**Title: Secondary school learners’ HIV/AIDS knowledge in Harare, Zimbabwe**

**Short title: Zimbabwe’s learners’ HIV/AIDS knowledge**

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**ABSTRACT**

**Background:** Efforts to stem the tide of the HIV/AIDS pandemic in Africa, emphasise the necessity of providing knowledge to learners so that they can make informed decisions. Although learners in Zimbabwe’s schools are taught about HIV/AIDS, the extent of this knowledge needed to be determined.

**Objective:** The major objective was to assess secondary school learners’ HIV/AIDS knowledge in Harare, Zimbabwe.

**Method:** Structured interviews were conducted with 75 Form 1 secondary school learners from four schools representing a low density, a high density, a rural and a private school in Harare, Zimbabwe.

**Results:** Most learners had obtained their HIVAIDS knowledge from schools while few did so from their parents, community activities, the radio or television. None of the learners had reportedly yet engaged in sexual activities and all had heard about HIV, but not all knew what HIV was, and even fewer could define AIDS. Less than one-third of the learners could mention the three most important HIV preventive measures. Most learners were willing to undergo voluntary counselling and testing (VCT) to determine their HIV status, but few had done so.

**Conclusion:** As no learner had commenced sexual activities, opportunities exist to empower Form 1 learners with adequate HIV/AIDS knowledge. Generally the learners’ HIV/AIDS knowledge levels were high but some misconceptions existed. VCT services should be more accessible to secondary school learners. School, radio and television programmes should address misconceptions, inform learners about VCT services and emphasise that any person can become infected with HIV/AIDS, if preventive measures are disregarded.

**Opsomming**

**Agtergrondinligting:** Pogings om die MIV/VIGS pandemiese golf in Afrika te stuit, beklemtoon die noodsaaklikheid om kennis aan leerders te verskaf sodat hulle ingeligte besluite kan neem. Alhoewel leerders in Zimbabwe se skole onderrig word oor MIV/VIGS, behoort die omvang van die kennis vasgestel te word.

**Doelwit:** Die hoofdoelwit was om sekondêre skool leerders van Harare, Zimbabwe, se kennis van MIV/VIGS te bepaal**.**

**Metode :** Gestruktureerde onderhoude is gevoer met 75 vorm 1 sekondêre skool leerders van vier skole verteenwoordigend van ‘n lae digtheid, ‘n hoë digtheid, ‘n plattelandse en ‘n privaat skool in Harare, Zimbabwe.

**Bevindings:** Die meeste leerders het hulle MIV/VIGS kennis by hulle skole opgedoen terwyl ‘n paar dit van hulle ouers, gemeenskapsaktiwiteite, die radio en televisie gekry het. Volgens die inligting het geen leerders met seksuele aktiwiteite begin nie, almal het van MIV gehoor, maar nie almal het geweet wat MIV is nie, en nog minder kon VIGS definieer. Minder as een-derde kon die drie belangrikste MIV voorkomende maatreëls noem. Die meeste leerders was gewillig om vrywillige berading en toetsing (VBT)te ondergaan ten einde hulle MIV status vas te stel, maar min leerders het dit reeds gedoen.

**Gevolgtrekking:** Aangesien geen leerder seksueel aktief was nie, bestaan geleenthede om Vorm 1 leerders te bemagtig met voldoende MIV/VIGS kennis. Oor die algmeen was die leerders se MIV/VIGS kennisvlakke hoog, maar etlike wanopvattings het bestaan. Die meeste leerders was gewillig om vrywillige berading en toetsing te ondergaan ten einde hulle MIV status vas te stel, maar min leerders het dit reeds gedoen.

**Gevolgtrekking: T**oekomstige programme moet beklemtoon dat daar geen geneesmiddel vir VIGS is nie, en dat kondome met elke seksuele ervaring gebruik moet word. Skool, radio en televisieprogramme moet beklemtoon dat enige mens met MIV/VIGS besmet kan word, as voorkomende maatreëls verontagsaam word. VBT programme moet meer toeganklik wees vir sekondêre skool leerders. Skool, radio en televisieprogramme moet wanopvattings aanspreek, en leerders inlig oor VBT dienste en beklemtoon dat enige persoon met HIV/VIGS besmet kan word, as voorkomende maatreëls verontagsaam word.

**Key words:**

HIV/AIDS knowledge, HIV/AIDS prevention, secondary school learners, sexual behaviour, Zimbabwe**INTRODUCTION AND BACKGROUND INFORMATION**

Acquired immuno deficiency syndrome (AIDS) is an infectious disease that is caused by the human immuno deficiency virus (HIV). The virus affects and destroys the immune system and people become more prone to opportunistic infections (Lindsay 2001:S4). Sub Saharan Africa (SSA) is the worst affected area with 64.0% of all people with HIV living in SSA (UNAIDS 2006:15) and half of the new cases being among people aged 15-24 years (UNAIDS 2004:93).

