


**ADOLESCENTS' SOURCES OF INFORMATION AND KNOWLEDGE LEVELS ON
HIV/AIDS: A STUDY OF TWO COMMUNITIES IN THE EASTERN REGION, GHANA**

**BY
MOHAMMED ZUNURENE**

The watermark is a large, semi-transparent version of the University of Ghana crest. It features a shield with three yellow triangles pointing downwards at the top, a horizontal line, and a central yellow emblem consisting of four interlocking spirals. Below the shield is a banner with the Latin motto "INTEGRI PROCEDAMUS".

**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON,
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A
MASTER OF ARTS DEGREE IN COMMUNICATION STUDIES**

OCTOBER, 2014

DECLARATION

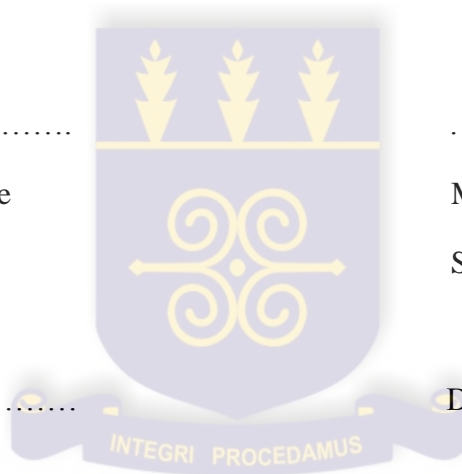
I hereby declare that except for the materials quoted from various sources which have been duly acknowledged, this study is the author's original work produced from research carried under supervision. I further declare that this work, either in whole or in part, has not been presented for another degree in this University or elsewhere.

.....
Dr. Margaret Ivy Amoakohene
Supervisor

.....
Mohammed Zunurene
Student

Date:

Date



DEDICATION

To my mother, Sawda and father, Abdul-Rahman, both of blessed memory

May Allah grant their souls peaceful rest.



ACKNOWLEDGEMENTS

I would like to, first and foremost, express my deepest gratitude to the almighty Allah for His abundant goodness, mercies and favour, without whose help I would not have come this far.

My profound appreciation also goes to Ambassador Dr. Margaret Ivy Amoakohene, who supervised my work despite her many academic and professional commitments. Her dedication to highest standards and, extraordinary attention to detail was truly an inspiration. I also thank Professor Ansu-Kyeremeh, Professor Kwame Karikari, Dr. Godwin Etse Sikanku and Mr. Gilbert Tietaah, all lecturers at the School of Communications Studies, and Mr. Sung Park, Fulbright scholar from Oregon University, United States, for their useful suggestions and critique which helped fine tune the focus and direction of this study.

I would also like to thank Mr. Benson Osei Tutu, I.T expert at the School of Communications' computer laboratory, for his assistance with the SPSS software used in the analysis of this study's data.

I am also grateful to my highly cherished elder sisters: Sakina, Aisha, Fati, Maria and Kataru, and elder brother, Zulkalaini for their love, prayers, support, and encouragement and most importantly, for believing in me.

Finally, I would like to thank all my friends and colleagues who assisted me in one way or the other so far as this dissertation journey was concerned.

Although this study has benefited hugely from some of the above mentioned persons, I accept responsibility for the ideas and opinions expressed, as well as any errors or omissions that may be identified.

ABSTRACT

This study investigated sources of information and knowledge levels of adolescents' on HIV/AIDS in two communities in the Eastern Region of Ghana. Using systematic sampling, one hundred and sixty adolescents (160) aged 10 to 21 were surveyed. Situated within the Health information-seeking behavior concept and the knowledge gap theoretical frameworks, the study revealed that Television (30.2%), Teachers (15.4%), Radio (10.3%) and Internet (10.3%) were the preferred sources; while Parents, Health workers, Books/Magazines and Newspapers were the least preferred sources of information on the disease among adolescents in the two communities. The main reasons given for the preferred sources were easy accessibility, usefulness, and truth and credibility of information from these sources. In the case of Television, its audio visual nature was one of the reasons it was preferred. The study also revealed a generally high knowledge level (95.6%) among respondents on the modes of transmission, prevention and treatment of the disease in both communities regardless of their socio-economic disparity. This notwithstanding, detailed analysis of responses to 'knowledge level' questions revealed significant misconceptions regarding modes of transmission, prevention and treatment of the disease in both communities, though more prevalent in Nsukwao Abotanso. Further, the findings of the study suggested that certain sources related to more knowledge levels than others. Results of the Chi-square test rejected the assumption that adolescents in Effiduase SSNIT were more knowledgeable than their counterparts in Nsukwao Abotanso. The test showed that respondents' socio-economic status did not determine their knowledge level.

TABLE OF CONTENTS

Contents	Page
DECLARATION	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
CHART	viii
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Background	1
1.2 Statement of the problem	5
1.3 Research objectives.....	5
1.4 Research questions.....	6
1.5 Research hypothesis.....	6
1.6 Significance of the study	6
1.7 Definition and Operationalisation of concepts	7
1.8 Organisation	9
CHAPTER TWO	10
THEORETICAL FRAMEWORK AND RELATED STUDIES	10
2.1 Introduction	10
2.2 The Knowledge Gap Hypothesis	10
2.3 The Health Information Seeking Behaviour Concept.....	15
2.4 Related studies	18
METHODOLOGY	29
3.1 Introduction	29
3.2 The research setting/area.....	29
3.3 Research design	30
3.4 Study population.....	30

3.5 Study sample/sampling technique	31
3.6 Instrument for Data Collection	32
3.7 Data analysis procedure	33
3.8 Demographic characteristics	34
CHAPTER FOUR.....	36
FINDINGS AND DATA ANALYSIS.....	36
4.1 Introduction	36
4.2 Awareness of HIV/AIDS	37
4.3 Relationship between respondents’ main source of information and community of residence	37
4.4 Usefulness of HIV/AIDS information	38
4.5 HIV/AIDS information seeking behaviour	39
4.6 Preferred sources of information	40
4.7 Reasons for preferred sources	42
4.8: Community of residence and knowledge level	43
4.9 Main source of information on HIV/AIDS and knowledge levels	50
4.10 Influence of HIV/AIDS information on adolescents’ behaviour	51
4.11 Test of hypothesis and interpretation.....	51
CHAPTER FIVE	54
DISCUSSION AND CONCLUSION.....	54
5.1 Introduction	54
5.2 Summary of findings	54
5.3 Discussion	55
5.3 Constraints.....	58
5.4 Recommendations.....	59
5.5 Conclusion.....	60
REFERENCES	61
APPENDIX I	68
APPENDIX II.....	71

LIST OF TABLES

Table	Title	Page
Table 1:	Cross tabulation of respondents' main source of information on HIV/AIDS by community of residence	37
Table 2:	Cross tabulation of respondents' preferred source of information on HIV/AIDS by community of residence	40
Table 3:	Respondents' reasons for preferred sources	42
Table 4:	Cross tabulation of respondents' knowledge on transmission of HIV/AIDS by community of residence	44
Table 5:	Cross tabulation of respondents' knowledge on prevention/control of HIV/AIDS by community of residence	46
Table 6:	Cross tabulation of respondents' knowledge on treatment of HIV/AIDS by community of residence	47
Table 7:	Cross tabulation of respondents' main source of information on HIV/AIDS by knowledge level	50
Table 8:	Cross tabulation of respondents' knowledge level by community of residence	51
Table 9:	Cross tabulation of respondents' knowledge score by community of residence	71

CHART

Chart Title	Page
Chart 1: Respondents' rating on the usefulness of information on HIV/AIDS	38



CHAPTER ONE

INTRODUCTION

1.1 Background

The Human Immunodeficiency Virus (HIV), according to the World Health Organisation (WHO, 2014) is a retrovirus that infects cells of the immune system and destroys or impairs their function. As the infection progresses, the immune system becomes weaker and susceptible to opportunistic infections. The most advanced stage of HIV infection, as WHO states, is Acquired Immunodeficiency Syndrome (AIDS).

Since the first HIV/AIDS cases were diagnosed in the United States in 1981 (Greene, 2007) and later spread to western Africa in 1986 (Clavel, Guetard, Brun-Vezinet, Brun-Vezinet, Chamaret *et al.*) as cited in (Sharp & Hahn, 2011), efforts have been made both nationally and globally to control the rate of prevalence, owing to the deadly nature of the disease (UNAIDS, 2013). In recognition of the need for an effective response to HIV/AIDS, the global community in the year 2000 took a historic step in the United Nations Millennium Declaration by placing the disease in the context of a broader development agenda. It was established as goal six of the Millennium Development Goals (MDGs) to ensure unprecedented action and commitment by member states to halt and begin to reverse the rate of infection (UNAIDS, 2013).

In Ghana, the Ghana AIDS Commission (GAC) was set up in 2001 by Act 613 of Parliament as a supra-ministerial body that operates directly under the Office of the President to coordinate the multi-sectoral national response to HIV/AIDS. Since its creation, the GAC has made significant progress in its functions of advocacy, policy formulation, resource mobilisation, monitoring and

evaluation. It has also made considerable headway in research and awareness creation with the collaboration and assistance of other partners such as the United Nations Agency for International Development (UNAIDS), Ghana AIDS Control Programme (GNACP), NGOs, corporate bodies, religious bodies, civil society groups, and the mass media (GAC, nd).

Although efforts being made both globally and nationally appear to be yielding fruits in terms of declining HIV prevalence, worldwide statistics, according to the HIV/AIDS Sentinel Survey Report, 2012 and the UNAIDS Global Report, 2013; indicated that about 34 million persons were still living with HIV/AIDS, two thirds (69%) of whom were living in Sub-Saharan Africa. The report also indicated that out of the 2.1 million adolescents (10-19 years) living with HIV in low and middle-income countries in 2012, an estimated 1.8 million were in Sub-Saharan Africa.

In Ghana, the 2013 HIV Sentinel Survey Report indicated that, an estimated 224,488 persons, including an estimated 34,557 children were living with HIV while 2,407 children were newly infected. Although HIV/AIDS prevalence is low in Ghana (1.3%) compared to other countries, the report indicated that the disease was firmly established within the entire society and sub-populations with higher prevalence and risk of transmission. The regional prevalence, according to the report, ranged from 3.7% in the Eastern region as the site with the highest prevalence to 0.8% in both the Northern region and Upper West region, as lowest.

Of all the modes of transmission of HIV/AIDS, sexual intercourse with an infected person has been identified as the commonest mode of transmission. Therefore, since adolescents and youth form the vast majority of sexually active individuals (Ott, Shew, Ofner, Tu, & Fortenberry (2008); Odonkor, Nonvignon, Adu, Okyere & Mahami (2012), they are important for health promotion efforts (Ybarra, Emenyonu, Nansera, Kiwanuka & Bansberg, 2008). This is

particularly crucial in terms of HIV/AIDS because as Oduro and Arnot (2010) observed, the notion of ‘education as a social vaccine’ continues to be an important weapon in addressing the sexual behaviour of young people in the absence of a cure for the disease (p.1).

The role of knowledge in addressing the HIV/AIDS pandemic, especially among young people is very key because knowledge about HIV/AIDS is considered an important step in behaviour change as against misconceptions that can prevent individuals from making informed choices and from taking appropriate action (UN, 2010; Thanavanh, Rashid, Kasuya & Sakamoto, 2013). For example, Thanavanh *et al.* observed safe practices related to safe sex among students with medium and high levels of knowledge. They also found students with medium and high levels of knowledge to be many times more likely to display positive attitudes towards people living with HIV.

In addition to efforts by the GAC and other partners to improve knowledge of the disease among mostly the at-risk population in Ghana, several studies, have been conducted with regard to various aspects of the disease. Some of these studies have looked at sources of information on the disease (for example Yoo *et al.*, 2005), knowledge and awareness levels (for example Appiah-Agyekum and Suapim, 2013; Asante and Boadi, 2013), knowledge and how it impacts on behaviour (for example Ocran and Danso, 2009), sources and knowledge levels (for example Hagan, 2012) etc.

Furthermore, there had been various interventions by youth groups and organisations such as World Education Ghana (WED), Planned Parenthood Association of Ghana’s (PPAG) Young and Wise, The Universal United Youth Organisation (UUY), Centre for the Development of People’s (CEDEP) Africa Youth Alliance etc. aimed at increasing coverage of HIV treatment

and prevention activities. Although efforts by these groups have, to a large extent, contributed to the reduction in the spread of the disease, factors such as earlier sexual debut and later onset of marriage, contextual conditions (such as poverty, homelessness, political strife, dislocation, socio-cultural reasons), barriers to quality STI prevention services etc. appear to pose significant threat to gains made so far (Sales & DiClemente, 2010).

Thus, in view of the adolescents' high level of vulnerability (Pedlow & Carey, 2003), a lot remains to be done, in terms of studies to ascertain sources on one hand, and knowledge levels on the other hand. Also, little has been done to examine the relationship between sources and knowledge levels of adolescents, especially within the context of the Eastern Region of Ghana, which has, relatively, recorded the highest HIV/AIDS figures in the country in the past 20 years (GAC, nd). Most of such studies were carried out outside Ghana, as will be noticed in the Related Literature section of this study. It is therefore imperative that while we incorporate successfully demonstrated strategies from past prevention efforts into current adolescents' STI/HIV prevention programs, we also continue to search for new ways to protect our youth, as well as teach them to protect themselves, from STI/HIV infections (Sales & DiClemente, 2010).

This research, which was conducted within the knowledge gap hypothesis and the health information-seeking behaviour concept, hopes to fill this gap, with the aim of providing valuable information to HIV/AIDS stakeholders concerning any gaps in knowledge of the disease as well as reveal effective channels and strategies to be used in order to communicate health and other forms of information to adolescents.

1.2 Statement of the problem

Kudolo, Kavi and Abdul-Rahman (2008) noted that, although adolescents' sexual reproductive health has become an issue of concern to governments, NGOs, and stakeholders all over the world, the needs of young people remain poorly understood or served in most parts of the world. This is despite the fact that a large percentage of the world's population comprises young people aged between 10 and 24 years, and the neglect of their health needs has major implications for a country's development. The World Health Organisation (WHO) estimated that, 70.0% of premature deaths in adults were due to behaviour initiated during adolescence.

