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Original Research Article

HIV/AIDS amongst street children in Cameroon: their relative knowledge, attitudes and sexual experience

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ABSTRACT

Background: Street children are victims of society and are up to 10 - 25 times more vulnerable and affected by HIV/AIDS than their counterparts who live with their families. Objective of study: To examine the HIV/AIDS-related knowledge, attitudes and sexual experience amongst street children in Cameroon.
Methods: This study was an analytical cross-sectional survey conducted during the year 2015 through the administration of questionnaires to 399 street children that had been homeless for at least a month.
Results: Out of the 399 participants interviewed, more than 90% of them reported to have heard about HIV/AIDS. Though only 14% of the participants knew about the importance of HIV screening, an even smaller proportion of about 6.02% of them reported having been HIV screened before. Most of them stated that HIV could be transmitted through kissing, mosquito bites, eating utensils and through a hand-shake as well as believed that screening and use of Voluntary Confidentiality Counseling and Testing (VCCT) could help prevent its transmission. Many of them also thought of HIV/AIDS as a punishment from God for sins or as witchcraft; and that the disease could be cured through believing in God or even by a traditional practitioner.
Conclusions: The level of HIV/AIDS knowledge among street children in the study setting is sub-optimal. Their negative attitudes and incorrect beliefs about the disease could make them even more vulnerable to HIV infection. The use of peer educators would be an effective strategy to implement among this hard to reach population.

Keywords: Street children, HIV, AIDS, Knowledge, Attitudes, Sexual experiences

INTRODUCTION

The Republic of Cameroon and other countries in Sub-Saharan Africa have been hit heavily by the Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) which remains a life threatening disease.[1] Immediate interventions are crucial to curb this pandemic.[1]

Interventions towards prevention and treatment can only be successful when the general public gets true knowledge and understanding of the HIV/AIDS epidemic and most importantly, every sexually active person should know their HIV status. HIV/AIDS knowledge stands as an important modifiable factor in tackling its spread.[1,2]

The majority of young people, especially the vulnerable like street children, remain uninformed or misinformed about how the HIV virus is spread. Most of these young people do not believe they are at risk, thus they become involved in alcohol and drug abuse, prostitution, multiple partners, unprotected sex, rape and other risky behaviours which put them at more risk of being infected with the HIV.[3-5] The majority of youths in low and middle income countries who live without adult supervision seem not to be afraid of being infected with HIV. This is because their priority is dominated by survival concerns for food, shelter, money and other basic needs.[6,7]

Different strategies for HIV prevention in Cameroon and the world over have been implemented including educational programmes. However, HIV/AIDS remains a threat, especially for young people age 15 to 24 years in Cameroon. The HIV/AIDS estimated percentage rate in Cameroon is 4.8%. There are 660,000 adults age 15 to 49 with HIV/AIDS, 58,000 children aged 0 to 14 living with HIV, and 310,000 orphans due to AIDS aged 0 to 17 years.[8,9]

In Cameroon, the increasing number of orphans is mainly due to the high rate of deaths from preventable diseases. The vulnerability of these orphans and other children who live in complex situations at home explains why some of them turn to the streets. Though their exact number is unknown due to the lack of current data, their presence is visible along the streets in all of the cities in Cameroon.[8,9]

Remarkable achievements in reducing the burden of HIV/AIDS have been made in some African countries like Uganda, South Africa and others but the prevalence and spread suggest that the epidemic is still a serious threat and therefore there is the need for continued interventions and research to curb its spread.[5,6] South African street youths possess a relatively better knowledge about HIV transmission and prevention than their counter-parts in other African countries, but the same street youths disclosed extremely negative attitudes to condoms (not using them) and to people with AIDS.[7-10] A study in Burkina Faso, Cameroon, Ghana and Kenya on the survival and social behaviour of street children, reported poor knowledge on HIV prevention and transmission but high involvement in risky sexual behaviour.[9] One reason for the high risky behaviours is because they had received health information from unreliable sources (peers and from street adults), who have little or inaccurate knowledge of the disease. Good knowledge was associated with the delayed onset of sexual relations, consistent use of condoms, and a reduction in the number of sexual partners, while lack of correct information contributed to fewer people seeking to be tested because of the misperception about their level of risk that increases the likelihood of AIDS, stigmatization, denial, and others.[6-9,11]

A literature search on street children was conducted by using several data bases such as DIVA, Scopus, ERIC, Google Scholar, PubMed, AJOL, EBSCO, and CINAHL, with the help of key words like “street children”, “HIV”, “AIDS”, “knowledge”, “sexual experience” and “Cameroon”. The results are revealed in the information presented in this study.

