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Students' attitudes towards school-based sex and relationships education in Tanzania

Kitila AK Mkumbo
Dar es Salaam University College of Education, Tanzania

Abstract

Objective: The objective of this paper was to assess students' attitudes towards school-based sex and relationships education (SRE).
Design: This study featured a cross-sectional survey design.
Method: A sample of 715 students from two districts in Tanzania completed a survey questionnaire assessing various aspects related to their attitudes towards SRE.
Results: Results show that the overwhelming majority (more than 80%) of students supported the provision of SRE in schools and the inclusion of a wide range of SRE topics in the curriculum. The majority of students wanted the teaching of SRE in schools to begin early during primary education (ages 10–14). Nevertheless, the majority of students objected to the inclusion of some of the SRE topics that are commonly regarded as controversial, including homosexuality and masturbation. Students' attitudes towards SRE and specific topics were associated with participants' sex, age and religious affiliation.
Conclusion: The results of this study should encourage policy makers and researchers in Tanzania to advocate for the provision of comprehensive sex education in schools.

Keywords

Attitudes, students, Tanzania, sex and relationships education

Introduction

Sex and relationships education (SRE) continues to be a complex subject whose meaning and importance tend to be greatly influenced by social-cultural context. This complexity is partly reflected by the fact that there is no universally acceptable definition of SRE; there exists only a collection of definitions. For example, SRE has been defined variously as:

Corresponding author:
Kitila A.K. Mkumbo, Faculty of Education, Dar es Salaam University College of Education, P.O. Box 2329, Dar es Salaam, Tanzania.
Email: kitilam@udsm.ac.tz

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> 'a lifelong process of acquiring information and forming attitudes and beliefs and values about sexual identity, relationships and intimacy. It involves much more than teaching children about reproduction. It must include a real understanding of sexuality in its broadest terms'[1] (p.10).

> 'lifelong learning about sex, sexuality, emotions, relationships and sexual health. It involves acquiring information, developing skills and forming positive attitudes and values'[2] (p.1).

> 'a lifelong process of acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image, and gender roles. Sexuality education addresses the biological, sociocultural, psychological, and spiritual dimensions of sexuality from 1) the cognitive domain, 2) the affective domain, 3) the behavioural domain, including the skills to communicate effectively and make responsible decisions'[3] (p.19).

There is overwhelming evidence pointing to the importance and role of SRE in promoting young people's sexual health. Douglas Kirby, for example, reviewed several studies that examined the impact of sex and HIV programmes in promoting young people's sexual health and responsible sexual behaviour.[4] The results show that good quality comprehensive sex and HIV education programmes do not increase sexual behaviour, but are effective in decreasing sexual activity and in promoting sexual health. Teaching young people about SRE is also associated with an increase in the prevalence of condom or contraceptive use.[5,6] A review of school-based sex education policies and programmes in three countries revealed that young people in these countries (France, Australia and the Netherlands) whose governments have positive policies towards sex education had better sexual health statistics than young people living in countries like United States of America (USA) whose governments have more restricted policies towards sex education.[7]

As observed by Epprecht and Egya,[8] discussions about sex remain taboo in many African societies and cultures and this has constrained the development and delivery of comprehensive sex education programmes for young people. Although the majority of parents in Tanzania support the provision of SRE to young people, they feel greatly incapacitated to do so themselves because of limited knowledge and skills, as well as cultural barriers.[9] This makes the school context the ideal place to offer SRE because it is seen as a neutral ground for teaching this rather controversial subject.[10] Additionally, schools are equipped with resources such as trained teachers and teaching and learning facilities which offer a logical opportunity for providing appropriate SRE in a professional and a non-threatening atmosphere.[11]

It has been observed that the involvement and participation of young people in the development and implementation of SRE programmes is probably the most important factor for such programmes to be successful.[12] Hilton[13] argues that programme developers should always seek to elicit, understand and incorporate young people's views in the process of developing and implementing school-based SRE programmes.

The literature shows that research on young people's views and attitudes about SRE has focused on various aspects, including sources of information about sexuality, content of SRE curriculum, age and class levels to introduce various SRE topics and preference of SRE deliverers. Studies in developed countries have shown that young people generally support the provision of school-based SRE, though they also expressed dissatisfaction with respect to its quantity and quality.[14–17]

Little, however, is known about the views and attitudes of young people towards the provision of SRE in schools in sub-Saharan Africa because of a paucity of research in this area in the region.[18,19] The few available studies reveal similar trends as those in the developed countries,

