual abuse among adolescents in public basic schools.

2.2 Adolescents' knowledge of sexual abuse

To access its preventive measures, it is crucial to understand teenagers' knowledge of sexual abuse. According to Ayettey (2015), anybody including teenagers who engages in sexual activity should have easy access to information on sexual abuse provided by competent health professionals. Sexual abuse has increased globally, particularly in Asia and Latin America (Williams & Nelson-Gardell 2012). A study conducted in Nigeria found that 50.5% of adolescents had good knowledge of sexual abuse, 33.9% had fair knowledge, and only 15.9% had poor knowledge (Maitanmi et al., 2021). Also, Svensson, Baer, and Silva (2018) reported that the majority of adolescents in Swedish schools could correctly classify (crime versus non-criminal act) scenarios of rape, sexual molestation or harassment, and sexual exploitation of a dependent person, although only a few of the adolescents knew non-criminal scenarios. In Nepal, a study conducted among adolescents showed that 43.9% had high levels of awareness of sexual abuse (Sharma & Magar, 2018). It was further reported in the same study that the proportion of the average and low levels of awareness were 5.2% and 50.9%, respectively.

2.3 Prevalence of sexual abuse among adolescents

Sexual abuse among adolescents constitute a significant public health concern. However, studing this phenomenon has its own implications especially concerning its measurement and definition. Based on extensive review of the literature pertaining to sexual abuse among adolescents, three key limitations were found and they include the sample limitations, differences in the definition and measurement of sexual abuse in diverse geographical locations and contexts, and possible underreporting because of the sensitive nature of the subject, shame, and stigma that survivors suffer.

Despite these, several studies have been able to ascertain the prevalence of sexual abuse among adolescents in different geographical areas and countries. Data from clinical and nonclinical samples reveal that between 6% and 62% of girls and 3% to 76% of boys have experienced some type of sexual abuse (Barron & Topping, 2013). Studies that use clinical samples or particular populations, such as homeless youth, frequently indicate considerably higher prevalence rates than studies that are population- or school-based. For instance, Espelage et al. (2015) discovered that 35% of boys and 45% of girls had experienced sexual assault in the past when they were brought to a hospital for psychiatric treatment. Also, about 40% of Brazilian adolescents were victims of sexual abuse (Pedroso & Leite, 2022).

In Nigeria, the prevalence of sexual abuse among adolescents was 64% (Ajidagba et al., 2015). Within Ghana, Owusu-Addo et al. (2023) reported a 32.5% prevalence of sexual abuse among adolescents. According to Bekele, Zewde, and Neme (2017), 31.9% of adolescents in Ethiopian schools reported experiencing sexual abuse, compared to 4% of Brazilian youth (Fontes, Conceiço, & Machado (2017)). More than a quarter of female students in South Africa experience sexual

abuse regularly, and two out of every five girls do so at some time in their lives (Ajayi, Mudefi, & Owolabi, 2021).

2.4 Perpetrators of sexual abuse against adolescents

The frequency with which students engaged in sexual abuse behaviors over the previous year (2017) was assessed using a modified version of the sexual abuse perpetrators subscale. (Kwofie, 2018). Nine items make up this subscale, which evaluated the clustering of sexual abuse perpetration over the previous year (e.g., making sexual comments, spreading rumors, and pulling at the clothing of another student).

Friends or classmates (27.0%), strangers (21.2%), and neighbors (19.2%) were the most often mentioned perpetrators of the first episode of unwanted sexual touching among female respondents. Intimate partners and neighbors were the culprits who were most frequently reported by males (35.9% and 26.1%, respectively). A previous study conducted in Kerala has indicated that 31.59%, 23.65%, and 44.5% of victims were sexually abused by close friends, known family friends, and strangers, respectively (Mohan et al., 2021).

Additionally, Mekuria, Nigussie, and Abera (2015) found in Ethiopia that the common perpetrators of sexual abuse were friends, school teachers, neighbours, and family members. Other studies conducted in Western Ethiopia and Tanzania reported the perpetrators of violence against school children to be friends, teachers, peers, family members, and neighbours (Shimekaw, Megabiaw, & Alamrew, 2013; Kisanga et al., 2011).

Evidence from a previous study showed that 88.9% and 90.8% of female and male respondents respectively reported unwanted sexual contact (Barron & Topping, 2013). In the first occurrence, more than half of girls (56.1%) and 40.2% of males said the perpetrator was older than them. Of these, 29.5% of females and 42.4% of males said the perpetrator was 10 years or older. The first

event for males happened in their homes (29.1%) and school (15.6%) and while females' experience was at home (33%) and school (25.2%) (Meyerson et al., 2002). Also, Manyike et al. (2015) and Luis et al. (2022) reported that most of the perpetrators of sexual abuse are known acquaintances of the victims and some include their romantic partners and neighbours.

2.5 Factors influencing sexual abuse among adolescents

Several factors influence sexual abuse among adolescents. Notable examples of these factors include younger age, age at sexual debut, peer pressure, self-efficacy of sex, gender, and school environment. According to a previous report, young people are starting to abuse sexually younger and younger around the world (Burton, 2003). This age varies greatly between nations and is based on social norms, which may hurt a person's sexual behavior and result in sexual abuse. The age at which adolescents initiate sexual activity is crucial for public health because it has been established that doing so exposes them to potential short- and long-term sexual risks (Espelage et al., 2015). Adolescents are at a stage of experimentation and exploration. They have a lot of energy and drive to learn about themselves and society. Due to the pressures they face from society and their classmates, they are more susceptible to peer pressure, to experiment with activities such as substance misuse and sexual misconduct that are harmful to their health. Parental and peer pressure have both been linked to delays (Saewyc et al., 2003). Boys in Ghana were shown to be more than twice as likely to participate in sexual risk behavior themselves if they believed that their buddies were doing it. Female adolescents were significantly more influenced by their peers to participate in sexual activity (Kwofie, 2018). But it's also crucial to remember that previous research has demonstrated that peers can act as young people's best advocates and protectors. The behavior of young individuals who engage in sexual abuse has also been demonstrated to be significantly influenced by gender. Early onset of puberty is known to expose, particularly females, to the

opposite sex which may result in the early onset of intercourse, which is typically unplanned, unprotected, and nonconsensual (McCrann et al., 2006). This exposes them to injuries, risk of STIs, HPV infection, and possible long-term risk of cervical cancer, among many other things (Saewyc et al., 2003). One such aspect that affects sexual abuse is self-efficacy in safe sex practices, that is, one's level of confidence in taking on specific difficulties and tasks (Mears et al., 2003). Teenage years are characterized by experimentation, which can include dangerous sexual behavior. It has been proposed that a key predictor of performing a suggested deed is perceived self-efficacy (Barron & Topping, 2013). According to reports, those who are confident in their capacity to complete these chores typically see them as meaningful challenges, whilst others simply find them discouraging. In his theory that merely informing people about the risks of HIV will not be effective in the face of people's sexual decision-making, Bandura recognized the significance of applying the notion of self-efficacy to the regulation of sexuality among young people. He added that risky sexual behavior is more likely to be engaged in when one's perceived self-efficacy is lower. Therefore, individuals' beliefs about their capacity to use condoms properly and engage in safe sex must be taken into consideration when developing HIV interventions (Tang & Lee, 1999).

2.6 Conceptual framework

Ecological theory developed by Bronfenbrenner (1979) underpinned this study. However, the four constructs of the socio-ecological model were adopted in this study (Bhochhibhoya et al., 2019). The socio-ecological model provides a framework for comprehending the intricate interactions between different elements operating at different levels, which can lead to a variety of problems, such as adolescent sexual abuse. This paradigm acknowledges that a complex network of influences at many societal levels determines an individual's behavior and experiences. These

levels are commonly classified into four categories: individual, interpersonal, community, and societal (Bhochhibhoya et al., 2019; Sinanan, 2011). Using this lens to ascertain adolescents' sexual abuse can help shed light on the many contributing aspects to this problem.

2.6.1 Individual level

The socioecological model takes the adolescent personal traits into account at the individual level. An individual's likelihood of being sexually abused or abusing others can be influenced by various factors, including age, gender, past experiences, level of knowledge on sexual abuse, and mental health disorders (Ji et al., 2013; Houck et al., 2010). Adolescents who have gone through traumatic experiences as children, for instance, can be more susceptible to sexual abuse (Fergusson et al., 1996).

2.6.2 Interpersonal level

The paradigm concentrates on relationships and interactions at the interpersonal level. Adolescent sexual abuse is heavily influenced by family dynamics, peer interactions, and intimate partner relationships (Wang et al., 2013; Priebe & Svedin, 2009). Sexual abuse, for example, may be exacerbated by hostile home contexts or violent dating situations (Foshee et al., 2013).

2.6.3 Community level

The community level encompasses the immediate surroundings of adolescents, including schools, neighborhoods, and community organizations. Inadequate access to sex education, lack of awareness, and weak community support systems can contribute to sexual abuse (Alaggia, 2010; Cohen et al., 2004).

2.6.4 Societal level

The societal level considers broader cultural and societal factors. Media, norms, laws, and policies can shape attitudes and behaviors related to sexual abuse. For example, societies that stigmatize or downplay sexual abuse may discourage reporting or seeking help (Alaggia, 2010; Finkelhor et al., 2013).

In summary, a thorough comprehension of adolescent sexual abuse is possible when the socioecological model is applied. Taking into account all levels of issues can make prevention and intervention efforts more successful. Programs that encourage healthy relationships, teach consent to adolescents, and question cultural norms that condone sexual abuse, for example, have the potential to significantly lower the incidence of sexual abuse (DeGue et al., 2014).

Figure 2.1: Socio-ecological model adopted from Bhochhibhoya et al. (2019)

CHAPTER THREE

3.0 METHODS

3.1 Introduction

This chapter provides a description of the methodology and procedures that were used in carrying out the study. The section describes the study setting, study design, study population, sampling technique employed, sample size estimation process, data collection procedure, measurement of variables, data analysis, ethical considerations, and limitations of the study.