According to a report on adolescents in Ghana published in the Research in Brief Series by the Alan Guttmacher Institute in 2004, six teenagers out of ten admitted having knowledge of HIV/AIDS has influenced their behaviour, although national studies, as stated by the Institute, have shown that fewer than half of adolescents who have heard of HIV/AIDS, have actually changed their behaviour.

Strategies for prevention of HIV/AIDS among adolescents will, therefore, require an understanding of their sources of information and knowledge levels so as to fashion out effective communication strategies to reach them. This will be accomplished, to a large extent, by investigating adolescents' sources of information and knowledge levels on HIV/AIDS.

1.3 Research objectives

The Objectives of this study were to:

- a. Find out the preferred sources of information on HIV/AIDS among adolescents in Nsukwao Abotanso and Effiduase SSNIT flats.

- b. Assess the knowledge levels of adolescents in Nsukwao Abotanso and Effiduase SSNIT flats on modes of transmission, prevention and treatment of HIV/AIDS.
- c. Determine the relationship between adolescents' main source of information on HIV/AIDS and knowledge levels.

1.4 Research questions

Based on the foregoing objectives, the following research questions were posed:

- a. To what extent does adolescents' community of residence determine their preferred sources of information on HIV/AIDS?
- b. Does adolescents' community of residence determine their knowledge levels on modes of transmission, prevention and treatment of HIV/AIDS?
- c. To what extent do adolescents' main sources of information determine their knowledge levels on HIV/AIDS?

1.5 Research hypothesis

The following was the hypothesis that was tested in the study:

H₁. Adolescents in Effiduase SSNIT are likely to be more knowledgeable on transmission, prevention and treatment of HIV/AIDS than adolescents in Nsukwao Abotanso.

1.6 Significance of the study

Ganle, Darko and Mensah (2012) noted that three decades of HIV/AIDS prevention among the youth in sub-Saharan Africa has not significantly eliminated the risk of HIV infection in that

group. This is in spite of the numerous publicity and awareness creation actions by stakeholders to help stem the spread. One of the significance of this study was its revelation of the impact, in terms of the knowledge level created among adolescents about the disease, by decades of publicity, and the sources of the knowledge or information. The study also revealed adolescents' main and preferred sources of information as well as helped in ascertaining whether knowledge levels related to particular sources. These, in addition to contributing to existing literature on HIV/AIDS, may also provide feedback to organisations engaged in HIV/AIDS awareness on the outcome of their effort. It may also inform health communicators as to the most appropriate and effective communication strategies and channels to employ in reaching adolescents in order to yield more positive outcomes. Another significance of this study was that it may inform the GAC and other stakeholders in the fight against HIV as to whether despite the awareness creation, gaps in knowledge still existed among adolescents in terms of communities in which they reside or their socioeconomic status as suggested by the knowledge gap hypothesis.

1.7 Definition and Operationalisation of concepts

For the purpose of this study, below were the meanings ascribed to some key concepts that were used:

- *Adolescents*- the Cambridge Advanced Learner's Dictionary (2008) defines adolescent as "young persons who are developing into adults". Adolescents for the purpose of this study, refers to persons within the ages of 10 and 21 years.
- *Information*- "Facts about a situation, person, event, etc" Cambridge Advanced Learner's Dictionary (2008)

- *Sources of information-* The medium/media, places, persons or organisations through which facts, knowledge, news, etc. on HIV/AIDS is obtained. In this study, sources of information were drawn from interpersonal sources, mass media sources, and group sources.
- *Preferred sources of information-* The medium/media, places, persons or organisations that people like better, desire or choose to receive facts, knowledge or news on HIV/AIDS.
- *Main source of information-* The primary, principal or major medium/media, places, persons or organisations that people obtained facts, knowledge or news about HIV/AIDS.
- *Knowledge level-* Knowledge is the “understanding of information about a subject which a person gets by experience or study, and which is either in a person’s mind or known by people generally” (Cambridge Advanced Learners Dictionary, 2008). Level of knowledge in this study is the amount or degree of information, facts or ideas which a person (an adolescent) possesses about a topic or issue. In this case, HIV/AIDS. Knowledge level for this study was divided into two: “high knowledge level” and “low knowledge level”. To determine whether a respondent had high or low knowledge level, respondents were required on the survey questionnaire, to answer 20 factual questions on HIV/AIDS covering the mode of transmission, prevention and treatment. The score for knowledge was arrived at by summing up correct scores of responses to the 20 factual questions. Each correct response was awarded one mark. Wrong responses, failure to provide a response and “I don’t know” answers attracted no mark. Respondents who

scored from 11 to 20 were considered as having a “high knowledge level” while those who scored from 0 to 10 were considered as having “low knowledge level”.

1.8 Organisation

This dissertation comprises five chapters. After this introductory chapter (chapter one), the theoretical framework and relevant literature are presented in chapter two. The research design employed in this study, sampling technique used, data collection procedure and data analysis methods are described in chapter three. Chapter four presents report findings and analysis of data. Finally, the discussion of findings, conclusions and recommendations for future research are presented in chapter five.

CHAPTER TWO

THEORETICAL FRAMEWORK AND RELATED STUDIES

2.1 Introduction

This chapter presents the concept and theoretical framework which underpins this study. The first part of this chapter reviews literature on the knowledge gap hypothesis and the health information seeking behaviour concept in broad contexts, with particular attention to their tenets and how they relate to this study. The second part reviews scholarly work related to this study. In view of the long and relatively extensive nationwide publicity on HIV/AIDS, these two theoretical frameworks were used complementarily: the health information seeking behaviour concept looked at the sources from which adolescents received information on HIV/AIDS, as well as their preferred and prominent sources. The knowledge gap hypothesis, on the other hand, was examined by assessing the knowledge levels of two groups of socioeconomically distinct respondents, in order to ascertain whether the several years of HIV/AIDS publicity has resulted in equal knowledge distribution and acquisition among them or not.

2.2 The Knowledge Gap Hypothesis

The knowledge gap hypothesis was first proposed in 1970 by Tichenor, Donohue and Olien in an article entitled, “Mass Media Flow and Differentials Growth in Knowledge” at the University of Minnesota. The authors observed that efforts by the mass media to improve people’s lives or to enhance democracy by increasing the quantities of the information they churned out might lead to the unexpected and unplanned outcome of increasing the difference or gap in knowledge between people of different social classes, instead of closing the gap in knowledge.

Tichenor *et al.* (1970) stated the knowledge gap hypothesis as follows:

As the infusion of mass media information into a social system increases, segments of the population with higher socio-economic status tend to acquire this information at a faster rate than the lower-status segments, so that the gap in knowledge between these segments tends to increase rather than decrease (p. 159)

The hypothesis suggested that, increase of information in society does not lead to an even acquisition of information by every member of society and that, people with higher socioeconomic status tended to have better ability to acquire information than their lower socioeconomic counterparts. This led to the creation of two groups: a group of better-educated people who knew more about most things, and those with low education who knew less.

Tichenor, Donohue and Olien (1970) added that there was the likelihood of knowledge gap occurring in general interest subjects such as public affairs and science news than in more specific areas such as sports that are related to people's particular interest. For the purpose of testing, the authors stated the knowledge gap hypothesis in the following two ways:

Over time, acquisition of knowledge of a heavily publicized topic will proceed at a faster rate among better educated persons than those with less education.

At a given time, there should be a higher correlation between acquisition of knowledge and education for topics heavily publicized in the media than for topics less highly publicized (p. 246).

In presenting evidence to support the first operational form of the hypothesis, Tichenor *et al.* (1970) used some time-trend data which were gathered by the American Institute of Public Opinion in four different polls that spanned a 16 year period. In each of those polls, respondents from three educational levels - grade school, high school and college, were asked whether they

believed man could reach the moon in the foreseeable future. It was found out that, the acceptance of the belief increased more rapidly among those with college education than among those with high school or grade school education.

With regard to supporting the second operational form of the hypothesis, Tichenor *et al.* used data from a field experiment in which respondents were given two science articles to read. One was a heavily publicised article while the other was a less publicised article. After some time, the respondents were asked to recall the contents of the articles. It was discovered that, there was higher correlation between education and understanding of the more publicised topic than there was for the less publicised one.

Tichenor *et al.* (1970) outlined five reasons that provided justification for the existence of knowledge gap. The first reason, according to them was that people of higher socioeconomic status were also highly educated and as such, had better communication, reading, comprehension and remembering skills than those of lower socioeconomic status.

The second reason they adduced was that the amount of background knowledge stored or acquired previously by people of higher socioeconomic status was more than that which had been stored or acquired by people of lower socioeconomic status. This background knowledge, according to them, made it easier for high socioeconomic status people to store and remember a topic or subject better than those of low socioeconomic status.

The third reason the authors presented was that people of a higher socioeconomic status might have a more relevant social context or contacts. In other words, people of high socio economic

status were likely to associate with people who were also exposed to public affairs and science news and might pass it on to them through discussions.

Giving their fourth reason, Tichenor *et al.* (1970) suggested that people of higher socioeconomic status were better in selective exposure, acceptance and retention because they were more likely to find information on public affairs and science news compatible with their value, attitudes or interest while the opposite was true for their lower socioeconomic status counterparts.

The fifth and last reason the knowledge gap proponents gave was that the mass media by nature were geared toward persons of higher socioeconomic status because according to them, much of public affairs and science news appeared in print media and that print media had been adapted to the taste and interest of higher status persons. This fifth claim by the authors, though might be true some years ago, is highly contentious and might not hold in contemporary times. With the advancement of technology and availability of several media, most news items or information can be accessed from a variety of sources and not only in newspapers. Newspapers are also not necessarily the preserve of higher status persons.

Since the formulation of the knowledge gap hypothesis, several researchers have suggested that it has to be restated more generally. Rogers (1976) stated that the gap should also apply to attitudinal and overt behavioural effects and not just to the impact on knowledge level. He also stated that the hypothesis should not be limited to impact of mass media alone but should also include the effects of interpersonal communication and the combination of mass and interpersonal communication.

This notwithstanding, several studies including ones by Neuman and Celano (2006); Kim (2008) had supported the knowledge gap hypothesis. For instance, in a survey of South Korean respondents to examine whether different forms of news media function to increase the gap in political knowledge between socioeconomic classes, Kim (2008) found a considerable gap in political knowledge between highly educated and less-educated respondents. He found an even greater gap among heavy newspaper readers and among political Web users. On their part, Neuman and Celano (2006) in a study to examine the implications of leveling the playing field for low-income and middle-income children, in terms of technological upgrade of their respective libraries, observed that despite heavy library use across low-income and middle-income children, quality differentials in the way resources were used appeared at all age levels, prior to, immediately after, and stronger still following technology renovations. Their study suggested that equal resources to economically unequal groups did not level the playing field. Instead, it appeared to widen the knowledge gap between low-income and middle-income children.

Contrary to the emphasis on education and socioeconomic status by the proponents of the hypothesis, several studies, including one by Genova and Greenberg (1981); Kwak (1999); Prior (2005), have found that interest or motivation was a stronger predictor of knowledge gain than education and status. Similarly, Spence, Lachlan and Burke (2011) in a survey of 691 Houston area residents in the wake of Hurricane Ike, to investigate any possible difference in crisis and risk communication and to contrast them with similar data collected following Hurricane Katrina, discovered narrowing knowledge gaps, as socioeconomic status did not predict informational needs or preparations for the storm.

On their part, Severin and Tankard (2001) also pointed out that the several studies that had found narrowed knowledge gaps had generally shown that although motivation to seek knowledge was the key variable leading to narrowing, it was not enough to have motivation to seek information: one must have access to the information as well.

Although several other studies have, beside socio-economic status, identified interest, motivation etc. as factors that could influence the knowledge acquisition of a heavily publicised topic, this study focused on the influence of socio-economic status and attempted to ascertain whether in general, socio-economic status related to adolescents' knowledge levels on HIV/AIDS. This study, in addition to mass media also considered the role of parents, family, teachers, friends, and religious leaders etc. as sources of information.

2.3 The Health Information Seeking Behaviour Concept

Most authors of articles on the above concept use the term “information seeking behaviour”. The word “health” is implied by the type of information sought (Lambert & Loiselle, 2007). Wilson (2000) defined human information seeking behaviour as the totality of human behaviour in relation to sources and channels of information including both passive and active information seeking and information use. According to Wilson (2002), information seeking behaviour arises as a consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services. This he said may result in success or failure to find relevant information. If successful, he/she then makes use of the information found. This may either fully or partially satisfy the perceived need, or fail to satisfy the need. If need is not satisfied, the individual may repeat the search process. Wilson also noted

that part of the information seeking behaviour might involve other people through information exchange, and that information perceived as useful might be passed to other people.

Lambert and Loiselle (2007) were of the view that the concept of health information seeking behaviour at first sight appeared to be well developed and used without apparent controversies or debate about its meaning. However, on closer examination, the concept affords multiple understandings. For example, while Barsevick and Johnson (1990) defined the concept as “actions used to obtain knowledge of a specific event or situation” (p. 3), Conley (1998) defined it as, “verbal or nonverbal behaviour used to obtain, clarify, or confirm knowledge or information about a specific event or situation” (p. 132). Lastly, Czaja, Manfredi and Price (2003) on their part defined the health information seeking behaviour concept as the number of sources from which an individual sought information.

Contrary to the forgoing definitions, Bates (2002) argued that information seeking must be considered with respect to all the information that comes to a human being during a lifetime, intentionally and unintentionally, and not just in those moments when a person actively seeks information. Bates (2002) explained that individuals’ environment can impart information to them without request, and terms this as “awareness”. According to Bates, the two passive modes of information-seeking, awareness and monitoring, almost certainly provided the vast majority of information for most people during their lives. Thus, from naturally conducting their lives and through the flow of people and happenings around them, individuals acquired information. This position appeared to be supported by Sulemani and Katsekor’s (2007) study of the Health Sciences Faculty at the College of Health Sciences of the University of Ghana Medical School, in which members resorted to PUBMED Journal as their source of access to full text articles

because of their lack of awareness of the availability of the HINARI and PERI, which were the two most resourceful text journal databases available at the library. This finding underscored the role of awareness in people's information seeking behaviour.

