Original Article

Personal Dispositions as Predictors of Student Nurses' Prejudice, Stereotyping, and Discrimination against Human Immunodeficiency Virus-Infected Persons in Osun State, Nigeria

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ABSTRACT

Background: Human immunodeficiency virus (HIV)/AIDS is a disease that is stigmatized as a result of its origin and outcome. HIV stigma may occur in the form of prejudice, stereotyping, and discrimination, collectively called HIV stigma mechanism. While studies have shown that student nurses are among persons who stigmatize, little is known about the role of their personal dispositions in the stigma process. **Objective:** This study aimed to examine the role of personal dispositions on their HIV stigma mechanism against HIV-infected persons. **Methods:** We employed a cross-sectional descriptive design involving 395 students across Osun State, Nigeria, using a modified Health Care Provider HIV/AIDS Stigma Scale instrument. Four personal dispositions (age, study level, HIV knowledge, and perception) serving as the independent variable, were of interest as well as the HIV stigma mechanism (prejudice, stereotyping, and discrimination) serving as the dependent variable in this study. Data were analyzed using mean and multiple linear regression analysis. **Results:** The mean scores of the categorical variables of knowledge about AIDS and perception of HIV-infected persons, measured on scales of 0–9 and 0–15, revealed moderate knowledge about HIV (5.90 ± 1.26) and negative perception (10.61 ± 2.47). For the dependent variables, the mean scores were 17.97 ± 4.07 for prejudice, 13.84 ± 3.34 for stereotyping, and 10.47 ± 3.22 for discrimination, which indicated that student nurses stigmatized HIV-infected patients. However, the core finding of this study revealed that, of all the predictors of HIV stigma mechanism, perception was the most significant. **Conclusions:** Personal dispositions are contributory factors to the enactment of HIV stigma mechanism. Future planning for intervention studies to reduce HIV stigma among health profession students should take cognizance of this.

Keywords: *Human immunodeficiency virus, Knowledge, Perception, Personal dispositions, Prejudice, Stereotyping, Stigma mechanism, Student nurses*

Introduction

The human immunodeficiency virus (HIV) epidemic has been ravaging humankind for over three decades, stretching all efforts to bring it to a halt. Over 78 million persons globally have contracted the disease since inception and 30 million of these persons lives have been claimed by the epidemic; while, over 35 million are still living with the disease worldwide, 24.7 million reside in Sub-Saharan Africa alone.[1] More worrying is the fact that new infection rate is on the increase with the region accounting for 70% of new infection worldwide.[1,2]

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One of the factors contributing to the statistics above is HIV stigma.[2] Stigma sustains the epidemic because it reduces the quality of care received by HIV-infected persons.[3,4] Earnshaw and Chaudoir developed an HIV stigma framework, in which they assert that HIV-uninfected persons stigmatize HIV-infected persons either through prejudice, stereotyping, and/or discrimination. They refer to these three forms as HIV stigma mechanism.[3] According to Earnshaw and Chaudoir, HIV is a socially devalued disease as a result of its perceived deadly nature. Therefore, the HIV-infected person is devalued and stripped off of his/her powers; whereas, the HIV-uninfected person gains power which he/she use to promote resentment toward the HIV-infected person. The resentment, the authors assume, is expressed through the stigma mechanism and, in turn, produces negative outcomes which have been prolonging the epidemic.

Prejudice is the expression of resentment toward HIV-infected persons by HIV-uninfected persons because prejudice is an attitudinal disposition that creates a mindset of "anger," "fear," and "disgust" toward persons with devalued attributes. It is, therefore, mainly emotional.[3] Stereotyping is both attitudinal and perceptual dispositions; thus, it is guided by beliefs and values which form a person's disposition toward what is wrong and right as dictated by society. If persons deviate from what is right, they are grouped together and morally judged by the society. Discrimination is enacted by HIV-uninfected persons through behavioral responses that depict the expression of power. Discriminations, such as prejudice and stereotyping, can, in a number of ways, affect the behavioral, psychological, and health outcomes of HIV-infected persons. Denying HIV-infected persons job opportunity, physical abuse, supporting discriminatory legislature, and avoiding them are some of the ways HIV stigma mechanism is enacted by HIV-uninfected persons.[3]