Nearly half of the population in Zimbabwe (43.0%) comprises young people aged 15 or younger (http//www.nationsencyclopedia.com/economies/Africa/Zimbabwe.htm). HIV prevalence rates among Zimbabwe’s young people aged 15-19 years was 12.0% for women and 2.0% for men (MOHCW 2003:14). HIV prevalence for young women, attending antenatal clinics, ranged from 28.0% among women aged 15 years to 33.0% among women aged 21 years in Harare (MOHCW 2000:26). In Zimbabwe the age group of 6 to 15 years was least affected (MOHCW 2004:14). The hope of slowing down the spread of HIV among young sexually active persons remains a challenge. The future of the AIDS epidemic will be shaped by the sexual behaviours of this younger age group since it is the least affected. Hence there is an urgent need to target HIV prevention strategies at them while they are still likely to be HIV negative. According to Zimbabwe’s Young Adult Health Survey (MOHCW 2001-2002:70) human behaviour is influenced by different factors which include knowledge, risk perceptions and attitudes towards condoms, persons infected with HIV and gender roles. However, knowledge is reported as an important influential factor on sexual behaviours. A review on social science research on HIV/AIDS (Freudenthal 2001:12) showed that many researchers consider education to be one of the most important tools for preventing the transmission of HIV. A joint press release by UNICEF, UNAIDS and WHO (UNICEF 2002:1) stated that there was a strong linkage between what young people knew and how they acted. Although there is no guarantee that knowledge leads to behaviour changes, at least HIV/AIDS knowledge should enable young people to make informed decisions.

A Zimbabwe survey (MOHCW 2001-2002:1) reported that many youths engaged in behaviours that put them at risk of HIV infection and 71.0% of youths aged 15-29 years had sexual intercourse before the age of 20. The age of sexual intercourse, the degree of sexual activity and number of partners are factors that increase the risk of HIV among youths (Buseh, Glass, McElmurry, Mkhabela, & Sukati 2001:526). Two studies in Zimbabwe showed that many male adolescents were sexually active by the age of 15 and therefore at risk of HIV infection (Boohene, Tsodzai, Hardee-Cleveland, Weir & Janowitz 1999: 266). In Harare, the capital city of Zimbabwe, among the age group 15-24, HIV prevalence reportedly remained at 20.0% in 2005 (MOHCW 2005:27), hence the need to provide targeted HIV information, enabling young people to make informed choices.

According to the MOHCW (2001-2002:31), youths engage in high risk behaviours like alcohol and drug abuse, early sexual debuts and sex with older men who might be infected with HIV. Mataure, McFarland, Fritz, Kim, Woelk, Ray and Rutherford (2002:217) reported that 63.0% females and 70.0% males of Harare’s secondary school children used alcohol and that they engaged in high risk behaviours while intoxicated. Girls had sex with older men in exchange for money while boys had sex with casual sex workers. Fritz, Woelk, Bassett, McFarland, Routh, Tobaiwa and Stall (2002:227) found a strong association between alcohol use and sexual risk behaviours in Harare. A survey on experiences of urban Zimbabwe youths reported that youths engaged in early sexual experiences, prostitution, drug and alcohol abuse (Phiri 2000:4-9).

**HIV/AIDS education offered by Zimbabwe’s schools**

The education system in Zimbabwe is divided into primary, secondary and tertiary education. Primary school is from grade 1 to grade 7 and secondary school is from Form 1 to Form 6 and tertiary education institutions are colleges and universities. There are low-density schools, high-density schools, private schools, and rural schools. In Harare there are 209 primary schools and 85 secondary schools (MOESC 2005:2).

As from 1993, Zimbabwe’s Ministry of Education introduced HIV/AIDS education in all primary schools for grades 4-7 and in secondary schools from Form 1-6. The purpose of the HIV/AIDS school programme is to provide knowledge about HIV/AIDS to learners, to promote healthy lifestyles, positive values and attitudes and responsible behaviour among learners (MOESC 2003:5). This is in line with the Zimbabwe National HIV/AIDS policy which states that children should have access to knowledge and life skills that are needed to avoid HIV infection (MOHCW 1999:22).

The curricula for primary and secondary school learners address human growth and development, information on HIV/AIDS (what it is and how it could be acquired, transmitted and prevented), life skills that promote positive behaviour changes, the impact of HIV/AIDS on individuals, families, the nation, promoting behaviour that prevents and reduces the infection and transmission of HIV among learners (MOESC 2003:6-7).

**STATEMENT OF THE PROBLEM**

HIV infection among the age group 5 to 14 years is reportedly low in Zimbabwe with

120 000 children living with HIV compared to 1.8 million adults during 2001 (Lindsay 2001:1). Zimbabwe’s Ministry of Education includes HIV/AIDS education in school curricula since 1993. No information on HIV knowledge among young people aged up to 15 years in Zimbabwe could be traced. Thus there appeared to be a need to evaluate Zimbabwe’s learners’ HIV/AIDS knowledge and to assess their reported sexual behaviours. Based on these findings, recommendations could be made for enhancing the messages conveyed during HIV/AIDS information sessions in Zimbabwe’s schools.