3.2 Study settings

The study was conducted in the Sekondi-Takoradi Metropolis. The metropolis is one of the 14 metropolitan/municipal/districts in the Western Region. It covers 119 square kilometers of land. Though, it is the smallest in terms of land size, it is densely populated and the most urbanized district in the region (Sekondi-Takoradi Metropolitan Health Directorate, 2022). The administrative capital is Sekondi, which is located in the southern section of the Western Region. It's around 280 kilometers east of Accra and 130 kilometers east of Cote d'Ivoire. Mpohor District is to the north, Shama District to the east, Effia Kwesimintsim Municipal to the northwest, Ahanta West is to the west, and Gulf Guinea to the south.

According to the Sekondi-Takoradi Metropolitan Assembly's Annual Report (2022), Takoradi, Kokompe, Effia Nkwanta, Sekondi, Essikado, Diabene, and Kojokrom are the seven sub-metropolitan areas. A report from the Ghana Statistical Service (2021) indicates that the metropolis has an estimated population of 245,382. In terms of age, adolescents and the elderly made up 32.6% and 6.1 percent of the population, respectively, while the working population made up 61.3

percent. In the year 2020, the sex ratio was 100 females to 96 men (Ghana Statistical Service, 2021). Regarding education, there are 93 junior high schools in the Sekondi-Takoradi Metropolis.

3.3 Research approach

Robust research methodologies are required to achieve the research objectives. In this study, the post-positivism philosophical approach was adopted for the study (Creswell & Creswell, 2017). The post-positivistic research paradigm implies that social phenomena may be objectively measured using techniques that are acceptable for acquiring the necessary data. With this paradigm, hypothesis testing is the primary goal. Hence, this paradigm formed the basis for this quantitative cross-sectional study.

3.4 Study design

The study employed a cross-sectional design to examine sexual abuse among in-school adolescents in Sekondi-Takoradi Metropolis. Although cross-sectional studies cannot be used to establish causality and are prone to interviewer biases, it is appropriate for this study because it provides an avenue to cross-examine sexual abuse and its associated factors from a subset of in-school adolescents without any follow-up (Setia, 2016). Additionally, it is less expensive, less time-consuming, and enables the simultaneous assessment and comparison of sexual abuse and independent variables of interest among in-school adolescents (Thiese, 2014).

3.5 Study population

The study comprised of in-school adolescents attending JHS in the Sekondi-Takoradi Metropolis.

3.6 Inclusion and exclusion criteria

3.6.1 Inclusion criteria

The study included adolescents aged 10-19 in public JHS and present during the period of data collection.

3.6.2 Exclusion criteria

Adolescents who met the inclusion criteria but were seriously ill during the period of data collection were excluded from the study.

3.7 Sample size determination

The sample size required for this study was estimated using the formula:

$n = \frac{z^2 \times p(q)}{d^2}$ (Snedecor & Cochran, 1989) where,

n = sample size to be estimated

z = reliability coefficient (z-score) of 2.05 at 96% confidence interval

p = prevalence from a previous similar study

d = margin of error of 4% (0.04), and q = 1-p.

With a 17.6% prevalence of sexual abuse among adolescents (Quarshie, 2021), the sample size was estimated as;

$n = 2.05^2 \times (0.176 \times 0.824) / (0.04^2)$

n = 380.91

Adjusting for 5% non- response rate, the sample size was estimated as;

n = (5/100) x 380.91

n = 19.05

Therefore, the sample size was 380.91 + 19.05 = 399.96

The number of students included in the study was 400

3.8 Sampling method

A multistage cluster sampling technique was used in this study to recruit the respondents. Stratified and simple random sampling techniques were the specific sampling methodologies employed in this study.

Stage I: Selection of clusters.

First, the list containing all the 92 basic schools with JHS was obtained from the Sekondi-Takoradi Metropolitan Education Directorate. The schools were segregated into seven sub-metropolis based on their location in the Sekondi-Takoradi Metropolis. Each sub-metropolis was treated as a cluster.

Stage II: Selection of schools from each selected cluster

In each cluster, one school was randomly selected for inclusion in the study. Proportionate stratified sampling method was used to apportion the sample per school based on the schools' population. As a result, the sample size per each selected school was estimated as;

$$N = \frac{School's\ population}{Total\ population\ for\ the\ seven\ schools} \times minimum\ sample\ size$$

The resulting figure from the above equation gave the sample size per school.

Stage III: Selection of adolescents in each selected school.

In each selected school and class, any adolescent who met the inclusion criteria and consented to participate were included in the study. The simple random technique using ballot was used to select the adolescents. In doing this, pieces of paper with the inscription "YES" or "NO" were folded, placed in a bowl, and reshuffled. All the adolescents in the JHS 1 and 2 were then asked to pick one of the folded papers from the container. Any adolescent who picked "YES" was included in the study. This selection procedure was repeated in all the seven schools included in the study.

3.9 Data collection procedure and instrumentation

3.7.1 Data collection instrument

A semi-structured questionnaire using face to face interviewing technique was used to collect data from the participants. The questionnaires were developed from the review of pertinent literature on sexual abuse or sexual violence among adolescents (Chime et al., 2021; Quarshie, 2021;

Quarshie et al., 2018; UNICEF, 2014a). The questionnaire was divided into four sections. Section A of the questionnaire contained demographic characteristics and section B covered questions on knowledge on sexual abuse. Section C contained questions on the experiences of sexual abuse, whilst section D covered questions on the perpetrators of sexual abuse.

3.7.2 Training of data collectors and preparation

Research assistants and a supervisor were trained to assist in the data collection. The training covered the process of obtaining consent from the respondents, discussion, and administration of the questionnaire, and its completeness. Before the commencement of the data collection, the questionnaire was pretested in schools in neighbouring districts (Mpohor District) to aid in correcting ambiguous questions thereby leading to their modification and adjustment. This district as chosen due to the similarity of socioeconomic and environmental characteristics of the Sekondi-Takoradi Metropolis.

3.7.3 Data collection procedure

Before the data collection, the principal investigator explained all the procedures, risks, and benefits to the understanding of the participants. Adolescents aged 18 years and above, who agreed to participate in the study after the informed consent form was clearly explained to them were interviewed. The study also included adolescents aged below 18 years, who assented to participate in the study and their school authorities consented. The data collection was carried out using face to face interviewer-administered questionnaire. The interview was conducted in English. The data collection took place at the school premises but in a separate and secured room.

3.10 Data management

During the fieldwork, the trained data collectors ensured the completeness of all questionnaires. At the end of fieldwork, the completed questionnaires were entered into a Microsoft Excel

Template. At the end of the data entry, the data was made accessible to the supervisor besides the principal investigator. The entered data was protected with an encrypted password. Strict confidentiality of the data collected was adhered to.

3.11 Data analysis

Data from the Microsoft Excel 2016 template was exported to Stata 17.0 for cleaning. Statistical analysis was carried out using Stata version 17.0 (Stata Corp, College Station TX, USA). Both descriptive and inferential analysis were performed. Descriptively, frequencies and percentages were used to present the results of the categorical variables. Frequencies and percentages were used to present the results of the adolescents' knowledge of and experience of sexual abuse. The results of continuous variables were presented using means and standard deviations. Pearson chi-square test was adopted to examine the distribution of sexual abuse across the independent variables. Also, the chi-square test was used to determine bivariate relationships between independent variables and sexual abuse among adolescents. Binary logistic regression technique was used to determine the factors associated with sexual abuse among adolescents. The results of the regression analyses were presented using crude odds ratio (COR) and adjusted odds ratio (AOR) with their respective 95% confidence interval (CI). The odds ratios and their confidence intervals were used to describe the strength of the association. In all the analyses, statistical significance was set at $p<0.05$.

In the analysis, adolescents' knowledge on sexual abuse determined using 11 questions, modified from the questions used to assess sexual abuse or violence (UNICEF, 2014a). A score of one (1) was assigned for a correct response and zero (0) for a wrong response for a respondent. The overall score ranged from 0 to 11. All the respondents whose overall score was 0 were categorised as

having no knowledge. Those with an aggregated score of 1 to 5 were categorised as inadequate whilst those with a score of 6 and above were categorised as having adequate knowledge.

3.12 Ethical consideration

3.12.1 Ethical clearance

Ethical approval was sought from the 37 Military Hospital Institutional Review Board, Accra before the start of the study. The ethical approval reference number is 37MH-IRB/MP/IPN/655/2022.

3.12.2 Institutional approval

Permission to conduct the study in the seven facilities was obtained from the Sekondi-Takoradi Metropolitan Education Directorate and the heads of the various schools. Approval letters were obtained from Sekondi-Takoradi Metropolitan Education Directorate and presented to the head teachers of the various schools for permission before the data collection began.

3.12.3 Informed consent

The purpose of the study was explained to all the respondents. Informed consent was obtained from the respondents who were aged 18 years and above before participation in the study. For those aged less than 18 years, child assent forms and guardian consent from the school authorities were obtained before their inclusion in the study. The respondents were informed that participation was voluntary and they were free to withdraw from the study without justification at any time.

3.12.4 Anonymity and confidentiality

The principal investigator ensured that no names, phone numbers, addresses, or any identifiable information that can be traced to any respondent was captured on the questionnaires. Unique codes were assigned to each respondent and used in the analysis. Also, the respondents were assured that

any information provided would be strictly confidential and that accessibility to the data would be granted to only the principal investigator and the supervisor.

3.12.5 Voluntary participation and withdrawal from the study

All the study procedures were clearly stated in the informed consent and explained to the respondents in English. The respondents were informed that participation in the study was voluntary and that they were at liberty to withdraw from the study at any time without any implications.

3.12.6 Risk of the study

There were no anticipated risks for participating in the study. However, study respondents might feel uncomfortable in responding to some of the questions. Given this, the questions were worded in a manner to reduce such negative effects.

3.12.7 Benefits of the study

There were no direct benefits to participating in the study. However, the respondents would benefits from the study based on the recommendations that would stem from the study. Also, clarifications and answers were provided at any time to the respondents. No pressure was placed on the respondents to respond to the questionnaire.

