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Knowledge and Perceptions of HIV Self-Testing Among Sexually Active Individuals in Bonassama Health District, Cameroon: Implications for Uptake and Public Health Interventions

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Abstract

Background: HIV/AIDS remains a major global public health concern, with sub-Saharan Africa having the highest prevalence. Many individuals are unaware of their HIV status, which limits access to antiretroviral treatment. Knowing one's status is essential for adopting preventive measures and initiating treatment for those who test positive. However, hesitancy toward provider-initiated HIV testing is often linked to stigma and concerns about confidentiality. Research suggests that HIV self-testing can improve privacy, reduce stigma, and encourage more people to get tested. This study aims to assess the knowledge and perceptions of HIV self-testing among sexually active individuals in the Bonassama Health District of Cameroon.

Methods: This was a community-based cross-sectional study design carried out within a period of one year among 1400 sexually active consented individuals in Bonassama Health District. The participants were selected in 4 communities based on probability proportionate to size technique through simple random sampling method. Data was collected using pre-tested semi-structured questionnaires incorporated into google form. Analysis was done using Statistical Package for Social Sciences version 25. Quantitative data were described using mean± SD, median, percentages and Chi square test was used to test for association between two categorical variables while multivariate logistic regression was performed to identify predictors of HIV self-testing. Statistical significance was set at 95% confidence interval.

Results: Of the 1400 participants recruited in the study, 869 (62%) were females and 531 (38%) were males. The mean age was 32.9±9 years. Overall, 952(68%) of the participants demonstrated correct knowledge on HIV/AIDS and self -testing. Factors associated with participants Knowledge on HIV/AIDS and HIV self-testing were, gender (AOR,1.3, 95% CI (1.01-3.6), marital status (AOR,1.6, 95% CI (1.20-3.30), level of education (AOR,1.4, 95% CI (1.10-2.32), and occupation (AOR,1.5, 95%CI (1.21-3.52). 849(61%) of the respondents demonstrated correct perception on HIV/AIDS and HIV self-testing while those with incorrect perception made up 39% (551).

Conclusion: The study revealed that slightly above half of the participants had correct knowledge and perception on HIV/AIDS and HIV and self-testing. It has been demonstrated in recent studies that effective prevention, diagnoses and treatment of HIV/AIDS is influenced by knowledge and perceptions. Therefore, there is need for continued sensitization and knowledge sharing among sexually active individuals to enhance their understanding on HIV self-testing, treatment and prevention.

Keywords: Knowledge, Perception, HIV Self-Testing, Sexually Active Persons, Cameroon

Background

The Human Immunodeficiency Virus (HIV) remains a significant global public health challenge. Since the onset of the pandemic, over 85.6 million people have been infected, approximately 40.4 million have died, and as of the end of 2022, around 39.0 million people worldwide are living with the virus [1]. The HIV prevalence remains particularly high in sub-Saharan Africa ranging from 0.8 to 27.7 percent, with disparities across countries [2]. In Cameroon, the prevalence of HIV is 3.7% with 5.0% among females and 2.3% among males. This corresponds to approximately 500,000 people living with HIV (PLHIV) ages 15-64 years In Douala specifically, the prevalence of HIV stands at 3.3% (15). Despite the high incidence of this viral infection, around 44% of people infected with HIV in sub-Saharan Africa are ignorant of their infectious status [2]. Although the burden of the epidemic continues to vary considerably between countries and regions, the World Health Organization (WHO) African Region remains most severely affected, accounting for more than two-thirds (25.6 million) of the people living with HIV and two-thirds of the global total of new HIV infections worldwide [1]. HIV testing is an essential gateway to both HIV prevention and treatment. Early diagnosis and treatment are critical in reducing HIV transmission and improve health outcomes. There is evidence that awareness of one's HIV status relates to a large drop in high-risk Behaviors [3]. There is an urgent need for action, as only about 10% of young males and 15% of young girls in East and Southern Africa are aware of their HIV status. This action requires innovation to Promote HIV testing [4] . HIV self-screening tests increases the proportion of people who have been tested and are aware of their HIV status with the advantage that it enhances confidentiality of results [4]. Individuals benefit from HIVST because testing may be done in the comfort of their own homes, providing convenience and privacy. It also provides empowering treatment choices, such as fast-tracking, pre-screening, and triaging people who have self-tested negative [4]. The major challenges in implementing of HIV self-testing in Cameroon relate to lack of awareness, accessibility, cos and post-counselling issues. However, very limited research has been done in Cameroon and in Douala in particular to assess sexually active individuals which constitute a greater proportion of the population, hence this study unpacks existing knowledge and perception on HIV self-testing and determines the current practices in the uptake of HIV self-testing which is a gateway to HIV prevention and transmission reduction thereby improving health outcomes.

