

Awareness, Perception and Attitude towards Patients with HIV/AIDS among Non-Health Workers in Rivers State University Teaching Hospital

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Abstract: *Introduction:* Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain significant public health challenges globally, with cultural and social stigma, and discrimination continuing to affect the quality of life of people living with the condition. While health workers play a direct role in HIV care, non-health workers within hospital environments also interact with patients and can influence their experience and wellbeing. This study assesses the awareness, perception and attitude of non-health workers towards patients with HIV/AIDS in Rivers State University Teaching Hospital. *Method:* A descriptive cross-sectional research design was employed, using the a self-structured APAHQ questionnaire. A simple random sampling technique was used to derive data from 121 non-health workers at the Rivers State University Teaching Hospital. Data was analyzed using descriptive statistics of mean, frequency and percentages. *Results:* The findings of the study revealed a generally high level of awareness about HIV/AIDS at 94.3%. The mean perception of 3.2 ± 0.6 indicates a moderate perception of the respondents about patients with HIV/AIDS. The study showed a significant negative attitude of respondents towards patients with HIV/AIDS at Rivers State University Teaching Hospital with mean value 0.3 ± 0.7 . *Conclusions:* This study emphasized the need for continuous workplace education and sensitization campaigns among non-health workers to clear myths and misconceptions of HIV/AIDS in order to end stigmatization of patients with HIV/AIDS. Based on the findings, the study recommended that public enlightenment, strengthening HIV literacy and empathy among non-health workers will foster a more supportive and inclusive hospital environments for patients living with HIV/AIDS.

Keywords: HIV/AIDS Awareness, Perception, Attitude, Non-Health Workers, Stigma.

INTRODUCTION

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) continue to pose serious public health, social, and developmental challenges worldwide. Since the first cases were reported in the early 1980s, the epidemic has claimed millions of lives and continues to affect individuals, families, and communities, particularly in sub-Saharan Africa [1]. Despite significant progress in prevention, diagnosis, and treatment, the burden of stigma and discrimination against people living with HIV/AIDS (PLWHA) remain prevalent in many societies [2]. These negative attitudes often manifest across various societal settings, including within healthcare institutions, where the highest levels of awareness and compassion are expected. While health

professionals are the most directly involved in the care and management of HIV-positive patients, non-health workers, such as administrative, security, technical, and sanitation staff, also form part of the hospital workforce. Their daily interactions with patients influence the overall hospital environment and can significantly affect the psychological and emotional wellbeing of individuals receiving care. However, non-health workers often receive limited formal education or sensitization regarding HIV/AIDS transmission, prevention, and patient rights. Consequently, misconceptions and fear of infection may shape their perceptions and attitudes, leading to stigmatization and discriminatory behaviors [3].

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In Nigeria, HIV/AIDS remains a major health concern despite remarkable progress in awareness and treatment accessibility. According to the National Agency for the Control of AIDS [4], Nigeria has an adult HIV prevalence rate of about 1.3%, representing one of the largest populations of PLWHA in the world. Rivers State, being one of the most industrialized states in the Niger Delta region, records relatively high prevalence rates compared to several other states [5]. Factors such as urbanization, socioeconomic inequality, and high mobility contribute to the sustained transmission of the virus. Hospitals in the state, including tertiary institutions like Rivers State University Teaching Hospital (RSUTH), play a critical role in providing treatment, care, and support services to HIV-positive individuals. However, the attitude of hospital staff toward patients with HIV/AIDS can significantly influence treatment outcomes and patient satisfaction. A supportive and stigma-free hospital environment encourages disclosure, adherence to treatment, and improved quality of life, whereas discrimination or avoidance behavior discourages health-seeking and perpetuates social isolation. Studies in Nigeria and other parts of Africa have shown that while awareness of HIV/AIDS is generally high, deep-rooted misconceptions about modes of transmission persist, even among educated populations [6, 7]. Many individuals still associate HIV/AIDS with moral failing or promiscuity, leading to prejudicial attitudes [8]. In hospital settings, such attitudes can undermine the delivery of care and discourage HIV patients from seeking or continuing treatment [2]. A supportive and stigma-free hospital environment has been shown to improve adherence to treatment and improve quality of life for PLWH [9].

