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Adolescents' knowledge, attitudes and beliefs about HIV/AIDS at a college in Zambia

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Ungdomars kunskap, attityder och föreställningar angående HIV/AIDS på ett college i Zambia

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Empirisk studie

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Sammanfattning

Bakgrund: HIV- pandemin är en global angelägenhet. Varje dag smittas runt 6000 ungdomar med HIV. 2005 var HIV förekomsten bland Zambiska ungdomar, 15-24 år, 3,8 % för män och 12,7 % för kvinnor. **Syfte:** Studiens syfte var att undersöka ungdomars kunskap, attityder och föreställningar angående HIV/AIDS i Livingstone i Zambia. **Metod:** Studiedeltagarna bestod av 67 ungdomar, 33 män och 34 kvinnor i åldrarna 15-24 år. Studiens design var kvantitativ, baserad på en enkät med slutna samt öppna frågor. Resultatet analyserades med SPSS respektive innehållsanalys. **Resultat:** Resultatet visade på en generell hög kunskap. Informanterna uttryckte både en djup oro över HIV-epidemins utbredning, men även en positiv antydning om förändring. **Slutsats:** Deltagarna visade en ambivalens inför förändring. Det framkom att mer och bättre information om bland annat kondomer är viktigt samt en förändring av attityder och föreställningar. För att uppnå förändring måste helhetsperspektiv inklusive fattigdomsanalys inkluderas.

Nyckelord: HIV/AIDS, kunskap, attityder, föreställningar, ungdomar, Zambia.

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Empirical study

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Abstract

Background: The HIV-pandemic is a global concern. Everyday about 6000 adolescents become infected with HIV. The HIV-prevalence in Zambia among adolescents, between 15-24 years, were 3,8% for men and 12,7% for women in year 2005. **Aim:** The aim of this study was to explore adolescents' knowledge, attitudes and beliefs about HIV/AIDS in Livingstone in Zambia. **Method:** The sample consisted of 67 adolescents, 33 males and 34 females in age 15-24 years. The study design was mainly quantitative, using a questionnaire-based approach with both closed and opened questions. Data was analyzed by using SPSS and content analysis. **Result:** The result indicates a general high level of knowledge. The narratives expressed both a deep worry for the severity of the HIV epidemic, but also indicating optimism for change. **Conclusion:** The participants were hesitant concerning change. The complexity of the issue was clear, information about condoms and change of attitudes and beliefs are important, but in addition poverty has to be acknowledged in order to be able to fight HIV.

Keywords: HIV/AIDS, knowledge, attitudes, beliefs, adolescents, Zambia.

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BACKGROUND

The HIV-pandemic (Human Immunodeficiency Virus) is a global concern. AIDS (Acquired Immune deficiency Syndrome) has killed more than 25 million people since it was recognized in 1981 (1) and almost four million people were infected with the virus in 2006 (2). This makes it one of the most destructive epidemics in recorded history (ibid). It is important to further explore adolescents' situation since younger people between 15-24 accounts for nearly half of all new HIV infections worldwide (3). The nurse needs then to have a good knowledge and be able to understand how young people think and feel about the disease. It becomes easier for the nurse to relate to a young HIV patient if she knows how adolescents relate to HIV/AIDS and what knowledge they have about the disease.

HIV is a virus that attacks the body's immune system and diminishes the body's strength and makes it inability to fight infections and some forms of cancer (4). The virus squeezes almost unnoticed into the body cells that slowly increase, where the virus from now on stays inactive and latent (5). During this latent period there are usually no signs of illness in the infected person (4). Possible symptoms are similar to flu and sore throat, tiredness, lymph glands swelling and also skin rashes (ibid). The virus slowly attacks more and more immune cells and last breaks down the entire immune defence (5). HIV is mainly transmitted through vaginal and anal sexual intercourse, by transferring of HIV- infected blood (that can happen through infusion of infected blood and blood products), through cuts on blood contaminate objects or through contact with contained blood on injured skin, in mouth, nose or eyes (4). HIV can also be transmitted from mother to child at childbirth or when breastfeeding (6). The transmission increases if there are infections of the breast and cracked nipples (ibid). There is still no treatment or vaccine against HIV (4), whereas there are medication (antiretroviral therapy) to increase quality of life and longevity (6). The problem is that the medication is not available for the countries which have most affected people (ibid). People that carry the virus often remain healthy and without symptoms for many years and then develop the life threatening disease AIDS when their immune defence has already been broken down (4).