3.12.8 Data storage, security, and usage

The respondents' data were de-identified during data capture, entry, analysis, and storage by ensuring only the study codes were used. Anonymization techniques or data aggregation were used to avoid the disclosure of sensitive data. No research data was removed from the storage without authorization. A copy of the data was stored on the principal investigator's laptop computer hard drive and a duplicate copy was stored on an external hard drive. The data on the laptop and the

external hard drive were password encrypted. The principal investigator was responsible for ensuring data security. No identifiable information such as names and contacts was captured as each respondent was assigned unique codes only known to the principal investigator.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter presents the findings of the research. It presents the analysis of sexual abuse among adolescents based on the research objectives.

4.2 Characteristics of the study participants

The study covered 400 adolescents in public JHS between the ages of 11 and 19 years with a median age of 14 years (IQR:13-14). Female students comprised the majority (53%) and the males were about 47%. Akan was the major ethnic group among the students. More than 93.4% and 82.9% of the females and males respectively were Christians. Also, 11.2% of the male respondents and 2.3% females were Muslims. There were more females (56.3%) in JHS 1 than in JHS 2 (43.7%), while the number of males was almost the same for JHS 1 (50.8%) and JHS 2 (49.2%). More than 70% of the adolescents studied were from rural areas. About 66.7% of females and 73.3% of males had both parents living together. However, about 58.7% of females and 64.2% of males currently live with both parents. Also, 28.2% of females and 22.5% were living with their mothers. Most adolescents 67.5% of females and 61% of males share a room with others at home. Also, more than 59% of them share a washroom with others. The majority of the adolescents live in single-room accommodations. None of the females had ever smoked, while only one male had ever smoked. Out of the 213 females, 2.3% have ever drunk alcohol, while 3.7% of the 187 males had taken alcohol (Table 4.1).

Table 4. 1: Characteristics of the study respondents

Characteristics	Female = 187 n/N (%)	Male = 213 n/N (%)
Age (median, IQR)	14 (13-14)	14 (13-14)
Ethnicity		
Akan	161/213 (75.6)	135/187 (72.2)
Ga/Adangbe	29/213 (13.6)	25/187 (13.4)
Ewe	16/213 (7.5)	11/187 (5.9)
Mole-Dagbani	2/213 (0.9)	7/187 (3.7)
others	5/213 (2.3)	9/187 (4.8)
Religion		
Christianity	199/213 (93.4)	155/187 (82.9)
Islam	5/213 (2.3)	21/187 (11.2)
Traditional	5/213 (2.3)	8/187 (4.3)
Others religion	4/213 (1.9)	3/187 (1.6)
Class		
JHS 1	120/213 (56.3)	95/187 (50.8)
JHS 2	93/213 (43.7)	92/187 (49.2)
Residential		
Rural	160/213 (75.1)	136/187 (72.7)
Urban	53/213 (24.9)	51/187 (27.3)
Living with both parents		
No	71/213 (33.3)	50/187 (26.7)
Yes	142/213 (66.7)	137/187 (73.3)
Currently living with		
Parents	125/213 (58.7)	120/187 (64.2)
Mother	60/213 (28.2)	42/187 (22.5)
Father	9/213 (4.2)	13/187 (7.0)
Other family members	19/213 (8.9)	12/187 (6.4)
Type of Accommodation		
Single room	95/213 (44.6)	101/187 (54.0)
Self-contain	71/213 (33.3)	59/187 (31.6)
Face-to-face	22/213 (10.3)	13/187 (7.0)
Others	25/213 (11.7)	14/187 (7.5)
Share room with others		
No	69/212 (32.5)	73/187 (39.0)
Yes	143/212 (67.5)	114/187 (61.0)
Share washroom with others		
No	81/213 (38.2)	75/187 (40.5)
Yes	131/213 (61.8)	110/187 (59.5)
Ever smoked		
No	213/213 (100.0)	186/187 (99.5)

Yes	0/213 (0.0)	1/187 (0.5)
Ever drunk alcohol		
No	208/213 (97.7)	180/187 (96.3)
Yes	5/213 (2.3)	7/187 (3.7)

4.3 History of sexual intercourse by gender

Figure 4.1 shows the results of the sexual history of the adolescents. Among the female adolescents, 12.4% had ever had sex relative to 10.3% among the males. Also, 7.7% of male adolescents had ever had unwanted compared to 2.4% of females. Whiles none of the female adolescents willing agreed to engage in sexual intercourse, 0.5% of the males consented to engage in sexual intercourse.

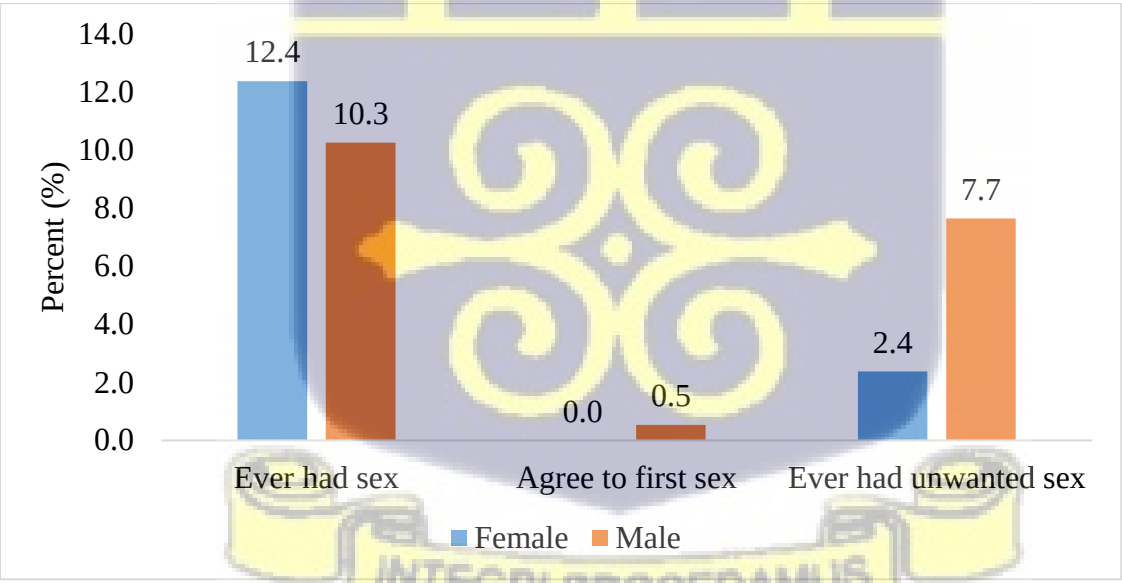

Figure 4. 1: History of sexual intercourse by gender

4.4 Knowledge of Sexual abuse among participants

More than half (54.6%) of the males and 42.7% of females have heard about sexual abuse. About half (50.9%) of the females agreed that receiving a picture of a penis and or vagina is sexual abuse, while 47.3% of males agreed.

More than half of the adolescents agreed that the following acts constitute sexual abuse; "A boyfriend and or girlfriend forcibly having sex with you, A boy or girl flashing genitals", "A man or woman offering sexual services to get or receive money or other gifts", "A boy fondles a girl's anus in school", "Someone makes you watch pornographic films against your will", "A boy/girl who falls asleep drunk and receives oral sex without his consent", "A boy/girl having masturbated someone to get a gift", "A boy/ girl who fondles buttocks or vagina/penis" (Table 4.2).

Table 4. 2: Knowledge of sexual abuse among the respondents

Characteristics	Female n/N (%)	Male n/N (%)
Have you heard about sexual abuse		
No	119/211 (56.4)	83/185 (44.9)
Yes	90/211 (42.7)	101/185 (54.6)
Don't know	2/211 (0.9)	1/185 (0.5)
A boy/girl who falls asleep drunk and receives oral sex without his consent		
No	85/212 (40.1)	59/186 (31.7)
Yes	111/212 (52.4)	97/186 (52.2)
Don't know	16/212 (7.5)	30/186 (16.1)
A boy/girl having to masturbate someone to get a gift		
No	79/212 (37.3)	60/186 (32.3)
Yes	117/212 (55.2)	115/186 (61.8)
Don't know	16/212 (7.5)	11/186 (5.9)
A boy/ girl who fondles a buttocks or vagina/penis		
No	82/212 (38.7)	50/186 (26.9)
Yes	113/212 (53.3)	118/186 (63.4)
Don't know	17/212 (8.0)	18/186 (9.7)
A boy/girl receiving a picture of a vagina/penis		
No	87/212 (41.0)	85/184 (46.2)
Yes	108/212 (50.9)	87/184 (47.3)
Don't know	17/212 (8.0)	12/184 (6.5)
A boy/girl having forcing sex with someone		
No	83/212 (39.2)	56/184 (30.4)
Yes	121/212 (57.1)	118/184 (64.1)

Don't know	8/212 (3.8)	10/184 (5.4)
A boy/girl flashing genitals		
No	89/212 (42.0)	57/184 (31.0)
Yes	111/212 (52.4)	108/184 (58.7)
Don't know	12/212 (5.7)	19/184 (10.3)
A man or woman offering sexual services to get or receive money or other gifts		
No	55/212 (25.9)	39/184 (21.2)
Yes	124/212 (58.5)	121/184 (65.8)
Don't know	33/212 (15.6)	24/184 (13.0)
A boy fondles a girl's anus in school		
No	62/212 (29.2)	66/184 (35.9)
Yes	135/212 (63.7)	98/184 (53.3)
Don't know	15/212 (7.1)	20/184 (10.9)
Someone makes you watch pornographic films against your will		
No	76/211 (36.0)	65/184 (35.3)
Yes	128/211 (60.7)	112/184 (60.9)
Don't know	7/211 (3.3)	7/184 (3.8)

4.5 Overall level of knowledge of sexual abuse

The study found that 62.03% of male adolescents had adequate knowledge of sexual abuse relative to 58.69% among females. More male adolescents (10.16%) did not know about sexual abuse while only 7.04% of the female adolescents had no knowledge as shown in Figure 4.2.

