International Journal of Multidisciplinary Research and Development Online ISSN: 2349-4182, Print ISSN: 2349-5979; Impact Factor: RJIF 5.72

Received: 13-05-2019; Accepted: 15-06-2019

www.allsubjectjournal.com

Volume 6; Issue 8; August 2019; Page No. 59-65



Influence of comprehensive sexuality education in promoting reproductive health among secondary school pupils in selected schools in Lusaka province

Maurice Moono¹, Crispin Kukano², Vytalis Chavwanga³, Alice Banda⁴, Judith Chishipula⁵

¹⁻⁴ Chalimbana University, School Humanities and Social Sciences, Zambia ⁵ Margaret Mwachiyeya Secondary School, Zambia

Abstract

The study aimed at establish the influence of comprehensive sexuality education in promoting reproductive health among school pupils in selected secondary schools in Lusaka province. The objective of the study was to determine how CSE influences pupils to make responsible choices about sexual health in selected secondary schools in Lusaka Province.

A descriptive survey was used in conducting this research. The study used both qualitative and quantitative methods of data collection. The sample consisted 172 respondents: 88 girls and 84 boys drawn from six secondary schools in Lusaka province, in selecting the participants, simple random sampling technique was used. The study employed the questionnaire and focus group discussion to ensure validity of the findings. The quantitative data was analysed using the statistical package for social sciences computer software while the qualitative data was analysed by coding and grouping the emerging themes.

The study revealed that comprehensive sexuality education has a positive impact on pupil's sexual lives. It emerged from the study that 79.6% of pupils are now able to make more responsible decisions about their sexual life while 74.4% reported that they are now able to protect themselves against unplanned pregnancies because of CSE lessons. 73.2% of the pupils reported that they have acquired factual information about their sexual responsibility. The analysis of the study further showed that 82.2% of pupils were now able to access reproductive health facilities because of the knowledge they acquired through CSE. Arising from the findings of the study, the following recommendations were made.

- 1. The ministry of education should supply more books on sexuality education.
- 2. The Ministry of Education should make CSE a stand-alone subject rather than integrating it in other subject.

Keywords: reproductive health, comprehensive sexuality education, sexual responsibility

Introduction

In contemporary society, young people are exposed to a lot of information often from unreliable sources. Mixed messages from modern media such as videos, cell phones and the Internet are bewildering them from every direction (Source). A lot of such information is distorted, unbalanced, unrealistic and often degrading on sexuality. Informal lessons from parents and other stakeholders on sexuality are inadequate to shape young peoples' sexual lives. These informal sources often lack the necessary knowledge, particularly when complex and technical information is needed (such as that pertaining to contraception or transmission modes of Sexually Transmitted Infection (STI).

Owing to the lack of formal and institutionalized sexuality education, few young people globally receive realistic information regarding their sexual lives (Source). This has led many young people to be vulnerable to coercion, abuse and exploitation, unintended pregnancies and sexually transmitted infections (STIs), mainly HIV. Lack of openness by parents and other stakeholders in discussing sexual matters have been met with embarrassment, silence or disapproval (UNESCO, 2009) [30].

Comprehensive sexuality education programmes emerged to counteract and correct misleading information and images conveyed through the media and other conventional sources (UNESCO, 2009) [30]. Institutionalization of sex education can influence social and gender norms, which may benefit

not only the adolescents but the general population as well (UNESCO, 2012) [31].

Kirby (2012) indicates that well organised comprehensive education programmes can reduce behaviours that put young people at risk of untended pregnancy, HIV and STIs (Kirby, 2012). It is with this understanding that the Zambian Government through the Ministry of General Education decided to introduce Comprehensive Sexual Education (CSE) in the school curriculum.