In 2006 it was estimated that 39,5 million people were living with HIV (2). The total number of people living with HIV has then reached its highest level since the illness' first diagnosis. Of these 39,5 million, 2,3 million are children under the age of 15 (ibid). According to UNAIDS (United Nations programme on AIDS), 4,3 million people were recently infected with the virus in 2006 and 530 000 were children under 15 years old (2). The same year 2006 2,9 million died in AIDS and 380 000 were children under 15 years (ibid).

In the past two years, the number of people living with HIV increased in every region in the world. The most striking increases have occurred in East Asia, Eastern Europe and central Asia (2), however the territory that is hardest hit by the HIV epidemic today, is Sub-Saharan Africa, Africa south of Sahara (3). Sub-Saharan Africa is the home to just over 10 % of the world's population (ibid) and two-thirds (63%) of all adults and children with HIV globally lives there (2).

The number of people living with HIV in Sub-Sahara Africa is recognized to have increased from 23,6 million in 2004 to 24,7 million in 2006 (2). Of the 2,9 million people who died in AIDS year 2006 were 2,1 million people living in Sub-Sahara Africa (ibid).

HIV/AIDS remains a major concern in Zambia due to its high prevalence (7). Zambia's population is 11,7 million and life expectancy are 40 years (8). Around 2,2 million are in the age of 15-24 (9). In Zambia lives today 1,1 million people with HIV in the age of 0-49 and 98 000 people died in AIDS in 2003 which is figure that has increased to 100 000 in 2005 (ibid).

It is estimated that the HIV-prevalence in Zambia among adolescents, between 15-24 years, were 3,8 % for men and 12,7 % for women in 2005 (11). The adolescents in Zambia reported a moderate to high AIDS-knowledge, positive attitudes towards prevention and low to moderate self-efficacy about AIDS-prevention (12). Females showed off a higher knowledge about HIV/AIDS than males. In attitude no differences were found (ibid). A study has shown that almost all adolescents in Zambia have heard of AIDS and believe that a person can get

HIV through sexual intercourse (13). It was 88% that believed that a person can do something to prevent HIV, abstinence and condom use was most mentioned (ibid). Most adolescents were aware that shaking hands with a person is not a risk to be infected by HIV (14).

A majority of Zambia's young people are worried about becoming infected with HIV (13, 14). A study has shown that over half of the sexually active adolescents have never used a condom (14). The same study described that the adolescents think that condoms are ineffective, that they tear and have holes intentionally put in them (ibid).

In the end of year 2001, 11,8 million young people lived with HIV where 7,3 million were females and 4,5 million were men (15). A majority of them do not know that they carry the virus. Everyday about 6000 adolescents become HIV-infected (ibid). The adolescents are the largest youth generation in history and 2004 nearly half on the global population was less than 25 years old (3). They are the world's greatest hope in the struggle against HIV (9). To increase understanding of the HIV/AIDS situation it is important to have information about adolescents' knowledge, attitudes and beliefs about the disease.

AIM

The aim of this study was to explore adolescents' knowledge, attitudes and beliefs about HIV/AIDS in Livingstone in Zambia.

METHOD

Study context

Zambia is located in southern Africa and the capital is Lusaka (16). The country area is 750 000sq km and populations density is around 14 people per sq km. The country has 73 tribes or ethnic groups but the official language is English. Industry and exports are dominated by the mining of copper, lead and zinc, nevertheless poverty remains a very big problem (ibid).

The study was performed in Livingstone, the largest town in the southern province (ibid). Southern province is one of Zambia's nine provinces and border to

Zimbabwe (17). Zambezi River and Victoria Falls is located along the boundary, approximately 10km from Livingstone (18). The population in Livingstone reached nearly 97 500 in 2004 (17).

The study was undertaken at a college in Livingstone area in Zambia. Total number of students was 387 and 95% were in the age range of 15 to 24. The questionnaires were administered to the students in the age range mentioned above.

Study design

The study design was quantitative, using a questionnaire-based approach. The questionnaire (see appendix 2) was produced by the research team. The questionnaire contained questions for assessing knowledge, attitudes and beliefs about HIV/AIDS.