Materials and Methods

Study Area

Douala is one of most populated regions in Cameroon given its high density of industries making it a hot job market nationwide. Its current population size stands at 4,203,000 inhabitants [5]. It one of the regions in Cameroon with high HIV prevalence [6]. It's a business hub conducive for settlement thereby attracting people from all the 10 regions of Cameroon and across Africa and the globe. It has a varying rainfall amounts of about 2500mm to 3000mm annually with a temperature of about 27 degrees to 35 degrees during the dry reason. Inhabitants of Douala are challenged by severe congestion and various forms of pollution, coupled with a high cost of living. Also, Douala is one of the most populated towns due to its commercial attributes which is further orchestrated by the ongoing crisis in the northwest and southwest region of Cameroon. This has led to limited job opportunities and increased sexual activities as a means of survival which propagates HIV transmission.

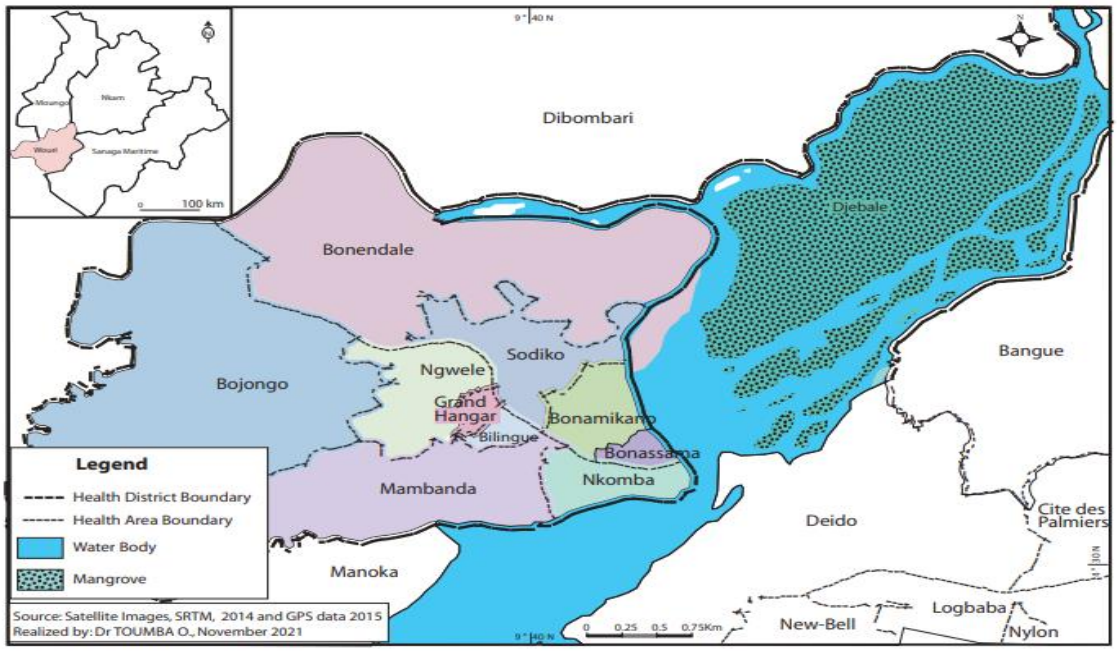

Figure 1: Map of Bonassama Health District Showing Study Communities (Source: Image by Authors)

Study Design and Setting

This was a community-based cross-sectional study aimed at assessing the knowledge and perception of actively sexual individuals in the Bonassama Health District in Cameroon. The study was carried out from December 2021 to December 2022 in the communities of Bodjongo, Sodiko Cibec and Mambanda.

