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Use of Preventive Methods against HIV-STIs by New Registrants Students at the University of Lubumbashi in the Democratic Republic of the Congo

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Abstract: ***STIs have been a challenge for the last two decades, spreading rapidly around the world and causing serious and even fatal complications. The sexuality of young people remains a public health problem that is worrying because of its consequences. Young people deserve guidance to face this challenge by providing sufficient information on how to prevent STIs / HIV and unwanted pregnancies. The study was cross-sectional in 273 new enrolled in seven faculties / Schools of UNILU from May to June 2011. In order to evaluate their level of use of preventive methods against STIs / HIV. STIs are well known in 24.1%; modes of transmission in 37.7% and prevention in 52.4%. The average age at first intercourse is 17 ± 2.2 years. 7.7% of parents communicate easily with their children about sexuality. Alcoholic beverages, single-parent families; overconfidence in their partner were the factors favoring sexual activity (71.1%), non-condom use (86.6%), multi-sexual partnership (85.1%) and subsequently induced a high rate of STIs at 22.3% [17.4% - 27.2%]. The sexuality of young people remains a challenge of the century for which the Congolese State must consider organizing the life-skills program at all levels of intellectual training and train peer educators at the service of youth to help them to facing the challenges of sexuality that they are called to meet.***

Keywords: Prevention, STI-HIV, UNILU, New enrolled students, Lubumbashi-DRC

1. Introduction

The young adult is that person recently out of the adolescent phase, who tends to mature adulthood, the WHO classifying this age between 19 and 24 years [1, 2].

The supervision of the youth is a benefit for the benefit of the whole community and the good decision making rational in the matter. Well educated youth is a wealth of a country or even its development [3]. Young people have the right to be fully informed about sexuality [4]. Sex education in school has become a legal obligation since the law of 04 July 2001 that "information and education about sexuality are provided in schools, colleges and high schools at least three annual sessions and by homogeneous age groups "[5]. The needs of both young adults and adolescents depend on their gender, the stage of development, the context in which they live and the socio-economic situation of their environment. Sexual health is the integration of the somatic, emotional, intellectual and social aspects of well-being, in a rewarding way that emphasizes personality, communication and love [6,7].

Young people deserve special attention in the context of development: they often lack access to services that adults take for granted in many countries, making them more vulnerable. Millions of them do not know how to protect themselves against an unwanted pregnancy or a sexually transmitted infection like HIV, or are ill-equipped to do so [8]. Many countries do not consider sexual health or rights as a legitimate part of the state's duty of care, or admit that young people are sexual beings. The taboo on young people's sexuality is one of the key factors behind the AIDS epidemic and high teenage pregnancy rates and high maternal mortality rates [9].

In Africa, most people are governed by traditional practices and customs that do not allow parents to clearly inform their children about sexuality with all its realities that accompany it, this constitutes an obstacle to information and education. young people about sexuality and this phenomenon constitutes a danger on the spread of all the possible evils related to the sexuality which will be practiced without any preventive measure in young teenagers. The risks that come with sexuality are many, including unwanted pregnancies, STIs-HIV and AIDS that end in serious complications and other forms of consequences or even death [10].

In 2005, the prevalence of STIs in the DRC in the population of young people living in households in Lubumbashi was estimated at 16.2% [14.1% - 18.3%] [11]. And in 2006 the same prevalence was estimated at 10.3% [9.1% - 11.3%] by the same researchers for the same category of people on a set of Five sites sampled in the DRC without Lubumbashi. At the age of 15, one in two young people is sexually active. The multiplicity of sexual partners; common practice for both boys (56.7%) and girls (52.4%) Young people know where to buy condoms, but only 14.1% of boys and 15.7% girls have resorted to it. Knowledge of the real signs of STIs as well as real prevention methods against STIs was recorded at a very low rate among them [12].

According to the DHS, the level of knowledge of both men and women about the transmission of STIs-HIV has remained the same since 2001 [13].

About 1.9 billion people in the world are currently between the ages of 10 and 24, 85% of whom live in developing countries [14]. In DR Congo, as in many sub-Saharan states, adolescents are the rising youth on whom society counts to take over. Teenagers make up 10% of the Congolese population.

According to WHO, there are three main reasons for investing in youth health including:

- The health benefits of each adolescent in terms of current and future health and their effects on different generations;
- Economic benefits including improved productivity and its return on investment, the economy and future spending;
- The human right for which adolescents have the right to attain the highest possible level of health [4].