The pilot study

When using questionnaire, it is important to know whether the respondents understand the questions or find certain ones objectionable, this is usually referred to as pretesting the questionnaire. In order to culturally adjust the design, a pilot study, which is a small-scale version or trial run of the major study was performed (19). One class was chosen at Livingstone School of Nursing. The reason this class chosen was that the nursing students were expected to have knowledge about HIV/AIDS in relation to their future profession and they were in the same age as the target group. Ten students were selected randomly, five women and five men. The purpose of the pilot study was to help the researchers to learn about and prevent possible culture insensitive questions. Minor changes were done.

Sample size and selection of participants

The sample size consisted of 67 adolescents. In general adolescents are young persons in their teen years or in their early twenties (20). However in this study, they are between 15-24 years old. The participants were 33 males and 34 females all with a Zambian origin. This age group was chosen because the researchers had

found other studies that could be compare with, and this age group is most affected by the disease.

The inclusion criteria's for participants were that the adolescents should be living in a city or in the countryside and must speak and write the English language fluently.

The questionnaire had an information paper attached where the students could read about all the information that they need to know (see appendix 1). It was two sections in the questionnaire; A and B. Section A was about Socio-Demographic data with question 1-8, while section B was about knowledge, attitudes and beliefs about HIV/AIDS with question 9-25. Question 20, 21 and the last question 26, were opened-ended questions (see appendix 2).

With help of our local contact from Livingstone School of Nursing one school was chosen, which should be representative for the targeted group in this area. Together with our local supervisor and one other teacher from Livingstone School of Nursing researchers went to the school. We handed out 80 questionnaires and were received 67, 13 were missing. In total 80 questionnaires was distributed and the total respond rate was 84%.

Data Analysis

The data analysis consisted of two parts, one major quantitative and one minor qualitative. The quantitative data were analyzed with descriptive using Statistical Package for Social Scientists (SPSS version 11). To compare groups, Chi Square and Fishers exact test for samples below 3 were used.

The qualitative data was based on the narratives written by the students as answers to the open-ended question "Is there something else you would like to say". The narratives were analyzed through content analysis according to Berg, 2001 (21). The narratives were read separately by the authors who thereafter met for a preliminary analysis. Data was coded independently and were then discussed together. Finally the research team discussed and categories were chosen.

Research collaboration

To make the study as qualified as possible, excluding misunderstanding and avoid insulting we had a near collaboration with one tutor and the principal at Livingstone School of Nursing in Zambia. They assisted with critique and change the questions in a way that would make it easier for Zambian adolescents to understand them. The researchers also got methodological feedback from teachers and students at Livingstone school of nursing.

Ethical procedure

The researchers received ethical permission from the ethical committee at the faculty of health science at university of Kristianstad. A local consent was also received from Livingstone School of nursing in Zambia. When applying for the ethical permit the researchers were aware of the risk that this issue could be painful and potentially insult people. However, benefit was believed to be greater than risk.

With understanding of the information- and consent requirement the researchers had an information paper where the Zambian adolescent could read about the study, the voluntary and anonymity to participate and the possibility to interrupt whenever they wanted (see appendix 1).

RESULT

Socio-demographic characteristics

Gender and age

Of the total number of respondents, 34 were women (51%) and 33 were men (49%). In all, 3% of the respondents were between 15 and 18, 57% between 18 and 21 and 40% between 21 and 24 years old.

Concerning origin and educational level, 75% of the participants were born in a city and 22% in the countryside. Two persons were not answering this question. Almost all of the respondents had college as highest education, 94 %.

Economical situation

When asking about the family income 54% of the respondents answered that it was around approximately 800 000-1 000 000 kwacha per month (253\$), 22% had

400 000-700 000 kwacha per month (174\$) and 6% of the respondents' family had under 300 000 kwacha (95\$) per month. Twelve of the participants were not answering this question. One way of measuring the economical situation could be to count number of meals/day. When the respondents were asked about how many meals they were used to have each day 82% of those who answered the question answered three meals per day and 9% were used to have only two meals each day. Six of the respondents were not answering this question.

Knowledge about HIV/AIDS

The respondents showed in general a high level of knowledge, 88% answered that they knew the difference between HIV and AIDS and 10% answered that they did not know. One person did not answer this question.

All the respondents knew how HIV is transmitted, through sexual intercourse.

