

Discrimination of People Living with HIV/AIDS by Health Care Students of Islamic University in Uganda

A. Inuwa, M.Ed.^{1*}; L.A. Nafiu, Ph.D.²; H. Habu, MHPM¹; B. Maigari, M.Sc.¹;
A. Haruna, BNSc.¹; A.A. Gagare, Ph.D.³; M.K. Aisha, BNSc.⁴; and N. Sarah, D.Med.⁵

¹Department of Nursing Science, University of Maiduguri, Borno State, Nigeria.

²Department of Mathematics and Statistics, Islamic University in Uganda, Mbale, Uganda.

³College of Nursing and Midwifery, Jalingo, Taraba State, Nigeria.

⁴College of Nursing and Midwifery, Maiduguri, Borno State, Nigeria.

⁵School of Nursing and Midwifery, Islamic University in Uganda, Mbale, Uganda.

E-mail: inuwaahmadu@gmail.com*

ABSTRACT

In May 2016, the World Health Assembly developed the Global Health Sector Strategy on HIV for 2016–2021 which strives to ensure zero HIV related discrimination especially in health institutions and settings. The main objective of this study is to determine the influence of HIV/AIDS fear, knowledge and attitude on discrimination of PLWHA by health care students. A cross sectional design was used for the study while stratified sampling technique was used to select the respondents. Data were analyzed using descriptive statistics (frequency and percentage) while bivariate (chi square) was used to make inference regarding the entire population.

Results indicate that a majority, 133 (67.2%) of the respondents, were found to have low levels of discrimination. Over half of the respondents, 114 (57.6%), entertained high fear on HIV/AIDS issues. Almost all the respondents, 189 (95.5%), had high knowledge of HIV/AIDS. On HIV/AIDS related attitude majority of the respondents, 115 (58.1%), had positive attitudes. Fear and knowledge do not influence discrimination of PLWHA, while attitude towards HIV/AIDS patients influences discrimination of PLWHA.

The findings on the level of discrimination of PLWHA by health care students calls for concerted efforts by the management of IUIU, tutors in School of Nursing and relevant HIV/AIDS agencies and donors to harmonize strategies and actions towards addressing discrimination of PLWHA in order to achieve global and national aspirations of zero discrimination. There is need for tutors in School of Nursing to ensure appropriate delivery of HIV/AIDS instruction targeting behavioral (negative attitude) aspects of

HIV/AIDS discrimination in order to ensure its reduction and possible termination.

(Keywords: HIV/AIDS, knowledge, attitude, discrimination, PLWHA, people living with HIV/AIDS, health care students)

INTRODUCTION

One of the first important responses to the AIDS crisis in Uganda was the establishment of the National AIDS Control Programme (NACP) in 1986. However, the NACP tackled Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) mainly from a medical standpoint, and the need to involve other sectors (multi-sectoral approach) became clear in early 1990s which lead to establishment of the Uganda AIDS Commission (UAC) in 1992.

UAC provides the overall coordination, monitoring and evaluation of the HIV/AIDS related activities in the country in order to harmonize response (Uganda HIV/AIDS progress report, 2014). Both the NACP and the AIDS Commission have led a number of key initiatives, policies and guidelines that have attempted to improve Uganda's response to HIV/AIDS including addressing social support and information education communication targeting discrimination towards People living with HIV/AIDS (PLWHA), yet discrimination continues to exist.

The United Nations designated 1st March "Zero Discrimination Day" after Joint United Nations Programme on HIV/AIDS (UNAIDS) launched its Zero Discrimination Campaign on World AIDS Day in 2013 with focus on zero discrimination in

health care settings. Discrimination can be directed towards people perceived to be at risk of HIV as well as towards PLWHA.

In September 2015, governments agreed to adopt Goal 16 of the Agenda for Sustainable Development, which calls for inclusive societies that promote non-discrimination. In May 2016, the World Health Assembly considers the global health sector strategy on HIV/AIDS for 2016 - 2021. The strategy strives to ensure zero HIV related discrimination in all settings, especially health settings, and includes a target to ensure that 90% of PLWHA and key populations report no discrimination in the health sector (WHO 2016).

Healthcare professionals are trained to medically assist people infected or affected by HIV/AIDS, and also provide life-saving information on how to prevent discrimination; however, discrimination persists within many health care facilities. It includes refusal of care, inferior quality of care and a lack of respect. PLWHA still encounter abuse and mistreatment, denial of consent in healthcare decisions and even compulsory detention (WHO 2016).

In Sub-Saharan Africa HIV-related discrimination remains a major barrier to tackling the HIV/AIDS epidemic. Cultural beliefs about HIV/AIDS have played a crucial role in the development of discrimination toward PLWHA (Hossain and Kippax, 2011). Li, Liang, Wu, Lin, and Wen (2009) demonstrated that perceived social norms, liberal personal attitudes were associated with the level of discrimination intent.