Target Population
The study population comprised consenting sexually active individuals aged 15 years and above, including both males and females, recruited from four communities within the Bonassama Health District.

Inclusion and Exclusion Criteria
The study included residents of the selected communities who were sexually active and at least 15 years old. Individuals with physical or mental disabilities were excluded from the study.

Sample Size Determination for a Cross-Sectional Study.
Sample size for this study was calculated using formula of sample size calculation for cross-sectional studies as follows [7]:

$$n = \frac{Z^2 P(1-P)}{d^2}(DEFF) = \frac{(1.96)^2 0.5(0.5)3.6}{0.05^2} = 1393$$

The minimum required sample size for this study was calculated as n = 1393 participants, using a 95% confidence interval (z = 1.96), an expected prevalence of p = 0.5 (chosen due to the lack of prior studies in Cameroon, ensuring the largest sample size for a given precision), a design effect (DEFF) of 3.6, and a precision level (d) of 0.05. Eventually, 1,400 participants were recruited. The number of participants sampled in each community was determined using the probability proportionate to size (PPS) technique, which accounted for both the total population in the four selected communities and the population aged 15 years and above within each community (Table 1).

Table 1: Number of Participants Sampled Per Community in the Health District Based on Probability Proportionate to Size, 2023

Communities	Total population	Targeted population (≥15years)	proportion	Number sampled
Bodjongo	33,526	21,543	0.1	140
Sodiko	98,516	58,184	0.3	361
Cibec	101,400	70,270	0.3	436
Mambanda	111,491	74,420	0.3	462
Total	344,933	225,417	100	1400

Variables for the Study
The dependent variables for study were knowledge on HIV self-testing, perception on HIV self-testing, prevalence of HIV self-testing and acceptability while independent variables were demographic characteristics. HIV self-testing was defined as having had a self-HIV test within the past 2 years.

Data Collection and Procedures
The data collection tool was a semi-structured questionnaire developed using google form, a mobile application designed for electronic data collection through Android mobile phones or tablets. The questionnaire consisted of three sections: Section A consisted of participants' sociodemographic and socioeconomic characteristics meanwhile section B consisted of 10 knowledge related questions on HIV self-testing meanwhile section C consisted of 10 perceptions related questions. The response options of the questions were Yes and No. The data was collected by 5 trained research assistants, all of which were health workers. The trained data collectors visited the community following clearance from the community leaders. A door-to-door approach was used where participants were approach and objectives of the research were explained and they obtained participants' consent and administered the questionnaires.

Data Management and Analysis
Data Quality Control Measures
To ensure that data collected was of good quality and reliable, the data collection tool was pre-tested in a community different from the community of study, the enumerators were trained on data collection techniques and community engagement. Also, the data collection was supervised and evaluated every day and a triangulation approach was also deployed using different research methods.

Questionnaire Handling and Storage
Data were collected using google form and sent directly to the central saver which was then downloaded in excel and checked for completeness in readiness for analysis. Tablets/smart phone on which data was collected were pass worded and only accessible to the researchers. After collection of the data, databases were checked visually for completeness, obvious errors, and inconsistencies and then corrected. For confidentiality, the computer in which the data was stored

was password protected and the information was accessible only to the researchers. Data was backed-up in an external hard drive and email box.

