

**STUDENTS' KNOWLEDGE, ATTITUDE AND PRACTICES  
TOWARD PATIENTS WITH HIV/AIDS AT FORT PORTAL  
REGIONAL REFERRAL HOSPITAL, UGANDA.**

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**A RESEARCH DISSERTATION SUBMITTED TO FACULTY  
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## ABSTRACT

**Introduction:** Globally, HIV continues to be a major global public health issue. The vast majority of people living with HIV are located in low- and middle- income countries, with an estimated 66% living in sub-Saharan Africa. Among this group 19.6 million are living in East and Southern Africa which saw 800,000 new HIV infections in 2017. There has been a gradual increase in the number of people living with HIV accessing treatment. In 2013, Uganda reached a tipping point whereby the number of new infections per year was less than the number of people beginning to receive antiretroviral treatment. This has led to increased numbers of PLWHAs who have to, other than having to seek treatment in the face of societal stigma, may also be faced with discriminatory practices by healthcare providers warranting the need for continued education of the providers towards good practice as regards PLWHAs.

**Objective:** This study aimed to assess the knowledge, attitudes and practice of medical students towards HIV/AIDS and PLWHAs.

**Method:** A descriptive questionnaire-based cross-sectional study design was used that involved 53 BMS 143 series KIU medical students on clinical placement at FPRRH.

**Results:** The knowledge was high (80%), attitudes positive (94.4%) and practice was good.

**Conclusion:** The knowledge of KIU BMS 143 series medical students on clinical placement at FPRRH concerning HIV/AIDS and PLWHAs was high, their attitudes positive and practices good but there was need to keep up-to-date on the changing HIV treatment protocols.

Key words: People living with HIV/AIDS, Knowledge, Attitude, Practice

## DECLARATION

I Odongo Emmanuel Okello declare that this research dissertation; **Student's knowledge, attitude and practices toward patients with HIV/AIDS at Fort Portal Regional Referral Hospital, Uganda** is my original work and has never been presented in the same or different form to Kampala international university or any other institution of learning for any academic award.

Signature .....

Date .....

## APPROVAL

This research dissertation; Student's knowledge, attitude and practices toward patients with HIV/AIDS at Fort Portal Regional Referral Hospital, Uganda has been produced under my close supervision and guidance and I therefore recommend the student to go ahead and hand in a copy.

Supervisor: **Dr. Odong Richard Justin, MBChB (KIU 2011), MMED PAEDIATRICS AND CHILD HEALTH (KIU 2017)**

Signed.....

Date.....

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AIDS	: Acquired Immune Deficiency Syndrome
BMS	: Bachelor of Medicine and Bachelor of Surgery
FPRRH	: Fort Portal Regional Referral Hospital
HIV	: Human Immune Deficiency Virus
KIU	: Kampala International University
MOH	: Ministry of Health
NAFOPHANU	: National Forum of People Living with HIV/AIDS
PITC	: Provider-Initiated HIV Testing and Counseling
PLWHA	: People Living with HIV/AIDS
PMTCT	: Prevention of Mother-to-Child Transmission
QI	: Quality Improvement
UAC	: Uganda Aids Commission
UAE	: United Arab Emirates
UNAIDS	: United Nations Agency for International Development
WHO	: World Health Organization

## **OPERATIONAL DEFINITIONS**

**Knowledge on HIV/AIDS:** General understanding of familiarity with Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome.

**Medical Students:** Bachelor of Medicine and Bachelor of Surgery Students

**People Living With HIV/AIDS (PLWHA):** Men, women and children tested and confirmed to be positive of HIV Virus or have developed the immunodeficiency syndrome as a result of infection with HIV.

**Stigma:** A mark of Infamy or disgrace.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 BACKGROUND**

Medical education is one of the professional trainings that aim to turn a lay person into a professional, a doctor in this context. Transformation in theoretical perspectives and teaching strategies are abound in medical education in order to produce tomorrow doctors who are not only knowledgeable and skillful but also behave professionally (KV, 2011).

A newly graduated doctor is almost instantly employed to be a house officer in this country. From day one in the hospital, they are expected to clerk all patients who are admitted into their ward. Thus, their professional behavior with the patient does impress, impact and decide on the course of the disease, treatment adherence and prognosis of the patient, especially patient with serious and frightening conditions such as human immunodeficiency virus (HIV) infection and acquired immune deficiency syndrome (AIDS) (B. Coeteez et al. 2011).

HIV/AIDS is one of the major health burdens worldwide. Globally, HIV continues to be a major global public health issue. In 2017 an estimated 36.9 million people were living with HIV (including 1.8 million children) – with a global HIV prevalence of 0.8% among adults. Around 25% of these same people do not know that they have the virus (U.S. Department of Health & Human Services, 2017).

