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DETERMINANTS OF LOW HIV TESTING IN THE CITY OF KISANGANI IN THE DRC

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ABSTRACT

Introduction: Acquired immunodeficiency virus (HIV) infection is a major public health problem in the Democratic Republic of Congo (DRC). The increase in the HIV/AIDS screening rate, one of the 95-95-95 objectives for the struggle against HIV/AIDS remains low in the city of Kisangani. The objective of this study is to determine the rate of HIV screening in the population of Kisangani and to identify the reasons that would limit screening.

Methods: We conducted a cross-sectional descriptive study in two study populations including 326 subjects for the general population, selected occasionally from patients leaving the curative consultation and 256 for the key populations, selected by sampling by snowball. The data collected was entered into Microsoft Excel 2010 software and imported into STATA 13 software for analysis. The descriptive statistics focused on the proportions, mean and standard deviation for the quantitative variables with distribution. After analyzing and processing the data, the following results were obtained.

Results: the rate of HIV testing in the general population was 45.4% and in the key population 59.38%, among the causes that limit HIV testing include, lack of trust in providers 58.43% and 52.38% respectively in the general population and key population, fear of stigma and discrimination 56.18% for the general population and 52.38% for the key population, fear of death 80.34% for the general population and 81.9% for the key

population, Unawareness of testing site 56.18% and 27.62 for the key population and general population respectively.

Conclusion: this study shows that the HIV screening rate in Kisangani is low, 59.38% and 45.4% respectively for the key population and the general population, the 95-95-95 target is far from being achieved in Kisangani. As a result, it is necessary to intensify awareness-raising and community screening campaigns and to strengthen the capacity of service providers on ethics and the disclosure of patients' serological status.

KEYWORDS: Determinant, Low, Screening, HIV, Kisangani, DRC.

INTRODUCTION

Acquired immunodeficiency syndrome (AIDS) is a serious infection caused by the human immunodeficiency virus (HIV). It is a public health problem in several countries around the world [1]. According to UNAIDS estimates [2], 38.4 million people are living with HIV globally and that from the onset of the disease until 2021; 82.2 million people have been infected and 41.1 million have died [2]. However, the proportion of patients varies according to the different regions, 16.2 million in East and South Africa, 4 million in Pacific Asia, 3.9 million in West and Central Africa and 1.5 million in Latin America [2]. In the Democratic Republic of Congo (DRC), the HIV epidemic is relatively stable, with a prevalence of the disease varying around 1.2% in 2013 [3] of which only 12.3% of eligible patients had access to treatment. antiretrovirals in 2012 [4].

The United Nations Program on HIV/AIDS (UNAIDS) in collaboration with its partners launched the 95-95-95 targets in 2014, aiming to diagnose 95% of people with HIV, to provide antiretroviral therapy (ART) to 95 % of people diagnosed and to achieve viral suppression for 95% of people treated by 2025. It is estimated that achieving these targets will result in viral load suppression of 73% of HIV-positive people, a crucial step to put end the AIDS epidemic by 2030 [1].

Reaching 95% of people diagnosed with HIV in the community, one of the 95, 95, 95 goals; has several advantages: the facilitation of early management of patients on antiretroviral treatment and suppression of the HIV viral load, the reduction of viral transmission and mortality, in order to improve the living conditions of people living with HIV [5].

However, the practice of HIV testing is not adopted by a large part of the population. The results of the study conducted in the city of Kisangani showed that, out of an estimated 12,458 people living with HIV (PLWHIV) in the city, 90% (11,212) should know their serological status in 2020, but only 8,305 (74.1 %) of these knew it, i.e., a gap of 2,907 PLHIV who remained sero-ignorant (6).

The key population should display a behavior to facilitate HIV testing because they are more exposed than the general population. This is how this study was conducted in order to determine the rate of HIV testing in the population of Kisangani and to identify the reasons that would limit testing.

MATERIAL AND METHODS

This study was conducted in the city of Kisangani, Tshopo province in the Democratic Republic of Congo. This city has a total population of 1602144 distributed in 5 health zones. A total of 66 health facilities have integrated the complete HIV package in these five health zones.

Our study population was made up of the general population (made up of any sick person who had gone to one of the health facilities that integrated the complete HIV package) and the key population (made up of people at high risk of HIV contamination). HIV: homosexuals, prisoners, sex workers, injection drug users and gender trans genre) in the city of Kisangani.

We carried out a cross-sectional descriptive study during the period from March 01 to June 30, 2021. Occasional sampling was used to select subjects from the general population. The determination of the sample size was made using the following formula.

$$n = \frac{(Z\alpha^2 \times p \times q)}{d^2}$$

For a proportion of people with access to screening of 74%, proportion of people without access to screening of 26% and a risk of error of 0.05 and the confidence coefficient of 1.96.