The street child in this study is defined as any child, boy or girl, below the age of 18 years, who has taken to the streets (including wastelands, unoccupied dwellings and unfinished buildings) as their habitual abode and source of their livelihood without proper adult supervision. The phrase “street children” refers to the population of children that lives on the streets in Cameroon, despite other existing names like “teenage beggars”, “street kids”, “homeless kids”, “street boys”, “street bums”, “parking boys”, “city nuisance” and others.[9]

This study aimed to examine the HIV/AIDS transmission and prevention related knowledge, attitudes and sexual experiences amongst street children in the cities of Bamenda, Douala and Yaoundé in Cameroon. The data is critical because knowing their level of knowledge of HIV/AIDS and enhancing it, should definitely be the first step for all stakeholders to consider while developing a successful intervention against HIV/AIDS.

METHODS

This study was part of a comprehensive cross-sectional survey conducted from 1st January 2015 to the 30th March 2015 (Cumber & Tsoka-Gwegweni in press) and which assessed the knowledge, attitudes and sexual experience related to HIV/AIDS prevention among children who had been living on the streets in the cities of Bamenda, Douala and Yaoundé for a month or more.

Cameroon is a bilingual country with English and French as its official languages. The Country is divided into 10 regions, 8 of which are French speaking and 2 of which are English speaking regions.

Bamenda is the most densely populated English-speaking city in the country, while Douala is the economic capital and Yaoundé the administrative capital and both of the latter cities are predominantly French-speaking. These 3 cities were chosen for this study because of their increasing number of street children. Bamenda city is full of tradition and culture and is in a grassland region surrounded by many small rural villages.

Douala is known as the money making city. It is the economic capital with the biggest seaport and international airport, and is the most densely populated city in Cameroon with a very harsh hot weather. Yaoundé city is the administrative capital of the Republic of Cameroon. It is the second most populated city, more peaceful, with favourable weather.[9] The three cities were purposively chosen for their stark differences described above and provided an opportunity to compare the results between these cities.

As we have already described in our earlier papers (Cumber & Tsoka-Gwegweni, in press), a total of 399 street children aged 12 to 17 years were recruited using a snowball sample technique. This sampling strategy was suitable because street children are a highly mobile and hard to reach community and especially because of the absence of national reports or census data on street children. Snowball sampling method is a non-probability technique, where one participant helps to identify peers until the total sample size is reached. Six of the 405 participants were excluded because of incomplete data. At the advice of an expert biostatistician from the University of KwaZulu-Natal Durban, the number of recruited participants was deemed sufficient to answer the research question of the study. The study included only children who had dwelt on the streets for not less than one month and who were not registered at any institution or living at a family home.

The recruitment and enrolment of participants took place where the street children gathered such as train stations, bus stations, city centres, market gates and in front of film houses. The study received ethical approval from the Biomedical Research Ethics Committee, University of KwaZulu-Natal, Durban, South Africa, and the Cameroon Bioethics Initiative (CAMBIN).

A structured questionnaire was administered with the help of six research assistants speaking either English, French or the local language. Because most of the children could not read, and needed extra help to understand the questions, they were read to them in their preferred languages, and this was done in a neutral, private and quiet location provided by the Catholic Church so the participants could be comfortable.

The primary author alone obtained informed consent from all participants using the language which the children were comfortable with (English, French or a local language), before participating. The informed consent process took place in the presence of a trained and experienced clinical psychologist standing nearby to ensure that participants were not coerced to participate or in cases where psychological counselling was needed. All participants were aged below 18 years old, but because of not being able to trace their parents, they gave their consent directly. After the interview, refreshments were provided to participants, but they were not given any money.