Statement of the Problem

Pregnancies and other sexual risk behaviours are deemed to be a common occurrence among the adolescents with an estimated two—third of unwanted pregnancies ending up in unsafe abortion (Source). Statistics for Zambia, reveal that the adolescent's birth rate stands at 146 birth per 1000 girls between 15-19 years and about 28 per cent of adolescent girls become pregnant before age of 18 (MoGE, 2015). These statistics appear to be on the increase.

The World Health Organisation (WHO) strategies on adolescent sexual and reproductive healthy recommend that schools be critical venue for children to learn on healthy related issues (UNESCO, 2012) [31], The Government of the Republic of Zambia in 2016 introduced comprehensive sex education to help address the challenges of reproductive health among school adolescents in secondary schools. Very little information is known about the influence of comprehensive sexuality education in promoting

reproductive health among pupils in schools. This study therefore, examines the influence of comprehensive sexuality education in promoting reproductive health among pupils in selected secondary schools in Lusaka.

Purpose of the Study

The purpose of this study was to examine the influence of comprehensive sexuality education in promoting reproductive health among school pupils in Lusaka province.

Objective

The objective of this study was to:

 Determine how CSE influences school pupils to make responsible choices about sexual health in selected secondary schools in Lusaka Province.

Research Question

What is the influence of CSE on reproductive health of secondary school pupils in Lusaka province?

Literature Review

A study conducted by Kirby, Laris and Rolleri (2007) [24] found that sexually active adolescents who received sex education at school were more likely to use birth control at first intercourse and to have fewer unwanted pregnancies. Mueller, Gavin and Kulkarni (2008) [27] summarized evaluations of school-based sexuality and HIV education programs covering both abstinence and contraception and concluded that some of these programmes can delay the onset of intercourse, reduce the frequency of intercourse, decrease the number of partners, and increase condom use. Therefore, formal reproductive health education is not associated with increased sexual activity (Kirby, 2002; Kirby, Laris, & Rolleri, 2007; Mueller, Gavin, & Kulkarni, 2008) [22-23, 24, 27].

In Portugal, rates of pregnancies, births, and STIs among adolescents continue to present public health challenges due to the health implications associated with these events (Matos, 2011) ^[26]. An increase in the use of condoms and contraceptives among adolescents may help reduce the effect of sexual risk behaviours on health. Matos *et al.*, (2011) ^[26] further, points out that condom use (82.5%) and use of birth control pills (53.5%) at last sexual intercourse among sexually active adolescents suggest room for improvement.

Mueller, Gavin and Kulkarni, (2008) [27] argue that risk-reduction strategies do not promote more general developmental skills that would enable and motivate young people to employ these prevention strategies in their lives. Positive youth development strategies that promote general developmental skills have been seen as an alternative to approaches that promote adolescent health by focusing solely on risk factors (Abma, Martinez, Mosher, & Dawson, 2004) [1]. A growing amount of research stresses the importance of understanding the role that promotive and/or protective factors play in reducing negative health outcomes for youth, including adolescent sexual and reproductive health outcomes (Rangel, Gavin, Reed, Fowler, & Lee, 2006).

There is some evidence that a positive youth development approach can be effective for producing long-term behavioural change and ultimately reduction in teen pregnancy and sexually transmitted infection (STIs).

(DiCenso, Guyatt, Willan, & Griffith, 2002) [10]. The most recent systematic review of randomized controlled trials of adolescent pregnancy and sexual transmitted infections prevention programmes calls for future research into sex education programmes developed from suggestions made by young people that emphasize negotiation skills in sexual relationships and communication (House, Bates, Markham, & Lesesne, 2010) [18].

