



Contraceptive use among Young Adults in Zimbabwe, Questionnaire Study

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Authors' contributions

This work was carried out in collaboration among all authors. Authors LM, TM and NM designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors TN and NM managed the analyses of the study. Author LN and NM managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Adolescents face several challenges where ASRH issues are concerned. One of these issues is the low uptake of HIV prevention services especially those in high-density urban townships who are prone to several factors that hinder their access to HIV prevention services. This study sought to highlight the prevalence of HIV prevention methods use among adolescents and factors that determine their accessibility in Dzivarasekwa and Tynwald Districts. A total of 500 questionnaires were administered to adolescents aged 15-19 years to collect quantitative data. The study also conducted 10 Focus group discussions and 20 Key informant interviews to solicit qualitative data. The findings showed that, though a level of prevention was observed, a significant number of adolescents were engaging in sexual activities. Adolescents were aware of most HIV prevention methods: however, their knowledge was not being translated into the utilization of these methods. Recommendations were also offered to serve on how HIV prevention services uptake can be improved amongst adolescents.

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1. INTRODUCTION

Adolescents' sexual and reproductive health has been overlooked historically despite the high risks that countries face for its neglect. Adolescents are predisposed to be at the risk for HIV infections because of challenges emanating from their dramatic, and physical emotional and social experiences [1-3]. Various political, economic and socio-cultural factors restrict the delivery of information and services, health workers often act as barriers to care by failing to provide young people with supportive non-judgmental youth appropriate services. Though massive education as indicated by, information and communication programs have been rolled out across different countries, in Zimbabwe research has shown that the uptake of HIV prevention strategies among adolescents has been a problem. In Zimbabwe, access to testing amongst adolescents remains a challenge in many regions, at 44.5% for females and 24.3% for males [1,4-7]; ZIMSTATS, 2015). Thus, relevant research programs are urgently needed to enable the development of strategies that are best suited for adolescents' HIV prevention strategies to improve the uptake of services as well as to reduce the HIV prevalence and incidence rate amongst adolescents to achieve UNAIDS 90:90:90 targets by 2030 set by UNAIDS and ratified by the Government of Zimbabwe [8,9] .

1.1 Objective of the Study

The general objective of the study was to investigate the determinants of HIV prevention methods among adolescents and young people in Zimbabwe.

2. RESEARCH METHODOLOGY

2.1 Study Area and Target Population

The study was carried out in Dzivarasekwa and Tynwald South High Density Suburbs. All five wards in the area were purposively selected and the target population of this study was comprised of boys and girls of age Groups 15-19.

2.1.1 Sampling procedure

A sample of 200 respondents was selected using stratified random sampling method in which different age categories were divided into different strata. Sample proportionately, proportional to size was also be used to further

select the desired number of respondents from different locations of Dzivarasekwa and Tynwald South. The following formula was used to calculate the different proportions:

$$n^n = \frac{N^n}{N^n N} * n$$

Where n^n is area sample

N^n is aggregate adolescents in location n

N is aggregate adolescents (15-19)

2.1.2 Methods of data collection

The study used a triangulation of both qualitative methods of data collection. Qualitative data collection methods such as Key Informant Interviews (KIIs), Focus Group Discussions (FGDs) and In-depth Interviews (IDIs) were used in this study.

2.1.3 Focus group discussions

Five Focus Group Discussions (FGDs) were undertaken in order to solicit data on community beliefs and attitudes towards HIV prevention. FGDs were undertaken in order to get the adolescents' perceptions on the acceptability of HIV prevention strategies among adolescents bearing in mind the social, economic and cultural processes that influences theirs perceptions.

Age cohorts were used for the selection of respondents and each FGD had between 8-12 respondents and at least one participant was drawn from each one of the five wards in Dzivarasekwa. Simple random sampling without replacement and willingness to participate was the basis for selection into the study. The FGDs were conducted by two research assistants, a male and a female, both post graduate students. These were selected to ensure maximum participation as well as to ensure and maintain high quality data standards.