**SIGNIFICANCE OF THE STUDY**

Information obtained about learners’ HIV/AIDS knowledge and sexual behaviours could help to assess the impact of Zimbabwe’s school HIV/AIDS curricula on learners’ HIV/AIDS knowledge and on their reported sexual behaviours. Recommendations could enhance the impact of Zimbabwe’s school HIV/AIDS curricula on secondary school learners’ HIV/AIDS knowledge, by addressing areas in which learners might require more information

**Purpose and objectives of the study**

The purpose of the study was to assess secondary school learners’ HIV knowledge in Harare. Recommendations, based on the study’s findings, could enhance the impact of Zimbabwe’s HIV/AIDS school programmes on secondary school learners’ HIV/AIDS knowledge levels, and thus on their abilities to make informed decisions about their sexual behaviours.

**RESEARCH METHOD AND DESIGN**

**Research design**

A non-experimental, exploratory and descriptive quantitative approach was used. According to Brink (1999:108), a non-experimental study is carried out in a natural setting and the phenomena are observed as they occur. Data can be collected without making changes or introducing treatments. This design was chosen because it allowed the collection of data in the natural setting of secondary schools. Exploratory studies address issues that have not been previously studied in order to identify new knowledge, new understandings or new meanings (Polit & Hungler 2008:19). Descriptive designs describe variables in order to answer the research question(s) (Brink 1999:109).

The exploratory descriptive design has been chosen because it could generate new information about secondary school learners’ knowledge that could influence their chances of remaining HIV negative.

**Population and sample**

The study population comprised girls and boys who had completed seven years of primary schooling and were in their first year at secondary school, known as Form 1 in Zimbabwe. The number of Form 1 learners in Harare’s 209 secondary schools during 2008 could not be determined. Due to limited funds, severe fuel shortages making travelling unreliable and expensive, four schools accessible to the interviewer for data collection were selected. The secondary schools were purposefully selected to include one high density school, one low density school, one rural school and one religious (private) school. A non-probability sample was used because it involved learners who happened to be “in the right place at the right time” (Burns & Grove 2001).

Form 1 learners from the four selected schools could participate, provided their parents had granted permission and provided the individual learner was willing to be interviewed on the days when the researcher visited the particular school. Learners not in Form 1 at the four participating schools were excluded, as well as those whose parents did not give permission, or who were unwilling to be interviewed, or who were absent from school on the days when the researcher visited the particular school. Ten girls and boys from each participating secondary school were expected to take part in the survey. However, the total sample size comprised 75 Form one learners (39 girls and 36 boys).The first 10 male and the first 10 female volunteers were interviewed from each school, but only 15 learners from the high density school participated.

**Data collection instrument**

Data were collected by using structured interview schedules containing both open and close-ended questions, addressing the following aspects: demographics (age, gender, religion, type of school attended); HIV knowledge; HIV prevention methods; sources of HIV knowledge and sexual behaviours. Questions about HIV knowledge focussed on learners’ abilities to define HIV and AIDS and describe its modes of transmission. Learners were requested to list three behaviours that could ensure that a person would remain HIV negative to assess their HIV prevention knowledge. Questions were also asked about learners’ knowledge about voluntary counselling and testing (VCT) services and their utilisation of VCT services. Questions about learners’ sexual behaviours requested information about their sexual activities, advantages of using condoms and where to access condoms.

**Validity and reliability of the instrument**

The reliability of an instrument can be measured by means of stability, internal consistency and equivalence. Stability of an instrument is the extent to which the same results are obtained on repeated administrations of the same instrument (Polit & Hungler 2008:368). Stability of the instrument was checked by pre-testing the interview schedule in two schools (that were excluded from the actual study) and the results of the pre-tests were compared with those from the actual data collection phase. No major discrepancies were identified. Internal consistency implies that all subparts of an instrument measure the same characteristics (Polit & Hungler 2008:371) which was judged to be the case by two researchers and a statistician. Equivalence was not applied to this instrument.

To enhance validity, the instrument was developed using questions similar to those from research reports assessing HIV knowledge and sexual behaviours. The instrument was reviewed by two experienced researchers and a statistician. These persons accepted that the items on the structured interview schedule reflected the real meaning of the concept under consideration (namely learners’ HIV/AIDS knowledge and sexual behaviours) (Babbie & Mouton 2001:142).

**Data collection process**

The researcher visited each participating school and obtained suitable dates for conducting the interviews from the principal concerned. Information about the survey was handed to Form 1 learners who were requested to obtain written permission from their parents to participate in the survey. On the appointed date, the researcher conducted face-to-face structured interviews with the first ten learners who produced signed permission from their parents and who declared that they were willing to be interviewed.