Since HIV is a socially devalued disease, personal dispositions of student nurses may influence how they treat HIV-infected persons. Personal dispositions are individual characteristics that define who and what individuals are. Characteristics such as how much an individual knows about HIV, how he/she perceives someone infected with the virus, the fear of contracting HIV, demographic background, etc., form a person's personal dispositions.[3]

Evidence has shown that health-care workers including student nurses express fear of getting the disease when providing care to HIV-infected persons.[5] Studies have linked some of these personal dispositions of student nurses, such as background characteristics, beliefs, and values to their enactment of HIV stigma.[6-8] Furthermore, evidence points to the existence of student nurses' prejudice, stereotyping and discrimination toward HIV-infected patients.[6,9,10] However, there are gaps in the literature showing whether student nurses' personal dispositions can act as predictors of their enactment of HIV stigma mechanism or not. Hence, this study was an attempt to fill the existing gap.

Objectives

The main objective of this study was to determine whether student nurses' personal dispositions act as predictors of their enactment of HIV stigma mechanism against HIV-infected persons. To meet the study objectives, the following research questions were raised (a) what is the level of knowledge about AIDS among student nurses in Osun State? (b) What is the perception of student nurses of HIV infected-persons in Osun State? (c) What is the level of student nurses' HIV stigma mechanism against HIV-infected persons in Osun State? and (d) Could personal dispositions of student nurses in Osun State predict their HIV stigma mechanism against HIV-infected persons, and if yes, which of them could be the most significant predictor?

Methods

Study design and participants

This is a cross-sectional study. The study population consisted of 395 student nurses sampled from four schools of nursing (SON) in Osun State, Nigeria. The sample size was determined using the following formula:. $\left(Z^2_{1-\frac{\alpha}{2}}\ pq \middle/ d^2\right)$ Then, degree of accuracy (d) of 0.05 and P = 0.50, the needed sample size was estimated at 385. Since the sample size was almost equivalent to target population, we used enumeration to enroll all the available students (n = 395).

Osun State is one of the states located in Southwest Nigeria and is predominantly inhabited by the Yoruba ethnic group. There are four SON in the state: School of Nursing, Obafemi Awolowo University Teaching Hospital (OAUTHC), Ile-Ife; School of Nursing, Wesley Guild Hospital, Ilesha; 7th-Day Adventist School of Nursing, Ile-Ife; and Osun State School of Nursing, Osogbo. In Nigeria, SONs are specialized type of monotechnic that run a 3-year concentrated program aimed at training diploma nurses, while the universities run 5-year degree program to produce degree nurses. For the SON program, it is divided into three levels referred to as parts, with 1st-year students being referred to as Part 1, while Part 2 and Part 3 are 2nd- and 3rd-year students, respectively. These nurses form the bulk

of qualified nurses engaged in Nigerian health-care sector; hence, we decided to used diploma students as against those in the university. The inclusion criteria for participants were (1) participants must be enrolled as a students in a school of nursing, where the curriculum for the training of general nurses is in used, (2) the participants' school must be domiciled in Osun State, and (3) participants must be in either Part 2 or Part 3 level of study in the school, since the study was focused on students' interaction with patients who are HIV positive, excluding Part 1 students with minimal or no contact with HIV patients serves the best interest of the study. The focus of the study was student nurses in Part 2 and Part 3 because they have had more clinical experience and were likely to have interacted more with HIV-infected persons in the clinical settings than Part 1 students, necessitating their exclusion.

Measures

The instrument for this study was adopted from the Health Care Provider HIV/AIDS Stigma Scale (HPASS) that was developed to measure the three mechanisms (prejudice, stereotyping, and discrimination) of HIV stigma among health-care workers including health-care students.[11] The HPASS instrument in its adopted form measures the stigma mechanism of prejudice, stereotyping, and discrimination with 30 items. The HPASS has undergone validity and reliability tests using exploratory factor analysis that was confirmed by confirmatory factor analysis with outstanding performances.[11] Furthermore, a reliability test-retest was carried out and a Cronbach's coefficient alpha test of 0.71 was obtained. However, it was adapted for the purpose of this study as described below.