2.1.4 Key informant interviews

A total of four Key Informant Interviews (using Key Informant Interview guide) were used to assess the knowledge of the uptake of HIV prevention initiatives and determinant factors from key Informants. The KIIs involved one Sister in charge from Dzivarasekwa Clinic, one Service provider from Dzivarasekwa Clinic, one Community Health Worker from the Dzivarasekwa Community and one Pharmacist. These people interacted daily with adolescents

as they seek sexual and reproductive Health Services, thus they provided useful knowledge about the service uptake as well as client perceptions towards the HIV prevention strategies.

2.1.5 In depth interviews

A total of six in depth Interviews (using in depth Interview guide) were carried out with selected respondents. Convenient sampling was used for the selection of respondents from those accessing HIV prevention services at Dzivarasekwa Health facilities. The in-depth interviews helped solicit information about personal experiences, levels of knowledge and perceptions towards HIV prevention strategies.

2.1.6 Data management and analysis

The data was captured through extensive note taking and audio taping and was later transcribed, translated and typed. The collected panel data was entered in the data sheet where cleaning was carried out correctly to confirm reliability and validity [4,5,10]. Statistical Package for Social Sciences (SPSS) software and thematic analysis approaches were used for data and econometric analysis [11].

3. RESULTS AND DISCUSSION

Result in Table 1 presents in percentage the distribution of adolescents who used prevention methods on the first sexual encounter.

Table 1. Adolescents who used prevention methods on the first sexual encounter

Variable	Percent	Number	P-value
Age			
15-17	69.7	33	0.330
18-19	62.7	59	
Sex			
Male	69.8	43	0.391
Female	61.2	49	
Educational Level			
Never been to school	30.0	10	0.101
Primary	70	20	
Secondary /	70.7	41	
Tertiary	66.7	21	
Marital status			
Never married	63	66	0.002
Married/ in Union	27.3	11	
Cohabiting	100	9	
Widowed	100	6	
Religion			
Catholic	70	20	

Variable	Percent	Number	P-value
Traditional	63.6	11	
Pentecostal/	47.8	23	
Protestant	60	10	
Apostolic	62.3	8	0.000
Muslims	88.9	9	
None	77.8	9	
Living Arrangements			
Both mother and father	84.2	38	
Mother	31.6	19	
Father only	91.7	12	
Husband/ Wife	38.5	13	
Other (Alone, Aunt/ Uncle, Grandparents)	60.0	10	0.000
Total	83	92	

n=92

In focus group discussions, most adolescents stated that it is okay to give adolescents condoms and other HIV prevention strategies as they help to prevent STI and HIV infection and unplanned pregnancies (some of which will result in abortion and early marriages). In female adolescent FGD one girl substantiated the above mentioned by arguing that:

'Veduweka bonde tiri kuita. Ngatiregei kuviga dambudziko iri mushashiko. Regai tipuwe macontraceptives kudzivirira nhumbu, zvirwere (HIV and AIDS, STIs). (We are having sex. Let us not hide the problem. It is better to be given condoms to avoid pregnancies, STIs and HIV and AIDS). One female adolescent in an FGD emphasized prostitution among adolescents if they are given family planning as she stated that:

'Kupa macondoms kwatiri mapesvedzera nekupururudzira chipfambi. Vana havazoty varume nekuti chinoita vazhinji tisaite bonde kutya kuita nhumbu or zvirwere. Kutsigawo ivo pachezvavo vanenge vasisina sezvo vanenge vatova nezvombo zvebasa'. (The provision of condoms to adolescents encourages prostitution).

In an FGD with females above 35 years, one mother bitterly discarded the provision of condoms to adolescents by arguing that:

"Ini mai ndine murume ndinoshandisa family condom. Iye haana murume oita condom yei? Kuti zvave zvebudzi here zvekuti amai ndebvu, baba ndebvu, mwana ndebvu"(I have a husband and I use condoms. The adolescent does not have a husband and still need condoms. What for? This is not a goat situation whereby every member of the family is beard).