On the question if sharing the razor blade when tattooing does not transmit HIV/AIDS, 82% answered false (this was the right alternative), 1% answered true (this was the wrong alternative). That they sometimes can get the disease when tattooing was answered by 15%. One person did not answer this question.

Concerning prevention of HIV, 97% of the participants answer that it is possible. They were further asked how they can prevent the disease, see table 1.

Table 1. Alternatives for prevention of HIV, Respondents could answer more than one alternative on this question, n=67

	n	(%)
Abstinence	66	(90)
Sticking to one faithful partner	66	(48)
Condom use	66	(42)
No answer	1	(1)

Attitudes towards HIV/AIDS

The study participants were asked if they could describe the way people with HIV/AIDS are treated in their community, see table 2.

Table 2. How people with HIV/AIDS are treated in the community, n=67

	n	(%)
Like everybody else	38	(57)
With sympathy	10	(15)
Isolated from others	9	(13)
Mistreated from others	5	(7)
No answer	5	(7)

Beliefs about HIV/AIDS

Half of the respondents (50%) did not believe that they could recognize someone with HIV, while 40% thought that they sometimes could and 9% that they always could. We further asked how they thought that they can recognize someone infected with HIV, see table 3.

Table 3. How to recognize someone infected with HIV, n=22

	n	(%)
Losing weight	11	(50)
Hair becomes lighter	6	(27)
Lips becomes red	4	(18)
Get skin rash	4	(18)
Appearance on the body	4	(18)
Skin becomes grey	2	(9)
Coughing	2	(9)
Tiredness	2	(9)
Got other diseases	2	(9)
Vomiting	1	(5)
Losing appetite	1	(5)
See it in their health	1	(5)

Another question was if they thought that people believe that sex with a minor (child) can cure HIV/AIDS, 34% answered yes, 55% no and 9% did not know if it was possible. One person did not answer the question. When it was asked if they supposed that people believe that HIV/AIDS can run in family through sexual cleaning*, 54% answered yes, 21% answered no and 21% did not know. Three of the participants were not answering this question.

Information and communication about HIV/AIDS

When asking the respondents when they first gained information about HIV/AIDS 7% of the respondents had got their first information in the age between 4 and 8, 60% between 8 and 16 and 31% had got their information later. One person had not answered the question.

The questions of where the respondents had received most of their information about HIV/AIDS, answer were as followed (see table 4). More than one alternative was possible to answer.

Table 4. Information received about HIV/AIDS from. More than one alternative was possible to answer, n=67

	n	(%)
Radio and TV	57	(85)
School	48	(72)
Family and friends	45	(67)
Newspaper	41	(61)

*means that when a man or woman dies the man or woman who remains or the surviving spouse have sexual intercourse with one of the relative. It is believed that, this is how they clean the ghost or spirit of the dead. So if the one who dies was HIV positive it means it will be passed on to the other person who had sexual intercourse with the widow or widower. It is a common practice in some Zambian tribes (personally communication in Zambia 12/28/06)

Almost everyone, 91%, use to talk with someone about HIV/AIDS. Table 5 illustrates the contacts the participants referred to as the sources for their communication. More than one alternative was possible to answer.

Table 5. Whom they use to talk with about HIV/AIDS. More than one alternative was possible to answer, n=67

	n	(%)
Friends	58	(87)
Sister/brother	38	(57)
School	37	(55)
Mother	33	(49)
Father	29	(43)
No answer	1	(1)

The question about given information, education and communication (IEC) about HIV/AIDS showed that it was common, implying that 84% of the respondents had given IEC to three persons or more, and 10% had given to two persons or less. Four of the respondents did not answer this question.

There was a significant difference between where the male respectively the female respondents had received their information from. An aspect was that 48% of the males and 74% of the females had got their information from newspapers. Then 55% of the males and 88% of the females answered that they have got their information in school. Further 42% of the males and 71% of the females talk about the disease with their sister/brother. It was possible to answer more then one alternative on these questions.

Qualitative analysis of narratives

The narratives were almost all ambivalent, in expressing both a deep worry for the severity of the HIV epidemic, but indicating also optimism for change. Overall, when analyzing the qualitative data, the main category was found in that the narratives expression of a strong desire to get help to stop the deadly disease that is so near and real. Recurrently it was described that something has to be done to

stop the disease that is killing innocent souls (people). The narratives contained a lot of information of what actually can and can not be done. This was seen in the two categories *Possibilities for change and Obstacles for change*.