The data included the variables of sex, age, religion, sources of HIV/AIDS information, whether screened for HIV, myths and perceptions about transmission and prevention, attitudes and sexual behaviours, and risk factors for health problems. The primary outcome of this study was establishing the level of knowledge, types of attitude and the sexual experience of street children. The statistical analysis included uni-variate and bi-variate calculations of descriptive statistics, such as frequency distributions and cross tabulations used to analyse the data in STATA 13.2 software. A chi-square test of association was also used to assess whether any association existed between region and other categorical variables with a 5% significance level.

RESULTS

Demographic data

As described elsewhere (Cumber & Tsoka-Gwegweni, in press), out of the total of 399 participants, 80.2% were boys, with the highest proportion coming from Bamenda and predominantly in the age group of 15-17years (77.7%), (p-value <0.0001). Most of the participants were of Christian background (83.0%) and had primary education as the highest level of education attained (75%). Bamenda carried the worst level of illiterate participants (32%). The main reason cited for school dropout was poverty, which was most frequent in Douala. More than 80% of the participants reported to have suffered from a sexually transmitted disease (STD) with the highest percentage coming from Douala (87.6%) closely followed by Yaoundé (81.0%) and then Bamenda (79.4%) (Table 1).

Knowledge on HIV/AIDS and HIV screening

Out of the 399 participants interviewed, more than 90% of them reported to have heard about HIV/AIDS, with 100% noted in Bamenda. The main source of the information was their peers (72.2%) and other minor sources including radio/television and from parents.

Only 34.8% of the participants said they knew someone who is HIV positive with the highest percentage of participants coming from Douala. About 38% of participants stated that drinking with an infected person was a risk factor in contracting the HIV. Though a small proportion of about 14% of the participants knew the importance of HIV screening, an even smaller proportion of about 6.0% reported to have been screened for HIV before. All the latter, except one participant from Doula, came from Bamenda (18.4%), while in Yaoundé none had been screened for HIV (Table 2).

Knowledge on mode of transmission of HIV

Concerning their knowledge on the modes of HIV transmission, only 36.8% out of the 399 participants agreed that HIV can be transmitted through unsafe sex with the highest coming from Bamenda, as well as 58.9% stating that transmission occurs through contact with infected blood. On the other hand, 88.% of them falsely said transmission happens through kissing, mosquito bites (81.4%), eating utensils (74.2%)and hand-shakes (72.4%). Yaoundé and Douala in all the above situations carried the highest percentages (Figure 1).

Table 1: Demographic characteristics of participants per city.

Characteristics	Total (n=399)	Bamenda (n=125)		Douala (n=137)		Yaoundé (n=137)		P-value
	No (%)	No	%	No	%	No	%	
Sex								
Male	320 (80.2)	108	86.4	101	73.7	111	81.0	0.035
Female	79 (19.8)	17	13.6	36	26.3	26	19.0	
Age group								
12 - 14	89(22.3)	29	23.2	31	22.6	29	21.2	0.919
15 - 17	310(77.7)	96	76.8	106	77.8	108	78.8	
Religion								
Christian	331(83.0)	99	79.2	121	88.3	111	81.0	0.016
Islam	36(9.0)	9	7.2	13	9.5	14	10.2	
Traditional/none	32(8.0)	17	13.6	3	2.2	12	8.8	
Educational level								
No formal education	85(21.3)	40	32.0	18	13.1	27	19.7	0.001
Primary	309(77.4)	84	67.2	115	83.9	110	80.3	
Secondary	5(1.2)	1	0.8	4	2.9	0	0.00	
Reason for school dropout								
No money	212(53.1)	40	32.0	113	82.5	59	43.1	0.001
Did not like school	128(32.1)	56	44.8	11	8.0	61	44.5	
Bullied in school/ teachers not nice	59(14.8)	29	23.2	13	9.49	17	12.41	
Had STD in the past	308(83.0)	77	79.4	120	87.6	111	81.0	0.189

Table 2: Knowledge about HIV/AIDS and HIV screening.