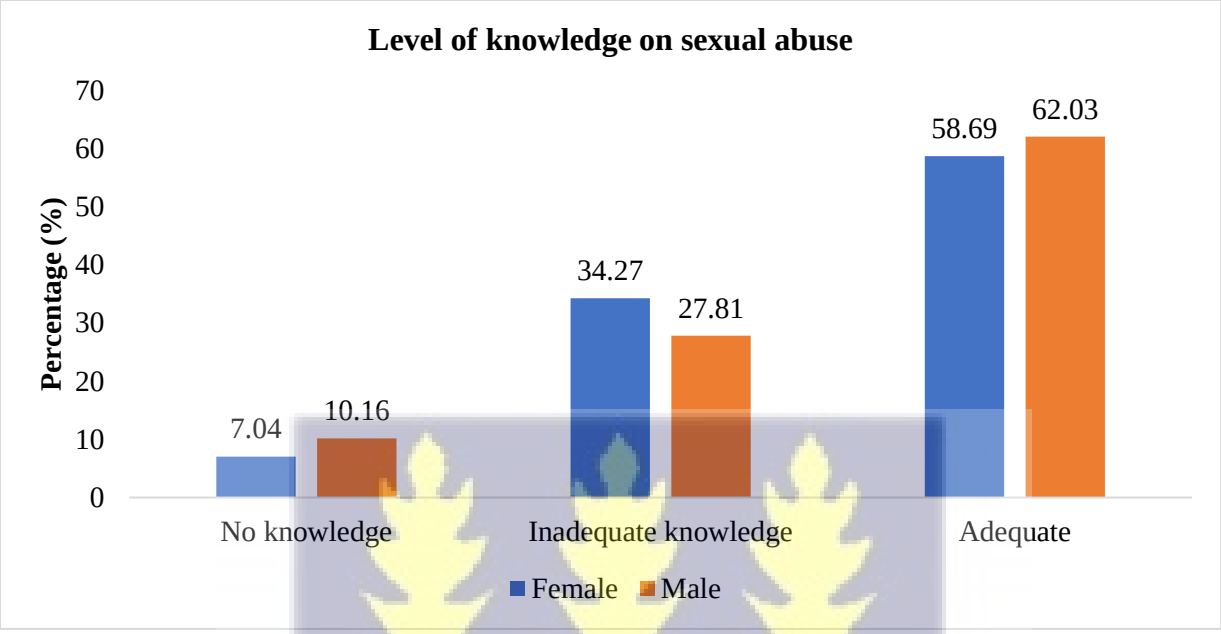

Figure 4. 2: Overall level of knowledge on sexual abuse

4.6 Experience of sexual abuse

The study found that 12.4% of female adolescents have had sexual intercourse, and 10.3% of male adolescents have. Of those, 2.4% of the females had had unwanted sex, while 7.7% of the males had. More males (50%) than females (49%) of the adolescents studied had experienced sexual abuse (Figure 4.3).

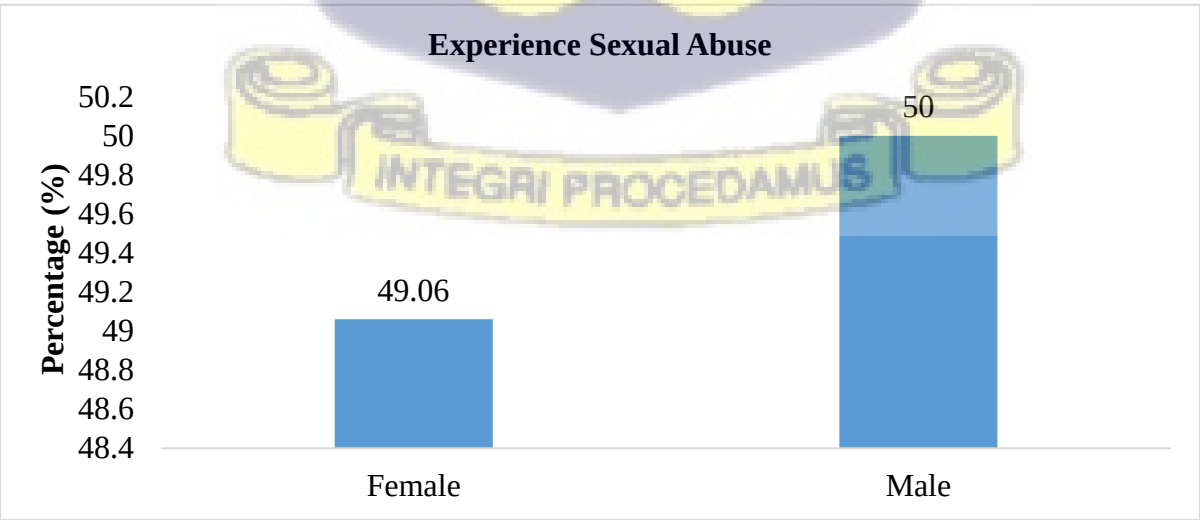

Figure 4. 3: Prevalence of sexual abuse among the adolescents

4.7 Factors associated with sexual abuse

The study found age to be significantly associated with sexual abuse for both males and females, with a median age of 14 years for both the abused and the non-abused groups. Ethnicity was significantly associated with sexual abuse. Of females, 42.9% of Akan adolescents experienced sexual abuse, among Ga/Adangbe (82.8%), Ewe (53.3%), Mole-Dagbani (50%), and other ethnic groups (40%). Of males, 47% of Akan adolescents experienced sexual abuse, Ga/Adangbe (68%), Ewe (72.7%), Mole-Dagbani (50%), and other ethnic groups (60%). Religion was not associated with sexual abuse for either females or males. More than half of the Christian adolescents had experienced sexual abuse. The class was not associated with sexual abuse. More than half of JHS 2 participants had experienced sexual abuse, 56.5% and 55.4% for females and males, respectively. The place of residence was not associated with sexual abuse. About half of the female participants in the rural areas had experienced sexual abuse and 43.4% for those in the urban areas. While more than half of the male participants in the urban areas had experienced sexual abuse and 49.6% of those in the urban areas. The type of accommodation was found to be significantly associated with sexual abuse. Sharing a room with others was associated with sexual abuse among female respondents but not males. Sharing a common washroom was found to be associated with sexual abuse. All female participants who had ever drunk alcohol were found to have experienced sexual abuse while 85.7 % of males who had ever drunk alcohol had experienced sexual abuse. There was a significant association between sexual abuse and ever-drunk alcohol in females but was not significant in males. All male participants who had ever had sex were found to have experienced sexual abuse while among the females, 96.2% had experienced sexual abuse.

Most adolescents agreed that when someone falls asleep drunk and receives oral sex without his consent, had experienced sexual abuse. Whereas among those who disagreed/didn't know, more than 30% had experienced sexual abuse.

The majority of adolescents agreed that when someone who fondles buttocks or vagina/penis had experienced sexual abuse. Whereas among those who disagreed/didn't know, more than 36% had experienced sexual abuse. Most (53%) of adolescents agreed that having to masturbate someone to get a gift had experienced sexual abuse. Whereas among those who disagreed/didn't know, more than 68% had experienced sexual abuse.

About half (49%) of adolescents agreed that when someone received a picture of a vagina/penis, had experienced sexual abuse. Whereas among those who disagreed, more than 39% had experienced sexual abuse. Most of the adolescents agreed that when a boyfriend/girlfriend forces sex, they had experienced sexual abuse. Whereas among those who don't know, all the males had experienced sexual abuse and 75% of the females had. The majority (54%) of adolescents agreed that when a boy/girl flashed genitals, had experienced sexual abuse. Also, among those who don't know, more than half (52%) had experienced sexual abuse.

The majority of adolescents agreed that when a man or woman offers sexual services to get or receive money or other gifts, had experienced sexual abuse. Whereas among those who disagreed, more than 35% had experienced sexual abuse. The majority (55%) of adolescents agreed that when a boy fondles a girl's anus in school, had experienced sexual abuse. However, among those who disagreed, more than 33% had experienced sexual abuse. Also, more than half (52%) of adolescents agreed that when someone makes you watch pornographic films against your will, had experienced sexual abuse. Whereas among those who don't know, more than 35% had experienced sexual abuse.

Table 4. 3: Factors associated with sexual abuse among the respondents

	Female			Male		
Factors	**No**	**Yes**	**p-value**	**No**	**Yes**	**p-value**
Age	14 (13-14)	14 (13-14)	0.14	14 (13-14)	14 (14-14)	0.18
Ethnicity			0.003			0.046
Akan	92/161 (57.1)	69/161 (42.9)		71/134 (53.0)	63/134 (47.0)	
Ga/Adangbe	5/29 (17.2)	24/29 (82.8)		8/25 (32.0)	17/25 (68.0)	
Ewe	7/15 (46.7)	8/15 (53.3)		3/11 (27.3)	8/11 (72.7)	
Mole-Dagbani	1/2 (50.0)	1/2 (50.0)		6/7 (85.7)	1/7 (14.3)	
others	3/5 (60.0)	2/5 (40.0)		5/9 (55.6)	4/9 (44.4)	
Religion			0.15			0.23
christianity	98/198 (49.5)	100/198 (50.5)		73/154 (47.4)	81/154 (52.6)	
Islam	2/5 (40.0)	3/5 (60.0)		13/21 (61.9)	8/21 (38.1)	
Traditional	4/5 (80.0)	1/5 (20.0)		4/8 (50.0)	4/8 (50.0)	
Others	4/4 (100.0)	0/4 (0.0)		3/3 (100.0)	0/3 (0.0)	
Class			0.057			0.14
JHS 1	68/120 (56.7)	52/120 (43.3)		52/94 (55.3)	42/94 (44.7)	
JHS 2	40/92 (43.5)	52/92 (56.5)		41/92 (44.6)	51/92 (55.4)	
Residence			0.34			0.87
Rural	78/159 (49.1)	81/159 (50.9)		68/135 (50.4)	67/135 (49.6)	
Urban	30/53 (56.6)	23/53 (43.4)		25/51 (49.0)	26/51 (51.0)	
Living with both parents			0.41			0.51
No	39/71 (54.9)	32/71 (45.1)		23/50 (46.0)	27/50 (54.0)	
Yes	69/141 (48.9)	72/141 (51.1)		70/136 (51.5)	66/136 (48.5)	
Currently living with parents			0.15			0.5
Mother	58/124 (46.8)	66/124 (53.2)		58/119 (48.7)	61/119 (51.3)	
Father	38/60 (63.3)	22/60 (36.7)		24/42 (57.1)	18/42 (42.9)	
Other family member	4/9 (44.4)	5/9 (55.6)		7/13 (53.8)	6/13 (46.2)	
Type of Accommodation	8/19 (42.1)	11/19 (57.9)		4/12 (33.3)	8/12 (66.7)	
Single room			0.01			0.008
	50/95 (52.6)	45/95 (47.4)		62/101 (61.4)	39/101 (38.6)	