The background characteristics section had five items that were added to the HPASS, and they are gender, marital status, religion, ethnicity, and school. Personal dispositions referred to the characteristics of the student nurses. They include their age, level of study, knowledge about AIDS, and perception of HIV-infected persons. These four variables that make up the personal dispositions for this study served as the independent variables. Knowledge about AIDS was assessed through nine items with "Yes" or "No" responses (0 = incorrect; 1 = correct) that were added to the HPASS. Assessment was based on the mean score of all nine items (<3.0 = poor knowledge about AIDS; 3.1–6.0 = moderate knowledge; 6.1–9.0 = good knowledge). Cronbach's coefficient alpha for this section was 0.70. Furthermore, a face validity test was carried out.

Perception of HIV-infected persons was also assessed by adding five items to the HPASS. These items were responded on a four-point Likert-type rating scale (0 = Strongly Disagree; 1 = Disagree; 2 = Agree; 3 = Strongly Agree). Assessment was based on the mean score of all five items (<5.0 = positive perception; >5.0 = negative or poor perception). A test-retest done for this section of the instrument, in addition to a face validity test, revealed a Cronbach's alpha of 0.73.

The HIV stigma mechanism served as the dependent variable of this study. It was operationalized as the act/intention of student nurses to prejudice, stereotype, and/or discriminate against HIV-infected persons by "marking" or "labeling" their differences and attributing negative connotations to those differences. The HIV stigma mechanism was measured as prejudice, stereotyping, and discrimination.

Prejudice

There are 13 items that measure prejudice in the HPASS. However, they were reduced to eight in this study. The eight items elicited responses from respondents on a modified four-point Likert-type rating scale (0 = Strongly Disagree; 1 = Disagree; 2 = Agree; 3 = Strongly Agree). Assessment was based on the mean score of all eight items (<8.0 = lack of prejudice; >8.0 = presence of prejudice). Aside from a face validity test, a test-retest reliability was done for this section of the instrument revealing a Cronbach's alpha of 0.7.1.

Stereotyping

The 11 items in the HPASS that measure stereotyping were reduced to six in this study. They elicited responses from respondents on a modified four-point Likert-type rating scale (0 = Strongly Disagree; 1 = Disagree; 2 = Agree; 3 = Strongly Agree). Assessment was based on the mean score of all six items (<6.0 = lack of stereotyping; >6.0 = presence of stereotyping). For validity, this section of the instrument was subjected to a face validity test, while reliability was checked using a test-retest that gave a Cronbach's alpha of 0.71.

Discrimination

There are six items that measure discrimination in the HPASS which were reduced to five in this study. The five items elicited responses from respondents on a modified four-point Likert-type rating scale (0 = Strongly Disagree; 1 = Disagree; 2 = Agree; 3 = Strongly Agree). Assessment was based on the mean score of all five items (<5.0 = lack (nonexperience) of discrimination; >5.0 = presence (experience) of discrimination). A Cronbach's alpha of 0.75 was recorded in this section, in addition to a face validity. Explicit permission was obtained to use the instrument from the author via E-mail contact.

Procedure

We recruited and trained four research assistants, one from part one of each school between December 28, 2016 and December 29, 2016 on the appropriate ways of signing the consent form, filling the questionnaire, and how to retrieve the questionnaire. For the study proper, participants were approached to obtain individual informed consent following the approval protocol, and the self-administered questionnaires were given to the participants to fill and upon completion were collected immediately by the research assistants and handed back to us. This was done on a predetermined time with each school authority, while the students were in the classroom and it took an average of 45 min per class to complete the questionnaire. The data collection process lasted between January 9, 2017 and January 12, 2017 and it began at 7th-Day Adventist School of Nursing, Ile-Ife on the 1st day, while day 2 was for participants at OAUTHC School of Nursing, Ile-Ife; day 3 we moved to Ilesha to meet participants of Wesley Guild Hospital, Ilesha; and day 4 was for participants at State School of Nursing, Osogbo.