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regarding students' attitudes towards the provision of sex education in schools. For example, a survey of parents' perceptions, students' attitudes and teachers' attitudes towards school sex education in Ethiopia revealed that the majority of students supported the provision of comprehensive sex education in schools, and the inclusion of many topics in the sex education curriculum.[20] Similarly, studies in Nigeria have also shown that the majority of students overwhelmingly support the provision of sex education in schools and they prefer that it start as early as during primary education level.[21,22]

Previous studies reveal that students' attitudes towards sex education tend to be influenced by several factors including sex, type of school, parents' residence, religion and the level of access to information related to sex education. For example, a survey of 100 adolescents in one district in Punjab, India, revealed that the attitude of boys towards sex education was more significantly positive than their female counterparts.[23] Another survey involving 386 young people aged 14–24 in Ethiopia revealed similar results, with male respondents reporting more favourable attitudes toward sex education than female respondents.[20] Urban-based students and those with more frequent access to media reported more favourable attitudes towards school sex education than rural based and those with less access to media.[20,23] Religion has also been shown to influence attitudes towards sex education significantly, with students attending religious services more regularly reporting less favourable attitudes towards sex education than those who attend religious services only occasionally.[20]

There is a dearth of studies on attitudes towards sex education in Tanzania and sub-Saharan Africa in general. This study examined the attitudes of primary and secondary school students towards the provision of SRE in Tanzania as an attempt to contribute knowledge to the existing literature in this area. It is important to understand attitudes towards sex education in different contexts because studies show that views about what should constitute the content of sex education tend to be associated with contextual factors such as region, religion, sociocultural norms and practices.[24,25] As such, findings of studies on students' attitudes towards sex education in other countries cannot be generalised to the Tanzanian context.

The objectives of this study therefore were to investigate students' attitudes towards the provision of SRE in schools and students' preferences of specific SRE topics to be included in the school curriculum and to examine how students' demographic characteristics are associated with their attitudes towards school-based SRE, as well as the perceived importance of the specific topics.

Methods

Participants and setting

A randomly selected sample of 715 students was drawn from 12 purposively selected primary schools in one urban district (Kinondoni, Dar es Salaam), eight purposively selected primary schools in one rural district (Sengerema, Mwanza) and seven purposively selected secondary schools (three schools in Dar es Salaam and four schools in Mwanza).

The questionnaire used in this study was based on a questionnaire previously used in similar research in Canada, namely the *New Brunswick Students' Ideas about Sexual Health Education* instrument, developed by Byers and colleagues.[26] The questionnaire was slightly modified to suit the context of participants in Tanzania.

The questionnaire was initially prepared in English, and was then translated into Kiswahili, which is the working language of the participants in the research sites. The translators were hired from the National Kiswahili Council, a government organisation that is legally mandated to, among

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other functions, undertake official language translations in Tanzania. A different expert in the same council carried out a back translation of the Kiswahili version into English to ensure that the original content was preserved.

The reliability of the instrument was calculated for the three main items constituting the questionnaire. The reliability was generally good for each of the three items as well as generally. The Cronbach's alpha reliability coefficient for the item on 'SRE should be provided in schools' was 0.681. The Cronbach's alpha reliability coefficient for the items assessing the students' rating of the importance of topics was 0.797, while for the items assessing students' preferences of the class levels for introducing these topics was 0.827.

Procedure and measures

Participants were selected randomly from amongst students attending Standard Four (age 10) and above, and who could read and write.

On the day of the questionnaire administration, for each school, the selected students were divided into two groups, with each group having a maximum of 10 respondents. The two groups sat in two different classrooms where they completed the questionnaire. Each room had a trained research assistant to attend to any issues requiring clarification.

Prior to completing the questionnaire, respondents were requested to read the instructions and ask questions if they had any. They were then requested to fill out consent forms and hand them to research assistants who were in the room. After every respondent had returned the completed consent forms, respondents were then requested to start filling out the questionnaire. The whole questionnaire took approximately 45 minutes to complete.

Respondents completed a four-part questionnaire on various aspects of school-based SRE. In the first part, respondents were asked to indicate the extent to which they agreed or disagreed with the view that 'SRE should be provided in schools' with five response options ranging from 'strongly disagree' to 'strongly agree'. In this same part, respondents were also asked to indicate the level at which they thought SRE could begin to be taught in schools with five response options: Class 4 (age 10), Class 5–7 (age 11–13), Form 1–2 (age 14–15), Form 3–4 (age 16–17) and Form 5–6 (age 18–19). They were also asked to rate the quality of SRE they may have received at home and school on a five-response option ranging from 'excellent' to 'poor'.