The interest of this work is to contribute to the improvement of the health of adolescents enrolled in university in order to propose solutions that can help them achieve an acceptable standard of living in terms of reproductive health and health. general.

The general objective in carrying out this work was to evaluate the use of preventive methods against STI / HIV by students newly enrolled in UNILU (2010-2011). Specifically, it was to evaluate, describe, identify and analyze among these new students enrolled in UNILU: the level of knowledge on STIs / HIV and AIDS; attitude towards prevention of STI / HIV and AIDS, the determinants of sexuality, the practice of sexuality, the use of preventive methods against STIs / HIV and AIDS and the factors influencing whether or not to use prevention methods; lastly, the prevalence of STI symptoms experienced by them during the twelve months preceding the survey.

2. Materials and Method

A cross-sectional study was conducted as part of this research among 273 new UNILU participants. The study took place from January to June 2011 in seven faculties / schools of the said university namely: The Faculty of Polytechnic, the Faculty of Law, the Faculty of Sciences, the Faculty of Economics and Management, the faculty of social sciences, the Faculty of Arts and the School of Public Health.

The sample size was calculated on the recent prevalence of STIs in the DRC among young people living in households which was 10.3% in 2006 [12]. The effect of size was taken into account in this study at the multiplier threshold of 1.5 and the effect of the power at the divisor threshold of 0.80.

Data collection was possible through two-stage sampling. At the first level, stratified random sampling was used for the choice of seven Faculties / Schools and the second was systematic sampling for the selection of 39 students in each faculty.

This study took place at the University of Lubumbashi from January to June 2011. The study population consisted of newly enrolled students in recruitment promotion of the academic year 2010-2011.

Without intending to hurt or inconvenience our respondents, free and informed consent from respondents was sought and obtained from them. Given the sensitivity of sexuality in our environment, the self-administration of a preconceived questionnaire allowed us to collect data from selected respondents. The survey is based on Knowledge, Attitudes and Practices; we believe that a certain decrease in the accuracy of the answers could slip into the data collection because of the way in which they consider sexuality as a matter of modesty or not. A qualitative study would be desirable in the future for a better detection of the problems surrounding sexuality in our environment.

3. Results

Table I: Distribution of respondents by age and number of known sexual partners

	ni	Minimum	Medium	Maximum	Means	SD	Mode
Age of students	273	18	22	33	22,0	2,5	21
Age at first intercourse	194	11	17	22	17,1	2,2	18
Number of Sex Partners	194	1	3	16	3,9	2,8	2

The majority of students have had at least one sexual intercourse in their lifetime in 71.1%. 75% of them with more than one sexual partner. The average age at first intercourse is 17 ± 2.2 years

The majority has already heard of HIV, AIDS or STIs in at least 97.8% of cases. The main sources of information cited were: the media, health workers, parents, church members, friends and many others in at least 85% each. Modes of transmission are well known in 37.7% of cases. The prevention methods, known and cited in 52.3% of cases and the signs of STIs are well known in 24.1% of cases. 28.2% of them have already been tested. 13.4% of sex workers used condoms to sex.

Table II: Distribution of respondents according to the signs of STIs experienced during the last 12 months.

IST signs registered in the past 12 months	ni	%
Wounds or ulceration in the genitals	52	19,0
Unusual genital discharge and / or voiding pain	61	22,3
Male	39	21,7
Female	22	23,6

The prevalence of STIs in 12 months prior to the survey is respectively 20.5% and 25.8% for boys and girls, ie 22.3% [17.4% - 27.2%] in 'together. The different therapeutic routes followed were: health care in 44.3% of cases followed by self-medication in 42.6% of cases and 3.3% of recourse to traditional medicine.

Table III: Distribution of respondents according to the factors favoring sexual activity.

