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The influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City, Tanzania

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Premarital sex and adolescent pregnancy are among challenges to development. Globally Tanzania is among countries with highest rates of adolescent pregnancies having 44% of women become pregnant at teen age accounting for 40% of school dropouts. Despite provision of sex education in schools, the problem still persists with little information about its influence on adolescents' sexual behavior. This study, therefore, intended to identify and describe the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City, Tanzania. The study population comprised adolescents aged 14-24 years. Descriptive survey, and purposive and snow ball sampling were employed. A pilot study was conducted to ensure validity and reliability of the study. Data collection was through in-depth interviews, focus group discussions, key informant interviews and documentary review with interview schedules and discussion checklists as instruments. Content analysis was used based on the objectives. The major findings were as follows; majority of the adolescents engage in sexual practices with multiple partners. Sex education guides adolescents to avoid premarital sex and reproduction but is also a factor in influencing adolescents' engagement in sexual acts. Based on the findings, the study recommends: government to ensure effective sex education by training teachers on the subject matter, providing appropriate instructional resources, making sex education a compulsory and independent subject for all students, schools to establish guidance and counseling sessions and work with stake holders to integrate moral values among adolescents, through re-introduction and improvement of religious classes and other curricula activities.

Key words: Adolescent, sex education, premarital sex, adolescent pregnancies, Arusha City.

INTRODUCTION

Premarital sex and adolescent pregnancy are issues of great concern to parents, school stakeholders and society at large. Teenage pregnancy is a serious problem among adolescent girls in Tanzania (Mbelwa and Isangula (2013). While strong measures are taken against people who engage in sex with adolescents, especially those under

eighteen years, cases of adolescent pregnancies are still frequent. The affected girls to assume parental role while continuing with their educational journey or quit from schools. Though there are many approaches through which this problem can be tackled, sex education could be the main possible means to use to reduce cases of premarital

sex and adolescent pregnancies. In response to this problem, this study seeks to investigate on the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City, Tanzania.

According to DeCarvallo, (1991), Abraham Maslow on his theory of psychosexual, postulates that people tend to choose what they need than what they want thus putting a basis in user needs rather than user wants. Abraham Maslow places sex as a basic physiological need, which unless satisfied (together with other physiological needs such as air, food and water), humans will remain at that basic level seeking gratification. Several human rights declarations have placed sexual gratification as an important and basic human need. However, desire for sexual satisfaction at tender age may result into adolescent pregnancy whose rate is 6.5% worldwide and 10% in Sub Saharan Africa (WHO, 2008). Tanzania is one of the countries in the world with high rates of adolescent pregnancies (Batha, 2013). Other statistics on the extent of adolescent pregnancies in Tanzania is shown in different literatures For instance, according to Mbelwa and Isangula (2013), UNICEF statistics show that while 18% of adolescents in Tanzania are married or live with a partner, 28% of women give births before the age of 18 years. The paper also shows that common reasons for school dropouts are teen pregnancy and teen marriage thus having higher rate of drop outs for girls than boys. In their article, they state that in 2006 girls' dropouts was over 60% out of 44,742 and 7,734 dropouts of primary and secondary schools respectively. Moreover, according to statistics from the Ministry of Education and Vocational Training (MoEVT) of the United Republic of Tanzania (URT), between 2003 and 2011, pregnancy led to over 55,000 girls' school dropouts (URT, 2013). MoEVT stipulates that the rate of girls' dropouts due to pregnancy in secondary schools has increased from 4,941 in 2009 to 5,775 in 2010 (Basic Education Statistics in Tanzania, 2009 and 2010). To make matters worse the government of Tanzania demands that girls should be expelled from schools in the case of pregnancy. Based on these data, adolescent pregnancy is the major cause for school dropouts among school girls in Tanzania (Madeni et al., 2011; Maluli and Bali, 2014).

Several recent studies on adolescent pregnancies in Tanzania have their focuses on factors, challenges and impacts of adolescent pregnancies (UNESCO, 2014; Uromi 2014; Kagashe and Honest, 2013; Kate, 2012; Kasilima, 2010; Nkuba, 2007). In general, these studies identify teen pregnancy as a serious problem to societal development. Not much is known about adolescents' perceptions and opinions concerning premarital sex and adolescent pregnancies in Arusha City. Despite the modern technology and the interventions to address adolescent pregnancies in Tanzania, the rates of adolescent pregnancies are still high. Furthermore, the impact of the technological efforts to thwart the menace are still unknown, and adolescents' perceptions and attitudes on early sex and reproduction have not been fully explored. This gap of knowledge clarifies the need for conducting this study to critically

describe the role of sex education toward reduction of premarital sex and adolescent pregnancy cases. The study sought to explore the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City. This study therefore was guided by the following major research question; What is the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City?

Review of Literature

This section reviews literature and studies on premarital sex and adolescent pregnancy in various parts of the globe in order to throw light on the present study. Hence, this section concentrates on assessing other literatures the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City in North-east Tanzania.