Possibilities for change

In spite of the worry for the severity of HIV/AIDS the narratives still expressed optimism. Most descriptions mentioned possibilities for behavioural changes that in the long run might stop HIV. Abstinence before marriage and faithfulness after marriage was reputedly mentioned. Many emphasised that abstinence is the only way to prevent HIV.

People should advised to abstain and not using condom
(Male 21-24 years)

The narratives contained a request for more information, especially to colleges and to the rural areas. Some mentioned that HIV-positives should teach adolescents more about the disease.

Educate the youth the dangers of HIV/AIDS
(Male 18-21 years)

They were talking about closing nightclubs because of that kind of places is spreading the disease. One said:

Girls watch out sugar daddies who are rooming like hungry lion
(Female 18-21 years)

Obstacles for change

The students' narratives contained descriptions of possible obstacles for change behavioural. Deficient knowledge about condoms was described in many narratives. Another recurrent aspect was that people infected with HIV were stigmatized by the society because of the disease. On the other hand, narratives

also expressed how important it is that people stop stigmatising the infected persons in order to break the negative circle.

The narratives enlightened that to be able to fight AIDS you must fight the poverty first. They describe that people, who not even are able to provide for their families, do not prioritize to discuss issues about AIDS. The participants mentioned that women, who do not get enough food, are forced into prostitution. It was mentioned,

The only wise way of help the further spread of AIDS is to fight poverty
(Male 21-24 years)

Aids we can never say we have had enough
(Female 18-21 years)

DISCUSSION

Method discussion

The nursing students who were chosen for the pilot study might have a negative influence of the study because of their large knowledge of HIV/AIDS. The nursing students should be able to answer all the questions which would minimise the chances for the researchers to find difficulties in the questions that can be hard to answer for the target group. The hypothesis was that if the nursing students could not answer a question then it would be too hard for a non medical skilled person to answer. The main reason why this group was chosen was to help the researches to avoid insulting questions.

In general when the research is undertaken and the researchers are looking back at the questionnaire things are found that could have been done in a better way. More specific it would have been better to have opened questions. Because of this no comparing between age groups was done. Something that the researchers will emphasise in a future study is that HIV transmits by mother to child at childbirth and by breastfeeding. The researches would have avoided possible leading questions, for example the two first questions in section B regarding what HIV and AIDS stands for. (see appendix 2) These questions maybe could have been

asked in different ways, for example as open questions. The question, concerning how many people they had given IEC to, is a question that would be better with more alternatives (see appendix 2).

Question number 19, do you recognize someone infected with HIV? (see appendix 2) could also be discussed. It is possible in special cases to see if a person is infected with HIV or AIDS. So the best way if doing a new questionnaire in the future would be to ask the question, do you recognise someone who is newly infected with HIV? In that way the researchers could have found out if the adolescents think that they always can see if a person has got HIV, the answers is then no. You can not see if a person has the disease, except as mentioned above, in special cases or after a long time with sickness, alternatively if you have a medical education. The way the researchers see it, answered the respondents that they could see the symptoms when the disease has progressed to AIDS. The question concerning if sharing the razor blade when tattooing transmits HIV/AIDS or not (see appendix 2) could also have been expressed in a clearer way. In a future this question should be excluded. A strength in the qualitative part was that the research team analyse the opened questions alone and then came together to compare. It resulted in similar findings.

Our target group had a high education and a good family income. The majority of them came from the city. Those socioeconomic aspects might have influenced the results. This is something that the researchers had in mind when analysing the material. The main reason of this study was to investigate the knowledge, attitude and beliefs about HIV/AIDS at Livingstone trades institute in Zambia. It could be argued that it might be difficult to transfer the findings to adolescents in the same age group in Zambia.

When the respondents express themselves in the open-ended question at the end a lot of interesting data was provided. Afterwards it can be seen that the deep interviews would have been helpful for solving this complex issue.

Discussion of the result

The purpose of the study was to explore adolescents' knowledge, attitudes and beliefs about HIV/AIDS at Livingstone trades institute in Zambia. When comparing with different previous studies we confirmed our study in that adolescents in Zambia in general have good knowledge about HIV/AIDS. What is then the reason that the HIV-prevalence is so high? The researches wonder if the reason is the attitudes and the beliefs to the disease.