Poole (1985), after reviewing studies by a large number of researchers, confirmed that people use the principle of least effort in their information seeking, even to the point that they would accept information they knew to be less reliable, if it was more readily available or easier to use. Similarly, Walter (1994) as cited in Bates (2002) noted that most of what individuals knew and learnt came to them through passive undirected behaviour, or being aware and that even adults who have full freedom of movement, often relied almost entirely on whatever information that came their way socially and culturally in order to solve life or work problems. Walter also noted that children (including adolescents) gained information from simply soaking up what was in their environment, especially from the emotionally meaningful people around them. Additionally, Lambert and Loiselle (2007) noted that most individuals sought health-related information at any given time from a combination of personal sources such as friends and family, teachers, and impersonal sources such as television, books and the Internet. For example Borzekowski, Fobil and Asante (2006) found both in-school and out-of-school adolescents to have shown great interest, high level of efficacy and positive perceptions of online health information regardless of their age, gender and ethnicity.

The foregoing discussions provide, to some extent, an understanding of the various interpretations ascribed to the information-seeking behaviour concept, including where and how people sought or acquired information for various purposes. This study, within the context of this information seeking behaviour concept, in the wake of the relatively high publicity that HIV/AIDS continues to enjoy, sought to ascertain the preferred and main sources of information

on the disease among adolescents in Nsukwao Abotanso and Effiduase SSNIT flats, as well as what informs their decision to resort to or opt for one particular source instead of the other. Attempt was also made to find out whether people made personal effort to seek information or whether they only passively received what they were exposed to in the mass and other media.

2.4 Related studies

This section focuses on review of studies conducted both in Ghana and outside Ghana, which are related to this study. The research problem/topic, setting, demographics, methods, findings and conclusions found in these studies are discussed in this section under the following themes: Adolescents' sources of information, Adolescents' sources of information on HIV/AIDS, Adolescents' awareness and knowledge levels on HIV/AIDS, Adolescents' knowledge levels on HIV/AIDS and impact on behaviour, and Adolescents' sources of information and knowledge levels.

2.4.1 *Adolescents' sources of health information*

Koster, Kemp and Offei (2001) conducted a study among adolescent boys in the Eastern Region of Ghana to find out their sources of reproductive health information and the reasons for their low/non use of public health services. Qualitative methods including focus group discussions, semi-structured and informal interviews were used in the study. The findings suggested that adolescent boys learnt about sexual issues from their peers and the media, and sought reproductive health care from private practitioners such as pharmacists and herbalists. The study also revealed that boys received little reproductive health information from schools, parents or health services. Also, barriers such as age restrictions and hostile staff attitudes undermined their access to public services.

Borzekowski and Rickert (2001) conducted a cross-sectional, school-based survey among a socioeconomically and ethnically diverse sample of 412 suburban New York 10th graders. The study examined adolescents' use of and attitudes towards accessing health information through the Internet. They found that half (49%) of sampled adolescents had used the Internet to get health information. They also found that topics that were mostly explored through the Internet included sexually transmitted diseases. Their findings also revealed that adolescents found Internet information to be of high value based on its worth, trustworthiness, use, and relevance. These findings suggested that the Internet was an accessed and valued information source for adolescents on a range of sensitive health issues.

Bleakley, Hennessy, Fishbein and Jordan (2009) examined how sources of sexual information were associated with adolescents' behavioural, normative, and control beliefs about having sexual intercourse using the Integrative Model of Behaviour Change from a Survey data of 459 youths. They found that the most frequently reported sources were friends, teachers, mothers, and media. The study indicated that learning about sex from parents, grandparents, and religious leaders was associated with beliefs likely to delay sex while learning from friends, cousins, and media were associated with beliefs that increased the likelihood of having sexual intercourse. Different sexual information sources were associated with different underlying beliefs. In short, the study showed that different sources of information might disseminate different messages about sex and thus the sources adolescents relied on for sexual information might differentially influence their sexual beliefs as well as their sexual behaviour.

Wood, Senn, Desmarais, Park and Verberg (2002) conducted a survey to examine the impact of parents, peers, the media, and sex education on shaping adolescents' knowledge about dating relationships. They found out that friends and sex education teachers were perceived to provide

the most information, adults to provide the most accurate information, and friends to have the greatest influence on dating choices. In terms of sex, Wood *et al.* (2002) discovered that girls received more information on dating across sources, perceived parents and the media to be more accurate sources of information, and were more influenced by their parents than were boys. Boys, on the other hand, relied on dating partners and dating behaviour as sources of information than girls did.

Ybarra, Emenyonu, Nansera, Kiwanuka and Bansberg in a 2008 survey to examine sources of health information cited by secondary school adolescents in Mbarara, Uganda, found that four in five adolescents (81%) turned to parents, teachers, and other adults while around half read a book/went to the library or turned to siblings and friends for information about health and disease. More than one in three used the computer and Internet to search for health information. Older respondents were found to rely upon siblings and friends for all types of health questions whereas younger respondents, on the other hand, were found to be more likely to turn to parents, teachers, and other adults for their questions about sexual health. These findings suggested that adults might be important components of effective disease prevention and health promotion campaigns. The findings also suggested that multiple delivery methods might be especially effective for reaching older adolescents and that technology also might be an important health promotion tool in resource-limited settings.

2.4.2 Adolescents' sources of information on HIV/AIDS

Durojaiye (2011) in a cross-sectional survey of 315 tertiary institution students on knowledge of HIV/AIDS, attitude and sexual practices in Lagos, Nigeria discovered that most of the respondents (94.7%) obtained information about HIV/AIDS from the television, while parents

and teachers accounted for 58.9% and 61.6%, respectively. Other sources of information mentioned were the internet, religious institutions and information leaflets. Although the study found awareness and knowledge of HIV/AIDS to be high among tertiary education students, risk perception was low resulting in high-risk sexual behaviours. The study advocated for interventions aimed at influencing risk perception to curb the spread of the disease.

Another study by Asekun-Olarinmoye, Olajide and Asekun-Olarinmoye (2011) in a survey study of four hundred and fifty in-school adolescents in a sub-urban community in Southwestern Nigeria to assess their knowledge, attitude and practice of preventive measures of HIV/AIDS discovered that awareness of the existence of HIV/AIDS was very high. The study also revealed that the electronic media (i.e. Radio/TV) were the most frequent sources (59.9%) of information about HIV/AIDS among the respondents; other sources included school /teachers (55.1%), parents (35.0%), peers/friends (26.7%) and posters/magazines (28.8%). The study found knowledge levels to be high though certain misconceptions were revealed. The study recommended the provision of free/affordable HIV counseling and screening test centers in or near secondary school campuses and the inclusion of sex education in secondary school curriculum.

Yadzi, Aschbacher, Arvantaj, Naser, Abdollahi, Asadi *et al.* (2007) in a survey of Iranian adolescents on knowledge, attitudes and sources of information regarding HIV/AIDS discovered the television (84%) and school teachers (66%) as adolescents' best sources of HIV/AIDS information, while parents (27%) and school books (15%) were least informative. About ninety percent of the students knew that heterosexual intercourse and shared intravenous needles could cause HIV infection; however, the study unraveled some salient misconceptions. For example

only 53% were aware that condoms protected against infection through sexual intercourse. In terms of recommendation, this study agreed with Asekun-Olarinmoye et al.'s (2011) position that more effective school-based HIV/AIDS education was needed.

Yoo, Lee, Kwon, Chung and Kim (2005) in a survey study to examine HIV/AIDS knowledge, attitudes, related behaviours, and sources of HIV/AIDS information among high school aged students in South Korea identified television (52.5%) and school classes (32.1%) as respondents' two major sources of information on HIV/AIDS. Only a few pointed to their parents (1.3%) as source of information.

Similarly, Tavoosi, Zaferani, Enzevaei, Tajik and Ahmadienezhad (2004) in a survey of 4641 students from 52 high schools in Tehran, Iran to assess their knowledge and attitude towards HIV/AIDS also found that students relied on television as their most important source of information about AIDS. Their study revealed that though knowledge was high, misconceptions were rife among respondents. This could be attributed to misunderstanding of the information due to the manner in which it was packaged and presented on television. The misconceptions could also be the result of contradicting information which they received from other sources.

In the same way, Asante (2013) in a cross-sectional study conducted using structured questionnaire among 324 to determine the level of HIV/AIDS knowledge and to explore factors associated with the use of HIV counseling and testing among private university students in Accra, Ghana found that the majority of the students received HIV/AIDS information from both print and electronic media, including television, but few of them received such information from parents. Asante, indicated that though the students' HIV knowledge was very good, HIV testing was low.

Other studies such as a cross-sectional study by Thanavanh, Rashid, Kasuya and Sakamoto (2013) to assess HIV-related knowledge, attitudes and practices (KAPs) of high school students in Lao People's Democratic Republic (PDR), and a survey by Quarmor (1998) to examine knowledge levels about AIDS and adoption of preventive measures in two communities in Madina, Accra, found the electronic media especially television and radio as the main sources of information on the disease. In the case of Quarmor (2008) however, the print media and interpersonal communication were also found as main sources of information. Additionally, a majority of the respondents had high interest in seeking further information about HIV/AIDS as some of them were of the view that information about the disease had changed their lifestyles.

2.4.3 Adolescents' awareness and knowledge levels on HIV/AIDS

Ocran and Danso (2009) conducted a qualitative study of six male adolescents aged between 15 and 19 years from different villages in the Ellembele District of Ghana on their knowledge, perceptions and attitudes towards HIV/AIDS. Their findings suggested that general HIV/AIDS knowledge might be high since adolescents were clearly aware of the transmission routes and prevention methods and also considered the disease as a threat. The findings, however, indicated that behavioural change was on the low side and that the youth continued to practice risky sexual behaviours. These finding suggested that merely creating awareness was not enough: a lot more needed to be done to encourage behavioural change.

Similarly, Agyemang, Buor and Tagoe-Darko (2012), conducted a mixed method analysis (survey, focus group discussion and in-depth interview) of young people aged 15 to 24 in the Ejura-Sekyedumase district of Ghana to find out their HIV/AIDS knowledge. The study showed that all the 450 respondents had heard of HIV/AIDS and had quite appreciable levels of

knowledge about the disease, its modes of transmission and prevention. The knowledge levels of the respondents ranged from high (33.6%), moderate (52.2%) and low (14.2%). Despite the high knowledge, misconceptions existed. The researchers proposed an increased formal education on the disease to correct false perceptions and beliefs.

Like the foregoing studies, Adegoke (2011) in his cross-sectional study of 1,902 adolescents to assess their knowledge, attitudes and beliefs as related to HIV and AIDS, found that respondents' HIV/AIDS awareness and related knowledge on its existence, modes of transmission and adolescents' vulnerabilities were good. He also identified some unfounded beliefs about the modes of transmission and curability of the disease, which reflected cultural myths that could serve as barriers to HIV information. His results also indicated that Nigerian adolescents' knowledge, attitudes and beliefs about HIV/AIDS were influenced by their parents' educational status, age and gender.

Again, Asante and Boadi (2013) in a cross-sectional study of 324 students enrolled at a tertiary institution in Accra, Ghana to evaluate HIV/AIDS knowledge among undergraduate students on causes, modes of transmission, symptoms and prevention, and how that knowledge could be used in HIV prevention strategies in Ghana found that participants generally had high knowledge levels, though the levels of knowledge in terms of gender was inconsistent. Also, while students could identify the transmission modes and preventive measures, they were less knowledgeable about the causative agents of the disease.

Similarly, Appiah-Agyekum and Suapim (2013) in a study to assess the knowledge and awareness of HIV/AIDS among teenage Senior High School (SHS) girls in Ghana discovered that generally, SHS girls were knowledgeable on the nature, modes of transmission, and

prevention of HIV/AIDS. However, the study found that as much as half of the SHS girls believed that HIV/AIDS had a scientifically proven cure while some of them also believed that herbal or traditional medicine as well as spiritual treatment could cure HIV/AIDS. According to the study, some students exhibited limited knowledge by being of the view that the HIV status of a victim could be determined from appearances rather than testing. The study also raised important concerns about the reluctance of SHS girls to use condoms as a preventive measure.

Contrary to the findings of studies by Adegoke (2011); Asante and Boadi (2013) etc., Bankole, Biddlecom, Susheela and Zulu (2007) in a survey of young adolescents aged 12 to 14 from Burkina Faso, Ghana, Malawi and Uganda, found that adolescents had high levels of awareness but little in-depth knowledge about pregnancy and HIV prevention. Their results also indicated that very young adolescents were already beginning to be sexually active and many believed their close friends were sexually active as well.

Similarly, Tavoosi, Zaferani, Enzevaei, Tajik and Ahmadinezhad (2000); Ojira and Berhane (2013) in their school-based surveys among adolescents in Iran and Eastern Ethiopia respectively, discovered that only a few students had comprehensive HIV/AIDS knowledge. Also, many misconceptions were revealed in both studies. For example in the case of Tavoosi *et al.*, mosquito bites (33%), public swimming pools (21%), and public toilets (20%) were incorrectly identified as routes of transmission while 46% of the respondents believed that HIV positive students should not attend ordinary schools. Ojira and Berhane's (2013) findings on the other hand, suggested that the knowledge was better among in-school adolescents from families with a relatively middle or high wealth index who got HIV/AIDS information mainly from friends or the mass media and who received education on HIV/AIDS and sexual matters at school.

2.4.4 Knowledge levels and Behaviour

Thanavanh, Rashid, Kasuya and Sakamoto (2013) carried out a cross-sectional survey to assess HIV-related knowledge, attitudes and practices (KAPs) of high school students in Lao People's Democratic Republic (PDR). Their findings indicated that the majority of students were aware that HIV could be transmitted through sexual intercourse, from mother to child and through sharing needles or syringes. However, misconceptions about the transmission of HIV were observed among 59.3% to 74.3% of respondents whereas positive attitudes towards HIV/AIDS were observed among 55.7% of respondents. Students with medium and high levels of knowledge were found to be many times more likely to display positive attitudes towards people living with HIV. Additionally, safe practices including safe sex were also observed among students with medium and high levels of knowledge. The researchers recommended increased educational programmes on HIV to prevent new infections among students.