Ethical considerations

Ethical considerations of the study were approved on November 30, 2016 by Babcock University Health Research and Ethical Committee (BUHREC), with clearance number BUHREC564/16. The ethical clearance was used to obtain permission from the Head of Department, Nursing Education, OAUTHC School of Nursing, Ile-Ife, and Wesley Guild Hospital, Ilesa, as well as the principals of School of Nursing, Osogbo, and 7th-day Adventist School of Nursing, Ile-Ife, before the students were approached to partake. Informed consent was sort from the participants by explaining the aims of the study, its benefits, voluntary nature, the right to pull out of the study, and what to expect based on the Helsinki Declaration.

Data analysis

Data that were generated from the respondents was inputted into a computer for data analysis using IBM SPSS Statistics, V24.0 (Armonk, NY: IBM Corp, USA), after they were checked for completeness. The variables of interest in this study were the independent variables of personal dispositions that is, age of student nurses, level of study of student nurses, knowledge about AIDS and student nurses' perception of HIV-infected persons, and the dependent variable of HIV stigma mechanism (prejudice, stereotyping, and discrimination) against HIV-infected persons.

Descriptive statistics such as frequency and percentage were used for the demographic information, while mean and standard deviation were used for the other study variables. To answer the research questions, mean and multiple linear regressions were used to analyze the data generated. Statistical significance for this study was set at $P \leq 0.05$.

Results

Of the 395 respondents who were sampled for this study, 376 completed the instrument administered to them, giving the study a response rate of 95.2%. A majority of the students were in the age range of 20–24 years (44.4%). The vast majority of the respondents were female (83.9%), Were not married (89.9%), and Christians (84.0%), of Yoruba ethnicity (82.2%), and in Part 3 (54.8%) of their study [Table 1]. The students' responses to individual questions on knowledge about HIV are displayed in Table 2. While 70.2%, 93.6%, and 88.8% answered correctly that saliva from an HIV-infected individual cannot transmit HIV to the caregiver, that mother-to-child transmission can occur during pregnancy and labor, and that HIV treatment prolongs the life expectancy of HIV-positive patients, respectively; 84.6%, 51.9%, and 51.3% answered incorrectly that the risk of HIV transmission following a splash of blood to nonintact skin or mucous membrane is very high, that HIV treatment does not decrease the chances of infection

Table 1: Demographic characteristics of respondents

Variables	*n* (%)
Age (years)	
15-19	53 (14.1)
20-24	167 (44.4)
25-29	126 (33.5)
30 and above	30 (8.0)
Gender	
Male	61 (16.1)
Female	315 (83.8)
Marital status	
Married	34 (9.0)
Single	338 (89.9)
Others	4 (1.1)
Ethnicity	
Hausa	8 (2.1)
Igbo	43 (11.4)
Yoruba	309 (82.2)
Others	16 (4.3)
Level of study	
Part 2	170 (45.2)
Part 3	206 (54.8)
Religion	
Christians	316 (84.0)
Muslims	58 (15.4)
Others	2 (5)

after a prick from an infected needle and that standard sterilization procedures are insufficient when sterilizing instruments used on an HIV-positive client, respectively.

Moreover, 49.7% and 32.2% strongly disagreed and disagreed, respectively, that if they refused to care for HIV + patients, they cannot have HIV/AIDS. Similarly, 28.7% and 40.4% strongly disagreed and disagreed, respectively, that HIV = positive patients cannot lead normal life like HIV patients. However, 41.2% and 37.8% agreed and strongly agreed, respectively, that HIV is a deadly disease [Table 3].

The responses to the individual questions of the three-stigma mechanism are displayed in Table 4. With respect to the prejudice questions, 23.7% and 44.4% strongly disagreed and disagreed, respectively that HIV-positive patients present a threat to their health, 32.2% and 49.2% strongly disagreed and disagreed, respectively, that they would rather not come into physical contact with HIV-positive patients. Whereas, 53.7% and 17.0% agreed and strongly agreed, respectively, that they worry about contracting HIV from HIV-positive patients, and another 39.1% and 20.7% agreed and strongly agreed, respectively, that they would want to wear two sets of gloves when examining HIV-positive patients.