Prevention and condom use

Almost all of the respondents in our study knew that HIV can be prevented. The quantitative data illustrate that almost all of them think that abstinence of sex can prevent HIV/AIDS, while just around half of the respondents mentioned condom use and sticking to one faithful partner as a possibility to avoid the disease. Half of the respondents also knew that all of these alternatives are ways of preventing the disease. The qualitative data analysis showed of that abstinence was the right way of how HIV should be prevented and a belief that condom use is unsafe.

This belief is confirmed in previous studies in Zambia. For example, a study by Ndumani and Höjer (22) described that most of the men had heard about condoms and many have seen them but only a few seemed to trust or use them. They said that if they use the condom often it would affect their manhood or make them impotent. The same study also showed that woman refuses to use condoms with the motivation that they are not prostitutes (ibid). Can this be one reason why the men do not suggest using condoms with their sexual partner? In one article condoms are associated with unfaithfulness, when people are advised to remain faithful or use a condom in non-spousal sexual contact (23). This makes them not wanted to use the condom.

Majority of the men in one study believed that condoms reduce the risk of HIV-transmission, however 60% of them had never used a condom before (24). The same study 19% said that they use condoms every time they having sex, 17% said sometimes and 4% rarely use it (ibid). In one other sample, over half of the sexually active adolescents in age 14-20, had never used a condom and 13% of the

respondents said that they will refuse to use a condom if their partner asked them to (14).

What is the reason for this, why is the condom not more mentioned and why do people think that the condoms are unsafe? It looks like people think that they must avoid sex to stay out of HIV, like one quotation from a man in an article illustrates:

The main solution is to abstain from sex. To prevent ourselves we just have to fear women (24 p, 11)

One other study stated that a large proportion of young people in Zambia did not think that they could do anything to avoid HIV (25). Is this because of lack of knowledge or does it also has to do with the attitudes or beliefs?

Can this be one reason why the disease increases? The young people think that they can not avoid it, it catches you anyway.

Theoretical perspective and practical reality

As mentioned before our respondents have knowledge about HIV/AIDS, however when looking at the qualitative data we could see a contradiction. Many of the respondents have expressed that it is the attitudes and the beliefs that is the problem. Abstinence as one way of stopping the distribution of the disease was the thing that was most mentioned. This might be an expression of adaptation to the national agenda for prevention of the disease, through abstinence. Our conclusions are that this is not a way to stop the disease, politicians or health workers will never be able to stop people from having sex. Rather emphasise most be put on learning people to have safe sex, that it is okay for girls to express their opinions and on fighting poverty.

Information and communication

What was remarkable in the result of our study was that so many have got information and education about HIV/AIDS and also referring information from different sources, but still feel disempowered. It seems to be common that people

talk about the disease. This can be a reason why the respondents have such good knowledge. Maybe giving out IEC (information, education and communication) is a good way to teach adolescents about the disease. To discuss the topic with each other and in that way learn about HIV/AIDS.

Does it make a difference with whom the adolescents talk to? The respondents in our study choose to talk to their friends instead of for example the parents. Maybe it is embarrassing to talk about the disease with their parents? One article showed that talking about sex and sexuality is difficult, embarrassing and ignorance is associated with this issues, which also can make it hard for the parents (15).

How is it that the women talk more with sister/brother than men do, like our study showed? The reason can be that women feel more comfortable with a sister or a girlfriend and that they are more open with each other than men are.

When talking about information and communication one way is that local health workers could teach the students how to protect them, by using condoms and what can happen if they do not protect them. It can be done in groups, for example every school can have a HIV prevention group that has responsibility to teach other students. Another possibility, as said before, is that people will speak to each other in more open ways, discussing the topic.

Nursing role in HIV-prevention

Most important for this study is the big problem, regarding the fact that the youth may have the information and knowledge but that they do not know how to use it or implement the information. The nurse could be the link who could reach the adolescent at their level and promote them to understand how to avoid the disease. This potential role makes it important for the nurse to know how to pass on the information and what she should put her emphasis on. A nurse can give more information about condom use and how important it is to perform safe sex. The qualitative part of the study illustrated a defective part of that knowledge. It is also important that the nurse learns about her own prejudice and fears about the disease to conduct the encounter in a good way with the patient, in this case a young

person. The nurse must be able to give good quality care to a young person who has got a mortal disease as HIV/AIDS.