One researcher conducted all the interviews and asked the same questions in the same sequence from all learners. The interviewer recorded all the responses on the interview schedule. Responses to open-ended questions were recorded verbatim.

**Data analysis**

Data were coded and analysed using the Epi Info 2004 version 3.2.2 program. A statistician assisted with data analysis. Responses to open-ended questions were grouped and analysed quantitatively.

**ETHICAL CONSIDERATIONS**

The ethical principles of beneficence, respect for human dignity and justice were considered. The principle of beneficence requires that the researchers should do no harm (Polit & Hungler 2008:31), including freedom from exploitation, benefits of research and risk/benefit ratio. The respondents were informed about the study, the benefits and risks. Written permission from each learner’s parent or legal guardian was obtained before the interview was conducted, provided that the individual learner was willing to be interviewed.

Ethical clearance to conduct the study was granted by the Research and Ethics Committee of the Department of Health Studies, University of South Africa, Zimbabwe’s Ministry of Education, Sports and Culture (MOESC) and the management of each participating school.

The principle of respect for human dignity requires that the right to self determination and full disclosure are respected (Polit & Hungler 2008:33). This was achieved by providing information about the study so that each learner could decide whether or not to participate, without incurring any penalties. No learner was forced to participate.

The principle of justice demands fair treatment and the right to privacy (Polit & Hungler, 2008:35). No identifying information was collected from any learner and confidentiality was ensured throughout the research process. No signed consent was requested from individual learners, but the researcher asked every interviewee the following questions: “Your parent/guardian signed consent for you to participate in the study. Are you willing to be interviewed by me? Do you understand that you may refuse to answer specific questions and to stop being interviewed at any stage?” Only learners who answered positively to both questions, were interviewed. The completed interview schedules were kept under lock and key and would be destroyed after the acceptance of the research report.

**DEFINITIONS OF KEY TERMS**

**Secondary school learners** are learners who have completed seven years of primary schooling and are in their first year (Form 1) in a secondary school in Harare, Zimbabwe.

**Youths/young people** include the terms ‘adolescent and ‘teenager’, referring to young people who are undergoing physical, mental and cultural transition from childhood to adulthood. According to the WHO (2006:1) adolescents are people aged 10-19 years and young people 10-24 years. In Zimbabwe youths fall within the age group of 10-30 years. (MYDGEC 2000:12). For the purpose of this study, young people will be used to cover people aged 10-30 years as defined by the Zimbabwe National Youth policy and will be used interchangeably with youths.

**RESULTS**

**Demographic data**

A total of 75 learners were interviewed from four schools identified as A, representing a low density school (27.0%; n=20), B, private school (27.0%; n=20), C, high density school (20.0%; n=15) and D rural school (27.0%; n=20).

There were more female 52.0% (n= 39) than male 48.0% (n=36) respondents. The learners’ ages ranged from 12 to 14 years; 69.3% (n= 52) of the respondents were 13 years old, followed by learners aged 14 years (26.7%; n=20) while learners who were 12 years old were in the minority (4.0%; n=3). The age range is consistent with learners who have completed seven years of primary education in Zimbabwe given the fact that they enrolled in grade one at six years of age and had completed at least seven years’ schooling when the data were collected.

Reportedly all learners (100.0%; n=75) were Christians. Of the learners 68.0% (n=51) grew up in urban areas; 17.3% (n=13) in small towns and 14.7% (n=11) in rural areas. Stratified by gender, more males (19.4%; n=7) than females (10.3%; n=4) grew up in the rural areas and almost an equal number of males and females grew up in urban areas.

**Learners’ HIV/AIDS knowledge**

***Sources of HIV/AIDS knowledge***

All learners (100.0%; n=75) had heard about HIV/AIDS. The school (92.0%; n=69) was the most frequently mentioned source of information. The television (60.0%; n=45) and radio (41.3%; n=31) were common sources of information.

***Learners’ HIV/AIDS knowledge levels***

When asked what HIV is, 94.7% (n=71) of the learners answered correctly, although 100.0% (n=75) had heard about HIV. Although all learners (100.0%; n=75) knew about HIV, only 89.3% (n=67) gave correct answers about AIDS. Learners from the private school (85.0%; n=17), high density school (86.0%; n= 13) and low density school (90.0%; n= 18) trailed behind the rural school (95.0%; n= 19) concerning their levels of AIDS knowledge.

Female learners (97.4%; n=38) were more knowledgeable about HIV than their male counterparts (94.4%; n=34). However the knowledge level of female learners on what AIDS is, was lower (82.0%; n=32) compared to that of the male learners (97.2%; n=35).

***Learners’ knowledge about the transmission of HIV***

When learners were asked in an open- ended question how HIV is transmitted, 96.0% (n=72) mentioned unprotected sex; 82.7% (n=62) sharp objects; 25.3% (n=19) parent to child transmission (PTCT), 13.3% (n=10) body fluids while 9.3% (n=7) mentioned other ways including accidents, being scratched by an infected person’s nails, and looking after someone who is HIV positive. Unprotected sex, as the most common method of HIV transmission (WHO 2004:5), was mentioned by almost all (96.0%; n=72) learners.