Overview of Adolescent pregnancies

Together with being among countries in the world with the highest rates of adolescent pregnancies, Goergen (2009) reports that 25% of all females in Tanzania become pregnant at the age between 17 and 18 years while 39% are already mothers. Findings by Goergen are almost similar to statistics given by a study by HIV and Malaria Indicator Survey (HMIS). The survey points out that a big percentage of young people aged between 15 and 24 years engage in sex by the age of 18 years (UNFPA 2013, HMIS 2007/08 and 2011/12).

Adolescents in Tanzania encounter a range of challenges with negative impacts on their lives and development of the nation in general. In particular adolescent girls who make up one fifth of the country's total population have their education goals shut down as a result of expulsion due to pregnancy (UNFPA, 2010). A report by UNESCO (2014) points out that school pregnant girls face stigmatization and discrimination from family members, fellow students, teachers, community, the media and the society at large. As if these are not enough, girls who become pregnant get expelled from school, go through psychological torture due to stigma, get discriminated against, and develop medical complications and financial constraints. In turn these lead to additional societal challenges such as illiterate adolescent mothers, street children, prostitution, drug abuse and the like.

Adolescents in Tanzania encounter a range of challenges with negative impacts on their lives and development of the nation in general. In particular adolescent girls who make up one fifth of the country's total population have their education goals shut down (UNFPA, 2010). In order to avoid the shame of adolescent pregnancy, girls in Tanzania abscond from schools once they realize that they have become pregnant.

Expulsion lead to lack of education which affects people's life negatively whereas women's educational attainment is

said to result into positive development outcomes. For instance, scholars like Warner, Malhotra and Mcgonagle (2012), Chaaban and Cunningham (2011) confirmed that there is a close relationship between women's education attainment and societal development. For example, UNICEF specifies that more education lead to fewer child marriages and lower adolescent fertility (URT, 2011). Findings of these studies indicate that economic growth is stronger where education is more gender equitable. These studies have established that gender equality in education increases national economic growth and well-being. Accordingly, UNFPA (2011) describes girls' population as critical for social change and global development in the developing world. Much as development is observed in matters associated with human wellbeing and economic, educated women are capable of bringing up healthier children and family. A healthy mother and a healthy baby are the desirable outcomes. This is because educated and well-informed women tend to maintain low fertility rate, small family size, lower child mortality with strong wellbeing and economy.

In Tanzania, legal age to enter into marriage is 18 years, but the customary law allows marriage at even a younger age (The Citizen, 2014). Such gender-based variations of ages to enter into marriage is discriminatory and also put girls at health risks of early sexual practices and reproduction. The inconsistency in the Marriage Act of 1971 states marriage age is 17 and 15 years for a boy and girl respectively (United Republic of Tanzania, 2009). In contrast, the Sexual Offences Special Provisional Act (SOSPA) of 1998 in Tanzania criminalizes marriage below 18 years. Besides, section 130 of the Penal Code provides penalty to a person who enters into marriage with a girl below 18 years. On the other hand, the URT law of marriage Act (1971) permits marriage of 15 year-old girls while the minimum age of marriage for boys is 18 years (URT, 2009). Furthermore, section 13(2) (b) of law allows marriage of a girl aged 15 years with parents' consent. However, in the same law section 130(2) a man is penalized for an offence of rape if he has sexual intercourse with a girl below 18 years with or without her consent. (URT, 2009). Such inconsistencies in Tanzania laws hinder efforts for addressing early marriages accompanied with adolescent pregnancies and its consequences. Such contradictions are obstacles to law enforcers, human rights activists and all stake holders in their efforts to solve the problems of premarital sex and adolescent pregnancies in the country. Existence of age differences between a boy and a girl to enter into marriage is not only discriminatory but also put younger girls at danger of beginning adult life which is accompanied with sexual practices at a very young age of 15 years.

Another challenge in addressing premarital sex and adolescent pregnancies in Tanzania is failure of girls to accomplish or meet educational attainment goals due to pregnancy. This is verified data from MoEVT (2010) which illustrate that in 2007, pregnancies led to 5.6% and 21.9% dropouts at primary and secondary schools respectively.

Despite these high rates of drop outs, the government has been ineffective in addressing the problem. As explained earlier, despite the efforts by the government of Tanzania to raise girls' enrolment at all levels, school girls who become pregnant face expulsion leading to other negative impacts.

Addressing Adolescent Pregnancies

The United Nations Millennium Development Goals (UN MDG) and Education for all (EFA) are strongly devoted to education based on gender equity at global level. To meet the MDG No. 3, developing countries had set up different intervention strategies. Tanzania like other developing countries established intervention strategies to address gender inequality in education. Some of the interventions are; introduction of Family Life Education (FLE) and sex education in primary and secondary education respectively. This was a response to the consequences of teenage pregnancies, spread of HIV/AIDS and high rate of school drop outs (URT, 2010). Other interventions were implementation of development plans for primary and secondary education and establishment of public community secondary schools within each ward (URT, 2010). In addition from 2016 the government of Tanzania offers free education from primary to secondary level. These efforts raise the number of girls admitted in primary and ordinary secondary education but decrease before completion. Sex education is considered as one of the important and widespread ways to help adolescents improve their reproductive health.