Data Analysis

Descriptive statistics were used to analyze the sociodemographic characteristics of participants and their knowledge and perception level on HIV/AIDS and HIV self-testing. The knowledge assessment was based on 10-point questions with Yes, and No responses. However, participants who had the correct respond were scored 1 and those with incorrect response were scored 0 and the sum score of each participant was computed. The mean score for all the participants was calculated and participants who scored below the mean score were considered to have incorrect knowledge on HIV/AIDS and HIV self -testing and those whose scores were above the mean score were considered to have correct knowledge on HIV/AIDS and HIV self-testing. Similarly, the overall perception of the participants was assessed based on 5- point questions with yes and No options. In each question, participants who had correct answer were scored 1 while those with incorrect answer were scored 0. The sum score for each participant was calculated. The mean score for all the participants was calculated and participants who scored below the mean were considered to have incorrect perception while those who scored above the mean were classified as having positive attitude. Data was analyzed using Statistical Package for Social sciences (SPSS) software version 25. Associations between the outcome and independent variables were assessed using odds ratios at 95% confidence interval limits and all statistical significance were set at $P<0.05$.

Ethical and Administrative Approval

Ethical approval was obtained from the Institutional Review Board of the Faculty of Health Sciences in the University of Buea (Ref:2023/1995-02/UB/SG/IRB/FHS). Administrative approval was sought from the Littoral Regional Delegation of the Ministry of Public Health and Directors of health facilities and community leaders. All participants provided signed informed consent prior to participation in the study.

Results

Socio-Demographic Characteristics of Study Participants

Out of the 1,400 participants, more than half 869(62%) were females. With respect to age of the participants, 996(71%) were within the age group 18-38 while those within the age group 39-58 years made up 27% of the study population. Very few (2%) of the participants were within the age group of 58-78 years. As concerns educational level of participants, 629(45%) reported to have attained tertiary level of education while those with secondary and primary level of education made up 44% and 8 % of the study population respectively. From a religion perspective, a vast majority (84%) of the respondents were Christians, while Muslims and pegans made up 10% and 7% respectively. Participants were drawn from six communities with Mambanda having the largest share (27%) closely followed by Ecomite with a percentage of 23%. The lowest number of participants were drawn from Bodjongo and Cibec as they both made up 10% of the study population. Occupationally, 44% of the participants reported to be working with the private sector while 39% are doing different form of businesses. On the other hand, 5% and 12% reported to be civil servants and student respectively (Table 2).

Table 2: Sociodemographic Characteristics of Study Participants, Bonassama Health District, 2023

Variable	**n (%)**
Gender	
Females	869(62)
Males	531(38)
Total	**1400(100)**
Age (years)	
18-38	996(71)
39-58	374(27)
58-78	30(2)
Total	**1400(100)**
Education level	
No formal education	47(3)
Primary	114(8)
Secondary	610(44)
Tertiary	629(45)
Total	**1400(100)**
Religion	
Christians	1170(84)

Muslims	138(10)
Pagans	92(7)
Total	**1400(100)**
Communities	
Apicam	184(13)
Bodjongo	136(10)
Cibec	144(10)
Ecomite	315(23)
Mambanda	371(27)
Sodiko	250(18)
Total	**1400(100)**
Occupation	
Business	549(39)
Civil servant	67(5)
Private sector	613(44)
Student	171(12)
Total	**1400(100)**
Marital status	
Married	667(48)
Single	625(45)
Divorce/Separated	81(6)
Widow(er)	27(2)
Total	**1400(100)**

Knowledge on HIV/AIDS and HIV Self-Testing Among Sexually Active Persons in Bonassama Health District, of Littoral Region, 2023