Despite their critical roles, non-health workers are rarely included in HIV education and stigma reduction interventions within healthcare institutions [10]. Their perceptions and attitudes often reflect broader societal misconceptions rather than institutional knowledge. For example, studies conducted in tertiary hospitals in Nigeria found that while more than 80% of non-health staff were aware of HIV/AIDS, fewer than 50% had accurate knowledge about its transmission or prevention [11]. These knowledge gaps influence their attitudes toward PLWHA, potentially leading to discrimination, gossip, or exclusionary behaviors that harm patients psychologically.

Given the importance of creating inclusive healthcare environments, it becomes vital to examine the awareness, perception, and attitude of non-health workers toward patients with HIV/AIDS. This study, conducted at the Rivers State University Teaching Hospital, aimed to assess the level of HIV-related knowledge among non-health staff, explore their perceptions and attitudes toward PLWHA, and identify demographic or experiential factors influencing these attitudes. The outcome provides data-driven insights to

inform the design of continuous training and sensitization programs for all hospital staff categories.

This research contributes to the broader goal of promoting a healthcare delivery system free of stigma, and aligns with the global targets for ending AIDS as a public health threat by 2030 [2]. Understanding the attitudes of non-health workers is essential for building a compassionate and inclusive hospital culture that supports the rights and dignity of patients living with HIV/AIDS in Rivers State and beyond.

METHODOLOGY

Participants:

The study population comprised of non-health workers employed at RSUTH. This includes staff members who do not have direct medical or clinical responsibilities such as administrative officers, secretaries, receptionists, cleaners, porters, security personnel, technicians, and clerks.

Inclusion Criteria:

All non-health workers such as administrative staff, cleaners, and security personnel who were present at work during the period of data collection and consented to participate in the study.

Exclusion Criteria:

Non-health workers who were on leave, absent, or unavailable during the data collection period, and those who declined to participate.

Instrument for Data Collection:

The instrument utilized for this research was a self-structured questionnaire by the researcher titled Awareness, Perception and Attitude on HIV/AIDS questionnaire (APAHQ). Questions were generated based on the objectives of this study to obtain required information from eligible respondents. The questionnaire consisted of four sections (A, B, C and D). Section A: contained the socio-demographic data. Section B: had data containing respondent's awareness on HIV/AIDS. Section C: contained information on the respondent's perception about patients with HIV/AIDS. Section D: contained information on the respondent's attitude towards patients with HIV/AIDS.

Research Design:

A descriptive cross-sectional design was used to assess the awareness, perception and attitude towards patients with HIV/AIDS among non-health workers in Rivers State University Teaching Hospital (RSUTH).

Sampling Technique:

The sampling technique used in this study was the simple random sampling technique. This is a probability sampling technique that involves the researcher randomly selecting a subset of participants from a population. Each member of the population has an equal chance of being selected. This sampling

technique was utilized because it gives the participants an equal and fair chance of being selected.

Sample Size: The sample size of 121 was calculated using the Taro Yamane formula:
 $n = \frac{N}{1 + N(e)^2}$

Where:

- n=sample size
- N=the population under study
- e=margin error
- 'e' is a constant figure of 0.05 which signifies the margin of error.
- n = 121

Validity and Reliability of Instrument:

The validity of the research instrument was assessed by the project supervisor together with two research experts in the department. Their constructive criticisms and suggestions guided necessary modifications to improve the tool. Both face and content validity were applied to ensure that the instrument was appropriate and comprehensive for use in this study.