For this reason, most research emphasizes the importance of sex education from the earliest school years and identifies young people as an important target group for prevention. There are several good reasons to study sex education and its use in the adolescent population. The question remains as to the best way to educate individuals about sex and sexuality in developing countries (Esere, 2008; Kirby, Laris & Rolleri, 2007; Mueller, Gavin & Kulkarni, 2008) [13, 24, 27]. According to behaviour theory - the model of informationmotivation behavioural skills (IMB), if the aim of sex education is to improve safe sexual behaviour of individuals, the first aim must be to improve knowledge, and then foster motivation (that includes attitudes, behavioural intentions and subjective norms - perceived social support to perform these actions) and behavioural skills (Fisher & Fisher, 1992; Fisher & Fisher, 1993) [14, 15]. This means that young people who have knowledge, information, motivation and skills can change their attitude and subsequently their sexual behaviour (Bell, 2009) [4].

Evidence from intervention efficacy research accumulated during the past 20 years shows that some, but not all, sex education curricula can effectively reduce adolescent sexual risk behavior (House *et al.*, 2010) ^[18]. It is possible that the changes in how and when sex education is provided (i.e., increased coverage of sex education, providing sex education at earlier ages, and availability of evidence-based curricula) will be translated into a greater impact at the population level.

Adolescence is the period when many young people begin to explore their sexuality, implying that access to sexual and reproductive health information and services is necessary for their well-being. Early unprotected sex, including sex with older men, especially for girls, can result in early child-bearing, and increases the risk of HIV infection (Kirby, 2001) [25].

Sexual activity among girls starts earlier than it does among boys. For Zambia, the median age at first sexual intercourse is 17 years for women aged 20-49 and 18 years for men in the same age group. Although 52% of adolescent girls aged 15-19 years have never had sexual intercourse compared with 55% of their male counterparts, 12.3% of adolescent girls and 16.2% of their male counterparts had had first sexual intercourse by exact age 15 (Zambia Update of the situation analysis of children and women, 2013, 2013).

In terms of trends in age at first sexual intercourse, adolescent girls aged 15-19 who have had sex before age 15 declined from 22% in 1996 to 12% in 2007. As for adolescent boys aged 15-19 who have had sex before age 15, this declined from 39% in 1996 to 16% in 2007. Meanwhile, only 28% of adolescent girls aged 15-19 and 20% of adolescent boys aged 15-19 used a condom at first sexual intercourse (Zambia Update of the situation analysis of children and women, 2013).

Condom use is one of the most effective strategies for combating the spread of HIV. Use of condoms during higher-risk sex, especially with a non-marital, noncohabiting partner is an important indicator in assessing progress towards the MDG 6 target on HIV and AIDS. Among women who had had sexual intercourse in the 12 months prior the 2007 ZDHS, the percentage who had engaged in higher-risk sex was highest for girls aged 15-19 (52%), followed by those living in urban areas (23%); those in Western province (36%); those with more than a secondary education (30%); and those in the highest wealth quintile (25%). Among men who had had sexual intercourse in the 12 months prior to the survey, the percentage of respondents engaging in higher-risk sex was highest among those aged 15-19 (96%), followed by those living in urban areas (47%); those in Lusaka and Wester) provinces (51% and 52%, respectively); those with secondary education (47%) (Zambia Update of the situation analysis of women and children, 2013)

It is evident that young adolescent boys and girls are having sex early and, in most instances, especially for the boys, it is higher-risk sex. In an environment of generalized HIV epidemic like the one in Zambia, having sex with older men and to some extent women may introduce HIV into younger and uninfected generations or cohorts.

In many developing countries, and Sub-Saharan Africa in particular, laws and policies may restrict adolescent boys and especially girls' access to condoms, testing and accurate comprehensive information UNICEF, 2012) [33].

It is clear from the discussion on adolescent fertility and contraceptive prevalence among women that use of contraception for purposes of family planning and to avoid unwanted early pregnancies is not common among adolescents, possibly because of a lack of a clear policy direction on how to deal with this category of the population – an intersection between childhood and adulthood.