Informal Sex Education

In his work on traditional beliefs in Africa, Mbiti (1991) observes that traditional families in the region were responsible for conveying information to society members. He further states that dissemination of detailed knowledge concerning sexual issues to youths was specifically done during initiation ceremonies. The rituals which were seen as entry point to marriage aimed at preparing young people for their adult roles as Mbiti notes:

Initiation ceremonies for the young people prepare them for the most important phase of their life. This is marriage and the raising of families... Once they have gone through initiation ceremonies, not only is there nothing to stop them from getting married and bearing children, but they are under solemn obligation to do so (Mbiti, 1991:200-201).

From Mbiti's explanation, initiation under informal education was aimed at teaching youths how to maintain positive morals of their sexual behavior. According to Sorre and Akong'a (2009), for decades, most African countries have been using initiations and rituals for teaching life skills. In general, sex education involves acquiring information for developing essential social skills in young people to make informed decisions and choices about their sexual behavior. However, UNESCO (2014) proclaims that

there exist several challenges that cause adolescents acquire incorrect information on reproductive health. This put adolescents in difficult situation for making right choices on their sexual life.

Sorre and Akong'a (2009) view traditional education structure as affected by modernization through social and economic transformations. Availability of modern technology such as internet, mobile phones and television or video shows have blocked the former traditional social structures that assisted adolescents to acquire knowledge on sex and reproduction. These transformations have impacted on the norms and values of society (Barongo et al., 2004). It is for this reason that globalization accompanied with modern technology were considered to contribute to new life styles of people especially in urban areas. With these changes, Aggleton (2013) specifies modernity as a cause for immorality which is possibly one of the key factors that influence adolescent pregnancies. Moreover, Aggleton mentions globalization as among causes for adolescent pregnancies. He clarifies that this is seen in the current trend of having young mothers under 15 years as opposed to pre-modernity time when premarital sex was not allowed until one enters into a marriage.

Formal Sex Education

In realizing the impact of adolescent pregnancies in Africa, the United Nations AIDS (UNAIDS) directed African countries to provide comprehensive sex education in schools. According to Mbonile and Kayombo (2008), the government of Tanzania adhered to this directive by incorporating sex education in secondary school curriculum. The scholars also explain the aim of sex education in Tanzania as an attempt to reduce the rate of adolescent pregnancies and improve adolescents' sexual health. Hence it focused on enhancement of adolescent sexual reproductive health (ASRH) services. Introduction of formal education in Tanzania brought changes that eliminated the traditional knowledge on sex and reproduction (Meena, 1996). Hence, it undermined the initiation patterns of young people into adulthood. Instead formal education introduced modern technology with new life style.

Tanzania being among countries in the world with high rates of adolescent pregnancies, and with the expulsion eventually to result to school dropouts among girls (Kagashe and Honest, 2013; UNFPA, 2010). Responding to the UNAIDS directive on addressing adolescent pregnancies, sex education was used to build awareness on sex issues among adolescents. This study assumes that the presence of high rate of girls' school dropouts due to pregnancies suggests inefficiency on the provision of sex education in secondary schools in Tanzania. Apparently in this globalization period and with current advanced modernization technology, the extent of adolescent pregnancies was expected to decrease but on the contrary, the opposite prevails. Likewise, despite the government interventions to rectify the situation, outcome of the efforts

are still uncertain and little is known regarding the influence of sex education towards adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City, Tanzania

Some respondents argued that sex education in secondary schools is superficial, covering very general information which does not help students in addressing premarital sex. Lack of the right information on sex issues is a major challenge to address adolescent pregnancies in Tanzania. For instance, the contents of the topics in sex education reveals that the subject content is really wanting. For instance, a topic on prevention of early marriages which is found in a book entitled *Civics for Secondary Schools* by Abeid and Olotu (2016) has a topic *Family Life* with a sub title *Early Marriages*. Whereas the sub title indicates the emphasis is on prevention of early marriages, its content does not give students specific skills for prevention of early marriages. Looking at the theme 'Prevention of Early Marriages' one would expect the authors to impart students with essential skills for prevention of early marriages. In contrast, the topic concentrates on explaining what the government ought to do in addressing the problem of early marriages (Figure 1).

The propositions on the prevention of early marriages as illustrated in Figure 1 are not for helping students in preventing themselves from early pregnancies. Based on the contents, the study came out with a range of concerns. First, how do these suggestions help students to prevent themselves from early marriages? Secondly, who is responsible for making sure that societies and the government access and implement the given suggestions? Thirdly, how do the students have any say to the societies and the government on prevention of early marriages? Uncertainty of the contents under the sub-topic 'Prevention of Early Marriages' as illustrated in Figure 1 implies that the effectiveness of provision of sex education in secondary schools in Tanzania is still questionable.

A report by UNESCO (2012) illustrates that only 22% and 28% of schools cover sexual and reproductive health matters, and family planning is not explicitly addressed. In Tanzania, sex education was incorporated in secondary school curriculum almost three decades ago but its effectiveness in addressing premarital sex and adolescent pregnancies in the country is still uncertain. Figure 1 is an indication that effectiveness of provision of sex education in secondary schools in Tanzania is still questionable.