	41/70	29/70		22/58	36/58	
Self-contain	(58.6)	(41.4)		(37.9)	(62.1)	
	12/22	10/22		5/13	8/13	
Face-to-face	(54.5)	(45.5)		(38.5)	(61.5)	
		20/25		4/14	10/14	
Others	5/25 (20.0)	(80.0)		(28.6)	(71.4)	
Share room with others			0.024			0.071
	43/69	26/69		42/72	30/72	
No	(62.3)	(37.7)		(58.3)	(41.7)	
	65/142	77/142		51/114	63/114	
Yes	(45.8)	(54.2)		(44.7)	(55.3)	
Share washroom with others			0.001			0.047
	53/81	28/81		44/74	30/74	
No	(65.4)	(34.6)		(59.5)	(40.5)	
	55/130	75/130		49/110	61/110	
Yes	(42.3)	(57.7)		(44.5)	(55.5)	
Ever smoked						1
	108/212			92/185	93/185	
No	(50.9)	104/212 (49.1)		(49.7)	(50.3)	
				1/1		
Yes				(100.0)	0/1 (0.0)	
Ever drunk alcohol			0.021			0.054
	108/207	99/207		92/179	87/179	
No	(52.2)	(47.8)		(51.4)	(48.6)	
		5/5				
Yes	0/5 (0.0)	(100.0)		1/7 (14.3)	6/7 (85.7)	
			<0.00			<0.00
Ever had sex			1			1
	105/184	79/184		92/166	74/166	
No	(57.1)	(42.9)		(55.4)	(44.6)	
		25/26			19/19	
Yes	1/26 (3.8)	(96.2)		0/19 (0.0)	(100.0)	
			<0.00			
Knowledge on sexual abuse			1			0.039
	77/121	44/121		48/83	35/83	
No/don't know	(63.6)	(36.4)		(57.8)	(42.2)	
	30/90	60/90		43/101	58/101	
Yes	(33.3)	(66.7)		(42.6)	(57.4)	
Have you heard about sexual abuse			<0.00 1			0.061
	77/119	42/119		48/82	34/82	
No	(64.7)	(35.3)		(58.5)	(41.5)	
	30/90	60/90		43/101	58/101	
Yes	(33.3)	(66.7)		(42.6)	(57.4)	
		2/2			1/1	
Don't know	0/2 (0.0)	(100.0)		0/1 (0.0)	(100.0)	
A boy/girl who falls asleep drunk and receives oral sex without his consent			0.001			0.013
	56/85	29/85		38/59	21/59	
No	(65.9)	(34.1)		(64.4)	(35.6)	
	44/111	67/111		39/97	58/97	
Yes	(39.6)	(60.4)		(40.2)	(59.8)	
		8/16		16/30	14/30	
Don't know	8/16 (50.0)	(50.0)		(53.3)	(46.7)	

A boy/girl having to mustabate someone to get a gift			<0.001		0.009
No	58/79 (73.4)	21/79 (26.6)		38/60 (63.3)	22/60 (36.7)
Yes	45/117 (38.5)	72/117 (61.5)		53/115 (46.1)	62/115 (53.9)
Don't know	5/16 (31.3)	11/16 (68.8)		2/11 (18.2)	9/11 (81.8)
A boy/ girl who fondles a buttocks or vagina/penis			0.006		0.61
No	52/82 (63.4)	30/82 (36.6)		26/50 (52.0)	24/50 (48.0)
Yes	46/113 (40.7)	67/113 (59.3)		60/118 (50.8)	58/118 (49.2)
Don't know	10/17 (58.8)	7/17 (41.2)		7/18 (38.9)	11/18 (61.1)
A boy/girl receiving a picture of a vagina/penis			0.023		0.012
No	53/87 (60.9)	34/87 (39.1)		46/85 (54.1)	39/85 (45.9)
Yes	50/108 (46.3)	58/108 (53.7)		44/87 (50.6)	43/87 (49.4)
Don't know	5/17 (29.4)	12/17 (70.6)		1/12 (8.3)	11/12 (91.7)
A boyfriend/girlfriend forcing sex			0.001		0.004
No	55/83 (66.3)	28/83 (33.7)		32/56 (57.1)	24/56 (42.9)
Yes	51/121 (42.1)	70/121 (57.9)		59/118 (50.0)	59/118 (50.0)
Don't know	2/8 (25.0)	6/8 (75.0)		0/10 (0.0)	10/10 (100.0)
A boy/girl flashing genitals			<0.001		0.3
No	61/89 (68.5)	28/89 (31.5)		33/57 (57.9)	24/57 (42.1)
Yes	42/111 (37.8)	69/111 (62.2)		49/108 (45.4)	59/108 (54.6)
Don't know	5/12 (41.7)	7/12 (58.3)		9/19 (47.4)	10/19 (52.6)
A man or woman offering sexual services to get or receive money or other gifts			<0.001		0.26
No	33/55 (60.0)	22/55 (40.0)		21/39 (53.8)	18/39 (46.2)
Yes	47/124 (37.9)	77/124 (62.1)		55/121 (45.5)	66/121 (54.5)
Don't know	28/33 (84.8)	5/33 (15.2)		15/24 (62.5)	9/24 (37.5)
A boy fondles a girl's anus in school			0.017		0.016
No	41/62 (66.1)	21/62 (33.9)		42/66 (63.6)	24/66 (36.4)
Yes	60/135 (44.4)	75/135 (55.6)		41/98 (41.8)	57/98 (58.2)

Don't know	7/15 (46.7)	8/15 (53.3)		8/20 (40.0)	12/20 (60.0)	
Someone makes you watch pornographic films against your will			0.011			0.31
No	49/76 (64.5)	27/76 (35.5)		36/65 (55.4)	29/65 (44.6)	
Yes	55/128 (43.0)	73/128 (57.0)		53/112 (47.3)	59/112 (52.7)	
Don't know	3/7 (42.9)	4/7 (57.1)		2/7 (28.6)	5/7 (71.4)	

4.8 Multivariable analysis of factors associated with sexual abuse

Table 4.4 shows the factors associated with sexual abuse among male and female adolescents. The study found that the odds of sexual abuse increases with age in females. GA/Adangbe females are more likely to experience sexual abuse compared to Akan females [AOR=3.92, CI: 1.09, 14.12, p-value= 0.037]. Females in urban areas had a reduced risk of experiencing sexual abuse compared to those in rural areas however was not statistically significant [AOR=0.81, 95%CI: 0.33, 2.00, p-value=0.654].

Females who had ever drunk alcohol had lower odds of experiencing sexual abuse than those who had never drank alcohol [AOR=0.01, 95%CI: 0.00, 0.008, p-value=0.010]. Females who had adequate knowledge about sexual abuse had higher odds of experiencing sexual abuse than those who had no knowledge [AOR=8.31, 95%CI: 1.41, 0.019, p-value=0.010].

The study found that age was not significant related to sexual abuse in males. Males who lived in self-contained apartments were more likely to experience sexual abuse compared to those in a singled room apartment [AOR=3.14, CI: 1.44, 6.80, p-value= 0.004]. Males in urban areas had a reduced risk of experiencing sexual abuse compared to those in rural areas however was not statistically significant [AOR=0.87, 95%CI: 0.38, 2.01, p-value=0.741].

Males who had ever had sex had higher odds of experiencing sexual abuse than those who had never had sex however was not significant [AOR=3.21, 95%CI: 0.26, 39.37, p-value=0.362]. Males who had adequate knowledge about sexual abuse had higher odds of experiencing sexual abuse than those who had no knowledge however was not significant [AOR=1.33, 95%CI: 0.38, 4.63, p-value=0.652].

Table 4. 4: Multivariable analysis of factors associated with sexual abuse among the adolescents

	Female		Male	
Characteristics	**AOR [95% CI]**	**P-value**	**AOR [95% CI]**	**P-value**
Age	1.98 [1.25, 3.13]	0.004	1.13 [0.75, 1.69]	0.572
Ethnicity				
Akan	1.00 [reference]		1.00 [reference]	
Ga/Adangbe	3.92 [1.09, 14.12]	0.037	2.51 [0.86, 7.34]	0.093
Ewe	3.10 [0.76, 12.67]	0.116	2.82 [0.55, 14.57]	0.215
Mole-Dagbani	3.84 [0.06, 261.50]	0.532	0.14 [0.01, 1.52]	0.106
others	0.96 [0.12, 7.82]	0.968	0.72 [0.15, 3.53]	0.688
Religion				
christianity	1.00 [reference]		1.00 [reference]	
Islam	0.97 [0.05, 18.00]	0.983	0.98 [0.31, 3.11]	0.979
Others	1.00 [0.00, 0.00]		0.74 [0.17, 3.22]	0.686
Class				
JHS 1	1.00 [reference]		1.00 [reference]	
JHS 2	1.96 [0.86, 4.50]	0.110	1.48 [0.75, 2.93]	0.263
Residence				
Rural	1.00 [reference]		1.00 [reference]	
Urban	0.81 [0.33, 2.00]	0.654	0.87 [0.38, 2.01]	0.741
Currently living with				
Both parents	1.00 [reference]		1.00 [reference]	
Mother	0.62 [0.25, 1.51]	0.292	0.78 [0.33, 1.84]	0.573
Father	3.31 [0.52, 21.18]	0.207	0.92 [0.24, 3.45]	0.896
Other family member	2.93 [0.70, 12.23]	0.141	1.98 [0.47, 8.36]	0.351
Type of Accommodation				
Single room	1.00 [reference]		1.00 [reference]	
Self-contain	0.67 [0.28, 1.61]	0.374	3.14 [1.44, 6.80]	0.004
Face-to-face	0.59 [0.15, 2.37]	0.454	2.69 [0.67, 10.89]	0.165
Others	8.85 [1.93, 40.64]	0.005	3.34 [0.83, 13.46]	0.090
Share room with others				

No	1.00 [reference]		1.00 [reference]	
Yes	0.77 [0.30, 1.99]	0.586	1.51 [0.66, 3.44]	0.327
Share washroom with others				
No	1.00 [reference]		1.00 [reference]	
Yes	2.17 [0.88, 5.39]	0.094	1.41 [0.64, 3.12]	0.392
Ever drunk alcohol				
No	0.01 [0.00, 0.08]	<0.001		
Yes	1.00 [reference]			
Ever had sex				
No			1.00 [reference]	
Yes			3.21 [0.26, 39.37]	0.362
Knowledge level				
No knowledge	1.00 [reference]		1.00 [reference]	
Inadequate knowledge	2.14 [0.35, 13.12]	0.411	0.76 [0.20, 2.90]	0.693
Adequate knowledge	8.31 [1.41, 49.16]	0.019	1.33 [0.38, 4.63]	0.652

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This section discusses the study's findings. The discussion was done per the study objectives, which include adolescents' sexual abuse knowledge, the prevalence of sexual abuse among adolescents in public JHS, and factors associated with sexual abuse among adolescents in public JHS.