A test-retest reliability test was carried out at University of Port Harcourt teaching hospital; 12 copies of the instrument was presented to the non-health workers in two-week interval. The two set of scores were correlated using Cronbach's Alpha with reliability of 0.79.

Procedure for Data Collection:

The researcher explained the aim of the study to the study participants. The participants were informed that their participation was voluntary and that they could withdraw their participation at any point during the

survey. They were encouraged to provide responses to the questions and assured of confidentiality to any information provided on the questionnaire. The copies of questionnaire were administered directly to the chosen sample for the study. A total of 121 copies of questionnaire were administered.

Method of Data Analysis:

Data collected were analysed using the Statistical Package for Social Sciences (SPSS version 25). Descriptive statistics such as frequencies, percentages, and mean scores were used to summarize responses to the research questions. For the mean scores, values from 0.1 to 2.4 were interpreted as low, indicating negative perception or attitude, while values from 2.5 to 5.0 were considered high, reflecting positive perception or attitude. In this study, a mean score of 3.2 for perception indicated a moderately positive perception towards patients with HIV/AIDS, while a mean score of 0.3 for attitude reflected a generally negative attitude. Inferential statistics, specifically Analysis of Variance (ANOVA), were employed to test the hypotheses at a 0.05 level of significance.

Ethical Considerations

A formal letter of introduction gotten from the Head of Nursing Science Department, two copies of the proposal and an application for ethical approval addressed to the Chairman, Ethical Approval Committee, Rivers State University Teaching Hospital was submitted to the chairman to seek permission to carry out research.

RESULTS

Table 1: Sociodemographic data

S/N	Variables	Frequency	Percentage	
1.	Age	18 – 23	33	27.5%
		30 - 35	24	20%
		36 – 41	47	38.7%
		42 - 47	0	0%
		48 – 53	2	1.3%
		54 - 59	15	12.5%
2.	Sex	Male	42	52.5%
		Female	38	47.5%
3.	Marital Status	Single	71	58.8%
		Married	33	27.5%
		Widowed	17	13.8%
4.	Ethnic Group	Hausa	8	6.3%
		Yoruba	15	12.5%
		Igbo	30	25%
		Others	68	56.3%

The result in table 1 above shows that majority of the respondents are between the ages of 36-41(38.7%). Respondents are more of male than female with 42

(52.5%). Also 71(58.8%) are single, 33(27.5%) are married while 17(13.8%) are Widowed. Others Ethnic group formed 68 (56.3%)

Table 2: Awareness level of HIV/AIDS in non-health workers at Rivers State University Teaching Hospital

S/N	Items	SA	A	D	SD	Mean ± SD
1.	I have heard about HIV/AIDS	121(100%)	-	-	-	4 0.0
2.	I am aware that HIV/AIDS is a disease that affects the human immune system	121(100%)	-	-	-	4 0.0
3.	I am aware that HIV can be transmitted by sharing needles	106(88%)	15(12%)	-	-	3.5 0.3
4.	I am aware HIV is not spread through physical contact (hugging, shaking hands)	50(41%)	24(20%)	-	47(39%)	2.7 1.4
5.	I am aware that HIV is not spread through coughing or sneezing	1(1%)	120(99%)	-	-	1.5 0.1
6.	I am aware that prevention is the most effective way to control HIV	121(100%)				4 0.0
7.	I am aware that there is currently no permanent cure for HIV/AIDS	48(40%)	73(60%)			3.5 0.5

Mean of mean = 3.3 ± 0.4

<2.5 indicate disagree, >2.5 indicates agree

SA = Strongly agree, A = agree, D = disagree, SD = strongly disagree

The following items on the table 2 above were used to assess the level of awareness of the respondents. The table reveals that they have 94.3% awareness level about HIV/AIDS.