Reproductive Health Education

Reproductive health education (RHE) is used in this study to refer to a process of providing information, skills and services that enable a person adopt safe sexual behavior including abstinence (Minja et al., 2016). Hence, it is also described as knowledge about matters related to health and reproduction. One of the goals of RHE is promotion of abstinence from sex as recommended behavior. Abstaining from sex is not only a preventive measure against pregnancy, STDs and HIV infections; it is also a barrier

Prevention of early marriages

1. **Education:** The society should be educated on the dangers of early marriages.
2. **Basic socio-cultural practices:** Societies should abandon negative socio-cultural practices such as female circumcision and gender discrimination.
3. **Laws:** The government should enact strict laws against early marriages and enforce the existing ones to discourage parents from forcing their children to get married at an early age.
4. **Poverty alleviation:** Poverty alleviation strategies should be strengthened. This will help in preventing the economic hardships which force poor parents to marry off their young girls in order to get bride price.

Figure 1: Prevention of Early Marriages

Source Abeid RS, Olotu SR (2016). Civics for Secondary Schools: Form One Student's Book. Oxford University Press Tanzania Ltd, Dar es Salaam.

gainst other social ills.

Other concerns of RHE are healthy, human sexuality, reproductive health, child bearing and responsible parenthood. UNESCO (2014) ascertain that the main focus of RHE is the availability of correct and comprehensive knowledge concerning reproductive health among adolescents. The MoEVT intentionally incorporated sex education in secondary schools with an assumption that majority of adolescents reach full maturity within or below the age of 20 years. In a study carried out in Morogoro Tanzania, about 10% of adolescent students become aware of puberty and bodily changes at the age of 10-13 years (Minja et al., 2016). Moreover, based on the education system of Tanzania, age of secondary schools students is 13-19 years. This age is in maturity period and as such sex education in secondary schools is inevitable.

Adolescent pregnancies especially among school girls suggest some challenges in provision of sex education. Maluli and Bali (2014), point out that implementation of sex education is faced with several shortcomings for its effectiveness. In their article, they mentioned some of the limitations as lack of trained teachers specialized in subject matter, learning and teaching resources that include books and other teaching facilities. Another shortcoming is that sex education is taught as a sub topic incorporated in Biology and Civics subjects. In view of this, Maluli and Bali

(2014), stress that Tanzania lacks a national comprehensive sex education curriculum. This implies that there is no clear guideline for schools or teachers on the content of the subject and how students should be taught.

RESEARCH METHODOLOGY

Research Design

The present study utilized qualitative research approach to examine the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City, Tanzania. Descriptive research design was employed in this study using qualitative data. According to Bryman (2005), qualitative data are based on the participants' own categories of meanings when describing complex phenomena. Hence, it provides individual case information which can be used to conduct cross-case comparisons and analysis.

The Study Area

This study was confined to Arusha City, in Arusha region located in the north eastern part of Tanzania. Selection of Arusha City was based on several qualities which the

Table 1. Respondents by Source

GENDER	CATEGORIES OF THE RESPONDENTS					TOTAL
	Secondary School	Tertiary	University	Health Facility	Ward	
Male	16	2	4	0	4	26
Female	16	26	2	8	12	64
TOTAL	32	28	6	8	16	90

researcher identified as applicable over other regions and Cities in the country.

Population of the Study

Administratively, Arusha City is divided into smaller units of 19 wards. The wards that make up Arusha City include; Baraa, Daraja-mbili, Elerai, Engutoto, Kaloleni, Kati, Kimandolu, Lemara, Levolosi, Moshono, Ngarenaro, Olasiti, Oloirien, Sekei, Sokon-one, Sombetini, Terrat, Themis and Unga Limited.

Population of the Study

Target population of a study is an important aspect because it is from which the intended sample population is selected. Administratively, Arusha City is divided into smaller units of 19 wards. People move into Arusha City for employment, education and business, thus influencing population expansion. According to the Tanzania 2012 Population and Housing Census, Arusha City is comprised of 416,442 inhabitants with 199,524 males and 216,918 females (URT, 2013). From these statistics, the number of the City residents is therefore equal to 25% of the regional population thus makes the City to contain the highest population among the seven districts in the entire region.

The target population of this research involved all adolescents in Arusha City aged 14-24 years. Although this population was assumed to have almost similar characteristics, special attention was on girls because girls experience pregnancy, reproduction and their consequences. The study involved adolescents of wide-ranging characteristics and experiences such as age, gender, education level, economic status and family background. Purposively sampling was used to select four wards; Kati, Moshono, Olasiti and Sokon-one whose population as per the 2012 census report: Kati 3,114, Moshono 20,698, Olasiti 36,361 and Sokon-one 73,331 (URT, 2013).

In addition, the study involved 30 key informants who were composed of teachers, medical personnel and community members. All these were selected in virtue of their positions and the information they have in relation to the research problem. The teachers were from the selected secondary schools while the medical personnel were from the selected medical facilities and the community members included parents and religious leaders.