Relatedly, Magni, Karim, Weiss, Bond, Lemba and Morgan (2002) in a study (personal interviews) of 2,328 Zambians in Lusaka to identify risk and protective factors for behaviours that exposed Zambian youth to risk of HIV infection, detected that only two factors: school attendance and knowledge of AIDS, were associated with both lower levels of sexual activity and consistent use of condoms. On the contrary, Appiah-Agyekum and Suapim (2013) found in a survey of Senior High School girls that though most of the girls had knowledge of some of the modes of transmission of HIV, most of them were reluctant to use condoms as a preventive measure.

Similar to Appiah-Agyekum and Suapim's (2013) findings which implied that higher knowledge level does not necessarily translate into positive behaviour, Mundingayi, Lutala and Mupena (2011) in a survey to assess the level of knowledge about sexually transmitted infections (STIs) among street adolescents in the Democratic Republic of the Congo (DRC), discovered that although some participants cited unprotected sex as mode of transmission of HIV, the use of condom proved to be very low in both genders. Also, a high number of children reported a previous sexual experience which they attributed to the need to satisfy a natural bodily need. It was found that lack of correct information about pathways of HIV transmission might contribute to fewer people being tested, misperceptions about people's level of risk and increased likelihood of AIDS optimism, denial, and stigmatisation, among others. The researchers discovered that though accurate knowledge on HIV/AIDS was necessary, it was by no means a sufficient condition for the consistent adoption of protective behaviours.

2.4.5 Sources and knowledge levels

Hagan (2012) conducted a study on contraceptive knowledge, perception and use among adolescents in selected senior high schools in the Central Region, Ghana. He found that the majority of respondents obtained knowledge about contraception from the media (TV and Radio) while only a small percentage relied on peers. Hagan observed that although there had been mass media education and school based programmes on sexual and reproductive health in Ghana for over two decades, the depth of students' knowledge was still inadequate. He therefore recommended the enforcement of sex education by all stakeholders.

Similarly, Kurtz, Kurtz, Johnson and Cooper (2001) in a survey among African-American children and adolescents, discovered that students who received information on the effects of

smoking on health from family and external sources (teacher, parent's friend, and religious leaders) had higher overall knowledge, attitude, and preventive efforts scores than students who received information from other sources such as friends, electronic media, and the printed media.

In contrast to the findings by Hagan (2012) and Kurtz *et al.* (2001) which associated the mass media with relatively low knowledge levels, a study by Stevenson (2009) among males and females in Burkina Faso, Ghana and Zambia and another by Hoyos, Sierra and Martin (1997) to ascertain sources of information and their relationship to the degree of AIDS knowledge among Mexican adolescents, revealed that the mass media especially TV, and interpersonal sources such as teachers, parents and peers were the most important sources of information about HIV/AIDS. The information published by newspapers and teachers was found to have a direct relationship to the degree of knowledge. These findings suggested that the source from which information was put out into the public domain played a great role in the attainment or non attainment of knowledge about a particular subject.

As is evident from the foregoing, most of the studies were carried out outside Ghana. As such, not much has been done in ascertaining sources and knowledge levels, and the relationship between source and knowledge levels among adolescents within the Ghanaian context, specifically the Eastern Region of Ghana.

This research aimed at filling that gap in order to provide reliable information for health communicators and campaigners who are targeting adolescents, as well as provide them with feedback on the outcome of decades of HIV/AIDS awareness. This may, to a large extent, enhance the effectiveness of future adolescents' health communication campaigns.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter explains the research design, sampling procedure, data collection method and process of analysis employed in this study. The chapter ends with the demographic characteristics of respondents.

3.2 The research setting/area

This research was carried out at Nsukwao Abotanso and Effiduase SSNIT flats, both suburbs of Koforidua, the capital of the Eastern Region of Ghana. Some of the reasons that informed the choice of these two communities, aside the relatively high HIV prevalence rate in the Region for the past 20 years (HIV/AIDS Sentinel Survey, 2012), was their being socio-economically contrasting, the heterogeneous nature of the population and the likelihood of getting respondents with characteristics that the study was interested in. Other considerations were researcher's familiarity with the area and budgetary concerns.

Nsukwao Abotanso, is a suburb of Koforidua in the New Juaben municipality of the Eastern Region. The Nsukwao Abotanso land was originally given to the Teshie people in the early 70s when the then Regional Minister, Minyilla was relocating residents from "Koforidua Social Welfare" area to other places in order to pave way for development. Nsukwao Abotanso was, therefore, formerly called "Teshie land". In later years, some of the Teshie people sold out the lands to other tribes including Ewes, Northerners, Asantes and Krobos. The area currently has a heterogeneous population made up of mainly low income earners such as petty traders, tailors, food vendors, artisans and labourers (Personal communication with I. Duodu, July 22, 2014).

The Effiduase SSNIT flats on the other hand, have 10 story blocks. Each of the blocks has 16 flats. Built about 20 years ago by the Social Security and National Insurance Trust (SSNIT), the flats were meant to provide affordable accommodation to high and middle income workers such as civil servants, lawyers, doctors, lecturers, engineers and consultants, on rental basis. Some years later (about 10 years ago), SSNIT decided to sell the flats to departments in the region for the occupation of their workers as duty posts. The departments in turn gave the option to interested workers who were occupying the flats to acquire them. The Effiduase SSNIT flats now, belong to high and middle income individuals and it is no longer for SSNIT (Personal communication with J. K. Agyei, July 26, 2014).

3.3 Research design

The survey research method was employed in the conduct of this study. As a result, standardised questionnaires were administered to gather information from the sampled population. The main idea behind using survey was that the survey research is considered to be the best method available in social research for collecting original data for describing a population too large to observe directly (Babbie, 2008). Also, it helps in measuring many variables and testing multiple hypotheses to determine the relationship among the variables (Neuman, 2003). The use of the survey method was also informed by the fact that most related studies that were encountered in reviewed literature used the survey method.

3.4 Study population

The population for this study was all adolescents from 10 to 21 years resident in Nsukwao Abotanso and Effiduase SSNIT flats, both in Koforidua.

3.5 Study sample/sampling technique

One hundred and sixty (160) respondents, made up of 80 adolescents from Nsukwao Abotanso and 80 adolescents from Effiduase SSNIT flats, were sampled using the systematic sampling technique. This procedure was used because, as Wimmer and Dominick (2011) noted, it gives every element an equal chance of being selected, enables easy and accurate selection of elements and, is generally inexpensive. In each community, two (2) was used as the sampling fraction to pick the required sub-samples. This sampling fraction was arrived at using a sampling frame obtained for each of the two communities.

The sampling frame for Nsukwao Abotanso was made up of a list of numbers of the about 170 houses in that community. Since Effiduase SSNIT has 10 blocks with each block containing 16 flats, the sampling frame for that area, on the other hand, was made up of a list of numbers of the 160 flats in that community. These lists of house numbers used as sampling frames were obtained from the New Juaben Municipal Assembly (NJMA) on Thursday, July 25, 2014 after the researcher had gone to request for it two days earlier.

The sampling fraction of two (2) for Nsukwao Abotanso was arrived at by dividing the 170 house units by the required sample size of 80. The resultant figure, 2.125 was rounded up to two (2). The sampling fraction of two (2) for Effiduase SSNIT on the other hand, was obtained by dividing the 160 house units by the sample size of 80.

The selection of the first house/unit from which to draw the first respondent was done by lottery for both Nsukwao Abotanso and Effiduase SSNIT. For each of the communities, the numbers one (1) and two (2) were written on pieces of paper, folded and shuffled. The researcher then randomly picked one of the folded papers. The selected number in each case was marked on the

sampling frame as the first unit to be visited. Then, translating the sampling fraction of two (2) into sampling interval of two (2), every subsequent second house number on the sampling frame was selected till the required sub-sample was arrived at (Quamor, 2008).

In situations where there was no adolescent in a sampled house or where no adolescent was willing to be interviewed, the researcher continued to the next selected house on the frame according to the interval. After all selected houses on the frame had been exhausted, the researcher used the alternative number to restart the selection of houses/flats where respondents were drawn to make up for the shortfall. Also, in cases where there were more than one adolescent in a house/flat, the person who was willing and ready to be a respondent was interviewed or administered a questionnaire to fill.

3.6 Instrument for Data Collection

A 36-item structured questionnaire, containing mostly close-ended and some open-ended questions, was used to gather the data for this study. To ensure that response alternatives for the close-ended questions were meaningful and captured the intended range of responses, as recommended by Martin (2006), the researcher had a pre-questionnaire designing interview with subjects who had similar characteristics with the research population. Before printing and administering final questionnaire copies to respondents, 10 trial questionnaire copies were printed and pretested to ensure that any mistakes, unclear or ambiguous questions and other questionnaire violations were corrected, Martin (2006) and Babbie (2008) suggested.

The final questionnaire was divided into three main parts. The first part, which had 11 questions solicited data on respondents' sources of information on HIV/AIDS. The second part comprised 20 questions which sought to find out respondents' knowledge on transmission, prevention and

treatment of HIV/AIDS, as found in HIV/AIDS awareness leaflets used by the Ghana AIDS Commission and other organisations in awareness creation. The third and last part, which had five (5) questions, sought respondents' background information.

After the pretest, primary data were collected using the questionnaire by the researcher himself because he did not have enough funds to engage the services of assistants. The data collection was done in September, 2014 through, mainly, face-to-face interviews, although a few respondents who preferred to self administer in some instances, because they were busy, were allowed to do so.

The researcher, upon entering a house, first of all greeted, identified himself, and explained the subject of study and the kind of information required. Since most of the respondents were minors, the researcher sought permission from the respective parents or guardians before administering the questionnaire on them. To ensure that respondents felt comfortable to express themselves, the researcher assured them of the confidentiality of their responses. In some cases, the researcher translated the questions on the questionnaire in *Twi* to enhance respondents' understanding.

Secondary data, in terms of relevant literature and theoretical frameworks for this study, were gathered through library research conducted at the Balme Library of the University of Ghana, and at the School of Communication Studies' library. Some secondary data were also obtained from the Ghana AIDS Commission and several online sources.

3.7 Data analysis procedure

After data had been collected from the field, responses to open-ended questions were grouped into themes and assigned values and labels. Responses to the close-ended questions were also

assigned values and both were entered into the Statistical Package for Social Sciences (SPSS) software to perform the desired data transformation. Frequency distribution tables, cross tab tables and a chart were generated by the software. The distribution was explained, interpreted and analysed while chi-square data were used to test for relationship between adolescents' community of residence on one hand and knowledge levels on HIV/AIDS on the other hand.

The level of significance or probability level set for this study was 0.05. This meant that, any discovered relationship between tested variables was expected to be 95% out of 100%, related to the research variables other than extraneous or outside influences.

3.8 Demographic characteristics

As indicated earlier in this chapter, 160 respondents, made up of 80 adolescents each from Nsukwao Abotanso and Effiduase SSNIT were sampled. Questionnaire return rate in the two communities was 100%, largely because questionnaire copies were mainly interviewer administered. This notwithstanding, a couple of respondents who self administered failed to provide answers to some questions.

Of all the respondents sampled for this study, 89 (57.4%) were males while 66 (42.6%) were females. Five respondents did not indicate their gender.

In terms of age, 61 (38.9%) respondents were within the 13-15 age category while 38 (24.2%) respondents were between 16-18 years. Further, 35 (22.3%) respondents fell within the 19-21 age category whereas 23 (14.6%) respondents were from 10-12 years.

Concerning educational level, the majority of respondents (61.1%) had elementary/Junior high education while 28.7% had senior high school education. Only 7.0% had tertiary education as

against 2.5% who had technical/commercial school education. One respondent (0.6%) had no formal education.

With regard to respondents' religious backgrounds, the majority (89.8%) were Christians while only 8.9% were Muslims. Less than 2% followed other faiths.

CHAPTER FOUR

FINDINGS AND DATA ANALYSIS

4.1 Introduction

This chapter presents the results of analysis of data gathered from the field. The data analysis and generation of descriptive statistics such as tables, frequencies and percentages was done by the version 16.0 of the SPSS programme. The test of the research hypothesis and relationship is also presented in this chapter. To answer the first research question: to what extent does adolescents' community of residence determine their preferred sources of information on HIV/AIDS? The adolescents' preferred sources were analysed against their respective communities to ascertain the percentage of adolescents who preferred a particular source of information. With regard to the second research question: does adolescents' community of residence determine their knowledge levels on modes of transmission, prevention and treatment of HIV/AIDS?, adolescents' responses to questions on modes of transmission, prevention and treatment of HIV/AIDS were scored and analysed in relation to their respective communities. Reasons given for some responses were presented. Concerning the last research question: to what extent do adolescents' main sources of information determine their knowledge levels on HIV/AIDS?, the respondents' main sources of information on HIV/AIDS were examined against their respective knowledge levels which were based on scores obtained for responses to questions on transmission, prevention and treatment of HIV/AIDS. In addition to these, responses to other questions considered pertinent to this study were also analysed.

4.2 Awareness of HIV/AIDS

According to the data gathered in this study, all respondents (100%) had heard of HIV/AIDS. This was determined by asking them whether they have heard of the disease or not. This indicated a high level of awareness about the disease which went to suggest that decades of awareness creation on the disease had, to a greater extent, paid off.