STATEMENT OF THE PROBLEM

The Government of Uganda has instituted various policy frameworks to guide the national response on discrimination. Despite these efforts, discrimination remain a hindrance to achievement of the WHO Global target of zero HIV-related discrimination in all settings, especially health settings (WHO global health sector strategy on HIV 2016–2021) and Uganda National aspiration of getting to zero discrimination (National HIV Strategic plan 2015/16- 2019/20).

In Uganda finding of studies among health care workers indicated that 55% of health care workers

felt that PLWHA are responsible for their illness while 35% felt that they deserve the punishment for their sexual behaviors (Mukasa, 2008).

Studies among community members and religious leaders showed about one in five adults in the mid-eastern region of Uganda believes that people with HIV should be ashamed of themselves, and they should be blamed for bringing the disease into the community (30.7%). Discrimination against people with HIV/AIDS is reported by more women (30.2%) in the mid-eastern region of Uganda than any other region and the prevalence of discrimination of PLWHA is 19% (UAIS, 2011). The *People Living with HIV/AIDS Stigma Index Report*, (2013) showed that out of 1000 PLWHA surveyed, 23% were discriminated. This shows that studies among community members, religious leaders and even PLWHA were conducted with various factors identified however studies among health care students is scanty. Lack of adequate understanding of the extent and dimension of HIV/AIDS discrimination among health care students will ensure continuous existence of discriminatory attitude towards PLWHA within the health care facilities. This may accelerate the spread of the disease within a community, post impact on healthcare services in general and derail curtailing of the global HIV/AIDS pandemic.

General Objectives of the Study

The general objective of the study was to determine influence of HIV/AIDS fear, knowledge and attitude on discrimination of PLWHA by health care students of IUIU.

Specific Objectives of the Study

The specific objectives of the study were:

- i. To determine the level of discrimination of People living with HIV/AIDS by health care students of IUIU.
- ii. To identify the level of HIV/AIDS fear among health care students of IUIU.
- iii. To assess the level of HIV/AIDS knowledge among health care students of IUIU.

- iv. To determine the level of HIV/AIDS related attitude among health care students of IUIU.
- v. To ascertain the influence of HIV/AIDS fear, knowledge and attitude on discrimination of PLWHA by health care students of IUIU.

Research Questions

- i. What is the level of discrimination of People living with HIV/AIDS by health care students of IUIU?
- ii. What is the level of HIV/AIDS fear among health care students of IUIU?
- iii. What is the level of HIV/AIDS knowledge among health care students of IUIU?
- iv. What is the level of HIV/AIDS related attitude among health care students of IUIU?
- v. Does HIV/AIDS fear, knowledge and attitude influences discrimination of PLWHA by health care students of IUIU?

SCOPE OF THE STUDY

Geographical Scope

This study was conducted in School of Nursing and Midwifery IUIU. The school is located at the main campus of Islamic University in Uganda which is situated approximately 2 kilometers north of City of Mbale, Eastern Uganda. The school is accredited by Uganda Nursing and Midwifery Council and Uganda Nurses' Examinations board to run three programs at diploma level and two programs at certificate level. The school is equipped with the required facilities in both library and clinical skills laboratory; this has resulted in attracting students from different ethnic group region and neighboring countries such as Kenya, Somalia, and Rwanda to study nursing and midwifery. For this reason the researchers assume that the study in this setting generates a greater understanding about the topic.

Content Scope

The study focused on how HIV/AIDS fear knowledge and attitude influences discrimination of PLWHA by health care students of IUIU.

Time Scope

This study was conducted in 2016/2017 session, this period is in line with suggestion for study as contained in the Uganda National HIV/AIDS strategic plan 2015/2016 to 2019/2020 in order to scale up efforts to eliminate stigma and discrimination of PLWHA and other vulnerable groups among persons aged 15 to 49 by at least 70% (UAC, 2015).

Significance of the Study

This study is hoped to be useful in the following ways;

- i. The study identified level of discrimination of PLWHA by health care students and therefore points to the tutors and clinical instructors in the school of nursing possible areas of emphasis on HIV/AIDS related issues in order to ensure reduction/termination of HIV/AIDS discrimination.
- ii. Understanding the influence of fear, knowledge and attitude associated with discrimination of PLWHA by health care students will be useful to the policy makers and relevant HIV/AIDS related agencies and donors in developing anti discriminatory strategies, programs and policies relevant to the health care students which will contribute to achieving global target and Uganda national aspiration of zero discrimination of PLWHA.
- iii. Findings of the study will be beneficial to academicians in filling the identified gaps and therefore adds to existing literature on discrimination of PLWHA and associated factors among health care students.

MATERIALS AND METHODS

Research Design

Descriptive and analytical cross sectional design was used for the study. One of the good qualities of cross-sectional design is its ability to provide accurate information on populations, using a quite good sample at a single point in time. In addition, a large amount of data can be obtained quickly with a minimal cost (Burns and Grooves, 2011).