Sample Size of the Study

The selection process for the sample size of this study followed the following procedures; first, the number of secondary school students was chosen purposively. Due to the respondents' age limit and since the selected schools had up to form four level, one student was drawn from each level up to form three and two were taken from form. This made a total of 20 students who were involved in the study through in-depth interviews. The reason for picking two form four students from each of the schools was that reproduction is taught in Biology at form four level. Hence, it was appropriate to have more respondents on reproduction because it is directly related to the research problem. Purposive and snow ball sampling techniques were used to select the respondents from each source. The sample size was reached during data collection after saturation. It comprised of 90 participants of which 26 (29%) were males and 64 (71%) were females (Table 1).

Table 1 displays the composition of the respondents according to the source. The sample size was drawn from secondary schools 32 (36%), Tertiary 28 (31%), university 6 (7%), Health facilities 8 (9%) and from the communities 16 (18%). These adolescents were selected from four secondary schools, four health facilities, one vocational technical college, one university and the wards within the study area.

Respondents in this study included students and non-students both boys and girls. While students were from secondary schools and Higher Learning Institutions (HLI), non-students were from the health facilities and selected wards. All the female students at HLI were adolescent mothers who were either expelled from schools due to pregnancies or became pregnant after completing secondary education. After delivery, some of the adolescent mothers were able to join tertiary education for further studies. Adolescent boys were also involved in this study under two main reasons; first, sex education in secondary schools in Tanzania is provided to both boys and girls so, boys were expected to have information for the research problem.

Methods of Data Collection

In order to collect required information, a range of different data collection methods were employed in this study guided by the research objective and the research design.

Table 2. Effectiveness of Sex Education in Secondary Schools by Rates

GENDER	INEFFECTIVE	POOR	FAIR	EFFECTIVE	TOTAL
Male	14	6	4	2	26
Female	27	23	8	6	64
TOTAL	41	29	12	8	90

The researchers embarked on data collection by administering the research instruments to the respondents with adherence to all research ethical issues. Open-ended and close-ended questions were used to keep the respondents focused on the subject matter. For example: (1). Why do adolescents engage in premarital sex? (2). What is the purpose of teaching sex education in schools? (3). Give your opinion on expulsion of pregnant girls due to pregnancy. (4). Rate the efficiency of provision of sex education in your school: A = Effective, B = Fair, C = Poor and D = Ineffective. Such diverse questions supported the researcher to collect useful data which might not have been possible by using a single type of questions. Sources of data for this study differed depending on the type of data needed and data collection methods used. The study employed both primary and secondary data. The primary data was in terms of in-depth interviews and Focus Group Discussions (FGDs). Secondary data was collected through literature review. Various sources like books, journals, and newspapers, other research and government reports as well as online literature were used as sources of data.

Methods of Data Analysis

The study applied content analysis with reference to the objectives as explained earlier. Data analysis was done and compared to the collected data in order to keep track of emerging themes and develop concepts to add up to the findings. To make sense of the findings, data coding focused on frequencies a word or theme appeared and meanings were assigned to the statistical data. This was done by using simple computations of descriptive statistics in percentages. Data was then presented in simple tables, figures and narratives

Validity and Reliability

To ensure validity and reliability of this research, a pilot study was conducted to test the features of the research design and for necessary adjustment before embarking on data collection. According to Silverman (2007), the focus of validity is to check if the data collection instruments used measured what the study intended to measure. Reliability and validity helped the researcher to establish the truthfulness and credibility of the findings. This being a qualitative research, determining its validity and reliability, a pilot study was conducted to test the features of the research design and the research instruments. The respondents in the pilot study were drawn from the study

area with same characteristics as the target population but not in the sample size. The pilot study was also used to test if the instruments were appropriate for collecting the needed information. To establish validity and reliability of this research, data gathered from the pilot study was scrutinized against the instruments. This helped the researchers to identify uncertainties for improvement in order to collect quality data and come out with comprehensive outcome.

Data Presentation, Analysis and Discussion

Provision of sex education

The study sought to explore the influence of sex education on adolescents' involvement in premarital sex and adolescent pregnancies in Arusha City. The study therefore examined adolescents' perception on sex education and how it affects adolescents' sexual behavior. Findings of this study show that the adolescent mothers comprised of students and non-students. After becoming pregnant, some of these girls continued with their education and during this study they were found pursuing different programs at Arusha Technical College (ATC) and Open University of Tanzania (OUT). The non-student adolescent mothers did not continue with further education mostly due to economic constraints.