Table 3 below presents analysis of participant knowledge in relation and HIV/AIDS and HIV self -testing among sexually active persons in Bonassama health district. The analysis revealed that 990(71%) of the respondents had heard of HIV self-testing while 410(29) reported to have never heard of HIV self-testing. As to whether participants understand what HIV self-testing is, 1054(75%) of them indicated that they understand what HIVST is meanwhile 346(25%) did not know what HIVST is all about. A vast majority (86%) agreed that HIV self-testing can be done using blood while 10% said it can't be done using blood. Also, 1065(76%) of the participants indicated that HIV self -testing means somebody doing the test himself/herself. While 10% did not agree, 14% did not know if a person can perform HIV self-testing on himself/herself. As concerns participants knowledge on the duration of an HIV self-testing, 748(53%) of participants allotted to the fact that it takes about 20-30 minutes to get results from HIV self-testing. While 482 (34%) reported not to know, 170(12%) said it does not take 20-30 minutes to HIV self-testing results. With regards to frequency of HIV testing, 1064(76%) agreed that HIV test should be performed 3 after months after an initial negative result. 66(5%) indicated that there is no need to retest after a negative result. Even though HIV self-testing is performed by oneself, Respondents hold the opinion that there is a need for a counselor during this process as reported by 78% of the participants whereas, only 10% believed there is no need for a counselor and 11% did not know whether a counselor is needed or not.

Table 3: Knowledge on HIV/AIDS and HIV Self-Testing Among Sexually Active Persons in Bonassama Health District, of Littoral Region, 2023

Statement	**n(%)**
Have ever heard of HIV self-testing	
No	410(29)
Yes	990(71)
Total	**1400(100)**
Understand what HIVST all is about	
No	346(25)
Yes	1054(75)
Total	**1400(100)**
HIV Self-testing can be done using blood	

Yes	1198(86)
No	202(14)
Total	**1400(100)**
A person can perform HIV self-testing on himself (herself)	
No	335(24)
Yes	1065(76)
Total	**1400(100)**
It takes 20 to 40 minutes to get results from the HIV Self-testing	
No	652(46)
Yes	748(54)
Total	**1400(100)**
HIV Self- testing can be negative if the HIV infection is less than 3 months	
Yes	863(62)
No	537(38)
Total	**1400(100)**
Retesting should be done after 3 months if the test is negative	
No	336(24)
Yes	1064(76)
Total	**1400**
There is need for an HIV counselor before taking HIV Self-testing	
No	304(21)
Yes	1096(79)
Total	**1400**

Overall Knowledge on HIV/AIDS and HIV Self-Testing Among Sexually Active Persons in Bonassama Health District, of Littoral Region, 2023

Figure 2 depicts the overall knowledge level of participants on HIV/AIDS and HIV self-testing among Sexually active persons in Bonassama Health District. After analyzing participants knowledge with respect to individual questions (Table 2), it is imperative to quantitatively determine the overall knowledge level of participants. In doing so, each of the knowledge questions was graded. Participants who provided a correct answer were scored 1 and those with incorrect answer were scored 0. The total scores for each of the participants were computed and the mean score calculated. Participants with total scores above the mean score were considered having correct knowledge while those with total score below the mean score were considered as having incorrect knowledge. Therefore, descriptively, 448(32%) of the participants had incorrect knowledge on HIV/AIDS and HIV self-testing while a vast majority 952(68%) demonstrated correct knowledge.