Characteristics	Total	Bamenda (n=125)		Douala (n=137)		Yaoundé (n=137)		P-value
	No (%)	No	%	No	%	No	%	
Heard about HIV/AIDS	340(91.4)	125	100.0	123	93.9	92	79.3	0.001
Source of HIV/AIDS information?								
Friends/peer	288(72.2)	82	65.6	110	80.3	96	70.1	
Radio/television	49(12.3)	19	15.2	7	5.1	23	16.8	
Parents/relatives	43(10.8)	24	19.2	9	6.6	10	7.3	
Know somebody who is HIV+	139(34.8)	40	32.0	55	40.1	44	32.1	0.274
Aware that drinking alcohol is one of the risk factors for contracting HIV	139(38.2)	23	25.6	51	37.2	65	47.4	0.004
Know the importance of HIV screening	56(14.0)	28	22.4	15	10.9	13	9.5	0.001
Have been screened for HIV before	24(6.0)	23	18.4	1	0.7	0	0.0	0.001

Knowledge on the prevention of HIV/AIDS

With regard to HIV/AIDS prevention, only 16.5% of 399 participants were aware that use of condoms is a preventive measure (the highest coming from Bamenda); 20.0% cited abstinence (with highest from Yaoundé); and 23.8% mentioned faithfulness to one partner (highest coming from Bamenda). On the other hand, 23.3% of the above participants considered that blood screening was a preventive measure, with the highest frequency from Bamenda, as well as 31% believing that the use of VCCT was a preventive measure and the highest responses still coming from Bamenda (Figure 2).

Myths and perception about HIV/AIDS

More than 75% of the participants stated that HIV really exists, with the highest percentage found in Douala. Only a handful of them (11.8%) agreed that HIV is a threat to street children, with a very low response coming from Yaoundé. It was also noted that a very small proportion (11.3%) of participants agreed that a good looking person can be HIV positive. On the other hand, more than half of them considered that HIV/AIDS is linked to witchcraft, is a punishment from God for our sins, can be cured - as well as the fact that religious belief can prevent HIV/AIDS (Table 3).

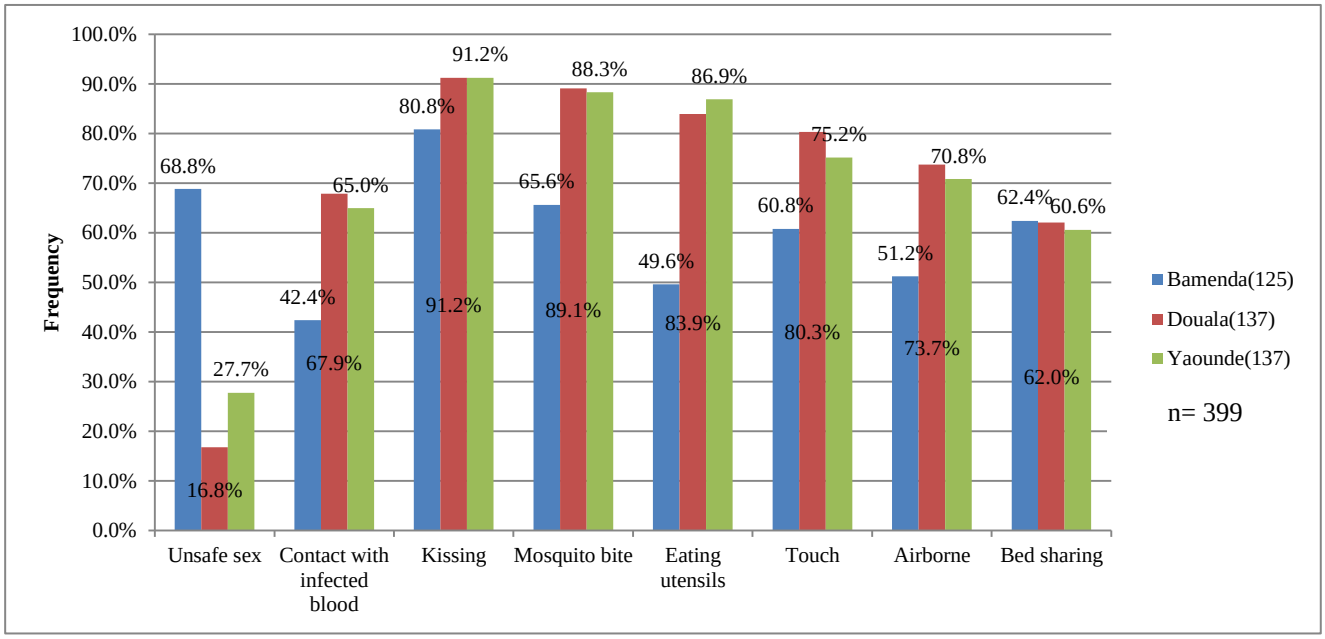

Figure 1: Knowledge on HIV mode of transmission.