Population

The target population includes all nursing and midwifery students in IUIU in Mbale. The total population of the students as obtained from IUIU academic registry is 441. The study population includes all nursing and midwifery students who consented to participate in the study. It comprises students who meet the sampling inclusion criteria.

Sample Size Determination

The sample size for the study was obtained using Sloven formula. The total population of the students as obtained from IUIU academic registry is 441. Based on the calculation the sample size was two hundred and ten (210) students.

Eligibility Criteria

Inclusion criteria are the characteristics that the respondents must possess to be part of the study population. This includes: nursing and midwifery students who are 18 year old up to 40 years; who have started clinical posting and gave informed consent. On the other hand exclusion criteria, entails nursing and midwifery students who were sick and unable to answer questionnaire during data collection.

Sampling Technique

Stratified random sampling was used to select the respondents from both nursing and midwifery programs. The class level serves as strata (sampling units) and simple random sampling technique was used to select the required respondents from each sampling unit. In each

stratum folded papers with a label yes equivalent to the required number of the sample size (respondents) in the strata and the remaining pieces of paper with no label were both placed in a basket and briskly shaken. Then the respondents were given chance to pick up a piece of paper until the required sample was obtained. Stratified random sampling increases the probability of sample being representative and also assures adequate number of subjects for subgroups (Burns and Grooves 2011).

Data Collection Instrument

Questionnaire with close ended questions was used for the data collection. The questionnaire has a total of five sections. Section A focused socio-demographic characteristics with a total of 7 items which include age, sex, religion, and marital status; course, level of study and experience of ward allocation to HIV/AIDS clinic. Section B (level of discrimination towards PLWHA) has 3 constructs that was measured with 10 items. Section C; fear of HIV/AIDS was measured using 4 items, Section D; knowledge of HIV/AIDS (transmission and prevention) was measured using 8 items, and lastly Section E; HIV/AIDS related attitude (blame, labeling and prejudice) which was measured using 9 items on a nominal scale.

Pre-Testing

The developed questionnaire was pre-tested using a sample of 30 nursing students at School of Nursing and Midwifery Kibuli. This enables the researchers to identify questions that needed modification for better understanding leading to the development of the final instrument.

Research Assistant

Two research assistants (a graduate nurse tutor and a Skills Laboratory instructor) helped in the process of the data collection. Research assistants received training on how to distribute and retrieve the questionnaire. Similarly training was given on how to use the chosen sampling technique to select sample from the target population. After obtaining permission, the researchers with the help of research assistants

meets the students in class between 9-12 hours of Tuesday, Wednesday and Thursday; explained the purpose of the research and obtains a written informed consent from each respondent. The questionnaire was distributed to the selected respondents for completion and retrieved immediately after completion.

Data Quality Control

In order to ensure data quality control, adequate sampling size was recruited as shown in sample size determination section. Again pre-testing of instrument was done and ensured the instrument is valid and reliable before data collection and the data collection was done by two trained research assistants (a graduate nurse tutor and a Skills Laboratory instructor).

Data Management

After retrieving questionnaires from the respondents, the questionnaires were kept in a sealed envelope. The questionnaires were later checked to determine if they were all filled correctly and completely. There after sorting, coding and the complete analysis were done.

Validity and Reliability of Research Instrument

The validity and reliability of the instrument were ensured through the following:

Validity: To establish validity, the developed instrument was subjected to the scrutiny by experts to evaluate the relevance of the items in the instruments. The expert agreement was used to finally modify questions and the format of the tool. Again content validity index (CVI) was computed and the value obtained was 0.79, the value indicates the instrument is valid.

Reliability: Reliability is concerned with the consistency of the instrument used for the study (Waltz, Strickland & Lenz, 2005). The reliability of the questionnaire was determined using pre- test. Thirty (30) nursing students were given the questionnaire to complete.

The responses of these students was correlated, the result of the analysis (Cronbach's alpha) obtained was 0.71 this also indicated the instrument is reliable.

Measurement of Variables

Dependent Variables: The dependent variable is discrimination towards PLWHA. In this study discrimination refers to an unjust treatment of an individual based on his real or perceived HIV status. The attributes that were measured includes, right to care, breach of confidentiality, informed consent, social and physical isolation and providing sub-standard care. A total of 10 items on a dichotomous nominal scale adapted from previous research instrument used by Hussain and Kippas (2010), Anne, Laura and Katherine (2012) and USAID health policy project (2013) were used. Based on the studies, respondents that answered yes on 1-5 discrimination items were categorized as having low level of discrimination, while respondents that answered yes on 6-10 discrimination items were categorized as having high level of discrimination.

Independent Variables:

- a. **Fear of HIV/AIDS:** HIV/AIDS related fear was measured using four items on a nominal scale adapted from previous related study.
- b. **Knowledge of HIV/AIDS:** Knowledge of transmission and prevention of HIV was measured using 8 -item instrument adapted from Hossain and Kippax (2011). Nominal scale was used for measuring knowledge attributes.
- c. **HIV/ AIDS related attitude:** HIV/ AIDS related attitude was measured using an instrument that was adapted from HIV/AIDS stigma instrument (HASI-N). This is a unique instrument for measuring HIV/AIDS related attitude in terms of its focus on nurses; meticulous process of development and the fact that it was developed and tested in Africa (Leana, *et al.* 2009).