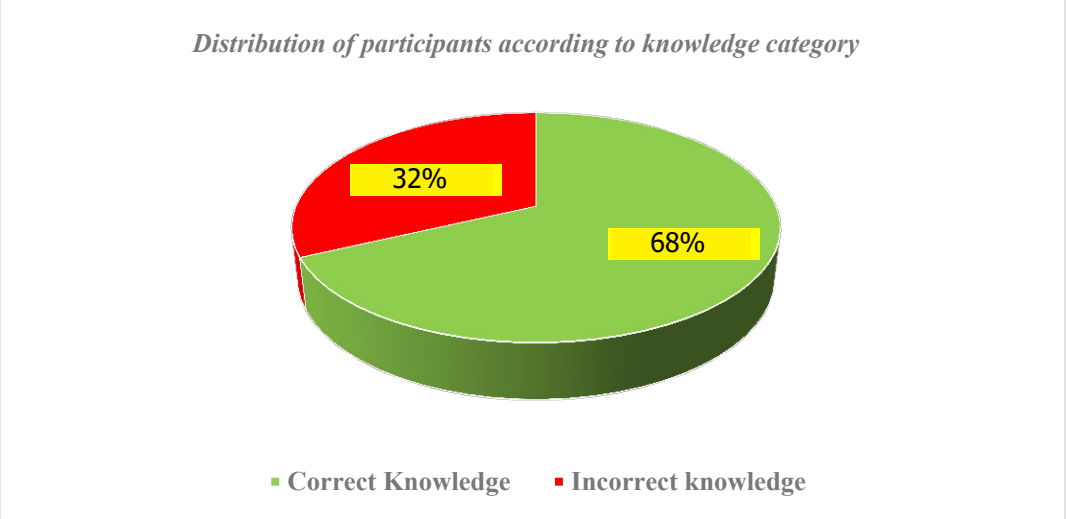

Figure 2: Overall, Knowledge on HIV/AIDS and HIV self-testing Among Sexually Active persons in Bonassama Health District, of Littoral Region, 2023.

Factors Associated with Knowledge on HIV/AIDS and HIV Self-Testing

Male participants were 1.3 times more likely to have correct knowledge compared to their female counterparts (AOR :1.3, 95% CI: 1.01-3.6). Participants with tertiary level were 1.4 times more likely to have correct knowledge on HIV/AIDS and HIV self-testing compared to those of the secondary and primary education category (AOR :1.4, 95% CI: 1.10-2.32). Participants who reported to be married were 1.6 times more likely to have correct knowledge compared to those who were single, widow(er)s, divorce/separated (AOR :1.6, 95% CI: 1.20-3.30). Participants who reported to be into business were 1.5 times more likely to have correct knowledge on HIV/AIDS and HIV self -testing compared to those who were students, civil servants and those working in the private sector (AOR :1.5, 95% CI: 1.21-3.52) (Table 3).

Table 4: Factors Associated with Participants Knowledge on HIV/AIDS and HIV Self-Testing Among Sexually Active Persons in Bonassama Health District, of Littoral Region, 2023

Variable	Knowledge	Univariate logistic regression	Multivariate logistics analysis	
			COR (95% CI)	AOR (95% CI)
	Incorrect	Correct		
	N (%) 448(32)	N (%) 952(68)		
Gender				
Males	25518.2)	614(43.9)	1.5(1.02-3.71) *	1.3(1.01-3.6) *
Females	193(13.8)	338(24.1)	1	1
Total	**448(32)**	**952(68)**		
Age group				
18-38	282(20.1)	714(51)	1.1(0.82-2.9)	-
39-58	160(11.4)	214(15.3)	0.8(0.61-1.9)	-
59-78	6(0.5)	24(1.7)	1	-
Total	**448(32)**	**952(68)**		
Treatment center				
Apicam	64(5.8)	120(8.6)	0.7(0.31-0.81)	-
Cibec	49(3.5)	95(6.8)	0.5(0.01-0.91)	-
Ecomite	85(6.1)	230(16.4)	0.9(0.41-1.32)	-
Mambanda	100(7.1)	271(19.4)	1.2(0.90-2.71)	-
Sodiko	104(7.4)	146(10.4)	0.8(0.61-1.12)	-
Bodjongo	46(3.3)	90(6.4)	1	
Total	**448(32)**	**952(68)**		
Marital status				
Married	205(14.6)	462 (33)	1.7(1.11-3.40) *	1.6(1.20-3.30) *
Single	215(15.4)	410(29.3)	1.3(1.21-3.11)	1.3(1.11-3.01)
Widow(er)	7(0.5)	20(1.4)	1.2(1.02-2.50)	1.2(1.02-2.20)
Divorce/separated	21(1.5)	60(4.3)	1	
Total	**448(32)**	**952(68)**		
Level of Education				
No formal education	10(0.7)	37(2.6)	1	1
Primary	34(2.4)	80(5.7)	2.3(1.30-3.81) *	1.1(1.21-3.73) *
Secondary	225(16.1)	385(27.5)	1.3(1.11-2.41)	1.2(1.10-2.41)
Tertiary	179(12.8)	450(32.1)	1.5(1.20-2.61)	1.4(1.10-2.32)
Total	**448(32)**	**952(68)**		
Occupation				
Business	137(9.8)	412(29.4)	1.5(1.21-3.52)	1.5(1.21-3.52)
Private sector	213(15.2)	400(28.5)	1.3(1.11-2.03)	1.3(1.10-2.23)
student	71(5.1)	100(7.2)	1.2(1.01-1-2.54)	1.2(1.01-2/34)
Civil servant	27(1.9)	40(2.9)	1	
Total	**448(32)**	**952(68)**		