Table 3: Perception of non-health workers about patients with HIV/AIDS at Rivers State University Teaching Hospital n = 121

S/N	Items	SA	A	D	SD	Mean ± SD
1.	I am/would be fearful of contracting HIV if am dealing with patient with HIV	64(53%)	57(47%)	-	-	3.5 0.5
2.	I should have the right to Refuse to deal with patient with HIV/AIDS	1(1%)	47(39%)	73(60%)	-	3 0.52
3.	People with HIV/AIDS should be cared for in a separate unit with specifically trained personnel	48(40%)	72(60%)	-	-	3.5 0.49
4.	To care for patients with HIV/AIDS should be based on voluntary basis only	47(39%)	1(1%)	73(60%)	-	3 0.97
5.	I would feel uncomfortable dealing with a patient with HIV/AIDS	1(1%)	62(51%)	58(48%)	-	3 0.52

Mean of mean= 3.2 ± 0.6

<2.5 indicate disagree, >2.5 indicates agree

SA = Strongly agree, A = agree, D = disagree, SD = strongly disagree

The table 3 above shows the items used to assess the perception of the respondents about patient with HIV/AIDS. The mean of 3.2 indicates a moderate

perception of the respondents about patients with HIV/AIDS.

Table 4: Attitude of non-health workers towards patients with HIV/AIDS at Rivers State University Teaching Hospital n = 121

S/N	Variables	Category	Frequency	Mean
1.	Would you hesitate to sit next to a patient with HIV/AIDS?	No	95	0.5
		Yes	6	
		No Idea	20	
2.	Should names of HIV patients be made public?	No	121	0.0
		Yes	0	
3.	Patient with HIV/AIDS should stay in a separate unit from other patient?	No	24	0.8
		Yes	97	
4.	HIV patients deserve to suffer?	No	121	0.0
		Yes	0	

Mean of mean= 0.3 ± 0.7

The table 4 above shows the items used to examine the attitude of the respondents towards patient

with HIV/AIDS. The total mean of 0.3 indicates a negative attitude of the respondents towards patients

with HIV/AIDS at Rivers State University Teaching Hospital.

Test of Significance

Table 5: There is no significant difference between the perception of male non-health workers and female non-health workers about patients with HIV/AIDS in Rivers State University Teaching Hospital.

ANOVA					
Sex	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.033	2	6.017	58.520	.000
Within Groups	7.917	77	.103		
Total	19.950	79			

The significance or p value is 0.00 which is less than 0.05, we reject the null hypothesis and conclude that there is a significant difference between the perception

of male non-health workers and female non-health workers about patients with HIV/AIDS in Rivers State University Teaching Hospital.

Table 6: There is no significant difference between the attitude of male non-health workers and female non-health workers towards patients with HIV/AIDS in Rivers State University Teaching Hospital.

ANOVA					
Sex	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.633	2	2.816	15.146	.000
Within Groups	14.317	77	.186		
Total	19.950	79			

The significance or p value is 0.00 which is less than 0.05, we reject the null hypothesis and conclude that there is a significant difference between the attitude of male non-health workers and female non health workers towards patients with HIV/AIDS in Rivers State University Teaching Hospital.

possible modes of transmission. Furthermore [16], conducted a study among secondary school students in Southern Cross Rivers State and found that most students had some knowledge of HIV causes, transmission, and prevention measures. These comparisons highlight that while some communities and occupational groups achieve high awareness, others lag due to limited access to information, lower education levels, or the absence of targeted sensitisation programs [17], reported that 53.1% of respondents were fully aware of HIV PrEP in Davao City, Philippines, a proportion much lower than the 94.3% awareness recorded in this study. This contrast suggests that across diverse regions and populations, achieving complete awareness is a complex challenge.