Attitude was measured using 9-items on a nominal scale. Based on previous study the items were highly internally consistent with reliability coefficient of 0.93 but because the researcher adapted the instrument reliability was checked again.

Method of Data Analysis

Data collected from the respondents was compiled, sorted coded and entered into computerized data analysis package tool (SPSS) and data cleaning was performed. Descriptive statistic of frequency, percentage and tables were generated. To examine the influence of independent variables on dependent, bi-variate (chi square test) was performed. A p- value <0.05 was taken as statistically significant. The Findings were interpreted based on the result of the analysis.

Ethical Consideration

Permission was obtained from Academic Registrar. After obtaining permission, the researchers with the help of research assistants meets each class, explained the purpose of the research and obtained a written informed consent from each respondent. The right of the respondents to refuse participation or withdraw from the study at any point were explained and respected. All data that were obtained in the course of the study were kept confidential. To ensure protection of privacy, names of the respondents were not required. In addition, the collected data was used for academic purpose solely.

RESULTS

A total of 210 questionnaires were distributed out which 198 were completely filled, this gives a response rate of 94.3 % and attrition rate of 5.7%. The analysis and interpretation was based on 198 respondents

The results in Table 1 indicated majority of respondents were female, 140 (70.7%), and 58 (29.3%) were males. For respondents age, most, 158 (79.8%), were within the age range of 18-25 years, 29 (14.6%), were within the age range of

26-33 years, and 11, were within the age range of 34-40 years. On religion of the respondents, over half, 115 (58.1%), were Muslims, 43 (21.7%) were Protestants, 19 (9.6%) were Catholics, and lastly 21 (10.6%) belong to other religion. A majority 148 (74.7%) of the respondents were single, 39 (19.7%) were married, 8 (4.0 %) were cohabiting, and 3 (1.5%) were other.

Findings also showed 101 (51.0%) of the respondents were students of certificate in general nursing, 58 (29.3%) were certificate in general midwifery, 10 (5.1) were diploma in general nursing, 5 (2.5) were diploma midwifery extension and 24 (12.1) were diploma nursing extension students. Majority 131 (66.2) of the students were year 3. and 67 (33.8%) were in second year. A majority, 112 (56.1%) did HIV/AIDS ward allocations while 86 (43.4%) did not.

Level of Discrimination of PLWHA by Health Care Students

Levels of discrimination of PLWHA was measured in terms of number of times students answered yes for the 10 discrimination statements on the questionnaire ("yes" on 1-5 discrimination items - low level of discrimination, "yes" on 6-10 discrimination items - high level of discrimination). Table 2 presents the summarized result of the respondents on PLWHA discrimination. A majority, 133 (67.2%), of the respondents were found to have low level of discrimination while 65 (32.8) were found to have high level of discrimination.

Distribution of Discrimination Items Measured

From Table 3, respondents who affirmed mandatory HIV/AIDS testing for all pregnant women were 197 (99.5%), whereas 182 (91.9%) endorsed mandatory HIV/AIDS testing for patients before surgery. 46 (23.2%) affirmed that health care workers should disclose patient HIV status to non-medical staff, 79 (39.9%) felt women who are HIV positive should not get pregnant if they already have children.

Table 1: Demographic Characteristics of Respondents (n= 198).

Variable	Frequency (n=198)	Percentage %
Gender		
Male	58	29.3
Female	140	70.7
Total	198	100
Age		
18 – 25	158	79.8
26 – 33	29	14.6
34 – 40	11	5.6
Total	198	100
Religion of the Respondents		
Catholic	19	9.6
Protestant	43	21.7
Islam	115	58.1
Others	21	10.6
Total	198	100
Marital Status of the Respondents		
Single	148	74.7
Married	39	19.7
Cohabiting	8	4.0
Others	3	1.5
Total	198	100
Course		
CGN	101	51.0
CGM	58	29.3
DGN	10	5.1
DME	5	2.5
DNE	24	12.1
Total	198	100
Year/Level of Study		
Year 2	67	33.8
Year 3	131	66.2
Total	198	100
Ward Allocations in HIV/AIDS Clinic		
Yes	112	56.6
No	86	43.4
Total	198	100

Source: Inuwa 2017

Table 2: Level of Discrimination of PLWHA (n= 198)

Characteristics	Frequency (n=198)	Percentage %
Level of Discrimination		
Low Discrimination	133	67.2
High Discrimination	65	32.8
Total	198	100

Source: Inuwa 2017

Table 3: Distribution of Discrimination Characteristics Measured (n = 198).