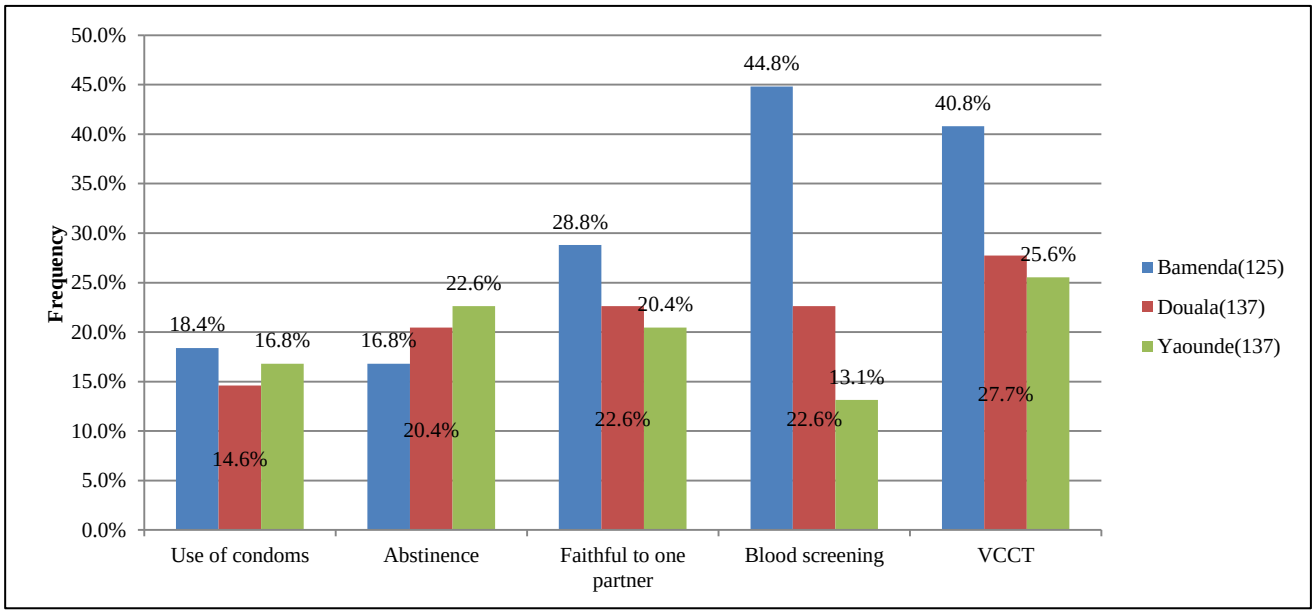

Figure 2: Knowledge on HIV prevention.

Attitudes towards HIV/AIDS by participants

More than 50% of participants regarded death as an image of HIV/AIDS, with Yaoundé having the highest frequency. Only 9.5% of the participants reported to have used a condom during their last sexual intercourse, the highest response came from Bamenda (22.40%), though it should also be noted that a very significant percentage of these teenagers (19.80%) accepted to have had a cumulative of more than 5 partners, and this attitude was more common among participants coming from Douala (23.36%) (Table 4).

Factors contributing to early sexual experience

More than 60% of these teenagers reported that they had been pushed into sexual intercourse by peer pressure and the desire to experience sex, as well as some other reasons like they did not know the dangers of early sexual activities, and the fact that sex on the streets was a way of life, particularly in Yaoundé and Douala (Figure 3). The average age of sexual debut was reported to be 14 years of age.

Table 3: Myths and perceptions about HIV/AIDS by participants by region.