Variables	IST	IST Absente	Khi² p value IC et OR
Non-condom use in the face of STIs	55	85	OR= 5,18[1,96 ;14,47]
Condom use in the face of STIs	6	48	Khi² = 14,28 p = <0,001
Attributes made of premarital and / or intercourse	Number of known sexual partners		
	>=2	=1	
Normal	62	5	OR= 2,89 Khi² MH = 4,49 p =
Sin / prohibited	103	24	0,034 <0,05
Reasons for No Advanced Screening for Sexual Activity			
	Sexually active	Not sexually active	
Confidence in oneself	23	11	Khi² dl2 = 52,44
Fear / desperation to live	79	7	p value < 0,001
Other reason	30	46	
Taking alcoholic drink in the face of condom use			
	Non-condom use	condom use	OR= 2,89
Takes alcoholic drink	62	5	Khi²dl1 : 4,49
Does not take alcoholic drink	103	24	p : 0,034<0,05
Takes alcoholic drink vs number of sexual partners			
	>=2	=1	OR=3,86 [1,20-13,77]
Alcoholic drink	63	4	Khi²dl1=6,46
Not Alcoholic drink	102	25	p= 0,011<0,05
Alcoholic drink and occurrence of STI signs			
	IST present	IST absent	OR=2,55 [1,32-4,92]
Alcoholic drink	24	43	Khi²dl1=9,26 p= 0,00234<0,05
Not Alcoholic drink	37	169	
Occurrence of STIs in relation to the number of sexual partners			
Sexual partner	IST	IST absente	OR : 3,3
>=2	57	108	; Khi²MH : 4,9
=1	4	25	p : 0,026 <0,05
Parents 'way of life and multiplicity of respondents' sexual partners			
	>=2	=1	OR : 2,68 [1,02 ; 7,35]
From parents breaking union	76	7	Khi² MHdl1 4,82 p 0,028 <
From parents in union	89	22	0,05

The large proportion of those who did not use condoms regularly ran an estimated 5.18-fold risk of STIs OR = 5.18 [1.96; 14.47] Khi² = 14.28, p = 0.00015, <0.001.

Those who considered premarital and / or casual sex as normal or as any physiological need ran an estimated 2.89 times higher risk of having more than one sexual partner. OR = 2.89 Khi² MH = 4.49 p = 0.034 <0.05.

The reasons for non-screening are different among active and non-sexually active people, namely the most common depression among sex workers and self-confidence among non-sex workers compared to other reasons Khi² dl2 = 52.44 p value <0.001.

Consumers of alcoholic beverages in the face of non-consumers ran risks estimated at:

- 2.89 times higher not to use the condom OR: 2.89 = Khi²dl1: 4.49 p: 0.034 <0.05;
- 3.86 times higher having more than one sexual partner OR = 3.86 [1.20-13.77] Khi²dl1 = 6.46 p = 0.011 <0.05;
- 2.55 times higher to make signs of STIs OR = 2.55 [1.32-4.92] Khi²dl1 = 9.26 p = 0.00234 <0.05;

Respondents from lone-parent families were 2.68 times more likely to have more than one sexual partner compared to others with parents living together. OR: 2.68 [1.02; 7.35] Ki 2 MH 4.82 p 0.028 <0.05.

Respondents who had more than one sexual partner had an estimated 3.3 times higher risk of having an STI. OR: 3.3 Chi MH: 4.9 p: 0.026 <0.05

4. Discussions

The scientific interest of our study was to evaluate the knowledge, attitudes and practices of students newly enrolled in UNILU in relation to the use of preventive methods against STI / HIV. This objective included: Assessing students' knowledge and attitudes about STIs, HIV and AIDS, and PLHIV and prevention methods; Description of the prevalence of STI symptoms and the degree of sexuality practice and the use of STI-HIV prevention methods; The analysis of the parameters that influenced the use / repulsion of prevention methods against STIs and HIV finally identified the determinants of sexuality of these young students.

After analysis, the results convinced us of the achievement of our objectives.

Sexual assets accounted for 71.1% of cases. Adolescence is the period of sexual initiation and expression [15]. The average age at first intercourse is 17 ± 2 years. Similar to most young people in other African countries, including Tanzania and Kenya 17.5; 16.2 years for Mozambique [16]. In the Democratic Republic of Congo 50% of young people are sexually active at 15 [13].

Most of our respondents have already heard about STIs / HIV-AIDS in 98% of cases. Knowledge of prevention, transmission and STI signs is low in 52.4%, 37.7% and 24.1%, respectively. The role of the condom is well known in 76.5% of cases. According to the DHS, knowledge of the role of the condom has remained static since 2001. 64% of men and 54% of women with a good knowledge of the role of condoms in the DRC [13].