DISCUSSION

The awareness level of non-health workers toward HIV/AIDS is critical because it serves as the foundation upon which perception and attitude are built. This study revealed that the awareness level of non-health workers was high (94.3%), suggesting that the vast majority of respondents were familiar with HIV/AIDS as a health issue. While this proportion demonstrates a moderate level of awareness, it still highlights that some misconceptions remain, which can compromise preventive practices and patient care. This finding is in agreement with the survey conducted by [12], between 2007 and 2017 across the thirty-six states of Nigeria, which showed that the Northwest zone had the highest awareness level (70.7%) in 2007 compared to other zones. Interestingly, by 2011 and 2017, the Southwest zone had overtaken others in awareness levels, indicating that awareness can shift over time as a result of targeted interventions or sociocultural influences. Similarly [13], reported a notably higher awareness rate of 80.9% among 9,274 participants in China, reflecting the success of broad-based health education initiatives in that context. This contrasts with [14], whose study on married women in Pakistan revealed that only 42% had ever heard about HIV/AIDS, though among those aware, the majority (68%) had good knowledge. The findings in this current study also align with [15], who reported high awareness among factory workers about the general aspects of HIV infection and

The perception held by non-health workers at Rivers State University Teaching Hospital was found to be moderately positive, reflected in the mean perception score of 3.2 ± 0.6 . This relatively favourable perception suggests that many respondents acknowledge the importance of compassion and professional responsibility when dealing with patients living with HIV/AIDS. While some misconceptions may still exist, the findings indicate a shift toward more supportive attitudes. For instance, a substantial proportion of respondents disagreed with isolating HIV patients or refusing to care for them, showing reduced fear and stigma. This more positive perception by respondents may be attributed to increased awareness and gradual cultural shifts regarding people living with HIV/AIDS. Improved perceptions can foster inclusivity, reduce stigmatization, and encourage more individuals to seek care without fear of judgment or discrimination. These findings contrast with observations made in multiple other settings. For example [18], found that even among healthcare professionals and the general population in the MENA region, a substantial proportion continued to

harbour negative views about people living with HIV/AIDS. Similarly [19], reported that cultural and religious values in the Gulf region often complicated efforts to normalize discussions of HIV prevention. Participants expressed fears that promoting condoms or HIV treatment might encourage extramarital sex, demonstrating how personal beliefs can cloud perceptions. In this study, although a few respondents still expressed fear of contracting HIV or supported voluntary-only care, the majority demonstrated acceptance and empathy. These more favourable responses reflect a growing understanding that HIV is not transmitted through casual contact and that patients deserve equitable treatment. This aligns with the Health Belief Model's emphasis on reducing perceived severity and susceptibility to change health behaviours. Moreover, perceptions are shaped by factors beyond knowledge [20], highlighted that in Russia, even when knowledge levels were fair, social workers reported unease working alongside HIV-positive colleagues [21], similarly found that lack of social media exposure and insufficient health education predicted negative perceptions and limited prevention practices among urban slum residents. Similarly, in the study by [22], although youths in Bonny LGA of Rivers State demonstrated a fair attitude, there were still suboptimal responses suggesting lingering negative perceptions further underscoring the fact that knowledge does not automatically transform into positive perception. In contrast [23], revealed that targeted educational interventions significantly improved both perception and empathy toward individuals living with HIV, reinforcing the importance of continuous health education. These external findings support the optimistic direction shown in the current study. The more positive perception among non-health workers in Rivers State University Teaching Hospital may reflect the early impact of sensitization efforts within tertiary health environments, and suggest that if maintained and scaled, such strategies can help dismantle stigma in other sectors. The findings of this study, however, offer a more optimistic view, suggesting that with continued education and sensitization, non-health workers can serve as allies in the fight against HIV-related stigma.