Barnett and Hurst evaluated an abstinence-only curriculum entitled the Life's Walk programme. They evaluated the efficacy of this curriculum as it was implemented in northwest Missouri. The curriculum was designed to give a clear and consistent message to wait until marriage to have sex. The only mention of birth control and condoms is to discuss their failure rates. The programme's goals were to "improve adolescent-parent communication about sex, increase factual knowledge about sex, and increase student understanding about the realities of teen parenthood, and foster the belief that abstinence is the best way to avoid negative consequences of early sexual activity (Barnett et al. 2003) [3]. The study found a significant increase in parentadolescent communication about sex but no overall change in students' attitudes about sex or their levels of self-esteem. When asked which method the students would use to avoid pregnancy and STIs there was an increase in the number of students who chose abstinence and a decrease in the number who chose condoms. The study also found a statistically significant increase in sexual behavior. This finding is particularly confusing since the majority of students claimed to use abstinence as their preferred method of avoiding pregnancy and STIs, yet an increasing number of students were becoming sexually active. Barnett et al. (2003) [3] recommend that if this statistically significant increase is replicated, it is crucial that more of an emphasis be placed on condom and birth control use so that these adolescents have effective methods of birth control and STI protection available to them.

Literature labels adolescence as a period in which young people's vulnerability is amplified due to their engagement

in risky behaviours (Dietrich, 2003) [11]. The trepidations pertaining to adolescents' indulgency into reckless behaviour have a long history. Stanley Hall in 1904 attributed adolescents' misbehaviour to the storm and stresses of the transition from childhood to adulthood. Subsequently, social scientists produced substantial evidence that the storminess of adolescence is largely an over generalisation which has not been empirically substantiated. For instance, Margaret Mead's research among Samoans indicated that adolescence in Samoa was a smooth transition. Mead's efforts, therefore, became a milestone in which social scientists, anthropologist and other scholars had to view the adolescence period from a separate perspective. Efforts made in adolescence study culminated into dualistic view of the period with other scholars acknowledging it as a period of unrest (storm and stress) and others looking at it as a smooth transition. Numerous scholars (Dietrich, 2003) [11] have tried to unveil the underlying perception of a risk and risk taking in adolescents. Elkind came up with the theory of social cognition in which he argued that adolescents are franked with personal fable, thinking that I am unique (Elkind, 1984) [12]; I can handle anything; that won't happen to me; I can never be hurt, hence, do not perceive themselves to be at risk (Mwale, 2011) [28]. Personal fable in youths can be a potential drive to sexual risk-taking but the risk takers themselves feel distanced and safe from any possible risk. This thinking amongst the youth lessens their fears pertaining to undertaking risk activities including sexual risks. Likewise, Weinstein advanced the theory of optimistic bias which contends that individuals are likely to lessen their risk by attributing much of the vulnerability to others instead of themselves (Bruine de Bruin, Downs, & Fischhoff, n.d; Helweg-Larsen & Shepherd, 2001).

According to Kendi, Mweru and Kinai (2010) people who hold this kind of orientation when asked to evaluate their own chances of developing certain diseases compared to others of the same sex usually evaluate their own risks to be significantly lower than that of others. Young people especially adolescents are not an exception in this context. They underestimate their risk compared to others especially in situations where they accurately or inaccurately perceive some element of personal control (Bruine de Bruin et al., 2010.) [6]. Adolescents usually feel a false sense of authority when they perceive themselves to be at the centre of control of their lives. Greene et al. (2000) [17] maintain that most of the adolescents have the ability to perceive risks accurately yet do not weigh these risks in their decision-making. Their faulty decisions blindfold them to view themselves in isolation of any possible risk. In connection to the study, there is a shift in locus of risk from one individual to another with adolescents downplaying their vulnerability. For instance, adolescents having two sexual partners perceive themselves safer than those having three or more sexual partners (Kilman et al., 2012) [20]. Such thinking lessens their vulnerability to any sort of risk they are likely to encounter in any situation like contracting HIV/AIDS and getting pregnant. The current study indicates that despite HIV/AIDS awareness brought through sex education, students engage in risky sexual activities believing that this would not impact negatively on their sexual lives except in the lives of their colleagues. Their understanding is that HIV/AIDS can only affect their friends, not them (Kilman et al., 2012) [20]. Adding to that, some adolescents see themselves as having less control over their lives (Bruine de Bruin *et al.*, 2010) ^[6]. Having less control over one's life then becomes a recipe for easy coercion either by peers or older sexual partners to engage in unsafe sex.