Since the start of the epidemic, an estimated 77.3 million people have become infected with HIV and 35.4 million people have died of AIDS-related illnesses. In 2017, 940,000 people died of AIDS-related illnesses. This number has reduced by more than 51% (1.9 million) since the peak in 2004 and 1.4 million in 2010 (U.S. Department of Health & Human Services, 2017).

The vast majority of people living with HIV are located in low- and middle- income countries, with an estimated 66% living in sub-Saharan Africa. Among this group 19.6 million are living in East and Southern Africa which saw 800,000 new HIV infections in 2017 (UNAIDS., 2018).

In 2017, an estimated 1.3 million people were living with HIV, and an estimated 26,000 Ugandans died of AIDS-related illnesses (UNAIDS., 2018).

The epidemic is firmly established in the general population. As of 2015, the estimated HIV prevalence among adults (aged 15 to 49) stood at 5.9%. Women are disproportionately affected, with 8.8% of adult women living with HIV compared to 4.3% of men (Uganda Ministry of Health, 2015).

Other groups particularly affected by HIV in Uganda are sex workers, young girls and adolescent women, men who have sex with men, people who inject drugs and people from Uganda's transient fishing communities (Uganda AIDS Commission, 2017).

There has been a gradual increase in the number of people living with HIV accessing treatment. In 2013, Uganda reached a tipping point whereby the number of new infections per year was less than the number of people beginning to receive antiretroviral treatment (Uganda AIDS Commission, 2017).

However, as of 2016 around 33% of adults living with HIV and 53% of children living with HIV were still not on treatment. Persistent disparities remain around who is accessing treatment and many people living with HIV experience stigma and discrimination (Uganda AIDS Commission, 2017).

## **1.2 PROBLEM STATEMENT**

As Medical students are becoming increasingly central points of contact for clinical care of people living with HIV and AIDS, they must first be ensured adequate preparatory education. Scattered reports have shown, however, that most Medical students in developing countries are not well prepared during their pre-service education in the knowledge, skills and attitudes needed to provide quality HIV/AIDS-related care.

Students need more knowledge, skills and experience dealing with HIV/AIDS; those that have had knowledge, skills and experience have more positive attitudes than those who have not.

Prejudices and social discrimination are some of the leading causes for certain groups of Uganda's population, such as sex workers and men who have sex with men, to avoid seeking health care or HIV testing. However, even the general populations of people living with HIV are subjected to social stigma and negative judgement.

A 2015 survey conducted by HIV support Organizations, in partnership with the National Forum of People Living with HIV/AIDS (NAFOPHANU), of people living with and affected by HIV in central and south-western Uganda found stigma, both internal and external, to be high. When the study began, more than half (54%) reported experiencing some form of discrimination or prejudice as a result of having HIV (Drummond et al., 2015).

The People Living with HIV Stigma Index 2013 found the most common forms of external stigma and discrimination directed at people living with HIV were: gossip – experienced by 60% of survey participants verbal harassment, insults and threats – experienced by 37% sexual rejection – experienced by 21.5% (NAFOPHANU.,

2013). Experiences of all forms of internal stigma were higher among women than men (Uganda Bureau of Statistics, 2016).

Stigma is an attribute of social relation that exists when the following components occur: labelling, stereotyping, separation, status loss and discrimination. HIV related stigma poses multiple consequences on physical and psychological well-being of PLWHA including affecting their quality of life (Hasanah, Zaliha, & Mahiran, 2011).

In this country, it was reported that perceived stigma from health care providers and community was a major barrier for PLWHA to access prevention and treatment services from health care system (Uganda Bureau of Statistics, 2016). Furthermore, studies have shown that presence of stigmatization and discriminatory behaviors towards PLWHA in health care professionals would further jeopardize the care to them (Cianelli et al., 2011).

There was a lack of evidence of these behaviors among the medical students in FPRRH. Medical school has a role to play at the institutional level of the multifaceted and multilevel stigma reduction strategies (Varas-Díaz, Neilands, Rodríguez-Madera, & Padilla, 2016). Hence, this study will be set out to examine the medical students' knowledge and stigmatizing attitude in providing care to PLWHA.

### **1.3 OBJECTIVE OF THE STUDY**

#### **1.3.1 General objective**

Student's knowledge, attitude and practices toward patients with HIV/AIDS at Fort Portal Regional Referral Hospital, Uganda.

#### **1.3.2 Specific objectives**

- 1) To assess the students' level of knowledge as regards HIV/AIDS.
- 2) To determine the students' attitudes as regards HIV/AIDS.
- 3) To determine the students' attitudes towards HIV/AIDS.

### **1.4 RESEARCH QUESTIONS**

- 1) What is the level of students' knowledge regarding HIV/AIDS?
- 2) What are the student's attitudes toward HIV/AIDS patients?
- 3) What are the students' responses about health care related practices with HIV/AIDS patients?

### **1.5 SIGNIFICANCE OF THE STUDY**

This study is aimed at shedding some light on the student's knowledge, attitude and practices toward patients with HIV/AIDS and identifying the various factors that may influence the general outcome among patients with HIV/AIDS.