Attitude, as distinct from perception, refers to the predisposition to act in certain ways toward others. In this study, the attitude of non-health workers toward patients with HIV/AIDS was predominantly negative, evidenced by the low mean attitude score of 0.3 ± 0.7 . Such attitudes can manifest as avoidance, refusal to assist, breaches of confidentiality, or subtle discriminatory behaviours that collectively erode the dignity and well-being of patients. This negative attitude can equally lead to stigmatisation. The study does not agree with the results of [24], who surveyed 2,142 agricultural workers in South Africa and found that 81.9% demonstrated positive attitudes. This suggests that sustained education campaigns in South Africa have successfully improved acceptance of people living with

HIV/AIDS. Similarly, this study's findings contrast with [14], whose research in Pakistan showed that 55% of married women expressed positive attitudes toward people affected by HIV/AIDS. However, the current results align with [12], who found that in 2007, the South-South zone of Nigeria had the lowest percentage of positive attitudes (32.5%), underscoring that stigma remains pervasive in this region. The persistence of negative attitudes even in hospital environments is striking. This reflects not only gaps in knowledge but also the power of cultural norms and unchallenged fears. As [25], noted in their study of female sex workers in Bangladesh, high awareness did not guarantee consistent condom use or compassionate attitudes. Similarly [20], found that Russian social care workers, despite acknowledging professional obligations, frequently expressed reluctance to engage closely with HIV-positive clients. [23] demonstrated that well-designed education initiatives incorporating empathy training can transform attitudes. In the Nigerian context, similar interventions tailored to cultural realities can challenge stigma and improve care outcomes.

Implication of Findings to Nursing Practice

The findings of this study highlight the importance of involving non-health workers in efforts to reduce stigma and improve understanding of HIV/AIDS within the hospital environment. For nursing practice, this means nurses may need to take a more active role in educating and engaging non-health staff, such as administrative workers, cleaners, and security personnel. By providing accurate information and addressing common misconceptions, nurses can help create a more supportive and informed atmosphere for patients living with HIV/AIDS. Additionally, nurses can collaborate with hospital management to organize regular training sessions or awareness programs tailored for non-health workers. These initiatives could cover essential topics, including basic HIV transmission facts, infection control practices, and strategies for showing empathy and respect towards affected individuals. Nurses are in a unique position to lead by example, demonstrating non-judgmental attitudes and encouraging others to adopt the same approach. By promoting a culture of openness and understanding, nursing practice can help reduce fear and discrimination, ultimately improving the quality of care and patient experience. This not only benefits people living with HIV/AIDS but also strengthens teamwork and trust across the entire hospital workforce.

CONCLUSIONS

The findings of this research underscore the complex relationship between awareness, perception, and attitude among non-health workers in a healthcare environment. Despite working within a tertiary hospital setting where information about HIV/AIDS is presumably more accessible, the majority of the respondents (94.3%) demonstrated adequate awareness. This reflects a significant improvement in basic knowledge among non-health workers and suggests that

informational access may be reaching broader staff categories. However, high awareness alone did not automatically translate into fully positive outcomes across all domains. More concerning is the persistence of negative attitudes. While the mean perception score of 3.2 ± 0.6 indicated a generally positive perception of people living with HIV/AIDS, the mean attitude score of 0.3 ± 0.7 revealed that discriminatory behaviours and hesitations still exist. Even among those who demonstrated basic awareness and positive perception, many respondents held misconceptions about HIV transmission and moral judgments about those affected. Such beliefs were shown to influence behaviour, leading to avoidance, subtle discrimination, and an environment where patients might feel unwelcome or stigmatised. This pattern aligns with evidence from both local and international studies, confirming that awareness campaigns must be coupled with empathy-building and sustained reinforcement if they are to be effective. One of the most important insights from this study is that negative attitudes are rarely the product of ignorance alone. Rather, they often stem from deep-seated fears and cultural narratives that paint HIV/AIDS as a symbol of personal failure or a threat to communal well-being. Addressing these beliefs requires an approach that acknowledges and respects cultural sensitivities while firmly challenging harmful myths. It also requires empowering non-health workers with the skills and confidence to interact with HIV-positive patients in ways that are safe, professional, and compassionate. This research contributes valuable knowledge to the field by highlighting that non-clinical staff play an indispensable role in the patient experience. Their attitudes can profoundly influence whether individuals living with HIV/AIDS feel respected, supported, and encouraged to access care. Therefore, interventions must be holistic and continuous, combining accurate information, open dialogue, and clear institutional policies that reinforce the expectation of non-discrimination. In conclusion, this study demonstrates that achieving a stigma-free healthcare environment requires more than awareness and knowledge dissemination. It demands deliberate investments in training, policy, and culture change that reach every member of the healthcare team. Only through such sustained efforts can hospitals fulfil their commitment to equitable, dignified care for all patients, regardless of HIV status.