However, this knowledge is not effective and not applicable because of the sexual practices at risk with the latter. The multi sexual partnership is a common practice lived in 85,1% of the cases among the sexual active ones. According to studies, multiple sexual partnership is a practice that increases the risk of contracting STIs [17-19].

In our study we noted an appropriate condom use rate of 13.4%. The reasons for low condom use were trust in their sexual partners in 66.7% of cases, ignorance in 11.9% of cases and negligence in 14.3%. This low rate is justified by the fact that the true source of information to which our respondents resort; are their friends in most cases which friends do not have sufficient knowledge about STIs and HIV. But also the intake of alcoholic beverages that diminish their vigilance in this area. This rate is very close to that found by Kayembe in 2006 among young people living in households in the DRC, which is 11.4% / boys and 15.7% / girls [12]. This shows the need to integrate the life-skills course in the curriculum and at all levels. Unprotected sex among adolescents includes premature and unwanted pregnancies and STIs, including HIV infection [15]. According to WHO, the correct and consistent use of the male condom reduces the risk of sexual transmission of HIV from 80 to 90%. According to the available data, the female condom offers similar levels of protection [6].

The screening rate for HIV is 28.2%; among the reasons for no advanced screening; depression was mentioned in 59.8% among sex workers and self-confidence among non-sex workers; this is justified by the non-practical prevention measures that make them panic or even afraid of screening. These results resemble those of a study of nearly 16,000 adolescents in nine Caribbean countries, where 80% of adolescents surveyed consider themselves to be in good health and 88% of them trust their appearance [20]. For Sharon, few young people who have sex know about the HIV status of their partners. He adds that; populations with the STI screening program can benefit from help to significantly reduce risky sexual behavior [21].

The prevalence of STIs in past 12 months was 22.3% [17.4% - 27.2%] in our sample. The different therapeutic routes followed were: health care in 44.3% of cases followed by self-medication in 42.6% of cases and 3.3% of recourse to traditional medicine.

This prevalence is slightly higher than that found in 2005 by Kayembe in Lubumbashi among young people living in households which was 16.2% [14.1% - 18.3%], it was respectively 13.5% and 20.9% for boys and girls [11]. However, the difference is not statistically significant due to the overlap of two confidence intervals at the & 0.05 threshold. The difference compared to that found in 2006 of 10.3% [9.1% - 11.3%] by Kayembe results in this sense that the study of 2006 concerned the whole national territory which is the DRC but did not include the city of Lubumbashi [12]. Note also that this prevalence reflects a practice of high-risk sexuality in the population of our respondents. This prevalence is between the seroprevalence rates of syphilis among sex workers in Madagascar found by WHO in 2007, which were much higher than among women attending antenatal care services and ranged from 8.5% to Toliara 39.3% in Toamasina [16]. It is also comparable to that found by Mayaud in 2004 for sub-Saharan Africa, which WHO used as a reference in 2008, which ranges between 11% and 35% [22]. STIs are important co-factors in HIV transmission. As a result, the prevalence of STIs is a significant indicator of risky sexual behavior. A high incidence or prevalence of STIs is therefore an early warning sign for HIV / AIDS interventions at the national level [16]. The different therapeutic itineraries support the habits that young people do not easily communicate with their parents following the habits and customs that characterize Africans. In addition, a series of barriers to the use of health services can make it difficult to obtain the health advice and services they need. [23] The practice of self-medication joins the results of a study conducted in Kinshasa on street children [24]. According to the WHO; Herbal medicine is a very old traditional practice still widely used in many low-income countries [25].

Among the factors favoring the non-use of STI-HIV prevention methods, we noted: the consumption of alcoholic beverages, single-parent families with lack of parental supervision, the people with whom they live, the municipality of origin. These factors influenced the sexual activity as well as the lack of condom use and then the multiple sexual partnership which later favored the occurrence of STIs. The situation of parental supervision of young people is similar to the results of the four African countries [26]. In most African communities, sexuality remains a sensitive matter considered as a subject of shame and modesty in relation to communication. Young people feel very well-off when their friend brings information to them when it comes to an adult. This situation is similar to the results of the study conducted in four African countries [26]. Positive relationships between young adults and parents and other adults who are knowledgeable about sexually transmitted infections are a safer factor in risky sexual activity [27]. But African culture, habits and customs are an obstacle for parents to clearly inform their children about sexuality, as they too are not better informed on the subject [10].