It is important to understand these things about HIV/AIDS, as it is a global concern. For example STD (sexual transmitted diseases) in Sweden increases in numbers. Each year, 100 million people under 25 get infected with STD globally, excluding HIV (15). The ambition is to make other people more interested about this topic and then it can develop and be taken as a learning possibility when talking about STDs. It is also important for nurses to have knowledge about this topic, no matter where you live you probably someday will be meeting the disease and then it is important to have good knowledge.

Over half of the nurses in an earlier Zambian study showed that nurses had feelings of helplessness in their relationship with a person with HIV/AIDS and almost all of the nurses feared of contracting the disease at work (26). Another study done in Sweden showed that almost all nurses had experience of nursing HIV-infected persons (27). Low degrees of fear were shown and the nurses expressed things like,

It is too heavy psychologically. It is due to strong empathy and maybe a feeling of a personal defeat – when you want to do so much but can do so very little. I want more knowledge of how I can handle my emotions
(*ibid*, p, 458)

This is maybe also a problem that the nurses also need to know how to handle their emotions and they need support in their work? Especially when meeting a young person with the disease the authors believe that they had feelings of helpless and need someone to talk to about their feelings. So what is possible to do making the nurses feel more comfortable about working with young HIV/AIDS-patient? In one study nurses mentioned that they needed education, universal precautions, support group and counselling services (26). Examples of information they need are for instance emotional/psychological need of a person living with HIV/AIDS, emotional/psychological support for professionals, safer

sex education and promoting safer sex behaviour (ibid). To be able to teach out how to meet patients with HIV/AIDS it is important to get knowledge and information in the community.

Missing a perspective of wholeness

When analysing the result it have to been taken into consideration that the participants in our study had a good family income, high education and that they were from city. Together the respondent had in general high knowledge of the topic, however, you can not assume that adolescents with poorer family conditions, lower education and who are from the countryside have the same knowledge, attitudes and beliefs?

The result of our study showed of that poverty and hunger has to be acknowledged in order to be able to fight HIV. One article confirmed this complex that, social economic and social cultural condition for example poverty, poor education, unemployment and social isolation shape young people's choices in ways that expose them to a greater risk of becoming infected with HIV (15).

One study showed that higher knowledge affected the attitudes and less knowledge about the diseases leads to negative attitudes towards HIV-prevention (12). Interesting to mention then is that one other study showed of that working on changing the social norms, attitudes and behaviours could be ways to stop or decrease the expansion of the epidemic of HIV/AIDS (3).

Conclusion

This result indicates a high level of knowledge but more research and reflection including a perspective of wholeness is needed in these complex issues. It is illuminated that the knowledge level is high, however it is not enough it is change behaviour and now more action research is needed for change. Research with both the participants' desired information and with recourses to combat other obstacles, as the surrounding poverty and lack of empowerment of girls and women. This will result in not only research for the cause of researching, instead research must be used as a product for change.

These thoughts are something for other researchers to have in mind when conducting interventions to try to fight HIV.

Young people are the key in the fight against AIDS. By giving them support they need, we can empower them to protect themselves against the virus. By giving them honest and straightforward information, we can break the circle of silence across all society. By creating effective campaigns for education and prevention, we can turn young people's enthusiasm, drive and dreams for the future into powerful tools for tackling the epidemic

(Kofi Annan, 2002) (15, p, 3)

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The increased spreading of HIV/AIDS has affected large parts of Zambians community from a multi centre research point of view. It is important to examine adolescent's knowledge and attitude about HIV/AIDS, because the occurrence of the disease is high in Zambia. The following study is collaboration between the Livingstone school of nursing and the faculty of nursing centre of Kristianstad University.

With this background, a questionnaire is handed over to you with questions about your knowledge and attitude about HIV/AIDS to you and to approximately 60 other students at your school, in Livingstone during the middle of February 2006 to the middle of March 2006. Your cooperation in this survey is voluntary but it is meaningful that you try to answer the questions so that the survey will receive as high quality as possible. The collection of the questionnaire will be done in the school.