The information obtained from this study will inform the hospital administration on the interventions and modifiable factors that can be implemented and thus influencing appropriate action. This is intended to reduce social stigma and mortality among patients with HIV/AIDS.

Information obtained from this study could assist the government, Health institutions, NGOs etc. so that appropriate measures can be implemented to prepare Medical students during their pre-service education in the knowledge, skills and attitudes needed to provide quality HIV/AIDS-related care.

Furthermore, the information that amassed from the study findings could be used by other researchers for further studies on the various facility-specific interventions that could be put in place as to improve outcomes care of patients with HIV/AIDS. It is also intended to fuel interest for similar studies in other health facilities within the country that will ultimately benefit patients with HIV/AIDS in those facilities and the country as a whole.

## **1.6 SCOPE OF THE STUDY**

### **1.6.1 Geographical scope**

Fort Portal Regional Referral Hospital (FPRRH), locally known as Buhinga, opened in 1920 as a dispensary and upgraded to a regional referral hospital in 1994. Located in Western Uganda, the hospital serves the entire Ruwenzori region consisting of seven Ugandan districts (Bundibugyo, Kabarole, Kyenjojo, Kasese, Kamwenge, Kyegegwa and Ntoroko) and part of eastern Democratic Republic of Congo. Fort Portal RRH offers both general and specialized services and is a teaching hospital.

To ensure delivery of quality HIV care and related services within the sub-region, USAID/SUSTAIN supports various hospital areas including delivery of clinic HIV prevention (Voluntary Medical Male Circumcision, Prevention of Mother-to-Child Transmission of HIV), care and treatment and TB/HIV and laboratory services.

### **1.6.2 Content scope**

The research concerned assessing knowledge, attitude and practices of KIU BMS Students toward patients with HIV/AIDS at Fort Portal Regional Referral Hospital, Uganda

### **1.6.3 Time scope**

The data collection for the study ran from the month of January 2019 to March 2019.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0. INTRODUCTION**

This chapter presents literature reviewed on the subject matter as per objectives of this study.

#### **2.1. Knowledge concerning HIV/AIDS**

Given the period of time that HIV/AIDS has been in existence, it is expected that it has come to be known by virtually everyone in the globe. Knowledge on the transmission and prevention goes a long way in the fight against the transmission and spread of the pandemic. It is hoped that with adequate and proper awareness, the fight will one day be won.

Reports have gone ahead to show mixed reports on HIV/AIDS awareness with some reports reporting good levels of awareness as that seen among newly admitted medical students in an Indian medical school. All the students were conscious about HIV/AIDS disease, its causative agent and diagnostics test. Majority of the students were aware about the modes of transmission and preventive approaches. Very few misconceptions were observed like spread by mosquito bite (Biradar, Kamble, & Reddy, 2016).

Indian nursing students were also reported to have adequate knowledge concerning HIV/AIDS. A study documented the overall mean knowledge to be high among these nursing students (Dharmalingam, Poreddi, Gandhi, & Chandra, 2015), results that were even bettered by Iranian nursing and midwifery students among who knowledge was found to be high (94%) especially on strategies for reducing HIV/AIDS-related stigma and discrimination (Farotimi, Nwozichi, & Ojediran, 2015).

Same impressive statistics were reported in United Arab Emirates (UAE); a study conducted among university students here found the overall average knowledge score regarding HIV/AIDS to be above average (61%) with non-Emirati and postgraduate students demonstrating higher levels of knowledge compared to Emirati and undergraduate students respectively (Haroun et al., 2016), and replicated in China where more than half of the respondents demonstrated a good level of knowledge, although few exhibited an excellent level. The mean scores on knowledge was  $79.41 \pm 6.3$  out of a maximum possible score of 100, and there was no significant difference regarding sex (Li, Dong, He, & Liu, 2016).

As earlier stated, studies have reported mixed results. This fact is driven home by the very low levels of knowledge reported among health professionals in a tertiary health-care institution in Uttarakhand, India for instance, most of the respondents were found to have had incomplete knowledge regarding the various aspects of HIV/AIDS (Doda, Negi, Gaur, & Harsh, 2018), whereas secondary school students in Enugu, Nigeria showed excellent



Knowledge on both STIs and HIV/AIDS! There was a high level of awareness of HIV (97.8%) and STIs (94.5%). While 74.3% had correct knowledge of modes of transmission, 60.7% incorrectly identified casual contact as modes of transmission of HIV. Only 59% correctly identified all the HIV prevention methods tested, while 74.9% practiced all modes of prevention (Nwatu, Young, Ezeala-adikaibe, Okafor, & Onwuekwe, 2017).