Characteristics	Frequency (n=198)	Percentage %
All pregnant women attending ANC should be tested for HIV(mandatory)		
No	1	0.5
Yes	197	99.5
Total	198	100
I feel there is need for mandatory HIV testing for patients before surgery		
No	16	8.1
Yes	182	91.9
Total	198	100
There is need for health care workers to disclose patient HIV status to non-medical personnel		
No	152	76.8
Yes	46	23.2
Total	198	100
Women living with HIV should not get pregnant if they already have children		
No	119	60.1
Yes	79	39.9
Total	198	100
Individuals with AIDS should only be cared for in a separate unit staffed with specially trained personnel		
No	92	46.5
Yes	106	53.5
Total	198	100
Patient with HIV social interaction should be restricted to avoid spread of AIDS		
No	136	68.7
Yes	62	31.3
Total	198	100
There is need to separate toilet facility for students that are HIV positive from those that are not HIV positive		
No	167	84.3
Yes	31	15.7
Total	198	100
I feel there is need for wearing double gloves while collecting blood sample or dressing wound of HIV patients		
No	34	17.2
Yes	164	82.8
Total	198	100
If I have chance I will prefer quality care to others than patients with HIV		
No	157	79.3
Yes	41	20.7
Total	198	100
Providing standard care to HIV patients should be left only to health care workers who are willing to do		
No	130	65.7
Yes	68	34.3
Total	198	100

Source: Inuwa 2017

On isolation issues, more than half 106 (53.5%) affirmed HIV/AIDS patient should only be cared for in a separate unit staffed with specially trained personnel, while 62 (31.3%) of patients with HIV social interaction should be restricted to avoid spread of AIDS and 31 (15.7%) said there is need to separate toilet facility for students that are HIV positive from those that are not HIV positive. As regards substandard care, majority 164 (82.8%)

felt there is need to wear double gloves while collecting blood sample or dressing wound of HIV patients, 41 (20.7%) said If they have chance, they will prefer quality care to others than patients with HIV and 68 (34.3%) affirmed standard care to HIV patients should be left only to health care workers who are willing to do.

Level of Fear, Knowledge, and Attitude

Table 4 showed over half of the respondents, 114 (57.6%), entertained high fear on HIV/AIDS issues while 84 (42.4%) had low fear. Almost all of the respondents, 189 (95.5%), had high knowledge of HIV/AIDS while 9 (4.5%) had low knowledge.

On HIV/AIDS related attitude, a majority of the respondents, 115 (58.1%), had positive attitude while 83 (41.9%) had negative attitude

Influence of Fear, Knowledge and Attitude on discrimination of PLWHA

Fear ($X^2 = 2.416$, P-value = 0.088), and knowledge ($X^2 = 1.261$, P-value = 0.262), do not influence discrimination of PLWHA, while Attitude towards HIV/AIDS patients ($X^2 = 11.911$, P-value = 0.000), influences discrimination of PLWHA as shown in the Table 5.

Table 4: Level of HIV/AIDS Fear, Knowledge, and Attitude among the Respondents (n= 198).

Characteristics	Frequency (n=198)	Percentage %
HIV/AIDS Fear		
Low fear	84	42.4%
High fear	114	57.6%
Total	198	100
HIV/AIDS Knowledge		
Low knowledge	9	4.5%
High knowledge	189	95.5%
Total	198	100
HIV/AIDS Related Attitude		
Negative attitude	83	41.9%
Positive attitude	115	58.1
Total	198	100

Source: Inuwa 2017

Table 5: Influence of HIV/AIDS Fear, Knowledge, and Attitude on Discrimination of PLWHA (n=198).

Variable	Level of discrimination		Total Freq. (%)	Chi Square (χ^2)	P-value
	Low Discrimination	High Discrimination			
Fear of HIV/AIDS					
Low Fear	62(31.3%)	22(11.1%)	84(42.4%)	2.416	0.088
High Fear	71(35.9%)	43(21.7%)	114(57.6%)		
Total	133(67.2%)	65(32.8%)	198(100.0%)		
Knowledge of HIV/AIDS					
Low knowledge	4(2.0%)	5(2.5%)	9(4.5%)	1.261	0.262
High knowledge	129(65.2%)	60(30.3%)	189(95.5%)		
Total	133(67.2%)	65(32.8%)	198(100.0%)		
Attitude towards HIV/AIDS patients					
Negative Attitude towards HIV/AIDS Patient	44(22.2%)	39(19.7%)	83(41.9%)	11.911	0.000*
Positive Attitude towards HIV/AIDS Patient	89(44.9%)	26(13.1%)	115(58.1%)		
Total	133(67.2%)	65(32.8%)	198(100.0%)		

Source: Inuwa 2017

DISCUSSION OF FINDINGS

Although this study found majority of the respondents had low level of discrimination, this could be of great public health concern considering the global and Uganda national aspiration of achieving zero discrimination especially in health care settings. This finding is in agreement with findings of study by QAP Tanzania HIV stigma study team, (2007) which showed low discriminatory behavior occurred among their peers. Hires (2012) also found 69% of the respondents had a low level of HIV/AIDS discrimination. However our finding was not in agreement with Zeighami *et al.* (2011) who found moderate (54.5%) level of discrimination toward PLWHA. Similarly Ebrahim (2015) found 60.0% prevalence of discrimination towards PLWHA. Furthermore Maria *et al.* (2013) results reveal disturbingly high rates of intent to discriminate among respondents in urban healthcare settings.