5.2 Adolescents' level of knowledge of sexual abuse

The majority of adolescents included in the study were knowledgeable about sexual abuse. For instance, 50.9% and 47.3% of females and males agreed that receiving a picture of a penis and or vagina is sexual abuse. The findings on the level of knowledge of sexual abuse show that 62.03% of boys had adequate knowledge, 27.81% had inadequate knowledge whiles 10.16% had no knowledge at all on sexual abuse. Meanwhile, 58.69% of females had adequate knowledge, 34.27% inadequate and 7.04 had no knowledge at all of sexual abuse. These results are similar to reports from a study conducted in Nigeria, which found that more than half of the adolescents had good knowledge of sexual abuse whilst 33.9% had fair knowledge, and 15.9% had poor knowledge (Maitanmi et al., 2021).

Also, the current study identified that a higher percentage of both males and females have adequate knowledge of what constitutes sexual abuse. This finding corroborates the results of a study conducted in Nepal where 43.9% of adolescents had high levels of awareness of sexual abuse (Sharma & Magar, 2018). Svensson, Baer, and Silva (2018) also found that the majority of adolescents in Swedish schools could correctly classify(crime versus non-criminal act scenarios

of rape, sexual molestation, or harassment, and sexual exploitation of a dependent person, although only a few of the adolescents knew non-criminal scenarios. However, in the same study, the proportion of average and low levels of awareness was 5.2% and 50.9%, respectively, which are congruent with those in the current study (62.03%, 27.81%, and 10.16% of boys had adequate, inadequate, and no knowledge on sexual abuse, respectively whilst, whiles 58.69%, 34.27%, and 7.04% of females had adequate, inadequate and no knowledge on sexual abuse, respectively). The discrepancies in the proportion of adolescents' knowledge could be due to the differences in the school setting and curricula used. The present study was carried out among adolescents in JHS while the participants of the other studies were adolescents in SHS. Because access to information differs greatly at these levels, the high level of education may have influenced the level of knowledge reported. Also, the current study's findings imply that while adolescents may have heard about sexual abuse, they do not fully understand what it is or how to identify such cases. As a result, health educators should modify the mode of delivery of adolescent-related programmes on sexual abuse to make the information more understandable to adolescents.

5.3 Prevalence of sexual abuse among in-school adolescents

The prevalence of sexual abuse was found to be 49.06% and 50% among female and male adolescents, respectively in this study. Similarly, more than 40% of Brazilian adolescents were victims of sexual abuse (Pedroso & Leite, 2022). However, the current study's findings contrast with a Nigerian study, which found that 64% of respondents had experienced sexual abuse (Ajidagba et al., 2015). The current study's results contrast reports from studies conducted in Ghana, Ethiopia, and Brazil. For instance, the Ghanaian study reported a 32.5% prevalence of sexual abuse among adolescents (Owusu-Addo et al., 2023). The proportion of sexual abuse among adolescents in Ethiopian schools was 31.9% (Bekele, Zewde & Neme, 2017), whilst 4

percent of young people in Brazil experienced sexual abuse (Fontes, Conceição & Machado, 2017). In South Africa, more than a quarter of female students are sexually abused regularly, with approximately two out of every five girls experiencing it at some point in their lives (Ajayi, Mudefi & Owolabi, 2021). The diverse variables used to measure sexual abuse could have accounted for the differences in the prevalence of sexual abuse among adolescents. Also, the usage of only girls in some of the studies could have impacted the extent of sexual abuse prevalence taking into consideration the high proportion of sexual abuse among boys in the present study. The finding in the current study implies that adolescents attending public schools are at a higher risk of sexual abuse, especially those in JHS.

5.4 Factors associated with sexual abuse among adolescents

The current study found that increasing age was associated with a higher likelihood of sexual abuse. This finding is consistent with the report from a cross-sectional study conducted in Nigeria, which found that the likelihood of experiencing sexual abuse increases with increasing age. Similarly, Barbara et al. (2022) found that being aged 17 years and above was a major vulnerability to sexual abuse or violence. Also, a Nigerian study found that older adolescents were two times more likely to experience sexual abuse (Akinsulire, 2017). The observed findings could be that the younger adolescents failed to report most of their sexual abuse experiences compared to older adolescents. Similar to this assertion, Ajidagba et al. (2015) stated that younger people were not reporting sexual abuse possibly due to fear of retaliation, and could have impacted the findings of the study.

Additionally, in-school adolescents belonging to the Ewe ethnic group were more likely to experience sexual abuse, while those of the Mole-Dagbani tribe were less likely to experience it. Although the literature on the influence of ethnicity and sexual abuse has been studied, no exact

conclusion has been reached on the association between the two variables. Pedroso and Leite (2022) argued that the association between sexual abuse and ethnicity depends on where the research is conducted. As a result, the variation in the ethnic composition and their environment could have accounted for the observed findings in this study relative to the Mole-Dagbani ethnic group. Further studies are required to ascertain the factors influencing sexual abuse among adolescents belonging to the Ewe ethnic group.

Consistent with the finding from the literature (Abera et al., 2021), adolescents in urban areas had a reduced risk of experiencing sexual abuse compared to those in rural areas. However, the current result contradicts that of Pedroso and Leite (2022) who found that adolescents in urban areas were more likely to experience sexual abuse. A plausible justification for the observed differences in the findings could be that adolescents from cities have greater access to information through youth organizations, youth centers, the media, and the environment itself. Their counterparts living in rural areas may be denied such opportunities due to ignorance or the community they live in which prevents free and open discussion of reproductive and sexual issues (Abera et al., 2021).

Adolescents who live with their mothers had a reduced risk of experiencing sexual abuse compared to those living with both parents. This finding is congruent with that of a previous study conducted in Ethiopia, which reported that students living with a single parent were at higher odds of sexual abuse (Abera et al., 2021). The result could imply that children who live with their parents are subject to direct monitoring and follow-up because their parents care for their wards more. Also, both parents will be more concerned with their children's growth and development than single parents. Hence, their risk of sexual abuse is reduced (Mekuria, Nigussie, & Abera, 2015; Chinawa et al., 2014).

Living arrangement (living in self-contain, sharing washrooms, face-to-face apartment, and other types of apartment such as kiosks) was associated with sexual abuse among adolescents. This shows that the environment could influence the occurrence of sexual abuse among adolescents due to poor housing conditions. This assertion has been indicated in a previous study where adolescents from slum and socioeconomically disadvantaged households were more likely to experience sexual abuse (Akinsulire, 2017).

In-school adolescents who had ever drunk alcohol had higher odds of experiencing sexual abuse. This finding corroborates that of Otwombe et al. (2015) who reported that alcohol consumption is associated with exposure to and experience of violence among adolescents in South Africa. Another retrospective study conducted in Italy found that adolescents who drank alcohol were at higher risk of being sexually abused (Barbara et al., 2022). The indulgence in alcohol consumption might have increased the adolescents' vulnerability to sexual abuse by clouding their judgment of the happenings around them. Also, for those who got drunk, the alcohol could have derailed them of self-control which could have led them to involve themselves in unwanted sexual acts. Also, the observed association found in the study could be explained by the fact that alcohol leads to a reduction in the decision-making ability of an individual on sexual and reproductive health matters (Abera et al., 2021).

Adolescents who had ever engaged in sexual intercourse were more likely to experience sexual abuse. This finding is similar to the report from a study conducted in Ghana, where adolescents in romantic relationships were more likely to experience sexual abuse (Quarshie, 2021). In the same report, the author hypothesized that sexual abuse among adolescents in sexual relationships, including those who ever had sex could be viewed from the lens of violence in an intimate relationship, where violence such as sexual abuse is predominantly perpetrated against partners.

Also, the finding may be indicative of the emerging evidence that boys in intimate relationships are beginning to disclose or report sexual abuse victimization, in addition to implying that boys are not immune to intimate partner sexual violence victimization (UNICEF, 2014b).

Further, the adolescent whose knowledge of sexual abuse, those who knew, and those who did not know that flashing genitals and masturbating someone to get a gift constituted sexual abuse were more likely to be sexually abused. In this study, adolescents' exposure to the mass media (radio, television, internet, and print media) could have provided them with information on actions toward adolescents deemed sexual abuse. For instance, adolescents might have learned about sexual abuse from certain movies they watch. This notwithstanding, some of the adolescents might have received education from their parents on what constitutes sexual abuse from their peers and others. However, a plausible reason for the higher likelihood of sexual abuse among the category that does not know certain actions perpetrated against them constitutes sexual abuse could be their normalization of those acts in certain homes and jurisdictions especially in friendly relationships and in most cultures (Chinwa et al., 2014). Among the adolescents who knew that certain actions against them constitute sexual abuse might have positioned themselves well to prevent being abused or instituted measures to prevent them from being abused as seen in this study.