4.2 Relationship between respondents' main source of information and community of residence

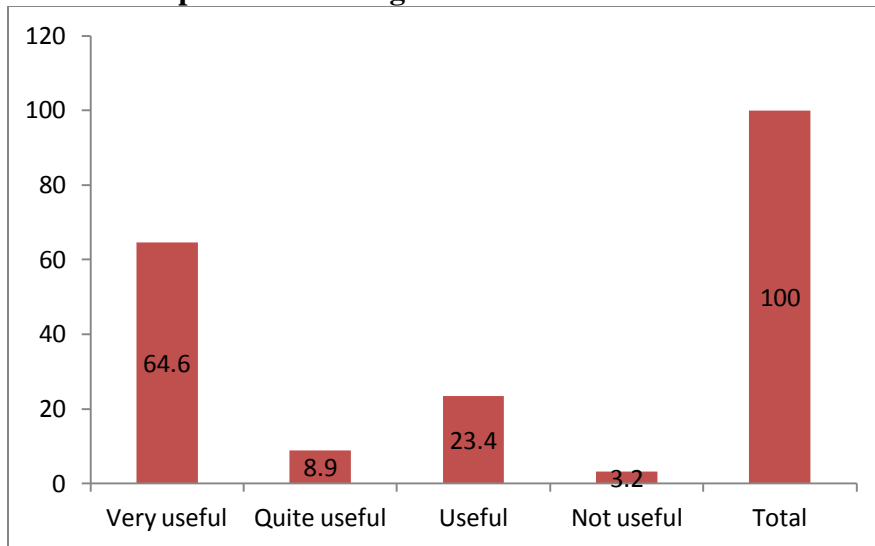
Table 1: Cross tabulation of respondents' main source of information on HIV/AIDS by community of residence

Main source	Community		Row Total
	Nsukwao Abotanso	Effiduase SSNIT	
Teachers	27 17.3%	19 12.2%	46 29.5%
Parents	4 2.6%	4 2.6%	8 5.1%
Siblings	0 .0%	1 0.6%	1 0.6%
Health workers	2 1.3%	2 1.3%	4 2.6%
Radio	10 6.4%	5 3.2%	15 9.6%
Television	25 16.0%	36 23.1%	61 39.1%
Books/Magazines	6 3.8%	4 2.6%	10 6.4%
Internet	3 1.9%	4 2.6%	7 4.5%
Posters	0 .0%	1 0.6%	1 0.6%
Church/Mosque	0 .0%	1 0.6%	1 0.6%
Social club	0 .0%	2 1.3%	2 1.3%
Column Total	77 49.4%	79 50.6%	156 100.0%

As shown in Table 1, the majority of respondents from both communities mentioned television and teachers as their main sources of information on HIV/AIDS. Of the almost four out of ten (39.1%) respondents who said television was their main source, less than two out of ten (16.0%) were from Nsukwao Abotanso while two out of ten (23.1%) were from Effiduase SSNIT. Similarly, nearly two out of ten (17.3%) of those who cited teachers as their main source were in Nsukwao Abotanso as against one out of ten (12.2%) from Effiduase SSNIT. Again, of all the respondents who mentioned radio as their main source, 10 (6.4%) were from Nsukwao Abotanso while 5(3.2%) were from Effiduase SSNIT. With those who said books or magazines were their main sources, less than one out of ten each was from Nsukwao Abotanso and Effiduase SSNIT. It is important to note that only a handful of respondents mentioned other sources such as the Internet, parents, health worker, etc. as their main sources, and no respondent from Nsukwao Abotanso mentioned siblings, posters, church/mosque and social club as main sources.

4.4 Usefulness of HIV/AIDS information

Chart 1: Respondents' rating on the usefulness of information on HIV/AIDS



Concerning respondents' ratings of the usefulness of information they received from various sources on HIV/AIDS, six out of ten (64.6%) considered it very useful while about two out of ten (23.4%) considered it useful. Additionally, close to one out of ten (8.6%) thought the information was quite useful while only less than one out of ten (3.2%) was of the view that the information received was not useful. This gave an indication that adolescents generally, considered information on HIV/AIDS as beneficial.

4.5 HIV/AIDS information seeking behaviour

As to whether respondents' made personal effort in seeking information on HIV/AIDS, more than half (56.0%) said they did, while a little over four out of ten (44.0%) claimed they did not. Of all respondents who said they sought information on the disease, more than half (57.1%) said they did so in order to protect themselves from contracting the disease, while close to three out of ten (27.4%) said they did so in order to know more about the disease. Other respondents gave the following as their reasons: it is a deadly disease (8.3%), to teach others about it (2.4%), I want to be a medical doctor (1.2%), because it has no cure (1.2%), teacher asked us to (1.2%) and to help HIV/AIDS victims (1.2%). With regard to respondents who said they did not make personal efforts to seek HIV/AIDS information, about three out of ten (29.6%) said it was because they already knew everything about the disease since they had heard a lot about it, whereas a quarter (24.1%) said they did not seek the information because it was not important to them. Furthermore, one out of ten (11.1%) said it was because they did not have the disease, while less than one out of ten (7.4%) said they did not seek HIV/AIDS information because they did not think they could get infected. A total of almost three out of ten (28%) respondents gave several other reasons for their non information seeking behaviour on HIV/AIDS.

4.6 Preferred sources of information

Table 2: Cross tabulation of respondents' preferred source of information on HIV/AIDS by community of residence

Preferred sources	Community		Row Total
	Nsukwao Abotanso	Effiduase SSNIT	
Teachers	12 (7.7%)	12 (7.7%)	24 15.5%
Parents	6 (3.9%)	7 4.5%	13 8.4%
Friends	3 (1.9%)	1 0.6%	4 2.6%
Health Worker	4 (2.6%)	10 6.5%	14 9.0%
Radio	12 (7.7%)	4 2.6%	16 10.3%
Television	21 13.5%	26 16.8%	47 30.3%
Books/Magazines	4 2.6%	3 1.9%	7 4.5%
Newspapers	3 1.9%	4 2.6%	7 4.5%
Internet	9 5.8%	7 4.5%	16 10.3 %
Church/Mosque	3 1.9%	0 0.0%	3 1.9%
Social Club	0 0.0%	4 2.6%	4 2.6%
Column Total	77 49.7%	78 50.3%	155 100.0%

As can be seen from Table 2, of all the 30.3% respondents who said they preferred the television as their source of information on HIV/AIDS, close to two out of ten (16.8%) lived at Effiduase SSNIT as against about one out of ten (13.5%) from Nsukwao Abotanso. With the 15.5% who mentioned teachers as their preference, nearly one out of ten (7.7%) each lived at Nsukwao Abotanso and Effiduase SSNIT. Furthermore, a total of one out of ten (10.3%) from the two communities named radio and the Internet as their preferred sources whereas a total of almost

one out of ten (9.0%) from the two communities mentioned the health worker as their preferred source. Another 8.4%, made up of 4.5% from Effiduase SSNIT and 3.9% from Nsukwao Abotanso said they preferred parents as their source of information. Nearly a total of two out of ten (17%) respondents from both communities mentioned other sources as their preference. No respondents from Effiduase SSNIT mentioned church or mosque as their preferred source. Likewise, no respondent from Nsukwao Abotanso mentioned social club as a preferred source. It is significant to note, considering the above data, that a large number of adolescents in Nsukwao Abotanso and Effiduase SSNIT prefer mainly television and to a lesser extent teachers, radio and the internet as sources of information on HIV/AIDS since there does not seem to be a marked difference in terms of source preference between the two communities.

4.7 Reasons for preferred sources

Table 3: Respondents' reasons for preferred sources

Reason	Frequency	Percentage
Easy Access	63	40.1
Useful Information	30	19.1
True and credible information	20	12.7
Easy to remember information	8	5.1
Easy reference	1	0.6
Detailed and understandable explanation	14	8.9
They conduct HIV test first	1	0.6
To put some fear in me	1	0.6
Easy to read and understand	3	1.9
It is fast	2	1.3
They are matured	1	0.6
I feel comfortable with them	1	0.6
It is audio visual	12	7.6
Total	157	100.0

Four out of ten respondents (40.1%) mentioned ease of access as their reason while close to two out of ten (19.1%) said the usefulness of information was what made them prefer a particular medium. In addition, a little over one out of ten (12.7%) respondents said the truth and credibility of the source informed their preference whereas 8.9% preferred a source because it offered detailed and understandable explanation. Again, 7.6% of respondents preferred a source because of its audio visual nature (mainly television), in contrast with 5.1% who preferred a source because the information it gave was easy to remember. Only a total of 6.2% respondents gave other reasons for their source preference. The above information suggested that easy

accessibility, usefulness of information and truth /credibility of information were among the top three reasons that made respondents favour a particular source of information.

4.8: Community of residence and knowledge level

Of all the respondents who lived in Nsukwao Abotanso, more than nine out of ten (95.0%) had high knowledge level while only 2.5% had low knowledge level. Similarly, nearly ten out of ten (96.2%) respondents from Effiduase SSNIT had high knowledge level whereas only 1.9% had low knowledge level. Below are tabular representations and interpretations of the frequencies and percentages of responses given by respondents in the two communities on the three areas of HIV/AIDS knowledge (transmission, prevention and treatment) assessed by this study:

Table 4: Cross tabulation of respondents' knowledge on transmission of HIV/AIDS by community of residence

Question	Community			Row Total
	Response	Nsukwao Abotanso	Effiduase SSNIT	
Can HIV be transmitted by sexual intercourse with an infected person?	Yes	79(49.7%)	79(49.7%)	158(99.4%)
	No	0(0.0%)	0(0.0%)	0(0.0%)
	Don't know	1(0.6%)	0(0.0%)	1(0.6%)
Can HIV be transmitted from mother to child?	Yes	58(36.5%)	71(44.7%)	129(81.1%)
	No	17(10.7%)	8(5.0%)	25(15.7%)
	Don't know	5(3.1%)	0(0.0%)	5(3.1%)
Can HIV be transmitted by sharing needle or syringe?	Yes	76(48.1%)	78(49.4%)	154(97.5%)
	No	1(0.6%)	0(0.0%)	1(0.6%)
	Don't know	3(1.9%)	0(0.0%)	3(1.9%)
Can HIV be transmitted through blood transfusion?	Yes	75(47.2%)	77(48.4%)	152(95.6%)
	No	1(0.6%)	1(0.6%)	2(1.3%)
	Don't know	4(2.5%)	1(0.6%)	5(3.1%)
Can HIV be transmitted by shaking hands with an infected person?	Yes	9(5.7%)	2(1.3%)	11(7.0%)
	No	68(43.0%)	73(46.2%)	141(89.2%)
	Don't know	3(1.9%)	3(1.9%)	6(3.8%)
Can HIV be transmitted by eating or drinking from the same plate or glass with an infected person?	Yes	35(22.0%)	14(8.8%)	49(30.8%)
	No	42(26.4%)	57(35.8%)	99(62.3%)
	Don't know	3(1.9%)	8(5.0%)	11(6.9%)
Can HIV be transmitted by wearing the clothes of an HIV positive person?	Yes	20(12.6%)	7(4.4%)	27(17.0%)
	No	57(35.8%)	67(42.1%)	124(78.0%)
	Don't know	3(1.9%)	5(3.1%)	8(5.0%)
Can HIV be transmitted by sharing a toilet with and HIV positive person?	Yes	15(9.5%)	13(8.2%)	28(17.7%)
	No	57(36.1%)	57(36.1%)	114(72.2%)
	Don't know	8(5.1%)	8(5.1%)	16(10.1%)
Can HIV be transmitted through a mosquito bite?	Yes	30(19.0%)	24(15.2%)	54(34.2%)
	No	43(27.2%)	49(31.0%)	92(58.2%)
	Don't know	7(4.4%)	5(3.2%)	12(7.6%)
Can HIV be spread by witchcraft, juju or other supernatural means?	Yes	25(15.7%)	19(11.9%)	44(27.7%)
	No	41(25.8%)	52(32.7%)	93(58.5%)
	Don't know	14(8.8%)	8(5.0%)	22(13.8%)

As shown in Table 4 above, the majority of respondents from both communities knew that HIV could be transmitted by sexual intercourse with an infected person, by sharing needle or syringe,

from mother to child, through blood transfusion, etc. It is important to note that more than three out of ten (34.2%) respondents believed mosquitoes could transmit HIV while three out of ten (30.8%) thought it could be transmitted by eating and drinking from the same plate or glass with an infected person. Again, close to three out of ten (27.7 %) believed the disease could be spread by witchcraft, juju or other supernatural means while nearly six out of ten (58.5%) believed it could not be spread by witchcraft, juju or other supernatural means. Close to two out of ten (17.7%) believed one could get infected by sharing toilet with an infected person while close to two out of ten (17.0%) respondents believed one could contract the disease by wearing the clothes of an infected person. Quite a significant number (15%) did not know that HIV could be transmitted from mother to child. Additionally, 5.7% respondents from Nsukwao Abotanso thought HIV could be transmitted by shaking hands with an infected person while only 1.3% from Effiduase SSNIT believed same. All respondents from Effiduase SSNIT knew that HIV could be transmitted through sexual intercourse, as against Nsukwao Abotanso where one person did not know. Also, all respondents from Effiduase SSNIT knew that HIV could be transmitted by sharing needle or syringe as against four respondents from Nsukwao Abotanso who did not know.

Table 5: Cross tabulation of respondents' knowledge on prevention/control of HIV/AIDS by community of residence

Question	Community			Row Total
	Response	Nsukwao Abotanso	Effiduase SSNIT	
Can HIV be prevented by not sharing sharp objects like blade, needle or syringe?	Yes	75(47.2%)	76(47.8%)	151(95.0%)
	No	1(0.6%)	3(1.9%)	4(2.5%)
	Don't know	4(2.5%)	0(0.0%)	4(2.5%)
Can HIV be prevented by properly using condom during sexual intercourse?	Yes	75(47.5%)	74(46.8%)	149(94.3%)
	No	2(1.3%)	2(1.3%)	4(2.5%)
	Don't know	3(1.9%)	2(1.3%)	5(3.2%)
Can HIV transmission be avoided by remaining faithful to a single partner?	Yes	71(44.9%)	71(44.9%)	142(89.9%)
	No	3(1.9%)	5(3.2%)	8(5.1%)
	Don't know	6(3.8%)	2(1.3%)	8(5.1%)
Can HIV transmission be avoided by doing a blood test before marriage?	Yes	73(45.9%)	75(47.2%)	148(93.1%)
	No	1(0.6%)	3(1.9%)	4(2.5%)
	Don't know	6(3.8%)	1(0.6%)	7(4.4%)
Can HIV be avoided by not hugging?	Yes	11(7.0%)	5(3.2%)	16(10.1%)
	No	63(39.9%)	70(44.3%)	133(84.2%)
	Don't know	6(3.8%)	3(1.9%)	9(5.7%)
Can HIV transmission be avoided by abstaining from unprotected sex?	Yes	76(47.8%)	77(48.4%)	152(96.2%)
	No	2(1.3%)	2(1.3%)	4(2.5%)
	Don't know	2(1.3%)	0(0.0%)	2(1.3%)

The majority of respondents from both communities knew that HIV could be prevented by not sharing sharp objects like blade or needle, properly using condom during sexual intercourse, remaining faithful to a single partner, doing a blood test before marriage and by abstaining from unprotected sex. One out of ten (10.1%) respondents, made up of 7.0% from Nsukwao Abotanso and 3.2% from Effiduase SSNIT thought HIV could be avoided by not hugging. This suggested that some respondents believed hugging could lead to HIV infection. There were quite a few who did not know much about its prevention but generally, both communities recorded an appreciable knowledge of the prevention of HIV/AIDS.