Among the items which respondents answered yes, were mandatory HIV/AIDS testing, disclosure and substandard care. In line with this is Mahendra *et al.* (2007) interview findings which highlighted drivers and manifestations of discrimination that are clustered around attitudes towards hospital practices, such as informing others patient's HIV status without his/her consent. Although respondents felt providing standard care should be left to HCW who are willing to do, related to this finding is Maria *et al.* (2013) findings which showed significantly doctors and nurses (both 5%, $p < 0.001$) were in agreement with the statement that "health care workers should have the right to refuse treating PLWHA. In addition KHANA (2010) found 12.1% of PLWHAs said that the staff at medical care centers refused them cares even though they were permitted to receive medical services.

Findings which indicated individuals with HIV/AIDS should only be cared for in a separate unit staffed with specially trained personnel is in agreement with findings of Al-rabeei, Dallak and Al-awadi (2012) which revealed a common opinion among respondents that HIV-infected persons needed to be isolated (41.0%). On substandard care majority felt there is need for wearing double gloves while collecting blood sample or dressing wound of HIV patients, this is in line with Mahindra *et al.* (2007) which found respondents were charging HIV-infected patients

for the cost of infection control supplies and using double gloves only with HIV-infected patients. The high proportion of students who answered yes for use of double gloves while obtaining sample of blood and dressing of wound is of great public health concern not only indicating discrimination but also it implies wastage of the few available resources which are needed for proper infection control measures in the wards.

This study found respondents fear of HIV/AIDS does not influence discrimination of people living with HIV/AIDS. This is not in agreement with finding of Zeighami *et al.* (2011) which indicated Nurse's perspective on discriminatory practices was significantly associated with fear of occupational exposure to AIDS ($p = 0.003$). According to Maria *et al.* (2013) Transmission related fears and misconceptions seem to be driving intent to discriminate against PLWHA. Furthermore Chan and Reidpath (2007) also found Health care workers feared infection and feared physical symptoms of AIDS.

Findings of this study showed respondents knowledge of HIV/AIDS does not influence discrimination of people living with HIV/AIDS. This finding is in agreement with finding of Chew and Cheong (2013) which shows Knowledge score did not correlate with discriminatory attitude. However finding is in contrast with findings of Feyissa *et al.* (2012) which shows lack of in-depth HIV knowledge ($p < 0.01$) was the significant predictor of stigma and discrimination. In a related finding, Zeighami *et al.* (2011) found Nurse's perspective on discriminatory practices was significantly associated with their knowledge of AIDS transmission ($p = 0.005$). Harapan *et al.* (2013) findings also showed multiple linear regression model identified knowledge on transmission and prevention of HIV correlated with discrimination ($R^2 = 0.119$).

On attitude the research finding is in agreement with Ullah, (2011) assertion that health care workers often hold negative views of people with HIV and that their views tend to mirror those of the general public. Ebrahim (2015) findings indicated that AIDS-related attitudes showed a significant positive correlation with discrimination of people with symptoms of HIV/AIDS ($r = 0.414$; $p < .01$). Furthermore, Valerie *et al.* (2014) research found students who endorsed more

negative feelings towards PLWHA and students who endorsed more prejudice towards PLWHA reported greater discrimination intent. So also Maria et. al, (2013) found blame and negative feelings towards PLHIV seem to be driving intent to discriminate against PLHIV.

CONCLUSION

This research study concluded that:

- the majority of the respondents had low level of discrimination. This finding is of great public health concern considering the WHO/UNAIDS global HIV/AIDS strategy, Uganda national aspiration of achieving zero discrimination especially in health care settings and IUIU HIV/AIDS zero discrimination tolerance policy.
- the research study found HIV/AIDS related attitude influences discrimination of PLWHA. Therefore this research study fulfilled its objectives by determining the level of discrimination of PLWHA and establishing influence of HIV/AIDS related attitude on discrimination of PLWHA by health care students of IUIU.

RECOMMENDATIONS

Based on the research findings mentioned above, the following recommendations targeting the study center and academic society were made:

- The findings on the level of discrimination of PLWHA by health care students in IUIU calls for concerted efforts by the management of IUIU and the tutors in School of Nursing to harmonize strategies and actions towards ensuring reduction/termination of discrimination of PLWHA in order to achieve global and national aspirations of zero discrimination.
- There is need for tutors in School of Nursing to ensure appropriate delivery of HIV/AIDS instruction targeting behavioural (negative attitude) aspects of HIV/AIDS discrimination in order to ensure its reduction and possible termination

- A comparative study should be conducted using other faith based institutions and public universities in order to compare the prevailing discrimination levels and factors for the purpose of designing appropriate interventions to ensure reduction/termination of discrimination towards PLWHA thereby achieving WHO/UNAIDS and Uganda zero HIV/AIDS discrimination especially in health settings since this students take care of PLWHA during training and also they are potential future health care workers.