In Uganda, a study was conducted among secondary school teenagers in central Uganda where knowledge on HIV/AIDS transmission and prevention was reported to be very satisfactory. Results showed that 95.1% participants had knowledge on HIV/AIDS in both urban and rural schools and 27.4% knew all the modes of HIV transmission. For HIV cure, 62.0% of study participants reported non-cure and 24.9% were not sure. About 65.7% of participants reported recognition of one with HIV/ AIDS and by having red lips, being sickly; weight loss, skin rash and being very rich were mentioned. About 39.2% of the study participants mentioned that they cannot get infected with HIV and can't contract HIV at all and 18.4% believed that chances of getting HIV infection were high (Rukundo et al., 2016).

## **2.2. Attitudes concerning HIV/AIDS**

Often a times, attitude is a direct product of level of knowledge with inadequate knowledge resulting into poor attitudes and vice-versa. This is not always the case though, as several studies have reported poor attitudes despite of excellent knowledge, and acceptable attitudes despite insufficient knowledge. A good example of is reported by (Doda et al., 2018) in their study among medical professionals at a tertiary health-care institution in Uttarakhand, India where despite most participants having inadequate knowledge regarding the various aspects of HIV/AIDS, all of them were receptive towards people living with HIV/AIDS (Doda et al., 2018).

Among Indian nursing students on the other hand, though, a majority had adequate knowledge, few held discriminatory attitudes toward people with HIV/AIDS (Dharmalingam et al., 2015). Findings that were supported by (Farotimi et al., 2015) in their study among Indian nursing and midwifery students that showed discriminatory attitudes towards PLWAs by the students despite satisfactory knowledge. 64% of the students had moderate discriminatory attitude, 74% engaged in low discriminatory practice, while 26% engaged in high discriminatory practice (Farotimi et al., 2015).

This trend was also seen among university students in the UAE where it was apparent that adequate knowledge does not always translate into positive attitudes. A study reported that eighty-five percent of students expressed negative attitudes towards people living with HIV, with Emirati and single students significantly holding more negative attitudes compared to

non-Emiratis and those that are married respectively (Haroun et al., 2016). This was also the case among Chinese dental students as reported by (Li et al., 2016) where it was observed that despite their good level of knowledge, the majority (93.68%) displayed a negative attitude (nonprofessional attitude) toward HIV/AIDS.

University students in Xinjiang, China have been reported to have negative attitudes towards HIV/AIDS. In a study conducted among them showed that only 33.3% of them had positive attitudes towards HIV/AIDS patients (Maimaiti, Shamsuddin, & Nurungul Tohti, & Maimaiti, 2014). On the other hand, Ethiopian university have a poor attitude towards HIV/AIDS and the majority never perceive themselves at risk of contracting it (Petros, 2014). In Uganda, attitudes towards HIV/AIDS transmission and prevention, especially among teenage secondary school teenagers, is negative with most perceived condom use, one of the cheapest and efficient transmission control method, as a sign of mistrust, embarrassing to buy and reduces sexual pleasure (Rukundo et al., 2016).

### **2.3. Practices concerning HIV/AIDS**

Good practice is, expectedly, a product of sufficient knowledge and favorable attitudes, while the reverse still stands true. Again, this is not always the case as several studies have repeatedly shown. It is thus of importance that practice too be assessed while assessing knowledge and attitudes.

A majority of Chinese students, despite reporting high knowledge levels for instance, fear contracting HIV through clinical practice and feel that health care workers have the right to know a patient's HIV status for their own safety. The majority would wear gloves to touch a patient if suspected of HIV (Lui, Sarangapany, Begley, Coote, & Kishore, 2014).

Indian nursing students too have been reported to portray discriminatory practices towards PLWHAs. For instance, a study reported 64% to have moderate discriminatory attitude, 74% engaged in low discriminatory practice, while 26% engaged in high discriminatory practice (Farotimi et al., 2015).

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0. INTRODUCTION**

This chapter presents the methodology used in conducting the study and deals with the design, population, sample size determination, sampling technique, data collection and ethical considerations involved.

#### **3.1. RESEARCH DESIGN**

A descriptive cross-sectional design was utilized in this study to achieve the stated aim.

#### **3.2. SAMPLE SIZE DETERMINATION**

The sample size was determined using Krejcie & Morgan Sample Size Formula for Finite Population:

$$s = \frac{X^2 NP (1 - P)}{d^2(N - 1) + X^2 P (1 - P)}$$

Where:

s = required sample size.

X = the z value on the table value of chi for 1 degree of freedom at the desired confidence level

(1.96 for a 95% confidence level).

N = the population size (130 students).

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the error margin (.05).

Krejcie & Morgan simplified the process of determining the sample size by coming up with a table developed basing on the above formula. Therefore 97 participants in direct contact with the patients in their clinical practice were considered for the study and this was evaluated using Morgan's Table.

#### **3.3. STUDY POPULATION**

The study was carried out at FPRRH among (130) KIU BMS students on clinical attachment. The program consists of TWO levels (Junior and senior students). All students begin their clinical training in the hospital where they work with different categories of patients and they can deal with patients with infectious diseases such as hepatitis, tuberculosis, and acquired immunodeficiency syndrome (HIV/AIDS).