One important goal of sex education is to help the adolescents keep away from dangerous environments or situations that may influence youths to engage in premarital sexual practices. It is thus expected that effective sex education assists youths in bringing up a generation of with little or no chances for consequences of premarital sex and early pregnancies. Even so, the influence has not been felt, raising questions on the effectiveness of this endeavor. About

Much as sex education enhances adolescents' knowledge on sexual issues, it plays a significant role on adolescents' sexual behavior. To assess this and gather detailed information, the researchers examined its effectiveness, mode of teaching, content as well as strengths and weaknesses of sex education. Concerning the effectiveness of provision of sex education in secondary schools in Arusha City, the respondents were requested to rate its efficiency using given rates as; ineffective, poor, fair and effective. The results are as shown in Table 2 above:

Table 2 shows that of the 90 respondents interviewed in this study, majority (91%) ranked provision of sex education as unsatisfactory and only 9% ranked it as

effective. The other respondents ranked provision of sex education as follows: 41 (46%) ineffective, 29 (32%) poor, 12 (13%) fair and 8 (9%). These figures suggest that students in this study who are the main recipients of the sex education were therefore unsatisfied with its provision. From these finding, respondents were requested to give explanations or reasons for their ranks. The main reasons given were; lack of trained teachers, teaching and learning materials, such as books and other. Effectiveness of any education program lies on several fundamental factors including the mode of provision. Another essential factor is availability of trained teachers and teaching and learning materials which include books and teaching aids. Moreover, there is a need for collaboration between other stake holders including teachers, parents and medical personnel, NGO and other activists.

On inquiring about adolescents' knowledge on issues related to sex and reproduction. Some of the adolescents in this study argued that sex education in secondary schools was superficial, covering very general information which do not help them in addressing premarital sex and adolescent pregnancies. Taking a glance at the topics in sex education reveals that the subject content is too general. The students claimed that sex education is taught under a topic, 'Reproduction' which mainly focuses on the biological details of the reproduction system. This was confirmed through responses from the adolescents who contended:

Sex education is taught in secondary schools through Biology and Civics. All secondary schools teach sex education under reproduction as a topic in Biology subject. Actually even the topic on reproduction just touches general issues and not in detail. I therefore consider that sex education is not at all taught in secondary schools. The topic on courtship and marriage is also another topic that is superficially handled. (Focus group discussion).

Respondents in this study stated knowledge on pregnancies, reproduction and childbearing are not covered in depth. Instead, the topic covers gender division of labor the major responsibilities of women taking into account the general wellbeing of the entire family which encompass general care of all the household members as well as food security. This does not help in preparing the youth to stand against influence of premarital sex.

On the issue of general information on sex issues that is acquired through provision of sex education in secondary schools, another respondent added:

The knowledge we get about sexual issues through education in secondary schools is very general and limited to reproduction and HIV/AIDS. Sex education lacks important facts for helping students to avoid engaging in early sex and reproduction (In-depth Interview).

The study found out that in some respondents stated that provision of sex education in secondary schools has ironically influenced the adolescents to engage in premarital sex. Since the current provision of sex education to adolescents in Arusha City seem unsatisfactory, it is presumed that awareness among adolescents on premarital sex and adolescent pregnancies is inadequate. It is from

these findings that adolescents' involvement in premarital sex and reproduction does not depend entirely on the effectiveness of provision of sex education. The findings further spell out that adolescents in Arusha City engage in premarital sex from 13 years which is lower than that by the World Health Organization (WHO). In its report, WHO (2008), specifies that about 10% of girls in the Sub Sahara region are pregnant at the age of 16 years.

According to Social Construction Theory, there are other external influences including society culture, poverty, socialization agents and globalization. Respondents explained that since sex education is not an independent subject and the fact that teachers have not been trained on that, those who teach the topics usually give students general information thus making its provision ineffective. This kind of trend leaves unanswered questions among scholars and education stakeholders on whether the current mode of delivery of sex education in secondary schools is effective in helping to address adolescent pregnancies. In essence, the concern on the provision of sex education in secondary schools is to enhance the learners' general understanding of premarital sex and adolescent pregnancies. One of the core goal of provision of sex education is to determine the understanding of the adolescents' attitudes on sex education and its influence on their involvement in premarital sex and reproduction. This eventually impact on their lives negatively.

On trying to get information on what is the main purpose of sex education in secondary schools, respondents gave similar response on awareness building. However, one of the respondents argued that provision of sex education helps adolescents learn basic facts on reproduction system taught in Biology subject. Another respondent added:

Sex education assists to raise students' awareness on sexual issues especially about general information on reproduction. These include other themes such as methods that can help adolescents avoid engaging in premarital sex, prevention of adolescent pregnancies and early marriages, as well as STDs and HIV infections (Focus group discussion).

The issue of untrained teachers is a factor that weakens effectiveness of the provision of sex education. If teachers are not trained, they either do not offer sex education, or they offer it ineffectively. Parents, who are supposed to play educational roles have abandoned their work with no one to take over. They claim they are too busy to face the economic hardship.

Findings of this study indicate that sex education is considered a core determinant of students' engagement in premarital sex. The study also discovered that while most students have minimal or lack proper information concerning sex issues and reproduction. For such inadequacy of facts, adolescents use their own knowledge to face the problem. For such inadequacy of facts, adolescents use their own knowledge as stated in self-concept through self-image, self-esteem and ideal self.