COR: Crude Odd Ratio, AoR: Adjusted Odd Ratio

Perception on HIV Self-Testing Among Sexually Active Persons

Table 4 presents descriptive analysis of participants perceptions regarding HIV self-testing. The analysis revealed that 410(30%) of the respondents reported that they do not believe in HIV self-testing results while 900(64%) reported that they believe in HIV self-testing results. Concerning participants courage to do HIV self-ting, 340(24%) of them indicated that they are afraid to do HIV self-test while 1060(76%) reported that they are not afraid and will do it each time the opportunity presents. With regards to confidentiality and nobody should know about it whereas 499(36%) said HIV positive results should not be a top secret. While 1258(90%) of the respondents reported that they will disclose positive results to their partners, 142(10%) said they will not disclose their positive results to their partners because they believe that HIV results is their privacy. Even though some participants reported that HIV status is a top secret, 1147(825) reported that they can share their HIV positive results with other people apart from their spouses or sexual partners. Overall, 849(61%) of the participants had correct perception on HIV self -testing while those with incorrect perception constituted 551(39%) of the total number of participants in the study.

Table 5: Perception on HIV Self-Testing Among Sexually Active Persons in Bonassama Health District, of Littoral Region, 2023

Statement /Response options	No (%)
I don't believe in the results of HIV self-testing	
Agree	410(30)
Disagree	900(64)
Neutral	90(6)
Total	1400(100)
I am afraid to do HIV self-testing	
Agree	340(24)
Disagree	1060(76)
Total	1400(100)
My HIV positive status should be a total secret	
Agree	810(58)
Disagree	499(36)
Neutral	7(91)
Total	140(100)
I will tell my partner if I am HIV positive	
Agree	1258(90)
Disagree	142(10)
Neutral	0(0)
Total	1400(100)
I will tell other people if I am HIV positive	
Agree	1147(82)
Disagree	188(13)
Neutral	65(5)
Total	1400(100)
Overall perception level	
Correct Perception	849(61)
Incorrect Perception	551(39)
Total	1400(100)

Discussion

This study focused on assessing knowledge and perceptions of HIV self-testing among sexually active individuals in Bonassama Health District, revealing low knowledge and uptake. While most participants expressed interest in HIVST, concerns over cost, accessibility, and post-test counseling hindered its widespread adoption. Quantitively, the analysis revealed that 990(71%) of the respondents have heard of HIV self-testing while 410(29) reported to have never heard of HIV self-testing. This finding correlates with studies conducted in Ghana where majority of the respondents reported to have heard of HIV self-testing [8]. As to whether participants understand what HIV self-testing is, 1054(75%) of them indicated that they understand what HIVST all is about meanwhile 346(25%) did not know what HIVST. The high proportion of the participants who reported that they understand what HIVST could be attributed to the factor that

more than 85% had at least secondary education qualification. This finding aligned with similar studies conducted in Tanzania in 2017 [9]. In terms of frequency of HIV self-testing, majority (76%) of the participants reported that the test should be done 3 after months after an initial negative result. Studies conducted in Nigeria among the general population demonstrated similar results [10]. Even though HIV self-testing is performed by oneself, respondents hold the opinion that there is a need for a counsellor during this process as reported by 78% of the participants whereas, only 10% believed there is no need for a counsellor. However, counselling remains relevant in HIV testing and studies have demonstrated the need for counselling in all forms of HIV testing either provider -initiated testing of self-testing.