Statements about HIV/AIDS	Total	Bamenda (n=125)		Douala (n=137)		Yaoundé (n= 137)		*P*-value
	No (%)	No	%	No	%	No	%	
HIV really exists	315 (78.9)	78	62.4	119	88.9	118	86.1	0.001
HIV is a threat to street children	47 (11.8)	46	36.8	1	0.7	0	0.0	0.001
A good looking person can be HIV positive	45 (11.3)	27	21.6	9	6.6	9	6.6	0.001
Traditional doctors can prevent it	180 (45.1)	56	44.8	56	40.9	68	49.6	0.001
Religious beliefs can prevent HIV/AIDS	325 (81.4)	96	76.8	110	80.3	119	86.9	0.102
HIV/AIDS can be cured	318 (79.7)	77	61.6	121	88.3	120	87.6	0.001
At risk of contracting HIV/AIDS	42 (10.5)	24	19.2	5	3.6	13	9.5	0.001
HIV/AIDS is linked to witchcraft	316 (79.2)	75	60.0	120	87.6	121	88.3	0.001
HIV/AIDS is a punishment for sin	319 (79.9)	72	57.6	122	89.0	125	91.2	0.001

Table 4: Attitudes and sexual behaviours adopted by participants towards HIV/AIDS.

Characteristics	Total	Bamenda (n=125)		Douala (n=137)		Yaoundé (n= 137)		*P*-value
	N^{o} (%)	N^{o}	%	N^{o}	%	N^{o}	%	
Which image of HIV/AIDS do you have?								
Fear	160 (40.1)	63	50.4	47	34.3	50	36.5	0.001
Death	217 (54.4)	61	48.8	75	54.7	81	59.1	
Nothing	22 (5.5)	1	0.8	15	10.9	6	4.4	
Used a condom during last sexual intercourse	38 (9.5)	28	22.4	3	2.2	7	5.1	0.001
Number of sexual partners ever had								
1 partner	43 (10.8)	0	0.0	13	9.5	30	21.9	0.001
2 partners	109 (27.3)	18	14.4	34	24.8	57	41.6	
3 partners	98 (24.6)	46	36.8	32	23.4	20	14.6	
4 partners	70 (17.5)	35	28.0	26	19.0	9	6.6	
>5 partners	79 (19.8)	26	20.8	32	23.4	21	15.3	

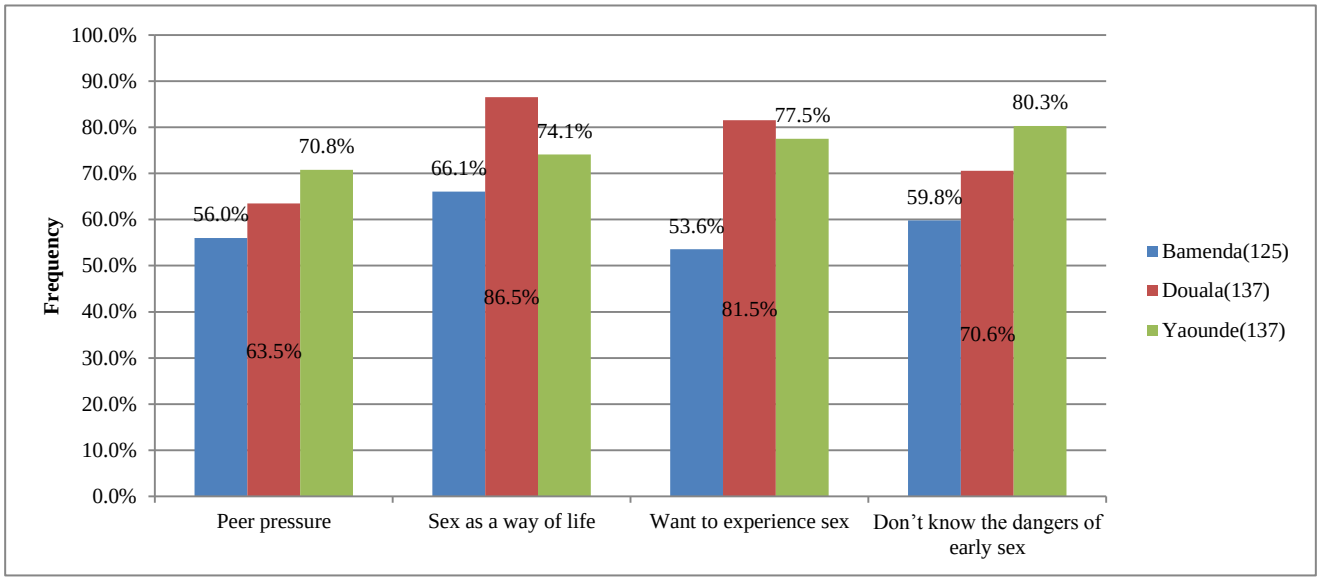

Figure 3: Some factors contributing to early sexual experience of the participants.