Table 6: Cross tabulation of respondents' knowledge on treatment of HIV/AIDS by community of residence

Question	Community			Row Total
	Response	Nsukwao Abotanso	Effiduase SSNIT	
Does HIV have a cure?	Yes	19(12.3)	13(8.4%)	32(20.8%)
	No	51(33.1%)	54(35.1%)	105(68.2)
	Don't Know	8(5.2%)	9(5.8%)	17(11.0%)
Can HIV be managed?	Yes	59(39.9%)	63(42.6%)	122(82.4%)
	No	13(8.8%)	7(4.7%)	20(13.5%)
	Don't know	3(2.0%)	3(2.0%)	6(4.1%)
Can HIV be cured by using herbs?	Yes	21(13.7%)	16(10.5%)	37(24.2%)
	No	47(30.7%)	46(30.1%)	93(60.8%)
	Don't know	10(6.5%)	13(8.5%)	23(15.0%)
Can HIV be cured by spiritualists?	Yes	10(6.6%)	13(8.6%)	23(15.2%)
	No	52(34.4%)	51(33.8%)	103(68.2%)
	Don't know	15(9.9%)	10(6.6%)	25(16.6%)

With regard to the treatment of HIV/AIDS, almost seven out of ten (68.2%), made up of 33.1% from Nsukwao Abotanso and 35.1% from Effiduase SSNIT believed it had no cure while two out of ten (20.8%) respondents made up of 12.3% from Nsukwao Abotanso and 8.4% from Effiduase SSNIT believed it had a cure. A total of 11.0% from both communities did not know whether it had a cure or not.

Out of a total of 30 respondents who said HIV had a cure, exactly half (50.0%) said they did not know what the cure was. Of that number, nearly three out of five (26.7%) lived in Nsukwao Abotanso while about two out of five (23.3%) lived in Effiduase SSNIT. Furthermore, one out of ten (10.0%) respondents each from Nsukwao Abotanso said it could be cured by using herbs, and by seeking medical advice while less than one out of ten (6.7%) respondents each from Effiduase SSNIT also gave the same responses. The remaining respondents gave other reasons.

With respect to whether the disease could be managed or not, the majority of respondents (82.4%) from both communities believed it could be managed while 13.5% of respondents

comprising 8.8 % from Nsukwao Abotanso and 4.7% from Effiduase SSNIT thought it could not be managed.

Concerning those who said the disease could be managed, close to three out of ten respondents each from the two communities (28.7% from Nsukwao Abotanso and 27.8% from Effiduase SSNIT) said it could be done through regular checkup and medications while 15.7% from Nsukwao Abotanso and 7.0% from Effiduase SSNIT said they did not know how it could be managed. Interestingly, only seven respondents (6.1%) from Effiduase SSNIT knew that HIV could be managed using Anti- retroviral therapy. A total of 8.1% respondents mentioned use of moringa, eating fruits and vegetables and having clean gutters as ways of managing HIV.

On the question of whether the disease could be cured by using drugs or herbs, the majority (60.8%) of respondents, 30.7% and 30.1% from Nsukwao Abotanso and Effiduase SSNIT respectively, believed it could not while 24.2% of respondents consisting of 13.7% from Nsukwao Abotanso and 10.5% from Effiduase SSNIT believed it could be cured by herbs and drugs.

Out of the number who said the disease could be cured by using drugs and herbs, seven out of ten (74.2%), made up of 38.7% from Nsukwao Abotanso and 35.5% from Effiduase SSNIT said they did not know what herb could do that while four respondents (12.9%) from Nsukwao Abotanso mentioned seeing the herbal doctor as the remedy. One respondent (3.2%) from Effiduase SSNIT mentioned Anti-retroviral therapy as the drug/herb that could cure HIV whereas another one respondent (3.2%) from Nsukwao Abotanso mentioned Oral Rehydration Salt (ORS) mixture as the herb or drug that could cure the disease.

On whether spiritualists could cure HIV or not, almost seven out of ten (68.2%) respondents made up of 34.4% from Nsukwao and 33.8% from Effiduase SSNIT believed they could not while more than one out of ten (15.2%) respondents, consisting of 6.6% from Nsukwao Abotanso and 8.6% from SSNIT believed it could be cured by spiritualists. Less than two out of ten (16.6%) comprising 9.9% from Nsukwao Abotanso and 6.6% from SSNIT did not know whether spiritualists could cure HIV/AIDS or not.

Out of the above respondents who said spiritualists could cure the disease, 18.2% in Nsukwao Abotanso and 13.6% in Effiduase SSNIT said it was possible because spiritualists had powers/cure. Up to 27.3% from Effiduase SSNIT trust that men of God could cure it because they believed with God, all things were possible. Another 4.5% from Nsukwao Abotanso and 9.1% from Effiduase SSNIT said they thought spiritualists could cure it because they heard some of them claim that. A total of about 27% of respondents who believed spiritualists could cure HIV gave other reasons.

With regard to respondents who did not believe spiritualists could cure HIV/AIDS, 19.1% from Nsukwao Abotanso and 10.1% from Effiduase SSNIT said the disease was not spiritual in nature but rather transmitted through blood hence spiritualists could not cure it. Additionally, 7.9% from Nsukwao Abotanso and 11.2% from SSNIT said no cure had been found yet. Another 10.1% from Nsukwao Abotanso and 9.0% from Effiduase SSNIT said spiritualists had no power or cure. Again 1.1% from Nsukwao Abotanso and 6.7% from Effiduase SSNIT said their answer was informed by the fact that HIV was a medical situation caused by a virus while 4.5% each from the two communities said they had no reason for saying spiritualists could not cure HIV.

4.9 Main source of information on HIV/AIDS and knowledge levels

Table 7: Cross tabulation of respondents' main source of information on HIV/AIDS by knowledge level

Main source	Knowledge Level		Row Total
	High	Low	
Teachers	45 28.8%	1 0.6%	46 29.5%
Parents	7 4.5%	1 0.6%	8 5.1%
Siblings	1 0.6%	0 0.0%	1 0.6%
Health Worker	4 2.6%	0 0.0%	4 2.6%
Radio	15 9.6%	0 0.0%	15 9.6%
Television	56 35.9%	5 3.2%	61 39.1%
Books/Magazine	10 6.4%	0 0.0%	10 6.4%
Internet	7 4.6%	0 0.0%	7 4.5%
Posters	1 0.6%	0 0.0%	1 0.6%
Church/Mosque	1 0.6%	0 0.0%	1 0.6%
Social Club	2 1.3%	0 0.0%	2 1.3%
Column Total	149 95.5%	7 4.5%	156 100.0%

As shown in Table 7, out of the nearly four out of ten (39.1%) respondents who said their main source of information was the television, approximately four out of ten (35.9%) had a high knowledge level while less than one out of ten (3.2%) respondents recorded low knowledge level. Of the nearly three out of ten respondents who mentioned teachers as their main source, 28.8% had high knowledge level as against 0.6% who recorded low knowledge level. Furthermore, all the nearly one out of ten (9.6%) who said radio was their main source recorded high knowledge levels, with none recording low knowledge level. Similarly, all the less than one

out of ten (6.4%) respondents who named books or magazines as their main source had high knowledge levels. It is noteworthy that with the exception of parents that also recorded 4.5% respondents with high knowledge level and 0.6% with low knowledge level, no respondent whose main source was radio, books/ magazines, internet, the health worker, siblings, posters, church /mosque and social club scored low knowledge level.

4.10 Influence of HIV/AIDS information on adolescents' behaviour

As to whether information received by respondents on HIV prevented them from doing things that predisposed them to infection, nearly ten out of ten (96.1%) said it did, while only 1.3% said it did not. The remaining 2.6% respondents said they were not sure whether it influenced their behaviour or not.

4.11 Test of hypothesis and interpretation

The hypothesis for this study was tested using data presented in Table 4.12 below:

Table 8: Cross tabulation of respondents' knowledge level by community of residence

Community	Respondents Knowledge Level		Row Total
	High	Low	
Nsukwao Abotanso	76 95.0%	4 5.0%	80 100.0%
Effiduase SSNIT	77 96.2% %	3 3.8%	80 100.0%
Column Total	153 95.6%	7 4.4%	160 100.0%

$\chi^2 = 0.149$

df = 1

p = 0.699

From the data in Table 8, out of the 80 respondents from Nsukwao Abotanso, about ten out of ten (95.0%) had high knowledge level on HIV/AIDS while only 5.0% had low knowledge level. Similarly, of all the 80 respondents from Effiduase SSNIT, nearly ten out of ten (96.2%)

recorded high knowledge level whereas only 3.8% had low knowledge levels. The data, therefore, suggested a generally high knowledge level in both communities.

Hypothesis

H₁: Adolescents in Effiduase SSNIT are likely to be more knowledgeable on transmission, prevention and treatment of HIV/AIDS than adolescents in Nsukwao Abotanso.

Reason for hypothesis

Effiduase SSNIT is a community inhabited by high and middle class families compared to Nsukwao Abotanso which is populated by relatively low class families as explained earlier. Adolescents in Effiduase SSNIT are therefore likely to be better educated and have access to more information sources than their counterparts in Nsukwao Abotanso. Tichenor, Donohue and Olien (1970) in outlining reasons to provide justification for the existence of knowledge gap stated, among others, that people of higher socioeconomic status are also highly educated and as such, have better communication, reading, comprehending and remembering skills than those of lower socioeconomic status.

Null hypothesis

H₀: Adolescents in Effiduase SSNIT are not likely to be more knowledgeable on the transmission, prevention and treatment of HIV/AIDS than adolescents in Nsukwao Abotanso.

Since the probability (of 0.699) accompanying the chi-square value is more than the level of significance (0.05) set for this study, the probability value is statistically insignificant. The null hypothesis is accepted. This means data gathered did not support the hypothesis that there was a relationship between adolescents' community of residence and their knowledge levels such that

adolescents in Effiduase SSNIT had more knowledge on HIV/AIDS than adolescents in Nsukwao Abotanso.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter presents discussions of the findings with reference to the objectives that underlay the research. Limitations or shortcomings of the study, recommendations or suggested areas for future research as well as conclusions are all presented in this section.

5.2 Summary of findings

The findings of the study revealed that although adolescents received information on HIV/AIDS from various sources, their preferred sources were mainly the television (30.2%), teachers (15.4%), radio (10.3%) and the Internet (10.3%). This was because they considered these sources as easily accessible as well as trusted them to provide not only useful information but also truthful and credible information. The study also found that contrary to the researcher's assumption that adolescents of Effiduase SSNIT were likely to be more knowledgeable on the mode of transmission, prevention and treatment of HIV/AIDS than their Nsukwao Abotanso counterparts, the majority of respondents from both communities were found to have high knowledge levels of the disease.

Nevertheless, some respondents, especially in Nsukwao Abotanso were found to hold certain misconceptions about the disease's mode of transmission, prevention and treatment. The research also showed that high knowledge level respondents whose main sources of information were the television, teachers and radio were more than those who named other main sources. The only hypothesis tested in this study, which sought to ascertain whether there was a relationship between adolescents' community and HIV/AIDS knowledge level on the basis of socio-

economic difference, indicated that there was no such relationship. This suggested adolescents' knowledge on HIV/AIDS was not influenced by their socioeconomic status.

5.3 Discussion

The first objective was to find out the preferred sources of information on HIV/AIDS among adolescents resident in Nsukwao Abotanso and Effiduase SSNIT flats. The second was to assess the knowledge levels of adolescents in the two communities on the modes of transmission, prevention and treatment of HIV/AIDS. The third and final objective was to find out the relationship between adolescents' main source of information on HIV/AIDS and knowledge levels. One hypothesis was also tested to ascertain the assumption that adolescents in a higher socioeconomic community had more knowledge on transmission, prevention and treatment of HIV/AIDS than adolescents in a relatively lower socio economic community.

Concerning the first objective of this study, it was discovered that the most preferred sources of information on HIV/AIDS for adolescents in both communities were television, teachers, radio and the Internet while the least preferred sources were parents, health workers, books/magazines and newspapers. This agreed with Lambert and Loïselle's (2007) observation that most individuals sought health-related information at any given time from a combination of personal and impersonal sources. It must be noted that the findings did not reveal any marked difference in terms of source preference among adolescents from the two communities. Major reasons given for the source preference were ease of access, usefulness of information and, truth and credible nature of the information. In the case of television, its audio visual nature was found to be one of the reasons for it being a preferred source. This confirmed observation by Pool (1985) that people used the principle of least effort in their information seeking and would accept information they even knew to be less reliable, if it was more readily available or easier to use.

This source preference of respondents agreed with the findings of a survey of Iranian adolescents on knowledge, attitudes and sources of information on HIV/AIDS by Yadzi *et al.* in 2007 in which the television (84%) and school teachers (66%) emerged as the most preferred sources of information. The discovery of these as preferred sources suggested that respondents' main sources were as well their preferred sources. As a result, sexual health campaigners who are using these media should intensify their use to reach adolescents while also using the other least preferred mediums to reach out to the minority who favour those ones.