**Table 1: HIV transmission responses to yes/no questions (n=75)**

(correct answers are indicated in brackets)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Yes/no questions (with correct answers in brackets) | Correct response | | Incorrect response | | TOTAL | |
|  | N | % | N | % | n | % |
| Sex with an infected partner (yes) | 75 | 100.0 | 0 | 0.0 | 75 | 100 |
| Using same plates as infected persons (no) | 74 | 98.7 | 1 | 1.3 | 75 | 100 |
| Cough (no) | 73 | 97.3 | 2 | 2.7 | 75 | 100 |
| Using same toilets as infected persons (no) | 73 | 97.3 | 2 | 2.7 | 75 | 100 |
| Needle prick injuries (yes) | 72 | 96.0 | 3 | 4.0 | 75 | 100 |
| Mosquito bites (no) | 71 | 94.7 | 4 | 5.3 | 75 | 100 |
| Parent to child transmission (yes) | 71 | 94.7 | 4 | 5.3 | 75 | 100 |
| Blood transfusion (yes) | 56 | 74.7 | 19 | 25.3 | 75 | 100 |
| French kissing (no) | 55 | 73.3 | 20 | 26.7 | 75 | 100 |
| Tattooing (yes) | 36 | 48.0 | 39 | 52.0 | 75 | 100 |

As indicated in table 1, all learners (100.0%; n=75) knew that having sex with an infected partner could cause HIV infection; a person could not getting infected through mosquito bites 94.7% (n=71), nor from eating from the same plates as infected persons (98.7%; n=74), nor from using the same toilets as infected persons (97.3.%; n=73), nor through coughing (97.3%; n=73). Knowledge about getting infected through parent to child transmission was high (94.7%; n=71) and about getting infected through needle prick injuries (96.0%; n=72). Lower correct percentages were reported concerning blood transfusions (74.7%; n=56), French kissing (73.3%; n=55) and tattooing (48.2%; n=36).

Of the learners, 96.0% (n=72) knew that an HIV positive person could appear healthy. All learners (100.0%; n=75) mentioned that boys who used the services of prostitutes could acquire HIV/AIDS and/or sexually transmitted infections. Learners indicated that the risks of having sex with older men included acquiring HIV/AIDS (89.3%; n= 67), getting STIs (5.3%; n=4) and pregnancy (18.7%; n=14). The girls’ loss of virginity (1.3%; n=1) and the possibility of being murdered (2.7%; n=2) were also mentioned.

***Knowledge about cures for AIDS***

Of the learners, 86.7% (n=65) knew there was no cure for AIDS while only 2.7% (n=2) reported that there was a cure. Most learners (97.3%; n=73) believed that sleeping with a virgin could NOT cure AIDS while 2.7% (n=2) reported that this behaviour could cure AIDS.

***Knowledge about HIV prevention***

Learners were requested to mention three preventive actions that would ensure that they could remain HIV negative. These responses included abstinence (66.7%; n=50), being faithful (21.3%; n=16), using condoms (66.7%; n=50) and ‘other’ (85.3%; n=64). “Other methods” included avoiding sharing sharp objects, getting HIV tested before marriage and avoiding peer pressure as ways of ensuring that one remains HIV negative.

Of the learners, 28.0% (n=21) spontaneously mentioned three different ways of avoiding HIV infection, 56.0% (n=42) mentioned two ways and 14.7% (n=11) only mentioned one way and one learner failed to mention any method of preventing HIV infection.

Of the learners, 93.3% (n=70) reported that they had never been tested for HIV while 6.7% (n=5) had been tested. However, 70.7% (n=53) reported that they wanted to be tested for HIV but 29.3% (n=22) did not want to do so. Out of the 70 learners who had not been tested, 31.4% (n=22) reported that they did not want to be tested for HIV and 68.6% (n=48) were willing to be tested. All the learners who had been tested previously (6.7%; n=5), wanted to be tested again for HIV.

Although 62.7% (n=47) of the learners did not know of anyone who had tested HIV negative, 54.7% (n=41) also did not know anyone who had tested HIV positive, but 16.0% (n=12) knew one person, 10.7% (n=8) knew two people, 6.7% (n=5) knew three people, 2.7% (n=2) knew four people, 4.0% (n=3) knew five people and 1.3% (n=1) knew seven or more people who had tested HIV positive.

**Learners’ reported sexual behaviours**

Of the learners 94.7% (n=71) reported that they had never been involved in kissing while 5.3% (n=4) reported having done so. All the learners (100.0%; n=75) reported that they had never been involved in fondling nor in sex.