REFERENCES

1. Akanbi, M.A. 2010. "Socio-Demographic Factors influencing HIV/AIDS Stigmatization and Discrimination amongst Women in Lagos". *Stat. African Journals Online*. 8(2).
2. AlRabeei, N.A., A.M. Dallak, and F.G. AlAwadi. 2012. "Knowledge, Attitude, and Beliefs towards HIV/AIDS among Students of Health Institutes in Sana'a City". *Eastern Mediterranean Health Journal*. 18(3).
3. Burns, N. and S.K. Grooves. 2011. *Understanding Nursing Research: Building Evidence Based Practice (5th ed.)*. Saunders: Philadelphia. PA.
4. Chan, K.Y. and D.D. Reidpath. 2007. "Stigmatization of Patients with AIDS: Understanding the Interrelationships between Thai Nurses' Attitudes toward HIV/AIDS, Drug Use, and Commercial Sex". *AIDS Patient Care STDS*, 21:763-75.
5. Chew, B.H. and A.T. Cheong. 2013. "Assessing HIV/AIDS Knowledge and Stigmatizing Attitudes among Medical Students in Universiti Putra Malaysia". *Med. J. Malaysia*. 68(1).
6. Earnshaw, V.A., H. Jin, J. Wickersham, A. Kamarulzaman, J. John, and F.L. Altice. 2014. "Exploring Intentions to Discriminate against Patients Living with HIV/AIDS among future Healthcare Providers in Malaysia". *Tropical Medicine and International Health*. 19(6):672 – 679 doi:10.1111/tmi.12306
7. Ebrahim, M. 2015. "Public Perceptions about HIV/AIDS and Discriminatory Attitudes toward People Living with Acquired Immunodeficiency Syndrome in Iran". *Journal of Social Aspects of HIV/AIDS*. 12(1). DOI: 10.1080/17290376.2015.1123644

8. Feyissa, G.T., L. Abebe, E. Girma, and M. Woldie. 2012. "Stigma and Discrimination against People Living with HIV/AIDS by Healthcare Providers, Southwest Ethiopia". *BMC Public Health*. 12:522.
9. Harapan, H., F. Syarifah, K. Hendra, A.M. Samsul, and B.H. Mohammad. 2013. "HIV Related Stigma and Discrimination: A Study of Health Care Workers in Banda Aceh, Indonesia". *Med. J. Indones*. 22:229. DOI: <http://dx.doi.org/10.13181/mji.v22i1.518>
10. Hirnschall, G. 2016. "Striving for Zero Discrimination in Health Care". Director HIV WHO, Media Centre.
11. Hires, K.A. 2012. "Predictors of HIV/AIDS Related Stigma and Discrimination Among Anglophone Caribbean Women". *Open Access Dissertations*. 912. http://scholarlyrepository.miami.edu/oa_dissertations/912
12. Hossain, M.B. and S. Kippax. 2011. "Stigmatized Attitudes toward People Living with HIV/AIDS in Bangladesh: Health Care Workers' Perspectives". *Asia Pac. J. Public Health*. 3:171–82.
13. Inuwa, A. 2017. Unpublished Masters Dissertation. Cavendish University: Kampala, Uganda.
14. KHANA. 2010. "The People Living with HIV/AIDS Stigma Index". KHMER HIV/AIDS NGO ALLIANCE (KHANA): Phnom Penh, Cambodia.
15. Li, L., L.J. Liang, C. Lin, Z. Wu, and Y. Wen. 2009. "Individual Attitudes and Perceived Social Norms: Reports on HIV/AIDS-Related Stigma among Service Providers in China". *Int. J. Psychol*. 44(6):443-50. doi: 10.1080/00207590802644774.
16. Mahindra, V.S., L. Gilborn, S. Bharat, R. Modi, I. Gupta, B. George, L. Samson, C. Daly, and J. Pulerwitz. 2007. "Understanding and Measuring Aids Related Stigma in Health Care Settings: A Developing Country Perspective". *SAHARA J*. 4:61625.
17. Maria, L.E., R. Jayashree, B. Shalini, B. and H. Elsa. 2013. "Prevalence and Drivers of HIV Stigma among Health Providers in Urban India: Implications for Interventions". *J. Int. AIDS Soc*. 16(3Suppl 2): 18717.
18. Mukasa, A. 2008. "Stigma and Discrimination Faced by People Living with HIV/AIDS: A Review of Literature Based on Attitudes, Beliefs and Practices". Prepared for Health Communication Partnerships.
19. National HIV Strategic Plan 2015/16- 2019/20
20. QAP Tanzania HIV Stigma Study Team. 2007. "Evaluation of Knowledge, Attitudes and Practices of Health Care Providers toward HIV-Positive Patients in Tanzania. Operations Research Results". Published for the U.S. Agency for International Development (USAID) by University Research Co., LLC: Bethesda, MD.
21. Stangl, A.L., L. Brady, and K. Fritz. 2012. "Measuring HIV Stigma and Discrimination". International Center for Research on Women: Washington, DC.
22. UAC. 2015. "National HIV and AIDS Priority Action Plan 2015/2016- 2017/2018". Uganda AIDS Commission: Kampala, Republic of Uganda.
23. Uganda AIDS Indicator Survey. 2011. Ministry of Health: Kampala, Republic of Uganda.
24. Uganda HIV /AIDS. 2016. "Country Progress Report". JULY 2015-JUNE 2016. Kampala, Republic of Uganda.
25. Ullah, A. 2011. "HIV/AIDS-Related Stigma and Discrimination: A Study of Health Care Providers in Bangladesh". *J. Inter. Assoc. Physic. AIDS Care*. 2:97–104.
26. UNAIDS. 2015. "2016–2021 Strategy: Targets, Goals, Vision On the Fast-Track to End AIDS". United Nations: Geneva, Switzerland.
27. USAID. 2013. "Health Policy Project". USAID: Washington, D.C.
28. Uys, L.R., W.L. Holzemer, M.L. Chirwa, P.S. Dlamini, M. Greeff, T.W. Kohi, L.N. Makoae, A.L. Stewart, J. Mullan, R.D. Phethu, D.J. Wantland, K.L. Durrheim, Y.P. Cuca, and J.R. Naidoo. 2009. "The Development and Validation of the HIV/AIDS Stigma Instrument - Nurse (HASI-N)". *AIDS Care*. 21(2):150–159. doi: 10.1080/09540120801982889
29. WHO. 2015. "HIV/ AIDS Fact Sheet". WHO: Geneva, Switzerland.. <http://www.who.int/mediacentre/factsheets/fs360/en/>
30. WHO. 2016. "Global Health Sector Strategy on HIV 2016–2021: Towards Ending AIDS". Department of HIV/AIDS: Geneva, Switzerland.
31. Zeighami, S.H., E. Zeinali, H. Esmaily, and N.A.R. Nikbakht. 2011. "Nurse's Perspective About Discrimination in Nursing Care of Patients with AIDS". *Iran Journal of Nursing (IJN)*. 24(71):28–41