5.5 Strength and limitations of the study

This study provides insights on sexual abuse among in-school adolescents as its first strength. Also, the findings of the study add to the limited evidence on sexual abuse in the repertoire of adolescent health literature in Ghana. However, there some limitations that need to be acknowledged. The cross-sectional nature of the study was not appropriate to establish a causal relationship between dependent and independent variables. Also, potential recall bias among

respondents answering questions relating to events happening in the past could have influenced the results of the study.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The study has shown that sexual abuse is prevalent among both male and female in-school adolescents in the Sekondi-Takoradi Metropolis. This implies that adolescent boys and girls are susceptible to this menace. The majority of the in-school adolescents were knowledgeable about sexual abuse. The factors identified to be associated with sexual abuse were the age of the adolescent, ethnic group, living arrangements, consumption of alcohol, and knowledge of sexual abuse.

6.2 Recommendations

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

1. The Ghana Education Service together with the Family Health Division of the Ghana Health Service should develop a reproductive health curriculum for basic schools. They should also carry age-appropriate comprehensive sexual education in every basic school.
2. The Ministry of Gender, Children and Social Protection agency in Sekondi-Takoradi and non-governmental organizations such as UNICEF and Child Right International should embark on advocacy and sensitization engagements on sexual abuse and reproductive health in the Sekondi-Takoradi Metropolis.
3. The Ghana Health Service should improve the adolescent and youth-friendly services in the metropolis.
4. The Sekondi-Takoradi Metropolitan Education Directorate and other stakeholders such as UNICEF and the Ministry of Gender, Children, and Social Protection should assist in

establishing school and community clubs that focus on educating adolescents on reproductive health and rights issues.

5. The laws governing sexual harassment policies in schools should be strengthened.

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APPENDIX ONE: CONSENT FORM

UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

SEXUAL ABUSE AMONGST ADOLESCENTS IN PUBLIC SCHOOLS WITHIN SEKONDI-TAKORADI METROPOLIS

Section A– CONSENT TO PARTICIPATE IN RESEARCH

General Information about Research

My name is Afua Amankwah, a student at the School of Public Health, University of Ghana Legon. I am conducting research titled "Sexual abuse amongst adolescents in public junior high schools within the Sekondi-Takoradi Metropolitan Assembly". The study seeks to assess whether adolescents (10-19 years) have experienced sexual abuse in their life, their knowledge of sexual violence, those who, initiate sexual abuse, action taken after experiencing abuse. The study will last for one month after commencement. Students in public schools will be included in the study.

After selection, I will ask you questions in four sections. The first section will be questions about your socio-demographic characteristics. The second set of questions will be on your knowledge about sexual abuse. Later, I will ask you questions regarding your experienced of sexual abuse in. The kind of people who abused you sexually and what you did after the abuse will be the last set of questions. You will spend about 20-30 minutes responding to the questionnaire.

Benefits/Risks of the study

Everybody who will be part of this study will continue to receive normal treatment as a student. Nobody will be treated better than anyone. There will be no risk to you for participating in the study except for the time you will spend responding to the questions. Due to the sensitive nature of the topic under stud, some of the questions will worded to reduce any harm to you in an attempt to recall past events.

Though, there will be no direct benefit to you for participating in the study, the results will provide a clearer understanding of what constitute as sexual abuse, the category of people who frequently abuse adolescents sexually, and what actions are taken by victims of abuse, recommendations that will could be provided could help prevent abuse and its negative consequence reduced.

Confidentiality

All the information that will be collected from you will not contain your name or any other identifiable information that can be traced to you. A special code unique to you will be used and to make it impossible for anyone to trace any information to you. The information that will be collected from you will be treated confidentially and will not be shared with anyone except my supervisor. The information is collected solely for academic purposes.

Compensation

You will not be given any compensation for participating in the study. The times the data will be collected will be planned in such a way that it will not cause any form of distraction to you. You will not experience any negative effects from participating in the study will be dealt by a counsellor.

Withdrawal from Study

Participation in this study is solely voluntary and you may withdraw at any time without any penalty. If you refuse to be part of this study or choose to withdraw from the study at any point in time, you will not be affected negatively in any way.

What happens after the study or when the participant changes his/her mind

At the end of the study, all information collected from you will be kept under lock and key and will be made accessible solely to the principal investigator and the supervisor upon request. When the information you provided is processed, findings will be shared with the Regional and Metropolitan Education Directorates, and the schools included in the study. In addition, findings will be shared with the School of Public Health, University of Ghana community, and the global community through conferences and publications. If you change your mind about participating in the study, you will not be denied any service or benefit and your information will be destroyed.

Contact for Additional Information

If you have any further questions concerning the study, feel free to contact:

Name: Afua Amankwah

Address: School of Public Health, University of Ghana, Legon.

Contact: +233(0) 24 497 2444 **Email**: afuaabimpong@gmail.com

The Right of Participant

This research has been reviewed and approved by the 37 Military Hospital Institutional Review (37MH-IRB). If you have any questions or further information about research participant you can contact the IRB Office between the hours of 7:30am-2:00pm through the Office mobile phone: 0591759506 or email addresses: irbmilhosp@gmail.com

Section B -**PARTICIPANT AGREEMENT**

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

_____

Name of Participant

_____ _____

Signature or mark of Participant Date

If participant cannot read and or understand the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____

Name of witness

_____ _____

Signature of witness / Mark Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____

Name of Person who Obtained Consent

_____ _____

Signature of Person Who Obtained Consent Date

APPENDIX TWO: PARENTAL OR GUARDIAN CONSENT FORM

UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

SEXUAL ABUSE AMONGST ADOLESCENTS IN PUBLIC JUNIOR HIGH SCHOOLS IN SEKONDI-TAKORADI METROPOLITAN ASSEMBLY

Section A – CONSENT TO CHILDS PARTICIPATION IN THE RESEARCH

General Information about Research

My name is Afua Amankwah, a student at the School of Public Health, University of Ghana. I am conducting research titled "Sexual abuse amongst adolescents in public junior high schools within Sekondi-Takoradi Metropolitan Assembly". The study seeks to assess whether your child (10-19 years) has experienced sexual abuse in his or her life, his or her knowledge of what sexual violence entails as well as those who initiate sexual abuse and the actions taken after the abuse will be explored. The study will last for one month after commencement. Your child/children in public junior high schools will be included in the study.

After selection, I will ask your child questions in four sections. The first section will be questions about your child's socio-demographic characteristics. The second set of questions will be on his or her knowledge of what constitutes sexual abuse among adolescents. Later, I will ask him or her questions about whether he or she has experienced sexual abuse in his or her life. The kind of people who abused him or her sexually and the action taken after the abuse will be the last set of questions. Your child will spend about 20-30 minutes responding to the questionnaire.

Benefits/Risks of the study

If your child will be part of this study, he or she will continue to receive normal treatment as a student. He or she will not be treated better than anyone. Due to the sensitive nature of the topic under study, I will word the questions to reduce any harm to your child in an attempt to recall past events. Any negative reaction from your child during his or her participation in the study will be addressed by a counsellor. There will be no direct benefit to you or your child for participating in

the study. There will be no risk to your child for participating in the study except for the time you will spend responding to the questions However, the results will provide clearer understanding of what your child perceives as sexual abuse, the category of people who frequently abuse him or her sexually, and whether he or she has been abused and actions that victims of abuse take so that recommendations could be provided to help the menace created by it.

Confidentiality

Your ward's information will be kept confidential. I will keep all answers private. Only people working on the study will see them. If we publish reports or give talks about this research, we will only discuss group results. I will not use his/her name or any other personal information that would identify him/her. To help protect his or her confidentiality, I will give him/her study data a code number, and keep it in a file with a password that only the researchers know. The file will be on a computer that only the researchers are allowed to use. I plan to keep this information for years, in case we or other researchers want to use it later for other studies. But I will follow the same steps we just described to keep it as confidential as possible.

Compensation and additional cost

There will be no stipulated compensation given to your child during the study. The times the data will be collected will be planned in such a way that it will not cause any distraction to your child. Your child will not experience any effects from participation in the study. There will be no additional cost to your child for participation in the study.

Withdrawal from Study

Your child's participation in the study is voluntary and the child may withdraw at any time without any penalty. Your child will not be adversely affected if he or she declines to participate or later stops participating in the study. Your child or the parent or child's legal representative will be informed on time if information becomes available that may be relevant to the child's willingness to continue participation or withdraw. However, if the child assent to participate and you decline to consent for his or her participation in the study, such a child will be withdrawn from the study. Also, if you consent for your ward to participate and the child decline to assent, he or she will not be included in the study.

What happens after the study or when the participant changes his/her mind

Your child will not receive any intervention during the study and his or her participation in the study will not attract any financial or material cost to the child. Hard copies of the information collected from your child will be kept in a secure cabinet and which will be accessible to only the principal investigator and the soft copies of the data will be kept in a file with a secure password. Information collected from your ward will be kept for 10 years after the study for reference purposes after which the manual data will be discarded. Findings from the study will be disseminated to yourself and the child and others in the municipality through an organized durbar.

Contact for Additional Information

- If you have any further questions about the study feel free to contact:

- **Name**: Afua Amankwah
- **Address**: School of Public Health, University of Ghana, Legon.
- **Contact**: +233(0) 24 497 2444
- **Email**: afuaabimpong@gmail.com

The Right of Participant

This research has been reviewed and approved by the 37 Military Hospital Institutional Review (37MH-IRB). If you have any questions or further information about research participant you can contact the IRB Office between the hours of 7:30am-2:00pm through the Office mobile phone: 0591759506 or email addresses: irbmilhosp@gmail.com

Section B- **CHILD PARTICIPATION AGREEMENT**

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and I agree that my child/ward should participate in this study as a volunteer. I will not have waived any of my rights by signing this parental consent form. Upon signing this form, I will receive a copy for my personal records."

_____ _____

Name of Parent/Guardian/LARS Name of Child

_____ _____

Signature or mark of Parent/Guardian/LARS Date

If participant cannot read and or understand the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed that his/her child should take part in the research.

_____

Name of witness

_____ _____

Signature of witness / Mark Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

_____

Name of Person who obtained Consent

_____ _____

Signature of Person who obtained Consent Date

APPENDIX THREE: CHILD ASSENT FORM

UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

SEXUAL ABUSE AMONGST ADOLESCENTS IN PUBLIC SCHOOLS WITHIN SEKONDI-TAKORADI METROPOLIS

Introduction

My name is Afua Amankwah, a student at the School of Public Health, University of Ghana. I am conducting research titled "Sexual abuse amongst adolescents in public schools within Sekondi-Takoradi Metropolis". The study seeks to assess whether the adolescents (10-19 years) have experienced sexual abuse in their life, their knowledge of what sexual violence entails as well as those who initiate sexual abuse. The study will last for one month after commencement. Students in public schools will be included in the study.