The answer of the questionnaire will be treated confidentially, which means that the collection and the keeping of the material will be in a way that unauthorized can not see your answer. The collected materials will be statistical analysed. You will be completely anonymous because your identity is unknown. You can when ever you want to interrupt you participation in answering the questionnaire.

If you wonder anything concerning the questions or if you have any question about the survey, you are welcome to contact Karina Svensson and Louise Andersson, "nursing students/coming colleagues on exchange program with Linneus- Palme from collaborating University in Sweden, Kristianstad University". Contacted on phone number 097275419 or the local supervisor Mr Filbert Macha.

Thank you in advance for you participation!

Kristianstad, November 2005

Karina Svensson

Louise Andersson

.....
Researcher

.....
Researcher

QUESTIONNAIRE

Appendix 2

Date.....

Serial number.....

Place.....

RESEARCH TOPIC: **To determine adolescents knowledge and attitudes about HIV/AIDS at Livingstone trades institute Zambia**

Instruction:

- Please read every question very clearly and take your time

SECTION A

Socio-Demographic data

1. Gender

a) Male

b) Female

2. Age on last birth day?

a) 15-18 years

b) 18-21 years

c) 21-24 years

3. What is the place of birth?

a) City

b) Countryside

4. What is the highest level of your education?

- a) Primary
- b) Secondary
- c) College
- d) University
- e) Non

5. If you are a female have you ever had a pregnancy?

- a) Yes
- b) No

6. If yes how many pregnancies have you had?

- a) One
- b) Two
- c) Three
- d) Other, please specify.....

7. What is your family income?

- a) K100,000 or below
- b) K150,000-K300,000
- c) K400,000-K700,000
- d) K800,000-K1,000,000
- e) Other, please specify.....

8. How many meals do you have per day?

- a) One
- b) Two
- c) Three
- d) Other, please specify.....

SECTION B

Knowledge and attitudes about HIV/AIDS

9. What do the letters HIV stands for?

- a) Immune bacteria
- b) Human immune virus
- c) Virus

10. What do the letters AIDS stands for?

- a) Acquired deficiency virus
- b) Acquired immune deficiency virus
- c) Active immunity disease

11. How is HIV transmitted?

- a) Sexual intercourse
- b) Sharing toilets
- c) Eating with an infected person

12. At which age did you get your first information about HIV/AIDS?

a) 4-8 years

b) 8-16 years

c) 16-20 years

d) 20-24 years

13. Do you use to talk about HIV/AIDS with someone?

a) Yes

b) No

14. If yes, with whom?

a) Mother

b) Father

c) Sister/brother

d) Friends

e) School

f) All of the above

g) Others, please specify

15. To how many have you been given information education and communication (IEC) about HIV/AIDS?

a) One

b) Two

c) Three

d) Others, please specify.....

16. Can HIV/AIDS be prevented?

- a) No
- b) Yes
- c) Do not know

17. If yes, how can you prevent HIV/AIDS?

- a) Abstinence of sex
- b) Use of condom
- c) Sticking to one faithful sexual partner
- d) All of the above

18. Could you please describe the way people with HIV/AIDS are treated in your community?

- a) Treated like everybody else
- b) Treated with sympathy
- c) Isolated from others
- d) Mistreated from others
- e) Other, please
specify.....

19. Do you recognize someone infected with HIV?

- a) Yes, always
- b) Yes, sometimes
- c) No

20. If yes, please explain how you can see it

.....

21. Do you think that people believe that HIV/AIDS can run in families through sexual cleaning?

a) No

b) Yes

c) Do not know

22. Do you think that people believe that sex with a minor (child) cure HIV/AIDS?

a) Yes

b) No

c) Do not know

23. Sharing the razor blade when tattooing does not transmit HIV/AIDS?

a) False

b) True

c) Sometimes

24. What is the difference between HIV and AIDS?

a) HIV is a disease leading to AIDS

b) AIDS is a disease caused by the virus HIV

25. From where have you got most information about HIV/AIDS?

- a) Newspaper
- b) School
- c) Radio and TV
- d) Family and friends
- e) All of the above
- f) Other, please specify.....

26. Is there something else you would like to say, please tell us in the space below

.....

.....

.....

.....

.....

.....

.....

Thank you so very much for your time to answer this questionnaire related to your knowledge and attitudes about HIV/AIDS.

Karina Svensson and Louise Andersson “under the supervision of Mr Filbert Macha”