##### **3.3.1. Inclusion criteria**

KIU BMS students in direct contact with the patients in their clinical practice

### **3.3.2. Exclusion Criteria**

Non KIU BMS students/ other students from universities other than KIU

### **3.4. SAMPLING TECHNIQUE**

Consecutive sampling with sequential enrollment was used for the study. Study participants were selected as per their meeting the inclusion criteria.

### **3.5. DATA COLLECTION TOOLS**

Data needed for the study was collected by using a structured, self-administered questionnaire regarding the students' knowledge, attitude and practices toward the HIV/AIDS patients. The questionnaire consisted of 4 parts with total of 33 items; part one included students' personal profile such as age, marital status and academic level, part two contains questions to estimate students' knowledge regarding HIV/AIDS; it consisted of 5 statements as "do you have up to date knowledge about HIV/AIDS treatment". Part three consists of 20 statements regarding student's attitude toward HIV/AIDS patients and divided into statements to assess students' attitude toward patients' rights, attitude toward working with HIV/AIDS patients and attitude toward patients with HIV/AIDS in general. Part four includes 6 statements to assess students' responses about health care related practices with HIV/AIDS patients such as "patients' blood should never be tested for HIV/AIDS without their consent".

### **3.6. PROCEDURE**

The questionnaire was handed down to the students in the classroom. These data were recorded in the interviewing questionnaire sheet. A pilot study was done on 10 students and they were included in the study and the needed modifications done for more clarity and suitability of the tool to the students' cultural background.

### **3.7. QUALITY CONTROL**

Students' responses were carefully reviewed with clarifications sort from the student where needed (e.g. where there were multiple responses for one question). Care was taken while recording the serial numbers to avoid data mix-up.

### **3.8. DATA ANALYSIS**

Data was collected, tabulated, scored and analyzed using Statistical Package for Social Science (SPSS) version 20. Data was then presented in the form of statements, graphs, tables and charts.

### **3.9. ETHICAL CONSIDERATIONS**

An official permission was sought from the dean of faculty of clinical medicine and dentistry KIU. All students included in this study were informed about the purpose of this study in order to obtain their acceptance to share in the study and those students who were willing to

participate in the study were included. The researchers assured confidentiality of personal responses.

### **3.10. STUDY LIMITATIONS AND DELIMITATIONS**

The researcher anticipated financial constraints that he handled through sourcing for funds from friends, family and well-wishers and through efficient resource allocation via meticulous budgeting.

### **3.11. DISSEMINATION OF STUDY FINDINGS**

Results from the study were shared between the researcher, the supervisor and the examiners.

**CHAPTER FOUR**  
**DATA ANALYSIS AND PRESENTATION**

**4.0. INTRODUCTION**

This chapter deals with analysis of data and presents it in the form of narratives, tables, graphs, and charts.

**4.1. Demographic characteristics of respondents**

The study included all 53 of the BMS 143 series KIU medical students on clinical placement at FPRRH. A total of 53 questionnaires were administered to them, the same number received and analysed giving a response rate of 100%. The demographic characteristics were as shown in table 1 below.

	<b>FREQUENCY (N)</b>	<b>PERCENTAGE (%)</b>
<b>AGE (YEARS)</b>		
<b>22 – 25</b>	31	58.49
<b>Above 25</b>	22	41.51
<b>SEX</b>		
<b>Male</b>	37	69.81
<b>Female</b>	16	30.19
<b>MARITAL STATUS</b>		
<b>Married</b>	11	20.76
<b>Single</b>	42	79.24
<b>TOTALS</b>	<b>53</b>	<b>100</b>

**Table 1: Demographic characteristics of BMS 143 series medical students at FPRRH (N=53)**

The BMS 143 series from KIU on clinical placement at FPRRH were mainly single (79.24%), males (69.81%) who were aged between 22 years and 25 years (58.49%).

**4.2 knowledge of KIU BMS 143 series medical students on clinical placement at FPRRH about HIV/AIDS and PLWHAS**

The score for the 5 questions asked and answered favourably was 80% with all 53 answering as expected to 4 out of 5 questions. All of them were in agreement that women living with HIV/AIDS could get pregnant just like other women without HIV, all disagreed that immoral behaviour was the only way HIV could be transmitted and spread, and that need for consent was exaggerated in HIV testing and thus should be handled like any other routine medical test. They also disagreed with the idea that HIV/AIDS patients should be made to pay for testing kits, gloves and other protective equipment used while offering health care services to them. However, only 14 (26.42%) deemed themselves as to possess up-to-date knowledge

concerning HIV/AIDS treatment protocols, while the remaining 39 (73.58%) were not sure if the knowledge they possessed was up-to-date.