Regarding the second objective, it was found that the majority of respondents from both communities had high knowledge levels of the disease. This discovery was at variance with the position of the knowledge gap hypothesis introduced by Tichenor, Donohue and Olien (1970) which argued that an increase in the introduction of mass media information into a social system will result in higher socio-economic status population attaining the information at a faster rate than their lower socio-economic counterparts, such that the knowledge gap between them increases rather than decrease. It is significant to note, however, that although the general knowledge level was high in both communities, detailed analysis of data revealed that certain salient misconceptions were rife in both communities, with a higher prevalence in Nsukwao Abotanso. In terms of transmission it was found that 34.2% believed HIV could be transmitted by eating or drinking from the same plate or glass with an infected person, 34.2% believed the disease could be transmitted by mosquitoes, 27.7% believed it could be transmitted by sharing toilet with an infected person and 17.0% believed one could contract the disease by wearing the clothes of an infected person. This was consistent with the findings by Tavoosi *et al.* (2000), Adegoke (2011) and Thanavahn *et al.* (2013) which also found general knowledge levels to be high among respondents but discovered misconceptions such as transmission through mosquito

bites, transmission through public swimming pools, transmission through sharing public toilet and the lack of knowledge that transmission could result from sharing razor blades. On the knowledge of prevention, the only held misconception was the belief by 10.1% of respondents that HIV could be avoided by not hugging. Regarding the knowledge on the treatment of the disease, some of the misconceptions were the belief that it had a cure (20.8%) and the belief that it could not be managed (13.5%). It must be noted that all the 6.1% respondents who knew that HIV could be managed with Anti-retroviral therapy were from Effiduase SSNIT. Interestingly, some respondents mentioned moringa, fruits and vegetables, and having clean gutters as some of the ways of managing HIV. Still on respondents' misconceptions relating to treatment, 24.2% said it could be cured with drugs and herbs, with a respondent from Nsukwao Abotanso naming Oral Rehydration Salt (ORS) as an example of such drugs/herbs.

Another 15.2% believed spiritualists could cure the disease. These beliefs by some respondents that the disease could be cured was similar to findings by Appiah-Agyekum and Suapim (2013) in which most of the respondents believed HIV/AIDS could be cured scientifically, traditionally (herbalists) and spiritually. This was an indication that although general awareness about the disease was high, in-depth knowledge was low as discovered by Bankole *et al.* (2007). There was, therefore, the need to continue the education and awareness creation in order to correct the various misconceptions held about the disease. Failure to do that could be a major setback to efforts and gains made so far and consequently undermine attitudinal change needed to control the spread of the disease.

Concerning the third and last objective, which sought to find out whether main sources determined or related to knowledge levels, it was found that 35.9% of respondents whose main source was television had high knowledge as against 28.8% whose main source was teachers.

Furthermore, 9.6% respondents whose main source was radio also had high knowledge levels. This finding, agreed with the findings by Kurtz *et al.* (2001) in their study of sources of information on health effects of environmental tobacco smoke among African-American children and adolescents, in which it was found that students who received information on the effects of smoking on health from family and external sources such as teachers, parents, friends and religious leaders had higher overall knowledge, attitude, and preventive efforts scores than students who received information from sources such as electronic media and printed media.

Finally, this study's hypothesis which predicted adolescents in Effiduase SSNIT to be more knowledgeable on modes of transmission, prevention and cure of HIV than those in Nsukwao Abotanso, when tested, produced a statistically insignificant value. This led to the rejection of the assumption that adolescents resident in higher socio-economic community (Effiduase SSNIT) were more knowledgeable than adolescents living in a relatively low socio-economic community (Nsukwao Abotanso). This suggested that respondents' knowledge of the disease was not necessarily linked to their socio-economic situation or environment since both were found to have high knowledge levels, except for some misconceptions that were prevalent in both areas but more pervasive in Nsukwao Abotanso.

5.3 Constraints

Time factor and inadequate funding were some of the major setbacks of this study. A larger sample size and ample time for conducting the study would have widened the scope of this study.

The need to translate the content of the questionnaire to *Twi* language in some cases slowed down the process of data collection.

A handful of respondents self administered the questionnaire because they were busy as at the time the researcher went to interview them. Consequently, the study recorded some missing data resulting from failure by those respondents to provide answers to some of the questions.

5.4 Recommendations

Considering the findings and constraints of this study, the following recommendations have been made:

The study focused on the sources of information and knowledge levels on HIV/AIDS among adolescents in Nsukwao Abotanso and Effiduase SSNIT both in Koforidua, the Eastern Region of Ghana. A similar study should be conducted within a different community in Ghana. Such a study should employ a bigger sample size in order to make a more broadly conclusive statement on adolescents' preferred sources of information and knowledge levels on modes of transmission, prevention and treatment of HIV/AIDS.

Sexual health communication campaigners targeting adolescents should consider using mainly television, teachers, radio and, to some extent, books/magazines and the Internet to make their message accessible and effective.

Though the research revealed a generally high knowledge level on the disease, indicating the positive impact of years of awareness creation, there should be continuous information provided to correct misconceptions held about the disease since these misconceptions if not checked have the potential of undermining the gains made so far in terms of reducing and controlling the

spread of the disease. School-based health education should also be intensified since most adolescents are school going.

Finally, future studies should consider investigating causes of the misconceptions and how misconceptions relate to attitude or behaviour that predispose people to HIV infection.

5.5 Conclusion

This study has revealed that although adolescents receive information on HIV/AIDS from various sources, their preferred sources were mainly television, teachers, radio and the Internet. The study also found that adolescents' community of residence or socioeconomic status did not influence their knowledge level on HIV/AIDS because, the majority of the adolescents from both communities were found to have high knowledge levels of the disease. However, aside the correct knowledge, there also existed a lot of misconceptions and misinformation about the disease. There is the need, therefore, for continuous and comprehensive HIV/AIDS education to correct the erroneous beliefs and consequently discourage young people from engaging in acts that might render them susceptible to the risk of infection based on false information. Such education should consider using multiple channels including television, radio, teachers and the Internet.

REFERENCES

- Adegoke, A. A., (2011). The Influence of Age, Gender and Parental Education on Adolescents HIV/AIDS related Knowledge in Ibadan metropolis, Nigeria, *The Journal of Aging in Emerging Economies*, 39.
- Agyemang, S., Buor, D., Tagoe-Darko, E, (2012). The extent of knowledge about HIV/AIDS among young people in the Ejura- Sekyedumase district of Ghana, *Journal of AIDS and HIV Research*, 4(11), 241-247. Downloaded from <http://www.academicjournals.org/JAHR> on June 25, 2014.
- Appiah- Agyekum, N.N, Suapim, R.H (2013), Knowledge and Awareness of HIV/AIDS among High School girls in Ghana, *Dove Press Journal: HIV/AIDS-Research and Palliative Care*, 5,137-144.
- Asante, A.S.(2011).*Sources of information on Malaria Among Junior and Senior High Students: A survey of ST. Paul Junior High School and Tema Methodist Day High School.* Unpublished Master's Dissertation, University of Ghana, Legon , Ghana.
- Asante, K. O., (2013). HIV/AIDS Knowledge and uptake of HIV Counseling and Testing among undergraduate private university students in Accra, Ghana. *Reproductive Health*, 10 (17). Downloaded from <http://www.reproductive-health-journal.com/content/10/1/17> on June 25, 2014
- Asante, O. K., Boadi, O. M (2013). HIV/AIDS knowledge among undergraduate university students: implications for health education programs in Ghana, *African Health Sciences*, 13(2), 270 - 277 downloaded from <http://dx.doi.org/10.4314/ahs.v13i2.11> on June 25, 2014.
- Asekun- Olarinmoye E. O., Olajide F. O. & Asekun- Olarinmoye I. O. (2011). HIV/AIDS Preventive Measures among in-school Adolescents in a Sub-Urban Community in Southwestern Nigeria, *Journal of Life &Physical Sciences*, 4(1), 81-96. Downloaded from [www. Actasatech.com](http://www.actasatech.com) on June 25, 2014.
- Babbie, (2008). *The Basics of Social Research*.4th ed. Belmont, CA: Wadsworth Publishing.
- Bankole, A., Biddlecom, A., Susheela, G and Zulu, E (2007). Sexual Behavior, Knowledge and Information sources of very young Adolescents in four sub-Saharan African countries, *African Journal of Reproductive Health*, 11(3), 28-43. Downloaded from reference.sabinet.co.za/sa_epublication_article/ajrh_v11_n3_a4 on July 10, 2014.
- Barsevick, A. M., & Johnson, J. E. (1990). Preference for information and involvement, information-seeking and emotional responses of women undergoing colposcopy. *Research in Nursing and Health*, 13, 1-7.

- Bates, J. M. (2002). "Towards an integrated model of information seeking and searching". *New Review of information Behaviour Research*, (3)1-15. Retrieved from http://gseis.ucla.edu/faculty/bates/articles/info_SeekSearch-1-030329.html on July 7, 2014.
- Bleakley, A., Hennessy, M., Fishbein, M and Jordan, A, (2009). How Sources of Sexual Information Relate to Adolescents' Beliefs about Sex, *Am J Health Behaviour*, 33(1), 37–48. Downloaded from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2860278/pdf/nihms188435.pdf> on July 10, 2014.
- Borzekowski, D. L. G., Fobil, J. N., Asante, K. O (2006). Online access by Adolescents in Accra: Ghanaian teens' use of the Internet for Health Information. *Development Psychology*, 42 (3), 450-458. Retrieved from <http://psycnet.apa.org/journals/dev/42/3/450/> on October 23, 2015.
- Borzekowski, D. L. G., and Rickert, V. I., (2001). Adolescent Cybersurfing for Health information- A New Resource That Crosses Barriers, *Arch Pediatr Adolesc Med/Vol.* 155. Downloaded from : <http://archpedi.jamanetwork.com/> on July 7, 2014.
- Buxton, C, Hagan, J. E. (2012). *Contraceptive knowledge. Perception and use among adolescents in selected senior high schools in the central region of Ghana*, University of Cape Coast, 3(2).
- Cambridge University (2008), *Advanced Learners Dictionary*, 3rd ed., Cambridge University Press.
- Conley, V. M. (1998). Beyond knowledge deficit to a proposal for information-seeking Behaviours, *Nursing Diagnosis*, 9(4), 129-135.
- Czaja, R., Manfredi, C., and Price, J. (2003). The determinant and consequences of information-seeking among cancer patients. *Journal of Health Communication*, 8, 529-562.
- Durojaiye, O. C., (2011). Knowledge, Attitude and Practice of HIV/AIDS: Behavior change among Tertiary Education students in Lagos, Nigeria, *Ann Trop Med Public Health*, vol.4(1), 18-24. Downloaded from: <http://www.atmph.org/text.asp?2011/4/1/18/80516> on June 25, 2014.
- Ganle, J. K., Darko, E.T., Mensah, C.M, (2012). Youth, HIV/AIDS Risks and Sexuality in Contemporary Ghana: Examining the Gap between Awareness and Behaviour Change, *International Journal of Humanities and Social Science*, vol.2 (21).
- Genova, B. K. L., and Greenberg, B. S., (1981). Interest in News and the Knowledge gap, *Mass Communication Review Yearbook*, vol. 2, 494-506. Beverly Hills, California.: Sage.

- Ghana AIDS Commission (2012). HIV Sentinel Survey Report, National AIDS/STI Control Programme, Ghana Health Service, Ministry of Health, Accra.
- Ghana AIDS Commission, (2014). *Summary of the 2013 HIV Sentinel Survey Report*. Retrieved October 16, 2014, from http://ghanaidc.gov.gh/gac1/aids_info.php
- Ghana AIDS Commission (nd), Webpage. Accessed from <http://ghanaidc.gov.gh/gac1/about.php#> on July 30, 2014.
- Greene, W.C., (2007). A history of AIDS: Looking back to see ahead, *Eur J Immunol* 37 (suppl.1) : S94 –S102.
- Johnson, J. D. (1997). *Cancer-related information seeking*, Cresskill, NJ: Hampton Press.
- Kim, S. H. (2008). Testing the Knowledge Gap Hypothesis in South Korea: Traditional News Media, the Internet, and Political Learning, *International Journal of Public Opinion Research*, 20 (2). Downloaded from <http://ijpor.oxfordjournals.org/> on July 12, 2014.
- Koster, A., Kemp, J and Offei, A., (2001). Utilisation of Reproductive Health Services by Adolescent Boys in the Eastern Region of Ghana, *African Journal of Reproductive Health*, 5, No. 1, 40-49. Downloaded from <http://www.bioline.org.br/request?rh01005> on June 25, 2014.
- Kudolo, K. P., Kavi, E., Abdul-Rahman, L., (2008). *A Baseline Survey on Adolescent Sexual and Reproductive Health in the Operational Area of Ten ACDEP-Member Primary Health Care Programmes in Northern and Upper East Regions*, Health, Association of church based development NGOs (ACDEP).
- Kurtz, M. E., Kurtz, J .C., Johnson, S. M., Cooper, W .B .S., (2001). Sources of Information on the Health Effects of Environmental Tobacco Smoke among African-American Children and Adolescents, *Journal of Adolescent Health*, vol. 28, 458–464.
- Kwak, N. (1999). Revisiting the Knowledge Gap Hypothesis: Education, Motivation and Media Use, *Communication Research*, Vol. 26: 385. Retrieved from <http://crx.sagepub.com/content/26/4/385> on July 12, 2014.
- Lambert, S.D. and Loiselle, C.G., (2007). “Health Information Seeking Behaviour” *Quality Health Research*. vol. 17. Downloaded from <http://qhr.sagepub.com/content/17/8/1006.abstract> on June 7, 2014.
- Lenz, E.R (1984). *Information seeking: A component of client decision and health behaviour*. *ANS, Advances in nursing science*, 6(3), 59-72.
- Martin, E., (2006). *Survey Questionnaire Construction*, Research Report Series (13), U.S Census Bureau, Washington, D. C.