Interviews with teachers and traditional leaders strongly revealed that adolescents must not be given condoms since it is contrary to their culture and one teacher said:

'Vana vakapiwa macondoms havachakoshesi kutsiga nekuroorwa dziri mhandara dzizere kana majaya azere, zvatinokoshesa muzvidzidzo zvedu zvetsika namagariro avaShona" (If adolescents are given condoms they become loose. They will not value the importance of virginity as taught in our Shona culture).

One secondary school head in an interview also fumed about the condoms to adolescents since he remarked:

“I will definitely chase away any school pupil found in possession of condoms. Children have not come here to make families or to become prostitutes!”

Interviews with local religious leaders also revealed that they were strongly against the provision of condoms to adolescents. They argued that condoms encourages prostitution and is contrary to the abundance of sibling to mankind which God promised. One pastor stated that:

‘Condoms kills male sperms. God instructed us “....be fruitful and multiply, Genesis 1 verse. 28”. God also stated that, “....I will bless you and give you many children, (Leviticus 26 verse 9).’

Health service providers also discouraged and do not provide condoms to adolescents as in an interview, one female nurse stated that:

“If I encounter any adolescent who needs condoms, I will first task her or him to bring parents. That is what is in my practicing document. If parents are brought, I will then provide condoms during their presence.”

Respondents were asked about the HIV prevention method that had used on their first

sexual encounter. The majority of the sexually experienced adolescents had used the male condom on their first sexual encounter (84%), followed by those who relied on circumcision 10% and 5.9% us pre and post exposure prophylaxis (See Fig. 1).

Furthermore, adolescents went on to state the reasons for using HIV prevention on the first sexual encounter and were told to state even more than 1 reason if possible. Fig. 2 show that 58% of the sexually active adolescents who used HIV prevention method on the first sexual encounter used it to avoid HIV. Adolescent also used prevention methods during the first sexual encounter to prevent STIs including HIV (19%) and to prevent pregnancies 15%.

3.1 Reasons for Non-use of Prevention Method on the First Sexual Encounter

From Table 2 result, Respondents were asked of the reasons for use or non-use of prevention methods during their first sexual encounter. The response given for non-use cited include the following: it just happened (13%); too young to use prevention (12%) and disapproval of religion (9%). Others did not use any method because they did not think they would infect or get infected on the first sexual encounter (17%).

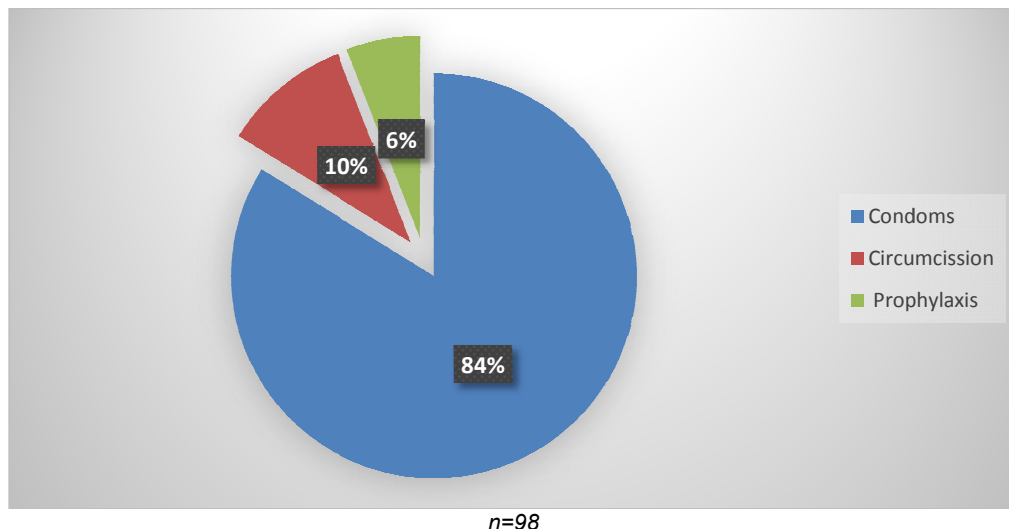


Fig. 1. Percent distribution of adolescents by prevention methods used on the first sexual encounter