ABOUT THE AUTHORS

Mr. Inuwa Ahmadu, is a Lecturer at the Department of Nursing Science University of Maiduguri, Nigeria. He is a Registered Nurse and Fellow West African College of Nursing. He holds a Master of Education and M.Sc. Public health degree. His research interests are on instructional technology; measurement and evaluation; and community and public health.

Dr. Lukman Abiodun Nafiu, is an Associate Professor Department of Mathematics and Statistics, Islamic University in Uganda, Mbale, Uganda. He holds a Ph.D. degree in Statistics. His research interests are in the areas of sample survey designs and mathematical statistics.

Mr. Habu Haruna, is a Lecturer at the Department of Nursing Science, University of Maiduguri, Nigeria. He holds a Masters degree in health planning and management. His research interests are in mental and emotional health, health services management and students evaluation.

Mr. Maigari Babaji, is a Lecturer at the Department of Nursing Science, University of Maiduguri, Nigeria. He holds a Masters degree in Mental and Psychiatric Nursing. His research interests are in mental health and students' assessment and evaluation.

Mr. Haruna Adamu, is a Lecturer at the Department of Nursing Science University of Maiduguri, Nigeria. He is a Registered Nurse .He holds Bachelor of Nursing Science a Master of Public Health Education (in view). His research interests are in public health and maternal and newborn child health.

Dr. Gagare Augustine Ayuba, is a Lecturer at College of Nursing and Midwifery Jalingo, Taraba State, Nigeria. He is a Registered Nurse and Fellow West African College of Nursing. He holds a Ph.D. health education. His research interests are on public health education and HIV/AIDS issues.

Ms. Mala Kukawa Aisha, is a Lecturer at College of Nursing and Midwifery Maiduguri, Borno State, Nigeria. She holds a Bachelor of Nursing Science, Diploma in nursing and Professional Diploma education.

Ms. Namutebi Sarah, is the Principal School of Nursing and Midwifery, Islamic University in Uganda. She holds a Diploma in medical education, general nursing and certificate in HIV counselling and testing. Her research interest is in HIV/AIDS issues.

SUGGESTED CITATION

Inuwa, A., L.A. Nafiu, H. Habu, B. Maigari, A. Haruna, A.A. Gagare, M.K. Aisha, and N. Sarah. 2017. "Discrimination of People Living with HIV/AIDS by Health Care Students of Islamic University in Uganda". *Pacific Journal of Science and Technology*. 18(2):256-268.