With respect to stereotyping questions, 17.6% and 36.4% strongly disagreed and disagreed, respectively, that HIV-positive patients have engaged in risky activities despite knowing the risks involved, 27.9% and 40.4% strongly disagreed and disagreed, respectively, that people would not get HIV if they had sex with fewer people. On the other hand, 43.1% and 13.3% agreed and strongly agreed, respectively, that they believe HIV-positive patients acquired the virus through risky behavior, and another 37.5% and 16.5% agreed and strongly agreed, respectively, that if people acted responsibly, they would not contract HIV [Table 4].

With response to discrimination questions, 28.7% and 52.4% strongly disagreed and disagreed, respectively, that they believe they have the right to refuse to treat HIV-positive patients for the safety of other patients, 23.7% and 42.6% strongly disagreed and disagreed, respectively, that they have the right to refuse to treat HIV-positive patients if they feel uncomfortable.

Table 2: Frequency distribution of respondents' knowledge about human immunodeficiency virus/AIDS

Knowledge about HIV/AIDS Items	No, *n* (%)	Yes, *n* (%)	Correct response	Percentage responded correctly
Saliva from an HIV-infected individual can transmit HIV to the caregiver	264 (70.2)	112 (29.8)	No	70.2
HIV can be transmitted from mother to child during pregnancy and labor	24 (6.4)	352 (93.6)	Yes	93.6
The risk of HIV transmission following a splash of blood to nonintact skin or mucous membrane is very high	58 (15.4)	318 (84.6)	No	84.6
HIV treatment prolongs the life expectancy of HIV-positive patients	42 (11.2)	334 (88.8)	Yes	88.8
HIV treatment does not decrease the chances of infection after a prick from an infected needle	181 (48.1)	195 (51.9)	No	51.9
There is a vaccine against HIV	307 (81.6)	69 (18.4)	No	81.6
Standard sterilization procedures are insufficient when sterilizing instruments used on an HIV-positive client	193 (51.3)	183 (48.7)	No	51.3
Reducing the number of sexual partners may protect from HIV	48 (12.8)	328 (87.2)	Yes	87.2
Use of condom reduces the chance of contracting HIV	47 (12.5)	329 (87.5)	Yes	87.5

Mean ± SD	Maximum point scale
5.90 ± 1.26	9.0

SD: Standard deviation, HIV: Human immunodeficiency virus

Table 3: Frequency distribution of respondents' perception of HIV-infected persons

Perception Items	Strongly disagree, *n* (%)	Disagree, *n* (%)	Agree, *n* (%)	Strongly agree, *n* (%)	Perception
If I refuse to care for HIV-positive patients I will not get HIV/AIDS	187 (49.7)	121 (32.2)	46 (12.2)	22 (5.9)	Positive
HIV is a deadly disease	36 (9.6)	43 (11.4)	155 (41.2)	142 (37.8)	Negative
HIV-positive patients cannot lead normal life like HIV- patients	108 (28.7)	152 (40.4)	82 (21.8)	34 (9.0)	Positive
HIV-positive patients are different from other patients and I who are HIV negative	100 (26.6)	164 (43.6)	91 (24.2)	21 (5.6)	Positive
It would be a waste of time and money caring for HIV-positive patients	207 (55.1)	130 (34.6)	22 (5.9)	17 (4.5)	Positive

Mean±SD	Maximum Point Scale
10.61 ± 2.47	15.0

SD: Standard deviation, HIV: Human immunodeficiency virus

Similarly, 22.3% and 46.0% strongly disagreed and disagreed, respectively, that they have the right to refuse to treat HIV-positive patients to protect themselves [Table 4].

Table 2 shows that knowledge about AIDS with a mean score of 5.90 ± 1.26 was moderate compared to the maximum point scale of 9.0. Similarly, the level of the respondents' perception of HIV-infected persons was shown to be 10.61 ± 2.47 which indicated that respondents in this study had negative perception of HIV-infected persons [Table 3]. Furthermore, the three mean scores of prejudice (10.61 ± 4.07), stereotyping (13.84 ± 3.34), and discrimination (10.47 ± 3.22), when compared to their maximum point scale, indicated that HIV stigma mechanism exists among the respondents [Table 4].