#### **4.3. Attitude of KIU BMS 143 series medical students on clinical placement at FPRRH towards HIV/AIDS and PLWHAs**

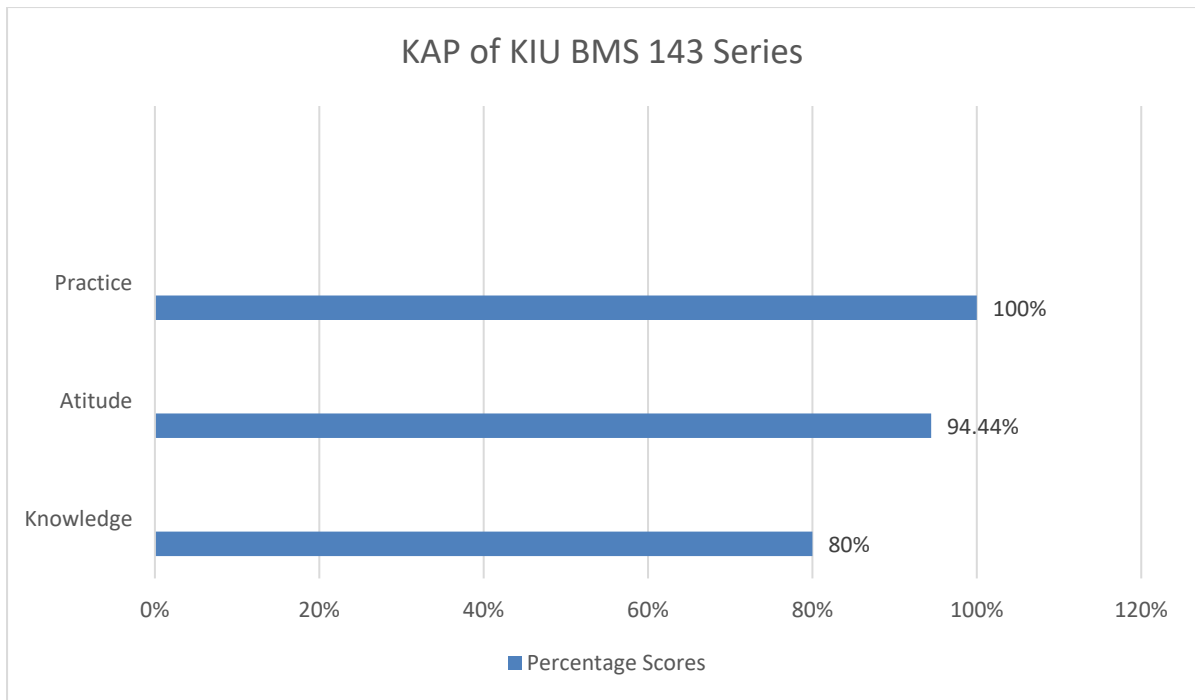
A total of 19 questions assessing attitudes were asked out of which 18 (94.44%) were answered as expected. All 53 agreed that PLWAs have the right of disclosure and deciding who should be made known of their status, had the right to get married as long as their statuses of both partners were known to each other, that their opinion was important and matter, that they deserve healthcare services just like anyone else and they would readily offer care to them just as they would any other patients and the same due diligence, that they would be willing to share a meal with a PLWHA, they would be willing to work together with a co-worker who they discovered that they were HIV positive. They also would encourage PLWHAs to comply with their treatment. They also felt that sex workers (or their clients) and intravenous drug abusers were at risk of getting infected with HIV and thus they needed to worry about getting infected, they would buy food from a food vendor or move into a home with a PLWA as the vendor or neighbour without any qualms.

They did not view PLWAs as bad or evil people, stupid neither do they get disgusted or easily irritated or angry while dealing with PLWAs taken ill but 4 (7.55%) were afraid of getting infected while treating and caring for PLWAs.

#### **4.4. Practices of KIU BMS 143 series medical students on clinical placement at FPRRH regarding PLWHAs**

A set of 6 questions assessing practice were asked out of which all were answered as expected. All the 53 students agreed that patients should never be tested for HIV without their consent unless in very special circumstances (including pregnancy and surgery) and they also would not disclose to family and friends of a patient's status who had tested positive. They also stated that HIV patients should not be isolated from other patients in the wards and that their clothes and linen they use need not be disposed of or burnt.

The infographic on the knowledge, attitudes and practices scores of KIU BMS 143 series medical students on placement on clinical placement at Fort-Portal Regional Referral Hospital as regarding HIV/AIDS and PLWHAs based on questions asked is summarized in figure 1 below.



**Figure 1: Knowledge, Attitudes & Practices of KIU BMS 143 Series Medical Students**

The Knowledge level was at 80%, attitudes scored 94.44% and for practices the score was 100%.



## CHAPTER FIVE

### DISCUSSIONS, CONCLUSIONS & RECOMMENDATIONS

#### 5.0. INTRODUCTION

This chapter presents the discussions of the study findings, conclusions arrived at and recommendations made based on the findings and conclusions.