Methodology Research Design

According to McCaig (2010), a research design is an overarching strategy for unearthing useful answers to research problems. A descriptive survey design was used when conducting this research. Bless and Achola (1988) [5] define a descriptive survey design as a mode of collecting information by interviewing or administering a questionnaire to a sample of individuals. Since the research sought to collect information about the respondents' opinions on the topic at hand, the descriptive research design was ideal. The study used both quantitative and qualitative methods of data collection.

Since no single method ever, adequately solves the problem of rival causal factors, multiple methods of observation must be employed; triangulation is now a final methodological rule that should be used in every investigation (Denzin, 1978). The strategy of triangulation was used as a way of cross validation of research findings.

Target Population

The population for this study comprised all pupils in secondary schools in Lusaka province in Zambia.

Sample Size

The sample size was 172 respondents of which 88 were girls and 84 boys. From Six public secondary schools from chongwe and Lusaka districts respectively. (Three school were selected per district) for the study.

In selecting the respondents, Simple random sampling procedure was used to pick pupils who participated in this study. This was in order to provide each population element an equal probability of being included in the sample (Bless & Achola, 1988) ^[5].

Research Instruments

In this research, structured questionnaires and focus group discussions were used to collect data.

Data Collection Procedure

The researcher got permission from the Lusaka Provincial Education Office and from the District Education Board Secretaries (DEBS) of the respective districts in which the research was conducted.

The researcher distributed a consent form and questionnaires to the respondents who were sampled and willing to complete them. Enough time was given to the respondents so that they could complete the questionnaires, after which the researcher collected the questionnaires. After collecting the questionnaires, the researcher randomly selected twelve pupils and eight teachers at each secondary school so that they could take part in focus group discussions. During focus group discussions, the researcher moderated all discussions and used a voice recorder so that, the flow of the discussions could not be disturbed. The recorded discussions were later transcribed and analysed.

Data Analysis

McCaig (2010, P. 45) describes data analysis as "a process that involves organising what you have seen, heard and read, so that you can make sense of what you have learnt." The data for this study was analysed both quantitatively and qualitatively. The quantitative data was analysed using the statistical package for social Sciences (SPSS) computer software to generate tables of frequencies and percentages which were used in describing distributions of the variables. Qualitative data was analysed by coding and grouping the emerging themes.

Ethical Considerations

The study took into consideration ethical issues. The information that was collected was kept strictly confidentially. Consent was sought from all the respondents and their participation was voluntary. At the onset of data collection, the researcher sought permission of the head teacher who introduced the researcher to the pupils. In addition, each questionnaire contained an opening introductory letter requesting for the respondent's cooperation in providing the required information for the The respondents were further assured confidentiality of the information provided and that the study findings were to be used for academic purposes only. Respondents were further assured of their personal protection and that they had authority to refuse or accept to be interviewed.

Findings and Discussion

Influence of comprehensive sexuality education on reproductive health of pupils

Pupils were asked to indicate whether sexuality education received at school helped them to delay becoming sexually active. Table 1 shows their responses.

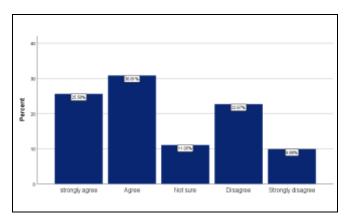


Table 1: Whether sexuality education received at school helped them to delay becoming sexually active

As can be seen from table 2 the majority of the respondents agreed 30.8% and 25.6% strongly agreed that CSE helped them to delay becoming sexually active. Only 9.9% strongly disagreed that CSE helped them to delay becoming sexually active.