In the second part of the questionnaire, respondents were provided a list of 12 basic SRE topics and were asked to rate the importance of each topic on five response options ranging from 'not at all important' (1) to 'very important' (5). In the third part, respondents were asked to indicate the school level they thought each of the 12 topics could be introduced in the school curriculum using the above stated response options (Class 4 to Form 5–6). The fourth part of the questionnaire comprised demographics, including age, sex, religion and residential location (Dar es Salaam as urban or Mwanza as rural).

Data analysis

Data analysis was carried out using SPSS statistical package version 17. Frequencies were used to describe students' responses to individual questions. Appropriate inferential statistics were conducted to examine the effect of demographic variables on students' attitudes towards the provision of SRE in schools. Where appropriate, to aid further analysis some variables were recoded using SPSS function. For example, 'Strongly agree' and 'Agree' were recoded into 'Agree', and 'Strongly disagree' and 'Disagree' were recoded into 'Disagree'.

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Table 1. Variables entered in the logistic regression analysis equation and their associated Wald statistic, degrees of freedom (df) and probability values.

		B	S.E.	Wald	df	Sig.	Exp (B)	95% CI for Exp (B)	
		Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
Step 1[a]	Religion (1)	.058	.312	.035	1	.852	1.060	.575	1.953
	Location (1)	–.383	.312	1.505	1	.220	.682	.370	1.257
	Studentship (1)	–1.493	.322	21.499	1	.000	.225	.120	.422
	Sex (1)	.390	.293	1.770	1	.183	1.477	.831	2.625
	Constant	3.085	.461	44.851	1	.000	21.857		

[a]Variable(s) entered on Step 1: religion, location, studentship and sex. CI: confidence interval.

Results

Respondent characteristics

Table 1 summarises the demographic characteristics of respondents. About half (49.1%) of the students were attending primary schools in standards 5 to 7 (ages 11–14) and the other half (50.9%) of the students were attending secondary schools in forms 2 to 6 (ages 15–19). Overall, more than half (58.3%) of the respondents were male. A majority of the respondents were Protestant (38.9%), Muslim (25.0%) or Catholic (22.4%). More than 90% of the respondents reported that religion was very important in their life and they attended religious services regularly, that is, at least once a week.

Students' attitudes towards school-based SRE

Students' responses regarding their attitudes towards the provision of SRE in schools are summarised in Figure 1, which shows that, on average, a majority of students in both levels supported the provision of SRE in schools, with 80.6% of primary school students either strongly agreeing (54.3%) or agreeing (26.3%) with the statement that SRE should be provided in schools. Similarly, almost all secondary school students supported the provision of SRE in schools, with 92.9% of them either strongly agreeing (62.6%) or agreeing (30.3%) with this statement.

Respondents were also asked to rate the quality of SRE they might have received at home and school. On average, students, at both primary and secondary school levels, reported higher levels of satisfaction about the quality of SRE they had received at school than at home. For example, 55.5% and 60.3% of primary and secondary school students respectively indicated that the quality of SRE they had received at school was good compared to 32.9% of the primary school students and 56% of the secondary school students who reported that the quality of SRE they received at home was good (see Figure 2).

A paired samples *t*-test was conducted to investigate the variation in the level of students' satisfaction of the quality of SRE received at home and school. There was a statistically significant difference in the level of satisfaction of the quality of SRE received at home ($M = 3.62$, $SD = 1, 52$) and at school ($M = 3.05$, $SD = 1.55$): $t\ (687) = 8.075$, $p < .005$. The eta squared statistic (.09) indicated a relatively large effect size.

A one-way multivariate analysis of variance (MANOVA) was performed to investigate the difference in the level of satisfaction of the quality of SRE received at home and school between

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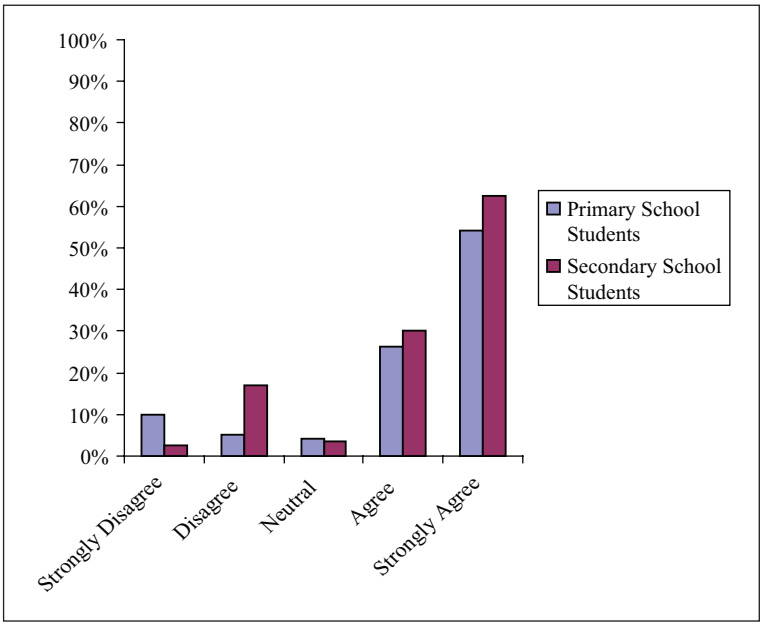


Figure 1. Percentage of primary and secondary school students agreeing/disagreeing with the statement that sex and relationships education (SRE) should be provided in schools.