Most learners (80.0%; n=60) did not feel at risk of HIV infection, while only 18.7% (n=14) felt that they were at risk. Of the learners 54.7% (n=41) reported that they were not at risk because they had never had sex before, 8.0% (n=6) reported that they did not share needles or razor blades, 2.7% (n=2) reported that they could be at risk if they dated someone who was HIV infected, 2.7% (n=2) believed that they were at no risk because there was no one in their family who was HIVpositive, 1.3% (n=1) reported they were at risk because they could get infected through injuries in an accident or during sexual abuse respectively, while 1.3% (n=1) were not at risk because their parents were HIV negative, and 1.3% (n=1) reportedly felt not at risk because he/she knew how to prevent getting HIV.

**DISCUSSION OF RESEARCH RESULTS**

**Sources of HIV/AIDS information**

All 75 learners (100.0%) had heard about HIV/AIDS. These results are higher than those of an earlier Zimbabwe survey (MOHCW 2001-2002:100) in which 38.0% of females and 58.0% of males reported the school as a source of HIV/AIDS information before they reached the age of 15. This might indicate that Zimbabwe’s HIV/AIDS school programme has reached the Form 1 learners. However, the school was not the only place where learners obtained HIV/AIDS information. Zimbabwe broadcasts a variety of HIV/AIDS television programmes explaining why 60.0% (n=45) of learners reported the television as their source of information. HIV/AIDS information was also provided by other sources including parents (13.3%; n=10), newspapers (9.3%; n=7) and community activities (4.0%; n=3). Parents ranked low as learners’ sources of information (13.3%; n=10), probably indicating that sexual behaviours and issues were not discussed openly in these learners’ homes. According to another survey the two most common sources of HIV/AIDS information (MOHCW 2005:105) were pamphlets/posters and radios for more than 60.0% of those respondents. As this study’s data were collected during 2008, Zimbabwe’s school HIV/AIDS programme might have had some impact from 2005 till 2008.

**Learners’ HIV/AIDS knowledge**

Although 100.0% (n=75) of the learners had heard about HIV, 94.7% (n=71) could describe what HIV implied and 89.3% (n=67) could describe what they understood AIDS to be. Learners from the rural school were more knowledgeable about HIV/AIDS than those from other schools. No reasons could be offered for the apparent better HIV and worse AIDS knowledge of female learners compared to their male counterparts.

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This matches the Zimbabwe Demographic and Health Survey (ZDHS 2005-6:184) report stating that in the population aged 15-49, the knowledge levels of HIV/AIDS were 98.0% among women and 99.0% among men. According to the ZDHS (2005-6:184) report, youths aged 15-24 generally had lower levels of HIV/AIDS knowledge than those in older age groups.

Unprotected sex as the most common method of HIV transmission (WHO 2004:5) was mentioned by almost all (96.0%; n=72) learners. However, if the school HIV/AIDS programme had been effective, every learner should have had this knowledge. The statistics in table 1 indicate that more than 90% of the learners were knowledgeable about most transmission methods of HIV. However, learners seemed to lack knowledge about HIV transmission through blood transfusions, French kissing and tattooing. This might be attributable to the extremely rare circumstances under which blood transfusions could be administered in Zimbabwe and to learners’ potential unfamiliarity with the terms ‘French kissing’ and ‘tattooing’. However, no learner requested more information about these terms.

Of the learners, 96.0% (n=72) knew that a person who is HIV positive could appear healthy. The results are higher than the findings of the Zimbabwe’s Young Adult Survey (MOHCW 2001-2:71) in which 73.0% of young women and 77.0% of young men knew that a person with HIV infection could look healthy. If the school HIV/AIDS programme had been successful, 100% of the learners should have had this knowledge.

All learners knew that boys who used the services of prostitutes could become infected with HIV, and almost all (89.3%; n=67) knew that girls who have sex with older men risked becoming HIV positive. It could not be ascertained why 100% of the learners were not knowledgeable about this possibility which should be stressed in the HIV/AIDS school programme.

Although 86.7% (n=65) of the learners knew there was no cure for AIDS and 97.3% (n=73) believed that having sex with a virgin could NOT cure AIDS, all learners did not know these basic facts. These aspects could indicate shortcomings in the HIV/AIDS school programme.

**Knowledge about the prevention of HIV**

Only 28.0% (n=21) of the learners spontaneously mentioned three methods of ensuring that one could remain HIV negative (abstinence, being faithful, using condoms). Only 66.7% (n=50) of the learners mentioned condoms, implying that 32.3% (n=25) of the learners had not been convinced that condoms would prevent HIV infections. If the school HIV/AIDS programme had been successful, 100% of the learners should have spontaneously mentioned the ABC of HIV prevention, and 100% should have mentioned the use of condoms.

Although 93.3% (n=70) respondents had never been tested for HIV, 70.7% (n=53) wanted to be tested. All the learners who had been tested previously (6.7%; n=5), wanted to be tested again for HIV. This finding indicates that many learners who were willing to use VCT services, had not yet done so, and should be assisted to access VCT services. School HIV/AIDS programmes should address ways to access VCT services. The fact that all previously tested learners were willing to be re-tested could indicate that they did not experience VCT negatively.