To determine whether personal dispositions act as predictors of student nurses' prejudice, stereotyping, and discrimination against HIV-infected persons, multiple linear regression was employed. The regression model showed that there was a correlation of 0.701 between the respondents' personal dispositions and their HIV stigma mechanism. The R^2 coefficient was 0.491 implying that the model accounted for 49.1% of the variation in stigma mechanism of the respondents. The regression model also showed that the personal dispositions of the respondents significantly predicted their HIV stigma mechanism ($F[4, 371] = 89.502$; $P < 0.05$). However, among the personal dispositions of the respondents, their perception ($\beta = 1.849$; $t = 17.845$; $P < 0.05$) was the most significant driver of their HIV stigma mechanism [Table 5].

Discussion

This study revealed that the overall knowledge about AIDS was moderate; similar observations

Table 4: Frequency distribution of respondents' stigma mechanism against HIV-infected persons

Stigma mechanism	Strongly disagree, *n* (%)	Disagree, *n* (%)	Agree, *n* (%)	Strongly agree, *n* (%)
Prejudice Items				
HIV-positive patients present a threat to my health	89 (23.7)	167 (44.4)	94 (25.0)	26 (6.9)
I would rather not come into physical contact with HIV-positive patients	121 (32.2)	185 (49.2)	50 (13.3)	20 (5.3)
I would want to wear two sets of gloves when examining HIV-positive patients	48 (12.8)	103 (27.4)	147 (39.1)	78 (20.7)
I would rather see an HIV-negative patient than see an HIV-positive patient with non-HIV-related concerns	113 (30.1)	174 (46.3)	71 (18.9)	18 (4.8)
It would be hard to react calmly if a patient tells me he or she is HIV positive	100 (26.6)	162 (43.1)	91 (24.2)	23 (6.1)
I worry about contracting HIV from HIV-positive patients	32 (8.5)	78 (20.7)	202 (53.7)	64 (17.0)
HIV-positive patients make me uncomfortable	90 (23.9)	163 (43.4)	95 (25.3)	28 (7.4)
I worry that universal precautions are not good enough to protect me from HIV+ patients	98 (26.1)	145 (38.6)	100 (26.6)	33 (8.8)
Stereotyping Items				
I believe most HIV-positive patients acquired the virus through risky behavior	66 (17.6)	98 (26.1)	162 (43.1)	50 (13.3)
I think HIV-positive patients have engaged in risky activities despite knowing these risks	66 (17.6)	137 (36.4)	143 (38.0)	30 (8.0)
I think people would not get HIV if they had sex with fewer people	105 (27.9)	152 (40.4)	89 (23.7)	30 (8.0)
I think if people act responsibly, they will not contract HIV	72 (19.1)	101 (26.9)	141 (37.5)	62 (16.5)
HIV-positive patients tend to have numerous sexual partners	70 (18.6)	175 (46.5)	104 (27.7)	27 (7.2)
I think many HIV-positive patients likely have substance abuse problems	96 (25.5)	171 (45.5)	88 (23.4)	21 (5.6)
Discrimination Items				
I believe I have the right to refuse to treat HIV-positive patients for the safety of other patients	108 (28.7)	197 (52.4)	55 (14.6)	16 (4.3)
I believe I have the right to refuse to treat HIV-positive patients if other staff members are concerned about safety	94 (25.0)	196 (52.1)	67 (17.8)	19 (5.1)
I believe I have the right to refuse to treat HIV-positive patients if I feel uncomfortable	89 (22.3)	173 (46.0)	92 (24.5)	27 (7.2)
I believe I have the right to refuse to treat HIV-positive patients to protect myself	84 (22.3)	173 (46.0)	92 (24.5)	27 (7.2)
I believe I have the right to refuse to treat HIV-positive patients if I am concerned about legal liability	93 (24.7)	163 (43.4)	86 (22.9)	34 (9.0)

Variables	Mean±SD	Maximum Point Scale
Prejudice	17.97 ± 4.07	24.0
Stereotyping	13.84 ± 3.34	18.0
Discrimination	10.47 ± 3.22	15.0

SD: Standard deviation, HIV: Human immunodeficiency virus

Table 5: Multiple regression analyses demonstrating predictors of human immunodeficiency virus stigma mechanism