Based on the above parameters, we obtained a minimum sample size of 295.6 people. Considering a non-response rate of 10%, the final sample size was 326 subjects.

As for the key population, we used snowball sampling. We chose one individual per category; the latter was asked to name another individual in the similar situation who was also contacted in turn. This process was continued until the realization of 256 subjects.

Was included in the study, any person living in one of the health areas having integrated the complete package of HIV, being at least 18 years of age, having already waited to talk about HIV and having freely consented to answer the questions, even for the key population.

To collect the data, we interviewed the subjects using an established survey questionnaire. For the general population, the questionnaire was administered to the patient on leaving the consultation service. For the key population, the questionnaire was administered to the subject concerned in each selected category who then put us in contact with his pairs who were recruited after obtaining consent. The dependent variable was HIV testing. The independent variables were: age, sex, marital status, level of education, profession, knowing the location of the screening site. In addition, the reasons for non-screening were collected from HIV-ignorant people as well as from service providers.

In his work, data was encoded in Excel and the analyzes were made using STATA 13 software. The descriptive statistics focused on the proportions for the categorical variables, the mean and standard deviation for the quantitative variables with symmetric distribution.

RESULTS

General population and key population screenings

Table I: Sociodemographic characteristics of respondents

N°	Variables	Population générale		Population clé	
		n=326	%	n=256	%
1	<i>Age (years)</i>				
	Mean ± DS	29.2 ±8.1		27.4±7.8	
	18-24	92	28.22	108	42.18
	25-31	143	43.87	80	31.25
	32-38	45	13.8	42	16.4
	39-45	29	8.9	19	7.42
	> 45	17	5.21	7	2.7
2	<i>Sex</i>				
	F	169	51.84	90	35.16
	M	157	48.16	166	64.84
3	<i>Level of study</i>				
	None	2	0.61	0	0
	Primary	20	6.13	34	13.28
	Secondary	121	37.11	162	63.28
	Superior	183	56.13	60	23.43
4	<i>Marital status</i>				
	Single	217	66.56	219	85.55
	Married	106	32.51	30	11.72
	Divorced	2	0.61	6	2.34

	Widowed	1	0.32	1	0.39
5	Main occupation				
	Unoccupied	164	50.31		
	Civil servant	49	15.03		
	Student/Pupil	83	25.46		
	Trader	14	4.29		
	Fisherman	7	2.14		
	Farmer	5	1.53		
	Motorcycle Taximan	4	1.22		
6	Categories of key populations				
	Homosexual			52	20.31
	Sex Professional			80	31.25
	Injection drug user				
	injectable			44	17.19
	Trance-Gender			30	11.72
	Prisoners			50	19.53

This table n°1 shows that the majority of our respondents were in the age range between 25 to 31 in the general population (43.87%) and 19 to 24 years in the key population (42.418%) and were made up of female sex (51.84%/) in the general population and (35.16%) key population, the upper level predominated in the study with 56.13% in the general population and the secondary level in the key population with 63, 26%, there were more single people in the two targets (66.56% and 85.55%) and the majority of respondents in the general population did not have an occupation (50.31%). In the key population category, the sex worker was the most represented with 31.25% followed by homosexuals with 20.31%.

Table II: HIV testing in the general population and in key populations

N°	Variables	General population		Key population	
		n=326	%	n=256	%
1	Heard about HIV				
	Yes	322	98.77	239	93.36
	No	4	1.23	17	6.64
2	Heard about HIV screening				
	Yes	302	92.64	222	86.72
	No	24	7.36	34	13.28

3	Have ever had an HIV test				
	Yes	148	45.4	152	59.38
	No	178	54.6	104	40.62

It appears from this table N° 2 that most of our respondents had already had information on HIV and HIV testing, on the other hand concerning HIV testing, 59.38% have already done so in the key population and 45.4% in the general population. The presence of the NGO PSSP in the province has enabled the key population to benefit from more interventions related to HIV in its prevention component.

Table III: Reasons for low screening in the general population and in key populations

N°	Variables	General population n=178		Key population n=105	
			%		%
1	Lack of trust in providers				
	Yes	104	58.43	55	52.38
	No	74	41.57	50	47.62
2	Fear of stigma and discrimination				
	Yes	100	56.18	55	52.38
	No	78	43.82	50	47.62
3	Fear of death				
	Yes	143	80.34	86	81.9
	No	35	19.66	19	18.1
4	Unawareness of testing site				
	Yes	100	56.18	29	27.62
	No	78	43.82	76	72.38

This table 3 shows that for respondents who had never taken an HIV screening test, the majority did not do it for fear of death was the most advanced reason; 80.34% for the general population and 81.9% for the key population; the lack of confidentiality by health care providers and fear of stigma and discrimination were cited by more than half of respondents in both groups. However, a peculiarity is observed on the ignorance of the testing site, because more than 72% of the key population knew where the HIV testing site was, against 43.82% for the general population.