The study has revealed that 56.4% of the respondents delayed to be sexually active because of the comprehensive lessons they received from school. This finding is similar to that of Kirby (2012) which also found that well

implemented CSE programmes in school can reduce un planned pregnancy among adolescents.

Whether sexuality education pupils received at school helped them acquire factual information about sexual responsibility

Respondents were asked to indicate whether CSE lessons helped them acquire factual information about sexual responsibility. Table: 2 presents their views,

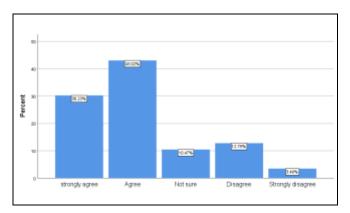


Table 2: Whether comprehensive sexuality education pupils received at school helped them acquire factual information about sexual responsibility

Table 2 shows that the majority of the respondents agreed 43.0% and 30.2% strongly agreed that sexuality education they received at school helped them acquire factual information about sexual responsibility while 10.5% was not sure. Only 3.5% strongly disagreed. The study has revealed that the majority of the pupils 73.2% indicated that CSE lessons helped them to acquire factual information about sexual responsibility. In a focus group discussion one pupil said, "We have learnt a lot about sex issues we now know how to conduct ourselves." This finding is similar to that of Bell (2009) [4] found that CSE help learner acquire important information about their sexuality.

Whether sexuality education pupils received at school helped them to become aware of sexually transmitted diseases

Pupils were asked to indicate Whether sexuality education they received at school helped them to become aware of sexually transmitted diseases. Table 3 shows their responses.

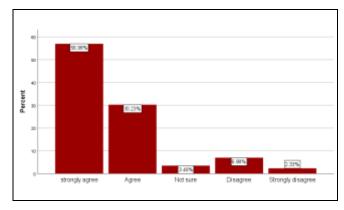


Table 3: Whether sexuality education pupils received at school helped them to become aware of sexually transmitted diseases.

As can be seen from table 3 above the majority of the pupils strongly agreed 57.0% others agreed 30.2% that sexuality education they received at school helped them to become aware of sexually transmitted diseases. Only 9.3 % disagreed. Only 9.3 % disagreed. The study has shown that the majority of the pupils 87.2% became aware of sexually transmitted diseases through CSE lessons. This finding is in line with that of Matos (2011) [26].

Whether sexuality education pupils received at school helped them protect themselves against unwanted pregnancy and STIs

Pupils were asked to indicate whether sexuality education pupils received at school helped them protect themselves against unwanted pregnancy and STIs. Their responses are shown table 4 below.

Table 4: Whether sexuality education pupils received at school helped them protect themselves against unwanted pregnancy and STIs

	Frequency	Percent
Strongly agree	89	51.7
Agree	39	22.7
Not sure	11	6.4
Disagree	22	12.8
Strongly disagree	11	6.4
Total	172	100.0

Table 5 above shows that the majority of the pupils 89(51.7%) strongly agreed while 39 (22.7%) agreed that they were able to protect themselves against unwanted pregnancies as a result of CSE lessons. 11(6.4%) were not sure. Only 11(6.4) strongly disagreed. The study has showed that 74.4 pupil were able to protect themselves against unwanted pregnancies as a result of CSE lessons. In a focus group discussion on pupil said, "Most girls do not get pregnant these days because they have learnt how to prevent unplanned pregnancies." This study is similar to that of Esere (2008) [13].

Whether sexuality education pupils received at school made them aware that they are responsible for making sexual decisions

Pupils were asked to indicate whether sexuality education they received at school made them aware that they are responsible for making sexual decisions. Their responses are presented in table 6.