- Magni R. J, Karim, A.M, Weiss, L.A, Bond K.C, Lemba, M., Morgan, G.T (2002). Reproductive Health Risk and Protective Factors Among Youth in Lusaka, Zambia, *Journal of Adolescent health*, vol. 30,76–86, Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010 .
- Mundingayi, A., Lutala, P., and Mupenda, B., (2011). HIV Knowledge and Sexual Risk Behavior among street Adolescents in Rehabilitation centres in Kinshasa; DRC. *Pan African Medical Journal*, vol. 10 (23). Downloaded from <http://www.panafrican-medjournal.com/content/article/10/23/full/> on July 11, 2014.
- Ndlovu RJ, Sihlangu R.H., (1992). Preferred Sources of Information on AIDS among High School Students from Selected Schools in Zimbabwe, *pubmed*, 17(4), 507-13. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/1578074> on April 11, 2014
- Neuman, S. B., Celano, D. (2006). The knowledge gap: Implications of leveling the playing field for low-income and middle-income children, *Reading Research Quarterly*, Vol. 41 (2), 176-201. Accessed from: <http://onlinelibrary.wiley.com/doi/10.1598/RRQ.41.2.2/abstract> on October 23, 2015.
- Neuman, W., (2003). *Social Research Methods: Qualitative and Quantitative Approaches*. (4th ed.), Ally and Bacon, Boston, USA.
- Ocran ,W and Danso, M.Y., (2009). Male Adolescents' Knowledge, Perceptions and Attitudes towards HIV/AIDS Prevention - A case study of Elembelle District in Ghana, Unpublished bachelors thesis, School of Health and Social Science, JYVASKYLA University of Applied Sciences. Retrieved on June 25, 2014.
- Odonkor, S. T., Novignon, J., Okyere, J. A. M and Mahami, T. (2012). *Sexually Transmitted Diseases (STD) among Adolescents in Second Cycle Institutions in Accra, Ghana: Trends in Sexual Behaviours*, Vol.3 (1), pp 09-17.
- Oduro, G.Y. and Arnot, M., (2010). Sexuality and HIV/AIDS Education: Addressing the Knowledge - Practice Gap amongst Marginalised Ghanaian Youth, University of Cambridge.
- Oljira, L., Berhane, Y, Worku, A.(2013), Assessment of comprehensive HIV/AIDS Knowledge level among in-school Adolescents in Eastern Ethiopia. *Journal of the International AIDS Society*, vol.16:17349 Downloaded from <http://dx.doi.org/10.7448/IAS.16.1.17349> on 25th June 2014.
- Ott, M., Shew, M., Ofner, S., Tu, W. and Fortenberry, D. (2008). The influence of hormonal contraception on mood and sexual interest among adolescents. *Archives of Sexual Behavior*, 37(4), pp. 605-613.

- Pedlow, C. T. and Carey, M. P (2003). HIV Sexual Risk- Reduction Interventions for Youth: A Review and Methodological Critique and Randomised Controlled Trials, *Behav. Modif.* Vol. 27 (2):135-190. Retrieved from: <http://www.ncbi.nlm.gov/pmc/articles/PMC2441937/> on October 23, 2015.
- Poole, H.L., (1985). "Theories of the middle range."Norwood, NJ: Ablex.
- Prior, M., (2005), News vs. Entertainment: How Increasing Media Choice Widens Gaps in Political Knowledge and Turnout, *American Journal of Political Science.* Vol. 49, No. 3.Pp. 577-592. Downloaded from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-5907.2005.00143.xpdf> on July 14, 2014.
- Quamor, N.B (1998), Knowledge Levels about Aids and Adoption of Preventive Measures: A Study of Two Madina Communities in Ghana, Unpublished masters dissertation, University of Ghana, Legon.
- Rogers, E.M., (1976) Communication and development: The passing of the dominant paradigm. *Communication Research*, vol.3, 213-240.
- Sales, J. M, DiClemente R. J., (2010), Adolescent STI/HIV Prevention Programs: What Works for Teens? *Research facts and Findings*, ACT for Youth Centre of Excellence. Cornell University. Retrieved from http://www.actforyouth.net/resources/rfrf_sti_0510.pdf.pdf- Adobe reader on October 23, 2015.
- Severin, W.J. and Tankard, J.W., (2001).*Communication Theories: Origins, Methods and Uses in the Mass Media.*5th ed., Longman, London.
- Sharp, P. M. and Hahn, B. H., (2011). Origins of HIV and AIDS Pandemic, Cold Spring Harbour Perspective Medicine. Downloaded from <http://perspectivesinmedicine.cshlp.org/> on July 11, 2014.
- Spence, P. R., Lachlan, K. A, Burke, J. A (2011), Differences in Crisis Knowledge across Age, Race, and Socioeconomic Status during Hurricane Ike: A Field Test and Extension of the Knowledge Gap Hypothesis, *Communication Theory*, Vol. 21: 261-278. Downloaded from <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2885.2011.01385.xpdf> on July 14, 2014.
- Stevenson, R., (2009). A community perspective on young people's knowledge of HIV/AIDS in three African countries, *AIDS Care.* vol. 21(3), 378–383. retrieved on June 25, 2014 from rbsteph@sph.emory.edu. the
- Sulemani, S. B., Katsepor, S. A. (2007). Information Seeking Behavior of Health Sciences Faculty, College of Health Sciences, University of Ghana. Downloaded from <http://idv.sagepub.com/content/23/1/63.short> on October 22, 2015.

- Tagoe, M., (2009). *A Handbook for Writing Research Proposals*, Ghana Universities Press, Accra.
- Thanavanh, B., Rashid, H., Kasuya, H. and Sakamoto, J., (2013) Knowledge, Attitudes and Practices regarding HIV/AIDS among male High School students in Lao People's Democratic Republic, *Journal of the International AIDS Society*, vol.16, 17387. Downloaded from <http://dx.doi.org/10.7448/IAS.16.1.17387> on June 25, 2014.
- The Alan Guttmacher Institute, (2004). *Adolescents in Ghana: Sexual and Reproductive Health*, Research in Brief Series (1).
- Tavoosi, A., Zaferani, A., Enzevaei, Tajik, P. and Ahmadinezhad, Z., (2004). Knowledge and Attitude towards HIV/AIDS among Iranian students, *BMC Public Health*, 4:17. Downloaded from <http://www.biomedcentral.com/1471-2458/4/17> on July 10, 2014.
- Tichenor, P.J., Donohue, G.A. and Olien, C.N.(1970), "Mass media flow and the differential growth in knowledge, "*Public Opinion Quaterly*, 34:159-170.
- United Nations Agency for International Development (2013). Global Report, Retrieved http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013gr2013_NAIDS_Global_Report_2013_en.pdf on July 14, 2014.
- United Nations Summit (2010), Fact Sheet. Downloaded from www.un.org/millenniumgoals on July 14, 2014.
- Wilson, T. D., (2000). Human Information Behaviour, *Informing Science*, vol.3 (2), 49-55. Retrieved from www.httpinform.nu/Articles/Vol3v3n2p49-56.pdf April 14, 2014.
- Wimmer, Roger D. and Dominick, Joseph R., (2006). *Mass Media Research: An Introduction*. Belmont, CA: Thomson Wadsworth.
- Wood, E, Senn, C.Y, Desmarais, S, Park, L and Verberg, N. (2002), Sources of Information about Dating and their Perceived Influence on Adolescents, *Journal of Adolescent Research*, vol. 17,401. Downloaded from: <http://jar.sagepub.com/content/17/4/401.refs.html> on July 10, 2014.
- World Health Organisation (2014). Online Questions and Answers. Available from: <http://www.who.int/features/qa/71/en/> on October 21, 2014.
- Yadzi, C. A, Aschbacher, K., Arvantaj, A., Naser, H. M., Abdollahi, E., Asadi, A., *et al* (2007). Knowledge, Attitudes and Sources of information regarding HIV/AIDS in Iranian Adolescents, *AIDS Care*, 18(8): 1004-1010. Retrieved from <http://www.tandfonline.com/loi/caic20> on July 10, 2014.

- Ybarra, M.L., Emenyonu, N., Nansera, D., Kiwanuka, J., & Bangsberg, D.R., (2008). "Health information seeking among Mbararan Adolescents: Results from the Ugandan Media and You Survey." *Health Education Survey*, vol.23 (2), 249-258.
Downloaded from <http://her.oxfordjournals.org/content/23/2/249.full.pdf+html> on July 14, 2014.
- Yoo, H, Lee, S. H, Kwon, B. E., Chung, S., Kim, S., (2005). HIV/AIDS Knowledge, Attitudes, Related Behaviors, and Sources of Information among Korean Adolescents, *Journal of School Health*, Vol. 75 (10) 393-399. Downloaded from <http://onlinelibrary.wiley.com/doi/10.1111/j.1746-1561.2005.tb06643.xpdf> on July 10, 2014.

APPENDIX I

QUESTIONNAIRE

Dear respondent,

My name is Mohammed Zunurene, a post –graduate student of the School of Communication studies of the University of Ghana. I am carrying out a study on Adolescents’ sources of information and knowledge levels on HIV/AIDS, in your community. You have been selected to provide honest and true responses to some questions, in order to help make the research meaningful. Be assured that the information you provide will be treated with utmost confidentiality and would be used for academic purpose only. Thank you for your cooperation.

Sources of information on HIV/AIDS (Please tick all possible sources)

1. Have you heard about HIV/AIDS? 1. Yes [] 2.No []

2. From which medium/source/s did you hear about HIV/AIDS?

Interpersonal: 1.Teachers [] 2.Parents [] 3.Friends [] 4.Siblings []

5. Health worker []

Mass media: 6.Radio [] 7.Television [] 8.Books /Magazines []

9. Newspapers [] 10. Internet [] 11.Posters []

Group: 12.Church/Mosque [] 13.Social Club []

14. Other (specify).....

3. Which of the sources in (2) above is your main source?

4. Why is the above your main source?

5. How useful do you find the information from this source?

1. Very useful [] 2. Quite useful [] 3.Useful [] 4.Not useful []

6. Do you make personal effort to seek information on HIV/AIDS? 1. Yes [] 2.No []

7. If yes, why?

8. If no, why not?

9. Which of the sources in (2) above is your preferred source?

10. Why is the above your preferred source? 1. Easy access [] 2.Useful information []

3. True and credible information [] 4. Easy to remember information []
 5. Easy reference [] 6. Other (Please specify).....

11. Does the information you receive or seek about HIV/AIDS prevent you from doing things that predispose you to HIV/AIDS infection? 1. Yes [] 2.No [] 3.Not sure []

For each of the questions from 12-31, tick: 1.Yes, 2. No or 3. Don't know

Knowledge about HIV/AIDS

Route of transmission

Questions	1.Yes	2.No	3.Don't know
12. Can HIV be transmitted by sexual intercourse with an infected person?			
13. Can HIV be transmitted from mother to child?			
14. Can HIV be transmitted by sharing needle or syringe?			
15. Can HIV be transmitted by blood transfusion?			
16. Can HIV be transmitted by shaking hands with an infected person?			
17. Can HIV transmitted by eating and drinking from the same plate or glass with an HIV- positive person?			
18. Can HIV be transmitted by wearing the clothes of an HIV- positive person?			
19. Can HIV be transmitted by sharing a toilet with an HIV-positive person?			
20. Can HIV be transmitted through a mosquito bite?			
21. Can HIV be spread by witchcraft, juju or other supernatural means?			

Prevention and control

Questions	1.Yes	2.No	3.Don't know
22. Can HIV be prevented by not sharing sharp objects (needle or syringe)?			
23. Can HIV be prevented by properly using condom during sexual intercourse?			
24. Can HIV transmission be avoided by remaining faithful to a single partner?			
25. Can HIV transmission be avoided by doing a blood test before marriage?			
26. Can HIV be avoided by not hugging?			
27. Can HIV transmission be avoided by abstaining from unprotected sex?			

Treatment

28. (a) Does HIV/AIDS have a cure? 1. Yes [] 2.No [] 3.Don't know []
(b) If yes, what is it?
29. (a) Can HIV/AIDS be managed? 1. Yes [] 2.No [] 3.Don't know []
(b) If yes, how?
30. (a) Can HIV/AIDS be cured by using drugs and herbs? 1. Yes [] 2.No [] 3.Don't know []
(b) If yes, which ones?
31. (a) Can HIV/AIDS be cured by spiritualists? 1. Yes [] 2.No [] 3 .Don't know []
(b) If yes, give reason.....
(c) If no, give reason.....

Personal background information

32. Where do you live? 1. Nsukwao Abotanso [] 2. Effiduase SSNIT []
33. What is your educational level?
1. No formal education [] 2.Elementary/Junior High School []
3. Senior High School [] 4.Technical/Commercial [] 5.Tertiary []
34. Which of these age categories do you fall within?
1. 10-12 years [] 2. 13-15 [] 3. 16-18 [] 4. 19-21 []
35. What is your religion? 1. Christianity [] 2.Islam [] 3.Other (specify)
36. Sex of respondent: 1.Male [] 2.Female []

Thanks for your time.

APPENDIX II

KNOWLEDGE SCORES OF RESPONDENTS

Table 9: Cross tabulation of respondents' knowledge score by community of residence

Knowledge score	Community		Row Total
	Nsukwao Abotanso SSNIT	Effiduase	
0	0 (0.0%)	1 (0.6%)	1 (0.6%)
3	1 (0.6%)	0 (0.0%)	1 (0.6%)
8	0 (0.0%)	1 (0.6%)	1 (0.6%)
9	2 (1.2%)	1 (0.6%)	3 (1.9%)
10	1 (0.6%)	0 (0.0%)	1 (0.6%)
11	2 (1.2%)	1 (0.6%)	3 (1.9%)
12	8 (5.0%)	1 (0.6%)	9 (5.6%)
13	6 (3.8%)	0 (0.0%)	6 (3.8%)
14	6 (3.8%)	2 (1.2%)	8 (5.0%)
15	7 (4.4%)	11 (6.9%)	18 (11.2%)
16	14 (8.8%)	16 (10.0%)	30 (18.8%)
17	11 (6.9%)	12 (7.5%)	23 (14.4%)
18	10 (6.2%)	15 (9.4%)	25 (15.6%)
19	7 (4.4%)	12 (7.5%)	19 (11.9%)
20	5 (3.1%)	7 (4.4%)	12 (7.5%)
Column Total	80 (50.0%)	80 (50.0%)	160 (100.0%)