DISCUSSION

It appears from Table 1 of this study that, the majority of respondents had the age ranged between 25 to 31 years in the general population (43.87%) and 19 to 24 years in the key population (42.418%). This result could be justified by the data collection method used for these two population groups. For the general population, these were cases of patients who went to seek treatment at health facilities, unlike the key population, among whom data collection was done according to certain characteristics and the relationship between the subjects, thus, the subjects aged 19 to 24 who are younger and more exposed to sexuality and to the risk of contaminating HIV. These same reasons mentioned above could also justify the predominance of women in the general population (51.84%/) than the key population (35.16%) and the proportion of single people was high in the key population (85.55%) compared to 66.56% of the general population. This could be due to the lack of key issue responsibility, as often married are responsible for their families and engaged in responsible sexual behavior.

As for HIV testing in the general population and among key populations, Table 2 shows that most of our respondents had already had information on HIV and HIV testing, which is encouraging. This shows that communication services and sensitization on HIV are working normally and that information is a key element for the adoption of behavior change. However, the screening rate appears low in both groups, only 59.38% in the key population and 45.4% in the general population. We can say from this result that beyond stigmatization and discrimination, the fear of rejection and isolation is also a real factor in the refusal of the HIV/AIDS screening test in Kisangani. All of the people we interviewed consider that having AIDS is equivalent to living in rejection, isolation, and frankly bearing the brunt of social exclusion. This rejection and isolation of PLHIV is almost legitimized by the social order. Indeed, within the framework of the socio-cultural organization of this community, suffering from HIV/AIDS is part of a depraved and unhealthy sexual life. Sanctions are imposed on the basis of this association. Moreover, this association is further stated in the work of Desclaux, Boumpoto [7,8], Dodds and Othieno [9,10] carried out on PLHIV in Africa, England and the USA, which show that the disease of AIDS is considered a curse and that it is linked to this belief in divine punishment. As most of the people interviewed share this observation, denying or concealing one's HIV status, or else remaining in the dark, remains the best way to be able to live in harmony with one's family and community.

As for the various reasons for low screening in the general population and among respondents who have never taken an HIV screening test, the majority did not do so for fear of death, i.e., 80.34% for the general population and 81,9% for the key population (Tab.3) moreover, the lack of confidentiality by healthcare providers and the fear of stigmatization and discrimination were cited by more than

half of the respondents in both groups. Since PLHIV are most often rejected and avoided in their own environment, men prefer not to know by refusing to be tested. Indeed, PLHIV are often seen as immoral and irresponsible. The immorality and dramatization associated with HIV make them a source of rejection and avoidance. Therefore, refusing to take the test is one way among others that can help avoid rejection and isolation. The choice to let oneself die and not to benefit from existing treatments is quickly made. It should be known that this rejection and this isolation are not specific to this Matamoise community. The results of studies carried out in the USA and Great Britain on PLHIV from sub-Saharan Africa by Foley, Dodds and Othieno [3, 9, 10] are along the same lines. This leads to the exclusion of the patient who sometimes takes refuge in the denial of his disease as underlined by Foley and Burns et al. [10,11] in their work on immigrants of African origin. Thus, the social barometer becomes the only valid decision-making element with regard to HIV/AIDS in this Matamoise community. It is for these reasons that Tallis [12, 13] considered stigma to be the third pandemic. These observations are sufficient to understand the reactions of populations to screening in a community where social relations are essential.

However, a peculiarity is observed on the ignorance of the HIV testing site in Kisangani, because more than 72% of the key population knew where the HIV testing site was against 43.82% for the general population (Table 3). could be due to the presence of some non-governmental organizations in the province that deal with the mobilization of key populations and enabled them to benefit more from the intervention related to HIV in its prevention component.

The risk of contracting HIV being 35 times higher among injection drug users, 30 times higher among female sex workers, 28 times higher among homosexuals and 14 times higher among transgender women than other women adults [2], special attention should be paid to monitoring the progression of the disease in these categories of the Kisangani population. Because the ignorance of their serological status increases the risk of the spread of the disease in the general population.

Conclusion: HIV and AIDS disease remain a real burden for those who are suffering and to those who suspected of being sick in the Boyoma community. Although the fight against AIDS was very early a national concern in the DRC, there nevertheless persist difficulties related to the socio-cultural context in which the disease is rife. As the HIV screening rate is 59.38% and 45.4% respectively for the key population and the general population, the 95-95-95 target is far from being achieved in Kisangani.

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