**Learners’ reported sexual behaviours**

Reportedly all 75 (100.0%) respondents had never been involved in sex nor in fondling. This finding seems to correspond with data obtained in Zimbabwe showing that the 6-15 year age group is least affected by HIV/AIDS (MOHCW 2004:4) However, these findings do not compare with the results of a study indicating that almost one third of the 12-14 year old girls and boys in Uganda and Malawi had experienced some form of intimate sexual activity. In Burkina Faso and Ghana 1:10 adolescents had been involved in some form of sexual activity (Bankole, Biddlecom, Guiella, Singh & Zulu 2007:1, 11-12). If the results of this study’s reported abstinence among Form 1 learners could be substantiated by future surveys, then Zimbabwe’s HIV/AIDS school programme might have achieved some impact on learners to delay their sexual debuts.

**LIMITATIONS OF THE STUDY**

The research results are limited to Form 1 learners from the four participating schools. However, the sample comprised learners from the rural, high density, low density and private schools representing the four types of schools in Zimbabwe, and the demographic characteristics of the learners were comparable across the four schools, as well as to those reported in the ZHDS (2005-6;158).

Only 75 learners were interviewed because the interviews were conducted at a time when there were few teachers and learners at schools, due to teachers’ strikes for better salaries. Only learners willing to be interviewed, could participate in this study. There can be no guarantee that learners unwilling to be interviewed had similar levels of HIV/AIDS knowledge.

Reportedly none of the interviewed learners had been sexually active, making questions about sexual practices irrelevant, and the study incapable of reporting on these issues.

**RECOMMENDATIONS**

As most learners acquired their HIV/AIDS information from schools, these school-based programmes should be sustained, improved and expanded.Based on the fact that the minority of learners acquired their HIV/AIDS information from their parents, school-based parent-empowering HIV/AIDS and sex-related education programmes should be provided to parents, in addition to those existing for learners.

The school curriculum needs to be revised to emphasise improving learners’ HIV/AIDS knowledgeand addressing misconceptions (even if only held by a minority of learners) including HIV/AIDS transmission through being scratched by the nails of a person who is HIV positive, the fact that there is no cure for HIV/AIDS and the fact that HIV/AIDS cannot be cured by having sex with a virgin. The school-based HIV/AIDS programme should also stress that, provided that one takes precautionary measures to protect oneself against contamination with the HIV positive person’s body fluids, one is unlikely to become HIV infected while caring for such a person.The school curriculum should also emphasise the difference between HIV and AIDS and should ensure that every learner knows the ABC of HIV/AIDS prevention.

The finding that 80.0% (n=60) of the learners did not feel themselves to be at risk of contracting HIV/AIDS should be addressed by HIV/AIDS programmes, emphasising that every person can be at risk. Radio and television programmes, targeting young people with HIV/AIDS information, should be sustained, monitored and expanded.

Future studies should involve learners from Forms 1-5 to identify the average ages at which secondary school learners commence sexual activities. Ideally a randomly selected sample of all secondary school learners throughout Zimbabwe should participate in a study to evaluate all Zimbabwe’s learners’ HIVAIDS knowledge levels and to redesign the HIV/AIDS school curriculum accordingly.

As most learners were willing to undergo VCT, these services should be made accessible to secondary school learners in Zimbabwe.

**CONCLUSION**

All the learners reported that they were not sexually active, were aware of the dangers of being involved in high risk behaviours like having sex with prostitutes or older men. Although knowledge about HIV transmission was high, fewer than one third of the learners (28.0%; n=21) could mention three ways of preventing HIV infection.

All learners had heard about HIV/AIDS and the school was the most frequently mentioned source of information, followed by television, radio, parents, newspapers and community activities. Although the school HIV/AIDS programme had achieved some successes, its impact could be enhanced, as well as HIV/AIDS messages through the television, radio, parents and community activities should be encouraged. Every learner should be able to define HIV, AIDS and the ABC of preventing HIV infections.

More than half of the learners were reportedly willing to undergo VCT, but most had not done so. Making VCT services available to secondary school learners should be prioritised to enable this age group to make informed decisions, affecting themselves and their future children. School HIV/AIDS programmes should enable learners to access VCT services.

The HIV/AIDS school programme in Zimbabwe’s impact on secondary school learners’ knowledge levels should be assessed regularly. Based on the research findings, the HIV/AIDS curriculum should be adapted at regular intervals to address identified shortcomings.

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**REFERENCES**

Babbie, E.R. & Mouton, J., 2001, *The practice of social research,* Oxford University Press, Cape Town.

Bankole, A., Biddlecom, A., Guiella, G., Singh, S. & Zulu, E., 2007,’ Sexual behaviour,knowledge and information sources of very young adolescents in four Sub-Saharan African countries’, *African Journal of Reproductive Health*, 11(3):28-43.