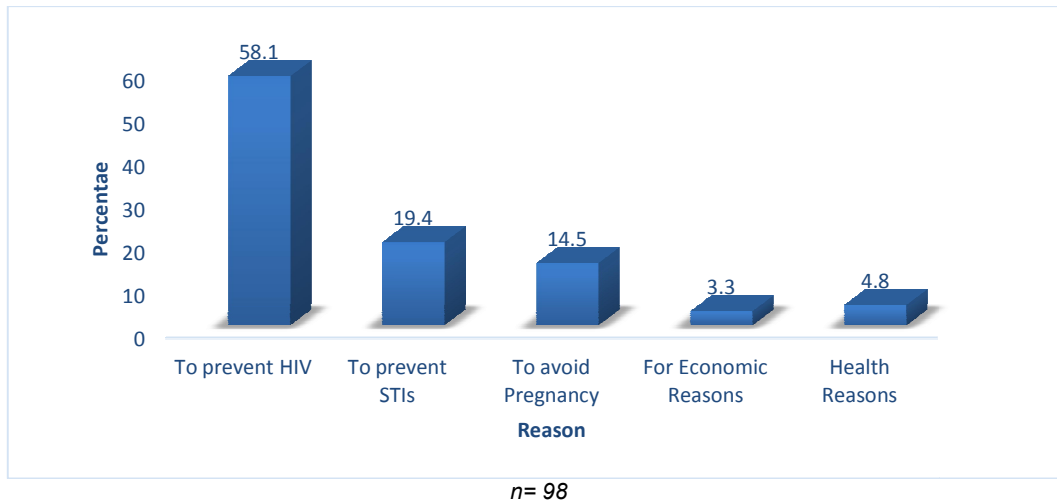


Fig. 2. Percent distribution of adolescents by reasons for using prevention method on the first sexual encounter

Table 2. Percent distribution of adolescents by reasons for non-use of prevention method on the first sexual encounter

Reason for not using Prevention Method	Percent	Number
It just happened	13	13
Too young to use	12	12
Disapproval of partner	10	10
Disapproval of Religion	9	9
Embarrassed to be seen with them	9	9
Health worker/ Seller refused	9	9
No money/ Distance	9	9
Would not infect/ get infected on first sexual encounter	16	17
Other (Friends say they do not work/ to show partner trust)	14	14
Total	100%	102

n=102

3.2 Prevention Method Use in the Last 12 Months Preceding Survey by Background Variables

Of the adolescents who ever had sex, 83% used prevention method in their last sexual encounter. Of the sexually active adolescents who used prevention methods in the last 12 months, 72% were aged 15-17 and 46% were aged 18-19. Females were more likely to use prevention methods than their male counterparts (87.5% and 78.4%). Those cohabiting analysed by marital status, were more likely to use prevention methods (100%) than any other marital status (See Table 3).

Adolescents were asked to state all the different HIV prevention methods they had used in the 12 months preceding the survey. Most of the

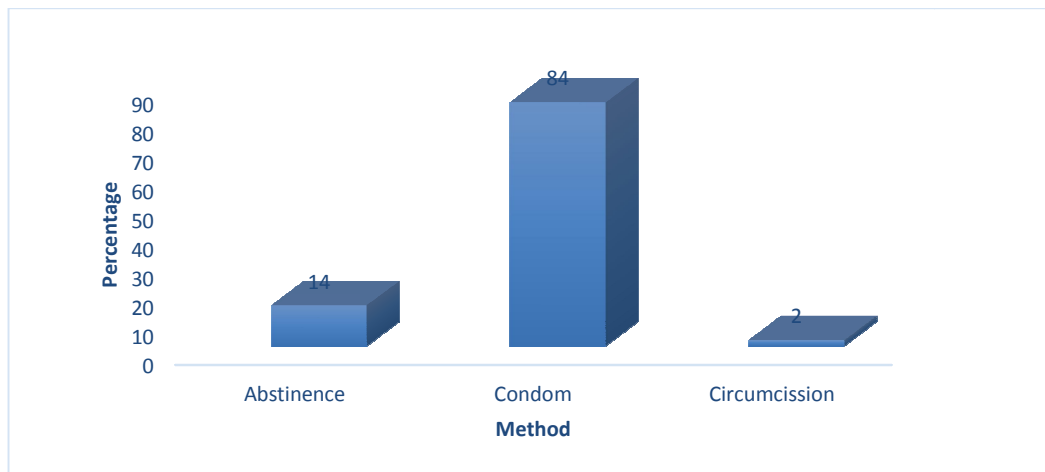
sexually experienced adolescents who had used any prevention method in the 12 months preceding the survey had used the condoms method (84%). Those who had abstained constituted 14% while 2% had relied on male circumcision as their method of HIV prevention, Fig. 3.