It should be noted as shown on Figure 4, that a very small proportion of the participants had received information about HIV/AIDS from religious organizations, yet there was no significant difference between them and those who did not have knowledge on HIV/AIDS regarding the use of condoms during sexual intercourse (p <0.594).

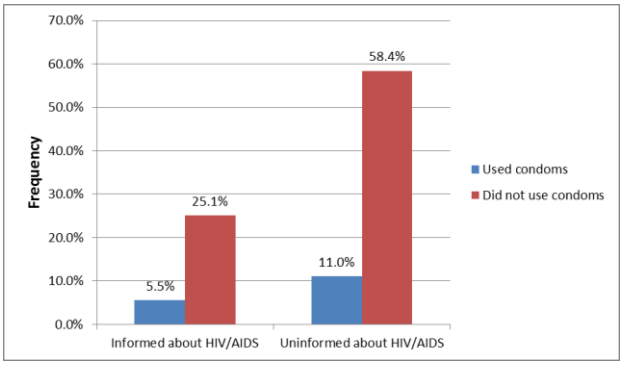

Figure 4: Relationship between information and condom use for prevention of HIV/AIDS.

DISCUSSION

There is no study conducted in Cameroon that has focussed specifically on HIV/AIDS knowledge among street children and this is the reason why very little published or documented information exists on HIV/AIDS among street children in Cameroon. This study responded to a call by the Ministry of Public Health for the submission of research proposals and papers which would describe the current knowledge, attitude and behaviour of street children, so that they could design an intervention response to the current crisis in Cameroon.[5]

With the absence of current data on HIV knowledge among street children, this study attempted to fill this knowledge gap in order to enable decision makers and other stakeholders working with street children to design sustainable interventions to address the health challenges, especially HIV/AIDS, of street children in Cameroon.

The results reveal that all the street children irrespective of the setting had poor or limited knowledge of HIV transmission and prevention and were engaged in risky sexual behaviours that placed them at risk of getting infected with HIV. This is evidenced by the majority of the participants who had limited knowledge and incorrect information on the risk of HIV/AIDS. Similarly, a high proportion of the respondents did not know the correct routes of transmission of the disease which might have been the reason for engaging in risky sexual behaviours. The other concern is that the participants revealed unreliable sources of information about HIV/AIDS which were mainly their peers and friends from the street. This suggests that the efforts by the government and other community-based organizations to fight HIV/AIDS in the country were not reaching the population of street children. This could explain the high AIDS mortality among of street children and other vulnerable populations in hospitals.[5,16]

The circumstances that make street children more vulnerable than children, who live in homes, are similar to those reported in studies from other African countries like Ghana, Tanzania and Uganda which also highlighted scanty knowledge and misconceptions about HIV/AIDS.[2,4,5,9] However, studies from South Africa and Kenya reported that more than half of street children knew that unprotected sex was the primary mode of HIV transmission, but that did not affect their level of engaging into this practice.[6,9]

Because of the culture in most African countries like Ghana, Cameroon and Tanzania among others, talking about sex generally is a taboo, making access to sexual information challenging for minors.[2,9] The results of this study show that almost every participant in the cities of Bamenda, Douala and Yaoundé had heard about the word 'HIV/AIDS' mainly through peers; had an awareness of the existence of the disease; and regarded HIV/AIDS as deadly and as a disease to be afraid of contracting. Similar results in South Africa, Kenya and Tanzania on HIV/AIDS information reported that street children had heard of HIV/AIDS and knew it was a deadly disease.[5,8,9,11]

In contrast to studies on street children, some studies involving students in higher educational institutions in South Africa, Nigeria and the United Arab Emirates reported the opposite, with some students reporting a higher level of knowledge of the routes of transmission and on prevention. The high level of knowledge among students in these countries could be linked to being in regular contact with intense information campaigns in schools targeting teenagers and students to increase their knowledge and prevention of HIV.[11,15,19]

It is a concern to learn that more than 80% of the participants in this study reported contracting a sexually transmitted disease (STD) in the past, and this pattern was similar in all three cities studied. The present study did not investigate the prevalence of STIs including HIV/AIDS among street children generally in Cameroon, as no laboratory diagnosis was considered during this study. However, the prevalence of STIs reported in other studies on street children varies in different regions of the world from 6% to over 36%.[7,8,11,12]

In Cameroon, this clearly warrants further investigation and intervention to prevent severe disease and deaths from STIs.