Another aspect was on the strength and weakness of sex education in which responses were (Table 3). In essence,

Table 3 Strengths and Weakness of Sex Education

STRENGTHS	WEAKNESS
(1) Builds and raises awareness among adolescents on sex	(1) Lack of learning and teaching resources such as trained teachers, materials and textbooks
(2) Helps adolescents on prevention of pregnancies, STDs and HIV/AIDS	(2) Not an independent subject so taught as a subtopics in Biology and Civics subjects
(3) Enables adolescents to get rid of implications of premarital sex	(3) Lack of trained teachers in sex education as other subjects teachers have specialization
(4) Prepares adolescents for their future sexual life	(4) Social aspects about sex matters such as gender discrimination are not taught
(5) Promotes safe sex through the use of contraceptives for prevention from pregnancies, STDs and HIV	(5) Influences the use of contraceptives among adolescent and thus promotes prostitution among adolescents
(6) Helps adolescents to avoid impacts of premarital sex	(6) Encourages sexual relationships among adolescents that affect their life

the main emphasis on the strengths of sex education is on raising overall awareness on various aspects of sex including reproduction among adolescents. It is thus anticipated that consciousness facilitates adolescents to prevent themselves from sex and adolescent pregnancies.

As for strengths of teaching sex education, the respondents declared that sex education builds awareness on prevention of early pregnancies, STDs as well as HIV and AIDS. Respondents also revealed that sex education plays a big role in imparting proper knowledge concerning reproductive health for prevention of adolescent pregnancies and decreasing its rate. Such consciousness promotes human rights, education attainment and reduces sexual harassment among adolescents and in particular girls. In addition, it facilitates students in determining the impacts of premarital sex and adolescent pregnancies on their lives. Respondents held the view that effective sex education is one of the basic means to rescue adolescents from engaging in premarital sex. In turn this will also protect girls from experiencing pregnancy and reproduction which can negatively impact on their educational journey and distorts their future lives.

On weaknesses, the concern of the respondents is that the blunt information provided in sex education is regarded as a factor for adolescents' engagement in premarital sex and unhealthy sexual behavior. As for the influence of sex education on adolescents' involvement in premarital sex and reproduction, the study focused on the output of the provision of sex education. This means that the strengths are seen as methods for prevention of sex education while the weaknesses are seen as factors that stimulate adolescents to engage in premarital sex. The fact that adolescents can easily access RHS might influence them to engage in premarital sex. This is as one respondent narrated:

All public health facilities in this country provide adolescents with all maternal health services all in need. The services which include family planning, HBC, HIV counseling and testing (VCT) are free of charge to everyone in need even adolescents. In order to access the services is

no any discrimination or conditions on the basis of gender, age or marital status. Even in private health facilities the services are at affordable price to everyone. In some of the medical facilities each department has a focal person to deal with adolescents' health challenges (Interview with a key informant).

The study findings indicate that almost all respondents believe that easy accessibility of RHS acts as a factor for adolescents' involvement in premarital sex. All the study respondents confirmed their awareness on the availability and accessibility of different kinds of RHS. Such information is similar to the findings from the key informants as seen in the narrative presented earlier.

Other concerns of RHE are human sexuality, reproductive health, child bearing and responsible parenthood. MDG 4, 5 and 6 are directly related to health as World Summit 2005, declared universal access to reproductive health. This implies that sexual and reproductive health is fundamental to the social and economic development of communities and nations, and a key component of an equitable society. Accessing the right RHS help women to safely go through healthy pregnancies, labour and delivery. A healthy mother and a healthy baby are the desirable outcomes.

Concerning the influence of sex education on adolescents' involvement in premarital sex and reproduction, the findings indicate that together with sex education there are other factors that push adolescents into premarital sex. It is from these findings that adolescents' social construction of premarital sex and adolescent pregnancies depends on effectiveness of the provision of sex education. The fact that 90% of the respondents in the study declared to have engaged in premarital sex proves that a good number of adolescents engage in healthy/safe premarital sex in Arusha City.

This study found out that some adolescents begun engaging in premarital sex at primary school. Though school age entry in Tanzania is 7 years, some start at latter age thus finishing primary education at age above 15 years. This is most likely puberty age, hence possibility of engaging in sexual acts. All the respondents in this study