Adolescents were asked of the motivation and reason for using HIV prevention methods in the 12 months preceding the survey. The majority of respondents (41%) indicated that they used prevention methods to prevent sexually transmitted infection, 31% specifically indicated that they wanted to prevent HIV infection, 17% indicated that they used prevention methods such as abstinence for health-related reasons (See Fig. 4).

Table 3. Percent Distribution of Adolescents who had used Prevention Methods in the 12 Months Preceding the Survey by Background Variables

Variable	Percent	Number	P value
Age			
15-17	72.0	25	0.072
18-19	46.0	52	
Sex			
Male	78.4	37	0.223
Female	87.5	40	
Educational Level			
Never been to school	66.7	9	0.357
Primary	87.5	16	
Secondary	88.6	35	
Tertiary	59.8	17	
Marital status			
Never married	77.8	54	0.223
Married/ in Union	85.7	7	
Cohabiting	100	10	
Divorced	100	6	
Religion			
Catholic	68.8	16	0.130
Traditional	81.8	11	
Pentecostal/	91.3	23	
Protestant	83.3	6	
Apostolic	50	6	
Muslim	100	4	
None	100	9	
Living Arrangements			
Both mother and father	77.4	31	0.440
Mother/ Father only	84.4	13	
Husband/ Wife	91.7	12	
Other (Alone, Aunt/ Uncle, Grandparents)	100.0	9	
	75.0	12	
Total	83	77	

n=77



n=102

Fig. 3. Percent distribution of adolescents by prevention method methods used in the past 12 months preceding the survey

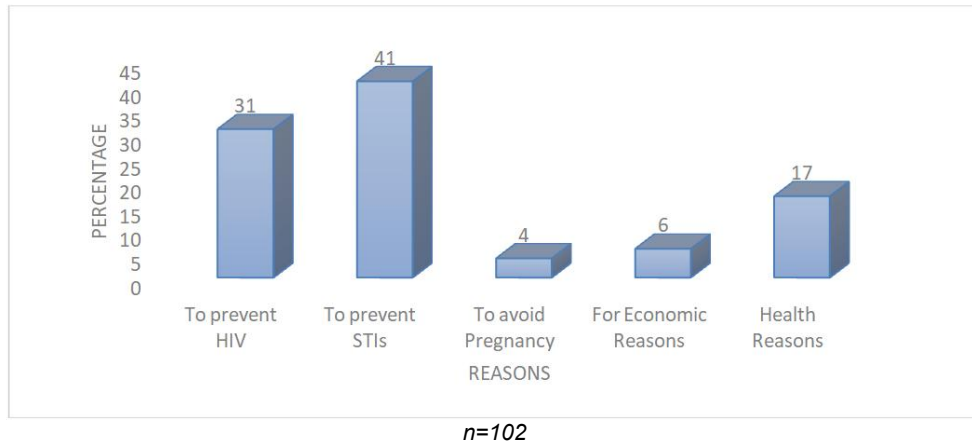


Fig. 4. Percent distribution of adolescents by reasons for using prevention methods in the 12 months preceding the survey by marital status

3.3 Reasons for Non-Use of Prevention Method in the 12 Months Preceding Survey

Adolescents stated various reasons for not using prevention methods during the past 12 months. Most adolescents stated that they were virgins, so they felt like they can't infect or get infected on their first sexual encounter (16%), 14% highlighted that using prevention methods would show lack of trust to their partner, 13% noted that, they were not prepared but it just happened and 12% indicated that they felt that they were too young to use any prevention method (See Table 4).