The fact that less than half (34.8%) of the respondents reported to know someone who was infected with HIV might have been influenced by stigmatization and discrimination, as many people do not declare their HIV status in Cameroon.[16] It is another concern that very few participants knew the importance of screening and had ever been screened for HIV. This could be the reason for the risky sexual behaviours because seeing is believing for these children, and the fact that they scarcely see or know anyone with HIV or AIDS could mean that they are less concerned or that it is because of their limited knowledge about HIV/AIDS including the symptoms of the disease.[9]

A study from Cameroon on unmarried youths showed similar results and suggests that the reason for risky sexual behaviours might be due to poor orientation about HIV testing as many people still do not know their HIV status despite the high prevalence rate among young people (15 to 24 years) in Cameroon.[16]

Other studies in Ghana, Kenya, Uganda and Egypt reported similar results where the respondents did not think being faithful to one partner might help to prevent the transmission of HIV, and that more than half of the respondents did not also consider themselves vulnerable in contracting HIV despite the high prevalence among young people in Africa.[4,5,9]

From our results the level of condom use reported was unsatisfactory in all three cities, although most of the participants were aware of the existence of condoms. More than 80% of them said they have never used a condom during sexual intercourse. Some findings from studies in Egypt, South Africa and Uganda reported that street children are more vulnerable than generally stated by UNICEF; they are victims of rape (forced sex at night), other forms of sexual abuse, diverse sexual activities (vaginal sex, anal sex, oral sex and others) and having multiple sexual partners on the streets, with the these challenges often resulting in pregnancy, contracting STIs or HIV.[4,5,17]

Most of the participants mentioned that they had been sexually active at the time of the study and had had an early sexual debut: almost all mentioned to have had sex before the age of 14 years. In other countries in Africa, similar results were reported among street children having had sex even from the age of 8 years.[11,18] It is also important to note that cultures in West Africa overlook early sexual intercourse for males, and because of their being teenagers, their initiation in most cases is with prostitutes, putting them at risk of contracting STIs and HIV as condoms are not used.[19,20]

Almost all of the respondents did not have a positive attitude towards those with HIV/AIDS, because most believed they could get HIV by simply sleeping on the same bed with an HIV patient, or eating, shaking hands or embracing someone with HIV. Not even a quarter of the respondents considered themselves at risk of being infected with HIV. This result also concurs with most studies on street children in Africa.[6,17]

For future studies, laboratory analysis should be conducted to assess the prevalence of STIs and HIV/AIDS among street children. Further research should target the various age groups as well as gender to obtain a better understanding of their sexual health status such as the burden of STIs, HIV, TB and other opportunistic infections related to HIV infection.

CONCLUSION

Our study reveals that street children in Cameroon are not getting correct information regarding HIV/AIDS, though they are a very vulnerable group that needs immediate attention. Many of them associated the disease with death, and their knowledge of the disease transmission modes and prevention still remain very poor. Perhaps this explains their negative attitudes and perceptions as well as their negligent sexual behaviours.

The HIV/AIDS prevention efforts by the Cameroon health care sector and other stake holders targeting young people should accommodate street children and promote healthy sexual behaviours. Street children in Cameroon and in similar settings should have advanced knowledge about HIV/AIDS and STIs because of their mobility and vulnerability on the streets. The health sector should further provide access and increase health care service utilization of screening, treating and preventing STIs and HIV/AIDS among street children. National policies on HIV/AIDS and STI prevention, treatment and management should include street children or should target street children as a high risk group in all cities in Cameroon. Such interventions should involve all stakeholders including social workers working with vulnerable children like street children. Furthermore, reliable and correct information is necessary to assist both street boys and girls. Institutions caring for street children in Cameroon should be supported to become friendlier to children and to reduce fear among the children already in these institutions and should be strengthened to provide health care services and sexual health education promotion on HIV/ AIDS prevention. Future research should include screening for STIs and HIV/AIDS to confirm the prevalence of these diseases among street children. This research should include a qualitative enquiry into the psychological status of and the effects of HIV/AIDS among street children.

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