#### 5.1. DISCUSSIONS

##### 5.1.1. Demographic characteristics of KIU BMS 143 medical students at FPRRH

A total of 53 students were on clinical placement at the time of the study. They consisted of 37 males and 16 females, the majority of who were aged between the ages of 22 and 25 years and 11 of whom were married.

##### 5.1.2. Knowledge regarding HIV/AIDS and PLWHAs

At a knowledge score of 80%, for the 5 questions asked, the students portrayed high levels of knowledge which may be attributable to the fact that, being senior medical students in their final year, they had amassed a wealth of information and knowledge on the subject matter over the years.

These results were in agreement with those reported by (Biradar et al., 2016) among Indian medical students which found all of them to be conscious about HIV/AIDS with very few misconceptions. They also agree with (Farotimi et al., 2015) who reported adequate knowledge among Nigerian nursing students, and (Haroun et al., 2016) who reported an above average knowledge among university students in the UAE. However, they contradict (Doda et al., 2018) reports of low knowledge among health professionals in a tertiary healthcare institution in Uttarakhand, India.

Of importance, though, is the fact that this study's results are in agreement with reports tabled by (Rukundo et al., 2016) in Uganda which asserted high levels of knowledge among secondary school teenagers; knowledge in that particular study was scored at 95.1%.

##### 5.1.3. Attitudes towards HIV/AIDS and PLWHAs

KIU BMS 143 series medical students had a positive attitude towards HIV/AIDS and PLWHAs with an impressive score of 94.44%. this, again, goes back to emphasize the positive impact adequate knowledge has on attitudes and shoots down the argument that attitudes may remain negative despite sufficient knowledge as reported by (Doda et al., 2018) in their study in Uttarakhand. It also goes ahead to further highlight that people with adequate knowledge rarely will hold discriminatory attitudes towards PLWHAs, a fact evidenced in the reports by (Dharmalingam et al., 2015) in their study among Indian nursing students and (Haroun et al., 2016) in their study among university students in the UAE.

Of importance, though, this study's findings go contrary to (Rukundo et al., 2016) in their study that reported negative attitudes among secondary school teenagers in Uganda. This could be attributable to the difference in the level of understanding of the subject matter that may exist between the two cohorts; one being of secondary school teenagers not constantly exposed to dealing with PLWHAs and the other being senior medical students in their final year of study who have been for a large part of their training.

#### **5.1.4. Practices towards PLWHAs**

The medical students' practice towards PLWHAs was beyond impressive with all portraying favourable practice commensurate to their sufficient knowledge levels that translated into positive attitudes and ultimately good practice. This seems to follow quite the opposite direction compared to the findings reported by (Lui et al., 2014) and (Farotimi et al., 2015) in their studies conducted among Indian and Nigerian nursing students respectively. In both those studies, the students were reported to exhibit discriminatory practices towards PLWHAs despite possessing adequate knowledge.

#### **5.2. CONCLUSIONS**

The knowledge of KIU BMS 143 series medical students on clinical placement at FPRRH concerning HIV/AIDS and PLWHAs was high, their attitudes positive and practices good.

#### **5.3. RECOMMENDATIONS**

##### **5.3.1. To the KIU students**

Keep up the positive attitudes and good practice towards PLWHAs but scale-up their efforts towards getting up-to-date information as concerns current treatment protocols for HIV patients, as management of PLWHAs demands a wholistic approach.

##### **5.3.2. To the administration and management of KIUTH**

Keep on imparting knowledge on HIV/AIDS and care of PLWHAs to its students while at the same time emphasizing the need to be conversant with current up-to-date treatment protocols by the students since HIV/AIDS management protocols keep on being updated for the better.

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**APPENDICES**  
**APPENDIX 1: CONSENT FORM**  
**CONSENT FORM**

**STUDY TITLE:** STUDENTS' KNOWLEDGE, ATTITUDE AND PRACTICES TOWARD PATIENTS WITH HIV/AIDS AT FORT PORTAL REGIONAL REFERRAL HOSPITAL, UGANDA.

I am Odongo Emmanuel Okello, a final year medical student at Kampala International University – Western Campus carrying out the above research. I would hereby wish to assure you that the information you will provide will be accorded the confidentiality it deserves and will not be used for purposes other than those meant for this research. Therefore, feel free.

**For Respondent / Study participant**

I have read and understood the research topic above on the planned study and the explanations given to me. I understand what I have been requested to do in respect to this study. I have asked questions and gotten clarifications about the study and I am satisfied. I have, after due consideration, willingly consented to take part in this study as explained.

Participant's signature ..... Date

.....

Investigators name ..... Signature .....

Date .....

## APPENDIX 2: QUESTIONNAIRE

**STUDY TITLE:** STUDENT'S KNOWLEDGE, ATTITUDE AND PRACTICES TOWARD PATIENTS WITH HIV/AIDS AT FORT PORTAL REGIONAL REFERRAL HOSPITAL, UGANDA.