The study also revealed three variables that were significantly associated with correct knowledge which include, gender, marital status and level of education and occupation. With respect to gender, male participants were 1.3 times more likely to have correct knowledge compared to their female counterparts. These findings correlate with similar studies conducted in south Africa where men were more likely to have correct knowledge on HIV self-testing compared to their female counterpart [7]. As concern educational level, participants with tertiary level of education were 1.4 times more likely to have correct knowledge on HIV/AIDS and HIV self-testing compared to their those of the secondary and primary education category. This could be attributed to the fact that participants in the secondary education were more exposed to HIV related education and information compared to those in primary education. Generally, secondary school students are generally more sexuality active compared to primary school children, consequently, there are more exposed to HIV related information compared to primary school pupils. Similar studies conducted in Zimbabwe revealed similar findings [8]. Also, participants who reported to be married were 1.6 times more likely to have correct knowledge compared to those who were single, widow(er)s, divorce/separated. Occupationally, participants who reported to be into business were 1.5 times more likely to have correct knowledge on HIV/AIDS and HIV self -testing compared to those who were students, civil servants and those working in the private sector. This is different from findings of a study conducted in Kenya where students were more likely to have correct knowledge on HIV self-testing compared to those who were into business [9]. However, 30% of the respondents reported that they do not believe in HIV self-testing results while 900(64%) reported that they believe in HIV self-testing results. Those who did not believe in HIV self-testing argued that HIV test should only be conducted by a trained health professional and should be done in the health facilities and not at home or elsewhere. However, those who believed in HIV self-testing results argued that the test is user-friendly and easy to read and does not need a trained health expert to conduct it and this also enhances privacy. Similar studies have revealed that most participants trust and believe HIV self-testing especially given that it enhances confidentiality [10,11]. Concerning participants courage to do HIV self-test, 24% of the respondents indicated that they are afraid to do HIV self-testing while 76% reported that they are not afraid and will do it each time the opportunity presents. In most studies, fear and stigma has always been revealed as the major bottleneck to HIV testing and treatment. However, while this is still the case in our study though, majority reported that fear is no longer a challenge in HIV testing and treatment especially in HIV self -testing where confidentiality is assured [12]. While 90% of the respondents reported that they will disclose positive results to their partners, 142(10%) said they will not disclose their positive results to their partners because they believe that HIV results is their privacy. Those who reported they will disclose their positive results to their partners argued that it's important to share results with their partner as this will be important for them to also know their status and adopt transmission preventive measure and also support the positive partner in the treatment journey .In general 61% of the participants had correct perception on HIV self -testing while those with incorrect perception constituted 39% of the total number of participants in the study. It should be noted that many studies have established a correlation between correct perception, knowledge on HIV/AIDS and the uptake of HIV self-testing [13,14].

Conclusion

The level of knowledge regarding HIV/AIDS and self-testing was considered moderate where one quarter of participants reported to have never heard of HIV self-testing and do not know that an HIV infection may not show positive results during the first three months of infection. Also, the study revealed that participants' Knowledge on HIV/AIDS and self-testing is affected by some demographic parameters including educational level, Marital Status occupation and gender. Most of the participants demonstrated incorrect perception around HIV/AIDS and self-testing especially around the that fact HIV test should be done only in the hospital and by a trained health personel and not done by oneself or anyone who has not been formerly trained.

The findings suggest that there is need for regular education talks and sensitization within the communities and in schools, hospital, markets to enhance knowledge and perception on HIV self-testing within the communities among sexually active individuals [15].

Declaration

Ethics Approval and Consent to Participate

All the principles of a good ethical research were respected. Ethical approval was obtained from the Institutional Review Board of the Faculty of Health Sciences of the University of Buea and during data collection, participants approval was sought prior to data collection

Competing Interests

The authors declare that they have no competing interests

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