	Coefficients[a,b]			*T*	*P* value
	B	Std.Error	Beta		
1 (Constant)	15.501	1.926		8.050	< 0.001
Age at last birthday	0.074	0.314	0.009	0.237	0.813
Level of study	-0.996	0.529	-0.074	-1.883	0.061
Knowledge	0.198	0.198	0.037	1.001	0.317
Perception	1.849	0.104	0.679	17.845	< 0.001

[a]Dependent Variable: Mechanism, [b]r=0.701, r^2=0.491, Adjusted r^2=486

were made in previous studies in Saudi Arabia[6] and Greece.[8] However, misconceptions were noticed in this study, especially concerning the transmission of the virus. For instance, 51.3% of student nurses responded that standard sterilization procedures are insufficient when sterilizing instruments used on an HIV-infected person. Furthermore, 84.6% of the respondents were of the opinion that the risk of HIV transmission following a splash of blood to nonintact skin or mucous membrane is very high. Misconceptions like these were reported in studies carried out in Saudi Arabia,[6] India,[9] Southwest Nigeria,[12] and Greece.[8] Perhaps, this misconception may be linked to fear of HIV infection, a major driver of HIV stigma mechanism in hospitals.[13]

On the respondents' perception of HIV-infected patients, an overall negative perception of HIV-infected persons was noted. One of the reasons for this negative perception may be attributed to the responses to some of the perception items in the research instrument. For instance, 41.2% and 37.8% agreed and strongly agreed, respectively, that HIV is a deadly disease. Belief like this tends to promote fear which, in turn, drives HIV stigma mechanism.[14]

The mean score of the three variables that make up the HIV stigma mechanism revealed that student nurses in Osun State experience HIV stigma mechanism. On the HIV stigma mechanism of prejudice, the mean score showed that respondents have prejudicial feelings against HIV-infected persons. This finding is in agreement with the Saudi Arabian study,[6] Southwest Nigeria,[12] Pacific Ocean,[15] and another study carried out in Russia.[16]

The stereotyping mean score for this study also showed a stereotypical view among the respondents. This finding could be best explained based on the driver of moral judgment. According to Jain *et al.*,[13] HIV-uninfected persons tend to regard HIV-infected persons as deviants; therefore, deserving what they got.[8] Indeed, in this study, 43.1% and 13.3% agreed and strongly agreed, respectively that they believe HIV-positive patients acquired the virus through risky behavior, and 37.5% and 16.5% agreed and strongly agreed respectively that if people acted responsibly, they would not contract HIV. This finding is in accordance with findings reported by several authors in literature.[7,8,11,15,16] On the discrimination scale, the resulted mean score implied tendency of the respondents to discriminate against HIV-infected persons. This finding is similar to findings reported by several authors in literature.[7,8,15-17]

This whole study was focused on student nurses' personal dispositions as predictors of their HIV stigma mechanism against HIV-infected persons. Findings revealed that the independent variables of personal dispositions had a strong correlation with the dependent variable of HIV stigma mechanism. In other words, personal dispositions have significant impact on the stigma mechanism of the respondents. However, among all personal dispositional factors, perception was the most significant contributor to the enactment of HIV stigma mechanism by the respondents.

This study has some limitations. For instance, we did not include all student nurses. Furthermore, nursing students in universities in the state were not included, and finally, since a self-administered questionnaire was used, we cannot rule out the effect of social desirability. However, steps were taken to address these limitations. First, we made sure only students who have had contact with HIV-positive patients were recruited. Second, since SON and bachelor of nursing science programs differs, the study was not based on the comparison, the university students were left out.

Conclusions

Student nurses stigmatize HIV-infected persons through the stigma mechanism of prejudice, stereotyping, and discrimination. Their personal dispositions, such as knowledge about the disease, age, level of study, and perception of HIV-infected persons appear to be predictors of their stigmatization. This study revealed that the personal disposition of perception plays the most significant role in predicting student nurses' HIV stigma mechanism; as a result, there is a need to replicate study of this nature involving student nurses both in degree-awarding and diploma-awarding institutions. Not only will further studies like this one create a knowledge

base of information concerning HIV stigmatization, but also reveal findings that could be used by nursing educators and researchers to develop intervention studies that seek to reduce HIV stigma of student nurses, which could be added to the training curriculum for all nursing programs.

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Conflicts of interest

There are no conflicts of interest.

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