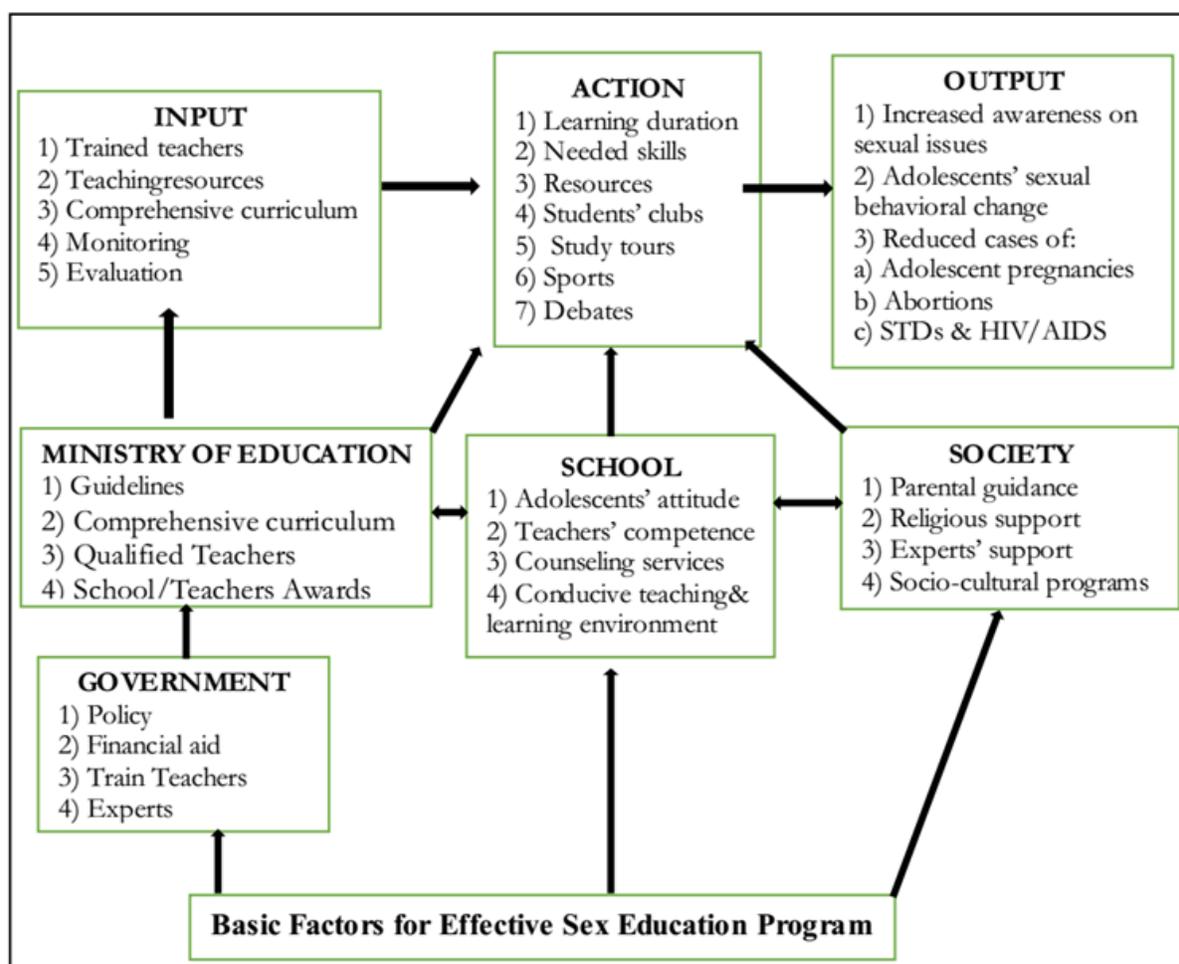


Figure 2: Proposed Education Model for Sex Education in Tanzania

including the key informants acknowledge the fact that teachers who teach sex education in secondary schools are not trained as specialists in the subject matter. However, they also recognize the teachers' position and ability to impart students with some significant information on causes, prevention, and consequences of premarital sex, early reproduction as well as STDs and HIV infection. Since some facts on sex and reproduction are taught in Biology and Civics, it is assumed that students are likely to acquire basic needed knowledge to address premarital sex and adolescent pregnancies.

Conclusions and Recommendations

Based on the findings regarding the influence of sex education on adolescents' involvement in premarital sex, the study concludes that:

1. Provision of sex education has strengths and weaknesses: much as it helps in raising awareness, it also influence adolescents' involvement into sexual acts. The key

weakness is lack of trained teachers, teaching-learning materials and comprehensive curriculum on sex education.

2. Despite their awareness on the consequences of premarital sex and early pregnancies, majority (90%) of the adolescents in this study declared to have engaged in sexual practices and with multiple partners.

3. Premarital sex and adolescent pregnancies results into various social and economic problems and medical challenges including STDs and HIV infections which endanger their lives.

4. There is no comprehensive sex education in secondary school curriculum.

Based on the conclusions of this study, the following recommendations and calls for:

1. The government of Tanzania through the MoEVT to ensure effective provision of sex education by training teachers on the subject matter, providing appropriate instructional resources, incorporating comprehensive sex education in secondary schools curriculum as a compulsory and independent subject to all students, and introduce re-admission policy.

2. Schools to establish guidance and counseling sessions and collaborate with parents, communities and interested parties in imparting moral values to students through re-introduction and improvement of religion classes.

3. Ministry of Health and Social Welfare to provide appropriate RHE to adolescents and the general public; and mobilize community members especially parents or guardians towards provision of RHE at family level.

4. Collaboration of all stake holders for effective interaction of sub-systems in provision of sex education through a proposed model (See details below).

Usually, in order to adopt quality education with effective outcome, it is essential to establish collaboration between the sub-systems in various aspects. In view of this matter, key stake holders will comprise the government, ministry of education, schools and society. Others are NGOs, activists in education, human rights, youths and other interested parties. The proposed model in Figure 2 is an attempt to improve the provision of sex education in secondary schools. This is through collaboration of different with different parts, each with core contribution. Moreover, there is a need for collaboration between other stake holders including parents, medical personnel, NGOs and other activists. The Figure shows three enabling factors namely government, school and society. Even though the factors have distinct attributes and function, they facilitate effective procedures. Monitoring and evaluation will be on the input, action and outcome, Feedback will be used for improving the learning process.

Conflict of interests

The authors declare that they have no conflict of interests

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