Respondents went on further to identify the HIV prevention method they had used on their last sexual encounter. Of the adolescents who had

used a prevention method on their last sexual encounter, 95% had used the male condom, while 2% abstained and 3% relied on circumcision (See Fig. 5).

The most used method of prevention reported in all three sexual encounters was the condom, and this was also noted in the focus group discussion (FGD) with the unmarried adolescents. When asked whether sexually active adolescents were which prevention method is frequently used, all the participants agreed that adolescents used the male condom more than any other method. One participant in the FGD remarked:

Yes, adolescents are mostly relying on condoms, especially the male condom, it is very popular and a method of preventing HIV, STIs and pregnancy among people of our age.

Table 4. Percent distribution of adolescents by reasons for non-use prevention method in the 12 months preceding the survey

Reason for not using contraception	Percent	Number
It just happened	13	13
Too young to use	12	12
Disapproval of partner	10	10
Disapproval of Religion	9	9
Embarrassed to be seen with them	9	9
Health worker/ Seller refused	9	9
No money/ Distance	9	9
Would not infect/ get infected on first sexual encounter	16	17
Other (Friends say they do not work/ to show partner trust)	14	14
Total	100.0	102

n=102

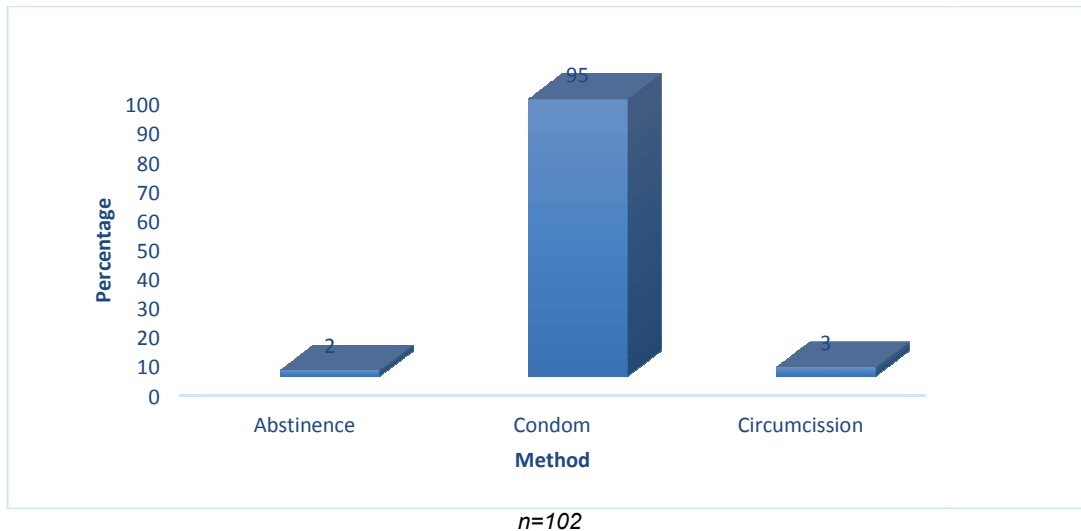


Fig. 5. Percent distribution of prevention methods used by adolescents on the last sexual encounter

3.4 Reasons for Non –Use of HIV prevention on the Last Sexual Encounter

The sexually experienced adolescents who did not use prevention method during their last sexual encounter were asked why they did not use any method of HIV prevention. Reasons most cited for non-use of prevention methods on the last sexual encounter include no knowledge of the prevention method as is the case of pre and post exposure prophylaxis

3.5 Determinants of HIV prevention among Adolescents

3.5.1 Individual level

This section focuses on determinants of Prevention methods use among adolescents looking at factors that affects the decision to use prevention methods at individual level in the 12 months preceding the survey. This measure of prevention methods use was further used to analyse prevention methods use because it had the highest number of respondents who used prevention methods. Factors such as age, sex, marital status, level of attained education, perceived benefits and perceived costs as well as beliefs, attitudes amongst adolescents that affects the use of prevention methods will be analysed.