General Information

If you agree to be in this study, you will be asked to answer questions about yourself. You will also be asked questions about whether or not health workers follow the recommended guidelines in doing tuberculosis contact tracing for tuberculosis patients. All this information will be collected using a questionnaire.

Possible Benefits

If you take part in this study, you will not be given any money or material thing. However, you will benefit based on the recommendations that will be provided in the study.

Possible Risks and Discomforts

There will be no risk or harm to you for taking part in the study but you will spend time answering questions in the questionnaire.

Voluntary Participation and Right to Leave the Research

You can stop participating at any time if you feel uncomfortable. No one will be angry with you if you do not want to participate or partake at all, even if your parent(s)/guardian has agreed for you to participate.

Confidentiality

Your information will be kept confidential. I will keep all your answers private, and will not show them to your teacher or parent(s)/guardian. Only people working on the study will see them. If I publish reports or give talks about this research, I will only discuss group results. I will not use your name or any other personal information that would identify you.

To help protect confidentiality, I will give your study data a unique code number, and I will keep it in a file with a password that only the researcher will know. The file will be on a computer that only the researchers are allowed to use. I plan to keep this information for 10 years, in case I or other researchers want to use it later for other studies. But I will follow the same steps I just described to keep it as confidential as possible.

Contacts for Additional Information

You may ask me any questions about this study. You can call me, **Afua Amankwah** at any time on **24 497 2444** or talk to me the next time you see me.

Please talk about this study with your parents before you decide whether or not to participate. I will also ask permission from your parents before you are enrolled in the study. Even if your parents say "yes" you can still decide not to participate.

The Right of Participant

This research has been reviewed and approved by the 37 Military Hospital Institutional Review (37MH-IRB). If you have any questions or further information about research participant you can contact the IRB Office between the hours of 7:30am-2:00pm through the Office mobile phone: 0591759506 or email addresses: irbmilhosp@gmail.com

VOLUNTARY AGREEMENT

By signing or thumb printing below, it means that you:

- have understood what you will be doing for this study,
- have had all your questions answered,
- have talked to your parent(s)/legal guardian about this project, and
- agree to take part in this research

If you do not want to participate in this study, please **do not** sign or thumb print this assent form.

You and your parents will be given a copy of this form after you have signed/thumb printed it.

Child's Name: _____ **Researcher's Name: _____**

Child's Sign /Thumbprint: _____ **Researcher's Signature: _____**

Date: _____ **Date: _____**

APPENDIX FOUR: QUESTIONNAIRE FOR ADOLESCENTS

The research titled "***SEXUAL ABUSE AMONGST ADOLESCENTS IN PUBLIC JUNIOR HIGH SCHOOLS IN SEKONDI-TAKORADI METROPOLIS***" is being conducted by a student from the School of Public Health, University of Ghana, Legon. The information that will be collected from you is solely for academic purposes. No names will be included in the final report and every piece of information you provide will be treated confidentially.

Participant Code: ……. **Date:** …….

Name of School: ……...

Please carefully read the questions or statements below and provide your response by ticking/circling the appropriate response or by writing in the space provided.

Section A: Background characteristics of the adolescents

S/N	QUESTIONS	RESPONSES
001	Sex	1. Female 2. Male
002	Age (in complete years)	…….
003	What is your ethnicity?	1. Akan 2. Ga/Adangbe 3. Ewe 4. Mole-Dagbani 5. Other, specify …….
004	What is your religious affiliation|	1. Christianity 2. Islamic 3. African Traditional …. 4. Other, specify ……
005	Which class are you in now?	……..
006	Which community do you stay in?	……
007	Type of residential status?	1. Rural 2. Urban
008	Do your father and mother live together?	……
009	Who are you currently living with?	……
010	What is the occupation of the mother?	……
011	What is the occupation of the father?	……
012	What is the type of residential accommodation	1. Single room 2. Self-contain 3. Face-to-face 4. Others
013	Do you share rooms with other family members?	1. No 2. Yes
014	Do you share washrooms with other family members?	1. No 2. Yes
015	Have you ever smoked?	1. No

		2. Yes
016	If yes, how often do you smoke?	1. Rarely 2. Occasionally 3. Often
017	Have you ever drunk alcohol?	1. No 2. Yes
018	If yes, how often do you drink alcohol?	1. Rarely 2. Occasionally 3. Often

Section B: Knowledge of sexual abuse among adolescents

S/N	Question Boys	Response
001	Have you heard about sexual abuse?	1. No 2. Yes 3. Don't know
	Indicate in the statement below whether each constitutes sexual abuse or not	
002	A boy who falls asleep drunk and receives oral sex without his consent	1. No 2. Yes 3. Don't know
003	A boy having to masturbate someone in order to get a gift	1. No 2. Yes 3. Don't know
004	A boy who fondles a girl on her anus or buttocks	1. No 2. Yes 3. Don't know
005	A boy receiving a picture of a vagina	1. No 2. Yes 3. Don't know
006	A boyfriend forcing his girlfriend to have sex with him	1. No 2. Yes 3. Don't know
007	A boy flashing his genitals at a young girl	1. No 2. Yes 3. Don't know
008	A man or woman offering sexual services to get, or receive money or other gifts	1. No 2. Yes 3. Don't know
009	A boy fondles a girl in school	1. No 2. Yes 3. Don't know
010	Someone makes you watch pornography against your will	1. No 2. Yes 3. Don't know

S/N	Questions Girls	Response
001	Have you ever heard about sexual abuse?	1. Yes 2. No 3. Don't know
	Indicate in the statement below whether each constitutes sexual abuse or not	
002	A girl who falls asleep drunk and receives oral sex without his consent	1. Yes 2. No 3. Don't know
003	A girl having to masturbate someone in order to get a gift	1. Yes 2. No 3. Don't know
004	A girl who fondles a boy on her anus or buttocks	1. Yes 2. No 3. Don't know
005	A girl receiving a picture of a penis	1. Yes 2. No 3. Don't know
006	A girlfriend forcing his boyfriend to have sex with him	1. Yes 2. No 3. Don't know
007	A girl flashing his genitals at a young boy	1. Yes 2. No 3. Don't know
008	A man or woman offering sexual services to get, or receive money or other gifts	1. Yes 2. No 3. Don't know
009	A girl fondles a boy in school	1. Yes 2. No 3. Don't know
010	Someone makes you watch pornography against your will	1. Yes 2. No 3. Don't know

Section C: Experiences of sexual abuse by the adolescents

Please circle "yes" if you have ever experienced any of the following acts and "no" if you have not ever experienced any at all.

S/N	Question	Response
	Have you ever experienced any of the following	
001	Shown pornography	1. No 2. Yes
002	Unwanted kiss	1. No 2. Yes
003	Touched your breast, vagina, or penis	1. No

		2. Yes
004	Took their own cloths off	1. No 2. Yes
005	Forced you to take your clothes off	1. No 2. Yes
006	Made you touch their vagina or penis	1. No 2. Yes
007	Unwanted touch on your vagina or penis	1. No 2. Yes
008	Involved you in making pornography	1. No 2. Yes
009	Tried to or made you have sex with them	1. No 2. Yes
010	Gave you money in exchange for sex	1. No 2. Yes
011	Spoke or wrote about you in a sexual way	1. No 2. Yes
	In the last 12 months, have you experienced any of the following?	
012	Shown pornography	1. No 2. Yes
013	Unwanted kiss	1. No 2. Yes
014	Touched your breast, vagina, or penis	1. No 2. Yes
015	Took their own cloths off	1. No 2. Yes
016	Force you to take your clothes off	1. No 2. Yes
017	Made you touch their private parts	1. No 2. Yes
018	Unwanted touch to your breast, vagina or penis	1. No 2. Yes
019	Involved you in making pornography	1. No 2. Yes
020	Tried to or made you have sex with them	1. No 2. Yes
021	Gave you money for sexual things	1. No 2. Yes
022	Spoke or wrote about you in a sexual way	1. No 2. Yes
	History of sexual intercourse	
023	Have you ever had sexual intercourse?	1. No 2. Yes
024	If yes, at what age did you start having sex?	…….
025	Did you agree to do it?	1. No

		2. Yes
026	Have you ever had any unwanted sexual experiences?	1. No 2. Yes
027	If yes, what type of sexual abuse did you experience (more than one answer can be selected	1. Verbal harassment 2. Breast caressed 3. Unwelcomed kissing 4. Genitals touched 5. Vaginal intercourse 6. Anal sex 7. Oral sex 8. Others, specify ……

Section D: Perpetrators of sexual abuse

S/N	Question	Response
	Who forced you to have sex with you? (more than one answer can be selected)	1. Family member 2. Unrecognized person 3. School mate 4. School teacher 5. Neighbour 6. Other, specify ……
	If your answer is family member, what was the relationship of the perpetrator?	1. Father 2. Brother 3. Mother 4. Sister 5. Step father 6. Step mother 7. Uncle 8. Other, specify ……

APPENDIX FIVE: ETHICAL APPROVAL LETTER

Institutional Review Board
37 Military Hospital
Neghelli Barracks
ACCRA

Tel: 059 1759506
Email: irbmilhosp@gmail.com

anuary 2023

ETHICAL CLEARANCE

37MH-IRB/MP/IPN/665/2022

On 04 January 2023 the 37 Military Hospital (37MH) Institutional Review Board (IRB) approved your protocol.

TITLE OF PROTOCOL: Sexual abuse amongst adolescents in public Junior High Schools within Sekondi-Takoradi Metropolis

PRINCIPAL INVESTIGATOR(s): Afua Amankwah

Please note that a final review report must be submitted to the Board at the completion of the study.

Please report all serious adverse events related to this study to 37MH-IRB within seven (7) days verbally and fourteen (14) days in writing.

This certificate is valid till 03 January 2

DR EDWARD ASUMANU
(37MH-IRB, Vice Chairman)

Cc: Brig Gen AG Bugri
Commander, 37 Military Hospital