As for the factors favoring risky sexuality, we noted: alcoholic beverages in 27.8% of cases; multi-sexual partnership in 85.1% of cases, non-condom use in 86.6% of cases. Single-parent families in 35.9% of cases, the people with whom they live and the municipality of origin. The attribute that they are made of casual sex or before / outside the marriage.

For Buchaczk; Alcohol impairs judgment, which means it slows down nervous and muscular activity and carries a risk of making decisions in people of all ages. He adds that under the influence of alcohol, adolescents have unprotected sex

[19-20]. Cohen adds that young people are vulnerable to HIV because of their risky sexual behavior, substance abuse and poor access to HIV information and prevention services [17].

The attribute of occasional and / or pre-marital sexual intercourse as a normal factor has been a factor favoring sexual activity and multi-sexual partnership because of the lack of involvement of one's consciousness in what one is called to make. At this level the person will no longer think of behaving in society as having limits but rather as more than free.

The multi partnership analyzed by commune of origin, rose that the municipalities of Kamalondo, Kenya and Annexes were strongly represented in respectively: 76.9%, 70.6% and 62.7% of the cases. This is due to the strong cities recognized in these different municipalities with a high number of bars and nightclubs

It is clearly established that our results are reliable and valid and that the various parameters that have emerged should be taken into account. However, the present study was based on the CAP complex, ie knowledge, attitude and practice of preventive methods against STIs / HIV among students newly enrolled in UNILU. This type of survey could present a bias on the part of our respondents because of the sensibility that sexuality takes in our environment or according to the idea that our respondents have of sexuality. Beside this form of bias mentioned above; we are convinced that our results can be extrapolated to all students newly enrolled in UNILU. A qualitative study with the focus group would be desirable in the future to identify the different areas that we could not address.

5. Conflicts of Interest

This study is the synthesis of a work of memory of third cycle realized in 2011 by the author under the guidance of its masters. These results had not yet been published. We note that the authors were all warned of the submission of this study to the publication and that no conflict of interest is noteworthy for this study.

6. Conclusion

The sexuality of young people is a concern in the world specifically in low-income countries. Young adults newly enrolled at the University of Lubumbashi are no exception to this situation. The knowledge of STIs / HIV as well as signs of STIs remains very low among them. The modes of transmission of the disease are well known in 37.7% of cases, those of prevention in 52.4% of cases and the role of the condom is known in 76.5% of cases. Only 28.7% of respondents had previously been voluntarily screened for HIV, and the reasons for the lack of screening were mostly depression among sex workers and self-confidence among non-sex workers. Sexuality knows a high-risk practice in this population. The average age at first sexual intercourse is 17 ± 2.2 years, youth is sexually active in 71.1% of cases. Appropriate use of condoms was recorded in 13.2% of cases. The reasons for non-use of condoms were in most cases trust in their sexual partner in 66.7% of cases, ignorance in 11.9% of cases and negligence in 14.8% of cases. Young adults communicate easily and easily about sex with their friends in 99.6% less cases with their parents in 7.7% of cases. Multi-sex partnership is a common practice noted in 85.1% of the cases. The prevalence of STIs is very high in our population in 22.3%. [17.4% - 27.2%]. Self-medication is recorded as a therapeutic route for STI symptoms in 42.6% of cases compared to 44.3% of cases of those who consulted in a health center, either in a clinic of care and traditional medicine in 3, 3% of cases.

The factors implicated in the occurrence of high cases of STI signs were: alcoholic beverage intake by its significant correlation with the practice of sexuality, multiple sexual partnership and non-condom use. Overconfidence in their friends to inform them in the matter. Overconfidence in their sexual partners and ignorance as reasons for non-condom use, poor communication with their parents and other adults about sexuality also uninformed in the matter. Single-parent families, living environment and social influence, the persons with whom the respondents live as well as the attributes of occasional or non-marital sex.

Efforts must be made to help young people free themselves from the precarious situation that threatens their state of health.

7. Suggestions

In view of the above we suggest the following:

To UNILU students:
Learn about sexuality from safe sources, Avoid high-risk sexual practices and practice preventive measures against STIs / HIV and AIDS.
Congolese media
Diversify the themes of health programs taking into account the target audience.
To the Congolese State (MINEPSP and MINESU)
Integrate education for life in all schools and at all levels, inform all segments of the population about STI / HIV and AIDS. Discourage parents' divorces. Train peer educators at the service of youth.

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