Table 6: Whether sexuality education pupils received at school made them aware that they are responsible for making sexual decisions

	Frequency	Percent
Strongly agree	78	45.3
Agree	59	34.3
Not sure	22	12.8
Disagree	13	7.6
Total	172	100.0

Table 6 above shows that the majority of the pupils 78(45.3%) strongly agreed and 59(34.3%) agreed that sexuality education pupils received at school made them aware that they are responsible for making sexual decisions. Only 13(7.6) disagreed. 79.6% of the pupils agreed that

CSE lessons have helped them to make more responsible decisions.

Whether sexuality education helped pupils to access reproductive health at health facility

Pupils were asked whether sexuality education helped them to access reproductive health at health facility. Their responses are in table 7.

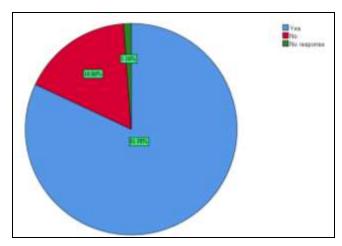


Table 7: Whether sexuality education helped pupils to access reproductive health at health facility

Table 7 shows that the majority of the pupils 82.2% were able to access reproductive health at health facilities because of sexuality education they received at school.

Conclusion

The study has shown that comprehensive sexuality education has a positive impact on pupil's sexual lives. The study has shown that 79.6% of pupils are snow able to make more responsible decisions about their sexual life while 74.4% reported that they are now able to protect themselves against unplanned pregnancies. 73.2% of the pupils reported that they have acquired factual information about their sexual responsibility. It has also emerged from the study that 54.4% of pupils are now able to delay their sexual involvement because of the information acquired through CSE

The analysis of the study showed that 82.2% of pupils were now able to access reproductive health because of the knowledge they acquired through CSE

Recommendations

Arising from the findings of the study, the following recommendations were made:

- 1. The ministry of education should supply more books on sexuality education.
- 2. The Ministry of Education should make CSE a stand-alone subject rather than integrating it in other subject.

References

- 1. Abma J, Martinez G, Mosher W, Dawson B. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002. National Center for Health Statistics. Vital Health Stat. 2004; 23(24):1-87.
- 2. Babbie E. The Practice of Social Research, Eleventh Edition, Thomas Higher Education, 10 Davis Drive USA, 2007.