**SERIAL NO:** .....

### SECTION I: Students personal profile

- a) Students' age: a) 18-21 b) 22-25 c) >25
2. Marital status:
- a) Married b) Not Married
3. Academic level:
- a) Junior b) Senior

### SECTION II: Students' knowledge about HIV/AIDS

4. HIV-positive women can get pregnant
- a) Don't agree b) Agree c) Uncertain
5. HIV spreads due to immoral behavior only
- a) Don't agree b) Agree c) Uncertain
6. The need for consent is exaggerated. HIV tests should be handled like any other blood test
- a) Don't agree b) Agree c) Uncertain
7. HIV/AIDS patients should be made to pay for gloves, HIV testing kits.
- a) Don't agree b) Agree c) Uncertain
8. Do you have up to date knowledge about HIV/AIDS treatment
- a) Yes b) No c) Unsure

### SECTION IIIA: Students' attitude toward HIV +ve patients.

9. People living with HIV/AIDS have a right to decide who should know about it
- a) Don't agree b) Agree c) Uncertain
10. People with HIV/AIDS should still be allowed to get married, as long as both partners know about it
- a) Don't agree b) Agree c) Uncertain
11. Is the opinion of the patient with HIV/AIDS important? Does it matter?
- a) Don't agree b) Agree c) Uncertain
12. Do PLWHAs deserve healthcare services just like any other patients?
- a) Don't agree b) Agree c) Uncertain

### SECTION IIIB: Students' attitude toward working with HIV/AIDS patients:

12. Would you be willing to share a meal with HIV/AIDS-positive persons?  
a) Don't agree b) Agree c) Uncertain
13. If you found out that a co-worker had HIV/AIDS would you be willing to work with him/her  
a) Don't agree b) Agree c) Uncertain
14. Would you care for HIV/AIDS patients just as you would any other patient?  
a) Don't agree b) Agree c) Uncertain
15. Would you apply the same diligence while treating patient with HIV/AIDS as you would any other patient?  
a) Don't agree b) Agree c) Uncertain
16. Would you encourage patient with HIV/AIDS to comply with their treatment?  
a) Don't agree b) Agree c) Uncertain
17. You can spend enough time with HIV/AIDS patient  
a) Don't agree b) Agree c) Uncertain
18. Are you afraid you might get infected with HIV from treating and caring for patient with HIV/AIDS?  
a) Don't agree b) Agree c) Uncertain

**SECTION IIIC: Students' attitude toward patients with HIV/AIDS in general:**

19. People who get HIV/AIDS get what they deserve  
a) Don't agree b) Agree c) Uncertain
20. Sex workers have to worry about getting HIV/AIDS  
a) Don't agree b) Agree c) Uncertain
21. People who go to sex workers or use drugs have to worry about getting HIV/AIDS  
a) Don't agree b) Agree c) Uncertain
22. If you knew that a food seller had HIV would you buy food from?  
a) Don't agree b) Agree c) Uncertain
23. Would you be willing to move into a home if the neighbor was HIV-positive?  
a) Don't agree b) Agree c) Uncertain
24. Do you believe that patients with HIV/AIDS are bad / evil people?  
a) Don't agree b) Agree c) Uncertain
25. Do you view patients with HIV/AIDS as stupid for getting it?  
a) Don't agree b) Agree c) Uncertain
26. Do you get easily irritated or angry while dealing with the patient with HIV/AIDS  
a) Don't agree b) Agree c) Uncertain



27. Do patients who have been taken ill due to HIV/AIDS disgust you?

- a) Don't agree   b) Agree   c) Uncertain

**SECTION IV: Students' responses to health practices with patient with HIV/AIDS**

28. Patients' blood should never be tested for HIV without their consent except in very special circumstances.

- a) Don't agree   b) Agree   c) Uncertain

29. Would you inform family and loved ones of a patient who has tested positive for HIV about their status without their consent?

- a) Don't agree   b) Agree   c) Uncertain

30. All pregnant women should be tested for HIV

- a) Don't agree   b) Agree   c) Uncertain

31. Patients with HIV/AIDS should be isolated from other patients

- a) Don't agree   b) Agree   c) Uncertain

32. Clothes and linens used by HIV/AIDS patients should be disposed of or burned

- a) Don't agree   b) Agree   c) Uncertain

33. Patients should be tested for HIV before surgery

- a) Don't agree   b) Agree   c) Uncertain

### APPENDIX 3: MORGAN'S TABLE

**Morgan's Table for Determining Sample Size from a Given Population**

<b>N</b>	<b>S</b>	<b>N</b>	<b>S</b>	<b>N</b>	<b>S</b>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Where N= population size, S= sample size Source: Morgan, & Krecjie (1970)



**APPENDIX 5: APPROVAL LETTER FROM IREC KIU**