3.5.2 Age, sex and marital status

The study investigates the relationship between HIV prevention methods use in the past 12

months and age, sex as well as marital status of respondents. Age and sex were found to have statistically significant relationship with the use of HIV prevention methods use. There was a higher prevention method use amongst the 15-17 age group (72%) than the 18-19 age group (46%). There was a higher level of prevention methods use amongst females (87.7%) than males 78.4%. Amongst those cohabiting and the Widowed, there was a higher use of prevention methods (100%) (See Table 5).

3.5.3 Education Attainment

The study investigated on whether educational attainments have a bearing on prevention methods use. The relationship between educational attainment and prevention method use was found to be statistically significant. The level of prevention methods uses increased with increasing level of education amongst those with no education to secondary level education (66.7% no education, 87.5% primary education and 88.6% those with secondary education. However, the use of prevention methods amongst tertiary education decreased to 76.5 % (p=0.375) (See Table 6).

In a KII, the District Education representative noted that, in secondary schools, there has been a lot of lobbying for the provision of condoms at school, so as to encourage HIV and pregnancy prevention among adolescents. Across the country, the Ministry of Education Highly supports the government initiative of male

Table 5. Prevention method use in the 12 months preceding the survey

Variable	Used Prevention Method (%)	Did not use Prevention Method (%)	Total (%)	Number	P value
Age					
15-17	72.0	18.0	100.0	25	0.072
18-19	46.0	52.0	100.0	52	
Sex					
Male	78.4	21.6	100.0	37	0.223
Female	87.5	12.5	100.0	40	
Marital Status					
Never married	77.8	12.2	100.0	54	0.223
Married/In union	85.7	14.3	100.0	7	
Cohabiting	100	0	100.0	10	
Widowed	100	0	100.0	6	
Total	83	17	100	77	

n=77

Table 6. HIV prevention Method Use by Educational Level

Variable	Used Prevention Method (%)	Did not use Prevention Method (%)	Total (%)	Number	P value
Educational Attainment					
Never been to school					0.357
Primary	66.7	33.3	100	9	
Secondary	87.5	12.5	100	16	
Tertiary	88.6	11.4	100	35	
	76.5	13.5	100	17	
Total	83.0	17.0	100.0	77	

n=77

circumcision as an initiative to curb the spread of HIV amongst adolescents. He remarked:

Here at secondary level we have a subject entitled HIV and AIDS Guidance and Counselling Life Skills and Sexuality that is compulsory for every student. In this subject student are taught about their sexuality, HIV prevention and other essential health skills that protects them.

4.CONCLUSIONAND RECOMMENDATION

Generally, most adolescents interviewed were knowledgeable about HIV prevention methods, with most of them citing that the use of condoms and abstinence were the most known methods of preventing HIV infections among adolescents (84%). However, it is interesting to note that, only a sizeable number of adolescents interviewed (37%) were aware of pre- and post-exposure prophylaxis as a method of preventing against

HIV. However, although there seems to be relatively good knowledge on HIV/AIDS amongst adolescents, it is not clear that this knowledge translates into practice and change of attitudes and behaviours about sexual relations and sexual and reproductive health [1], De Beer et al., 2012; [12-14]; Ndabarora & Mchunu, 2014).

The research also revealed that, despite high percentages of knowledge of HIV prevention methods, adolescents were not translating the knowledge into practice, only a sizeable amount of those who are aware of HIV prevention methods used prevention methods during their first sexual encounter (67%). Given the prevailing trends of HIV prevalence and incidence amongst adolescents, it is imperative that information, interventions and policies be designed in trying to bridge the gap between knowledge of services as well as the actual utilization of the services.

CONSENT AND ETHICAL APPROVAL

The study protocol was sent to Medical Research Council of Zimbabwe (MRCZ) for ethical approval. Further, the data was handled and processed whilst ensuring the highest levels of Confidentiality, Privacy and Security requirements. As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s). Participants were assured of the confidentiality and security of the information they would have shared. Pseudo names were used to replace all names and personal circumstances which may lead to the identification of participants.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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