Conflict of Interest: There is no conflict of interest in the conduct of this study.

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Ethical Approval: Ethical approval was granted by the Research Ethics Committee of the Rivers State University Teaching Hospital, Port Harcourt, Rivers State, Nigeria (RSUTH/REC/2024469)

REFERENCES

1. World Health Organization (WHO). (2023). *Global HIV and AIDS statistics – Fact sheet*. Geneva: WHO.
2. Joint United Nations Programme on HIV/AIDS (UNAIDS). (2022). *Global AIDS update 2022: In danger*. Geneva: UNAIDS.
3. Okafor, I. C., & Uche, C. A. (2021). Knowledge, attitudes and stigma towards HIV/AIDS among hospital support staff in Enugu State, Nigeria. *International Journal of Health Promotion and Education*, 59(1), 45–54.
4. National Agency for the Control of AIDS (NACA). (2023). *Nigeria HIV/AIDS indicator and impact survey report*. Abuja: NACA.
5. Federal Ministry of Health (FMOH). (2022). *National HIV/AIDS and STI control programme annual report*. Abuja: FMOH.
6. Adebayo, S. O., & Eze, C. U. (2020). Knowledge and attitude toward people living with HIV/AIDS among non-clinical hospital workers in southwestern Nigeria. *African Journal of Health Studies*, 29(4), 145–153.*
7. Bello, M. A., Yusuf, O. A., & Danladi, S. A. (2022). Public perception and stigma towards HIV/AIDS in selected Nigerian communities. *Journal of Community Medicine and Health Education*, 12(2), 87–95.*
8. Oladele, J. A., & Ojo, M. A. (2021). Cultural beliefs and stigmatization of people living with HIV/AIDS in Nigeria. *Pan African Journal of Social Sciences*, 8(1), 23–33.*
9. Ekong, E. A., James, N. O., & Effiong, A. M. (2021). Hospital environment and quality of care for patients living with HIV/AIDS in Nigeria. *Nigerian Journal of Clinical Practice*, 24(3), 331–338.*
10. Onwudiwe, C. N., & Eze, B. O. (2020). Inclusion of non-medical hospital staff in HIV/AIDS sensitization: The missing link in stigma reduction. *Nigerian Health Review*, 20(2), 109–120.*
11. Oluwatoyin, F., & Nwachukwu, C. (2019). Awareness and attitude towards HIV/AIDS among non-health workers in tertiary hospitals in Nigeria. *Journal of Public Health and Epidemiology*, 11(9), 213–221.*
12. Ukaegbu E., Alibekova R., Ali S., Crape B., & Issanov A. (2022). Trends of HIV/AIDS knowledge and attitudes among Nigerian women between 2007 and 2017 using multiple indicator cluster survey data. *BMC Public Health* 22, 440. <http://doi.org/10.1186/s12889-022-12865-y>.
13. Zhang T., Miao Y., Li L., & Bian Y. (2019). Awareness of HIV/AIDS and its routes of transmission as well as access to health knowledge among rural residents in Western China: a cross-sectional study. *BMC Public Health* 19:1630. <https://doi.org/10.1186/s12889-019-7992-6>.
14. Iqbal S., Maqsood S., Zafar A., Zakar R., Zakar M.Z. & Fischer F. (2019). Determinants of overall knowledge of and attitudes towards HIV/AIDS