- 3. Barnett Jerrold, Cynthia Hurst S. Abstinence Education for Rural Youth: An Evaluation of Life's Walk Program. The Journal of School Health. 2003; 73(7):195-208.
- 4. Bell J. Why embarrassment inhibits the acquisition and use of condoms: A qualitative approach to understanding risky sexual behaviour. Journal of Adolescence. 2009; 32:379-391.
- 5. Bless C, Achola P. Fundamentals of Social research methods. Lusaka: Government printers, 1988.
- 6. Bruine de Bruin W, Downs JS, Fischhoff B. Adolescents Thinking about the Risks of Sexual Behaviour, 2010.
- 7. CSO (Central Statistical Office) Zambia Demographic and Health Survey 2007. Lusaka: CSO, 2007.
- 8. CSO (Central Statistical Office) Zambia Sexual Behaviour Survey 2009. Lusaka: Government of UNICEF (UN Children's Fund) Zambia and Government of Zambia (2013) "Update of the Situation Analysis of Children and Women in Zambia". Lusaka: UNICEF Zambia and Government of Zambia: Zambia, 2010.
- 9. CSO (Central Statistical Office) Zambia 2010 Census of Population and Housing Population Summary Report. Lusaka: CSO, 2012a.
- 10. DiCenso A, Guyatt G, Willan A, Griffith L. Interventions to reduce unintended pregnancies among adolescents: systematic review of randomised controlled trials. BMJ. 2002; 324:1420-3o.
- 11. Dietrich V. An exploration of adolescent risk taking behaviour: A case study analysis. Retrieved 14 June 2003-2014, from http://contentpro.seals.ac.za/iii/cpro/app?id=5118994984671725&itemId=1004152 &lang=eng&service=blob&suite=def
- 12. Elkind D. Egocentrism in adolescence. Child Development. 1984; 38(4):1025-1034.
- 13. Esere M. Effect of sex education programme on at-risk sexual behaviour of school-going adolescents in llorin, Nigeria. African Health Sciences. 2008; 8(2):120-125
- 14. Fisher J, Fisher W. Changing AIDS risk behaviour. Psychological Bulletin. 1992; 111:455-474.
- 15. Fisher W, Fisher J. Understanding and promoting AIDS preventive behaviour: A conceptual model and educational tools. The Canadian Journal of Human Sexuality. 1993; 1:99-106.
- Fowler JR, Floyd J, Carol Cosenza. Writing Effective Questions. Pp. in International Handbook of Survey Methodology, edited by Edith D. de Leeuw, Joop J. Hox, and Don A. Dillman. Lawrence Erlbaum, 2008, 136-60.
- 17. Greene K, Krcmar M, Walters LH, Rubin DL, Hale J, Hale L. Targeting adolescent risk-taking behaviours: The contributions of egocentrism and sensation seeking. The journal of Adolescence. Retrieved. 2014: 23(4):439-461., from http://www.idealibrary.com.
- 18. House L, Bates J, Markham C, Lesesne C. Competence as a predictor of sexual and reproductive health outcomes for youth: A systematic review. Journal of Adolescent Health. 2010; 46(3)(suppl1):S7-S2.
- 19. Kendi L, Mweru M, Kinai T. HIV/AIDS knowledge and risk perception of visually impaired and sighted pupils in Kenya. European Scientific Journal. 2012; 8(8):168-179.
- 20. Kilman A, Binagwaho A. Adolescents and the right to

- health: Eliminating age-related barriers to HIV/AIDS services in Rwanda. AIDS Care. 2012; 24(7):936-947.
- 21. Kirby D. Sexuality and sex education at home and school. Adolescent Medicine. 1999; 10:195-209.
- 22. Kirby D. The impact of schools and school programs upon adolescent sexual behavior. The Journal of Sex Research. 2002; 39(1):27-33.
- 23. Kirby D. Reducing Sexual Risk Behaviour among Young People: A Training Kit for Curriculum. Washington Dc: Scots Valley, 2002.
- 24. Kirby D, Laris BA, Rolleri L. Sex and HIV education programs: Their impact on sexual behaviors of young people throughout the world. Journal of Adolescent Health. 2007; 40:206-217.
- 25. Kirby D. Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy. Washington, DC: National Campaign to Prevent Pregnancy, 2001.
- 26. Matos MG, Simões C, Tomé G, Camacho I, Ferreira M, Ramiro L, *et al.* equipa Aventura Social. A Saúde dos Adolescentes Portugueses ± Relatório do Estudo HBSC 2011-2010. ACS/FMH/UTL/CMDTUNL.
- 27. Mueller TE, Gavin LE, Kulkarni A. The association between sex education and youth's engagement in sexual intercourse, age at first intercourse, and birth control use at first sex. Journal of Adolescent Health. 2008; 42:89-96.
- 28. Mwale M. Adolescent psychology: The Malawian perspective. Lilongwe: Corporate Publishers, 2011.
- 29. Neuman LW. Social Research Methods, Qualitative and Ouantitative Approaches, Fifth Edition, London, 2003.
- UNESCO. International Technical Guidance on Sexuality Education: an evidence informed approach for schools, teachers and health educators (vol. I). Paris, 2009i.
- 31. UNESCO. Impact of HIV and Sexual Health Education on the Sexual Behaviour of Young People: A Review of Updates. Geneva: UNAIDS, 2012.
- 32. UNICEF. Health and family life education: teacher training manual, 2013.
- 33. UNICEF (UN Children's Fund) Progress for Children: A Report Card on Adolescents. Number 10. New York: UNICEF, 2012b.