Boohene, E., Tsodzai, J., Hardee-Cleveland, K., Weir, S. & Janowitz, B. 1999. Fertility and contraceptive use among adults in Harare, Zimbabwe. *Studies in Family Planning*, 22(4):264-271.

Brink, H.I.L., 1999, *Research methodology for health care professionals,* Juta, Cape Town.

Buseh, A.G., Glass, L.K., McElmurry, B.J., Mkhabela, M. & Sukati, N.A., 2001,’Primary and preferred sources for HIV/AIDS and sexual risk behaviour information among adolescents in Swaziland, Southern Africa’*, International Journal of Nursing Studies* 39(2002):525-538*.*

Freudenthal, S, 2001, *A review of social science research on HIV/AIDS*. Department for Research Cooperation, Sida.

Fritz, K.E., Woelk, G.B., Bassett, M.T., McFarland, W.C., Routh, J.A., Tobaiwa, O. & Stall, R.D., 2002,’The association between alcohol use, sexual risk behaviour and HIV infection among men attending beer halls in Harare, Zimbabwe’, *AIDS and Behaviour* 6(3):221-228.

http//www.nationsencyclopedia.com/economies/Africa/Zimbabwe.html (Accessed on 13/01/2006).

Joint United Nations Programme on HIV/AIDS. 2004. *Report on global Aids epidemic.* 4th Global Report. Geneva.

Joint United Nations Programme on HIV/AIDS. 2006. *Report on the global Aids epidemic.* Geneva.

Lindsay, E., 2001, ‘Fact sheets of HIV/AIDS for nurses and midwives’, Supplement to *Africa Journal of Nursing and Midwifery,* 3(1):S1-S10.

Mataure, P.M.T., McFarland, W.C., Fritz, K.E., Kim, A., Woelk, G., Ray, S., Rutherford, G., 2002, ‘Alcohol use and high-risk behaviour among adolescents and young adults in Harare, Zimbabwe’, *Zimbabwe* *AIDS and Behaviour,* 6(3):211-219.

Ministry of Education, Sports and Culture, Zimbabwe, 2003, *Zimbabwe HIV/AIDS and life skills education*,Government Printer, Harare.

Ministry of Education, Sports and Culture, Zimbabwe, 2005, *Zimbabwe Ministry of Education annual report,*  Government Printer, Harare.

Ministry of Health and Child Welfare, Zimbabwe, 1999, *National Aids Policy,*  Government Printer, Harare..

Ministry of Health and Child Welfare, Zimbabwe, 2000, *National AIDS Control Programme,* Government Printer. Harare.

Ministry of Health and Child Welfare, Zimbabwe, 2001-2002, *The Zimbabwe young adult survey* (ZYAS), Government Printer, Harare

Ministry of Health and Child Welfare, Zimbabwe, 2002, *National survey of HIV and syphilis prevalence among women attending antenatal clinics in Zimbabwe,* Government Printer, Harare.

Ministry of Health and Child Welfare, Zimbabwe, 2003. *The HIV/AIDS epidemic in Zimbabwe,*  Government Printer, Harare.

Ministry of Health and Child Welfare, Zimbabwe, 2004, *The HIV/AIDS epidemic in Zimbabwe,*  Government Printer, Harare.

Ministry of Health and Child Welfare, Zimbabwe, 2005, *Zimbabwe Ministry of Health Annual report*, Government Printer, Harare.

Ministry of Youth Development, Gender and Employment Creation, Zimbabwe,

2000, National Youth Policy of Zimbabwe, Government Printer, Harare.

MOESC – see Ministry of Education, Sports and Culture, Zimbabwe

MOHCW – see Ministry of Health and Child Welfare, Zimbabwe.

MYDGEC – see Ministry of Youth Development, Gender and Employment Creation, Zimbabwe

Phiri, A., 2000.Experiences of youth in urbanZimbabwe*,* Population Council, Nairobi.

Polit , D.F. & Hungler, B.P., 2008, *Nursing research: generating and assessing evidence for nursing practice*, Lippincott, Williams & Wilkins, Philadelphia.

UNA UNAIDS - see Joint United Nations Programme on HIV/AIDS

UNICEF – see United Nations International Children’s emergency Fund

United Nations International Children’s Emergency Fund, 2002, *Young people and HIV/AIDS: opportunity in crisis,* Geneva.

Joint United Nations Programme on HIV/AIDS, 2006, *Report on the global Aids epidemic, .* Geneva.

WHO – see World Health Organization

World Health Organization, 2004, *HIV /AIDS in Adolescence*. Geneva.

World Health Organization, 2006, *Approach to adolescents.* Geneva.

ZDHS – see Zimbabwe Demographic and Health Survey.

Zimbabwe Demographic and Health Survey, 2005 –2006, *HIV/AIDS.* Government Printer, Harare.