- transmission among evermarried women in Pakistan: evidence from the demographic and health survey 2012-13. *BMC Public Health*, 19, 793. <https://doi.org/10.1186/s12889-019-7124-3>.
15. Dehghani B., Shahsavani Z., Dehghani A. (2021). HIV/AIDS awareness and attitude among factory workers in Shiraz, Iran. *Journal of Current Biomedical Reports*, 2(2), 79-84
 16. Eneji R.I., Patrick O.O., Undelikwo V., Archibong E., Odey S.A., Obue E.B., Ebagu T.E. & Abia R.P. (2022). Sources of awareness of HIV/AIDS prevalence among secondary school students in Southern Cross River State, Nigeria. *Journal of Educational and Social research*, 12 (3). <https://doi.org/10.36941/jesr-2022-0073>.
 17. Gabucan V.J.M.G. (2025). Cross-sectional study measuring the level and relationship of awareness, attitude and willingness to use HIV pre-exposure prophylaxis in Davao City, Philippines. *BMJ open*, 15 (1). <https://doi.org/10.1136/bmjopen-2024-091977>.
 18. Elghazaly, A., AlSaeed, N., Islam, S., Alsharif, I., Alharbi, L., Al Ashagr, T., Alshanifi, A., Alrashoudi, R., Alsharidi, A., Alhokail, A., Dirar, Q., Shibl, A., Al-Kattan, K., Abothneen, N., & Al-Mozaini, M. (2023). Assessing the knowledge and attitude towards HIV/AIDS among the general population and health care professionals in MENA region. *PloS one*, 18 (7). <https://doi.org/10.1371/journal.pone.0288838>.
 19. Alageel S., Alsadhan N.M., Alkhaldi G., Alkasabi R. & Alomair N. (2024). Public perceptions of HIV/AIDS awareness in the Gulf Council Cooperation countries: A qualitative study. *International Journal for Equity Health*, 23,269 <https://doi.org/10.1186/s12939-024-02346-6>.
 20. Taenkova I.O., Trotsenko O.E., Balakhontseva L.A., Taenkova A.A. & Bazykina E.A. (2024). Social care institutions workers of the far eastern federal district awareness on HIV-infection and its significance in providing quality services and lowering selfperceived HIV risk. <https://www.researchgate.net/publication/379059785>
 21. Siddique A.B., Maruf M.F.I., Sakib M.R., Hasan M., Hossain M., Paul D.G., Tasnim M.N., Akter S., Debnath B., Rahman T. & Rahman M. (2025). Assessment of knowledge, attitudes, and prevention practices regarding HIV/AIDS among urban slum.
 22. Nwituu S.P., Eniojukan J.O, & Owonaro P.A. (2024). Evaluation of the level of knowledge, attitude, and practice on HIV/AIDS among youths in Bonny LGA of Rivers State. *Advances in Complementary & Alternative medicine*, 7(5). <https://doi.org/10.31031/ACAM.2024.07.000679>
 23. Yapıcı, O., & Çağlar, Y. (2024). The Relationship Between HIV/AIDS Knowledge and Stigmatising Attitudes Towards People Living with HIV/AIDS: An Educational Intervention Study. *Risk Management and Healthcare Policy*, 17, 2755–2762. <https://doi.org/10.2147/RMHP.S489989>
 24. Mlangeni N., Kisting S., Ramodike J., Malotle M., Sikweyiya Y., Stuart-Thompson N., Sebe N., Preez C.D. & Zungu M. (2022). HIV knowledge, attitudes and practices in agricultural workers: A precarious and vulnerable workforce in South Africa. <https://doi.org/10.20944/preprints202210.0460.v1>.
 25. Bashar M.A., khondoker M.U., Islam M.T., Ahmed M.K., Haque A.K.M.R., Rahman R., Rafa S.S. & Chowdhury M. (2023). Awareness on prevention of HIV/AIDS among female sex workers of Daulatdia brothel in Bangladesh. *Journal of Gono Bishwabidyalay*, 4 (1).