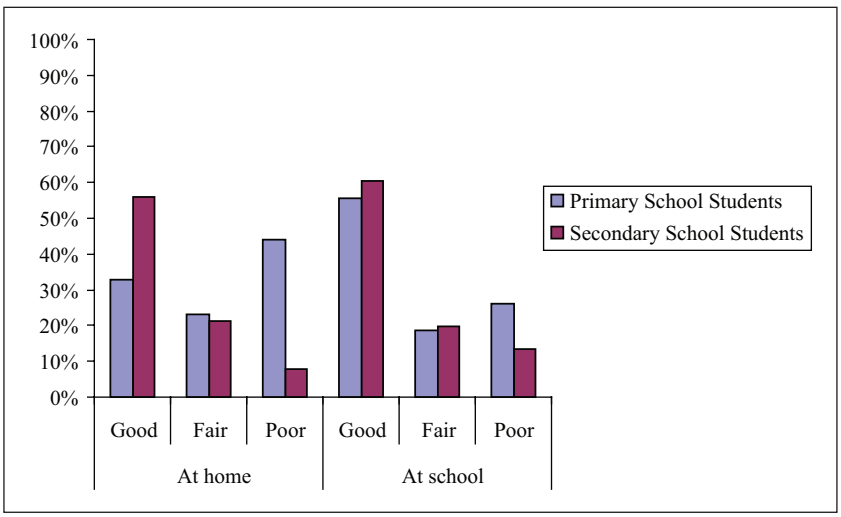


Figure 2. Percentage of primary and secondary school students indicating the quality of sex and relationships education (SRE) they had received at home and school.

primary and secondary school students. Preliminary assumption testing using homogeneity of variance-covariance matrices revealed no serious violation of this assumption. There was a statistically significant difference between primary and secondary school students on the combined dependent variables: F (2, 685) = 8.99, $p < .0005$; Wilks' Lambda = .97; partial eta squared = .03.

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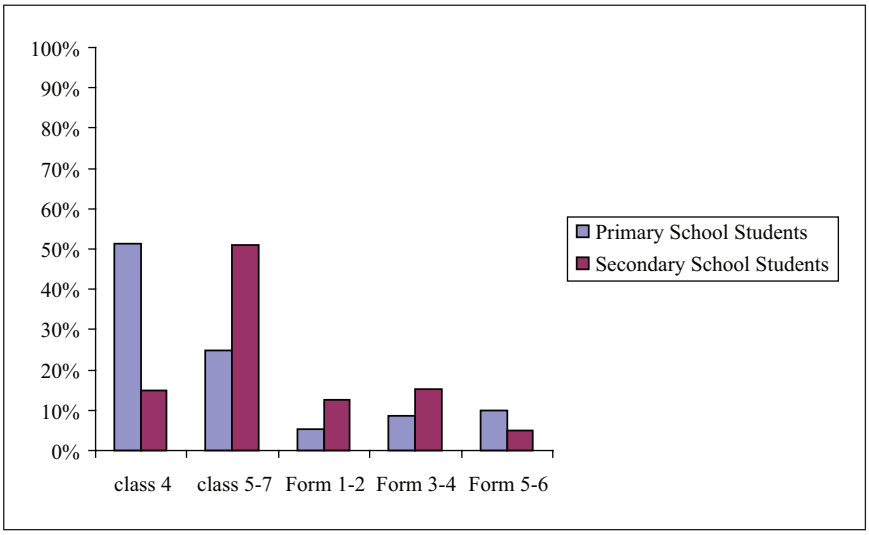


Figure 3. Percentage of primary and secondary school students indicating the school level at which sex and relationships education (SRE) should begin.
In Tanzania, primary school corresponds to ages 7-13 years, and secondary school corresponds to ages 14-17 years.

However, when the results for the dependent variables were considered separately, the only difference to reach statistical significance was with respect to satisfaction about SRE received at home (F (1,686), = 11.67, p = .001; partial eta squared = .02) but not at school (F (1,686)= 1.91, p = .167; partial eta squared= .00). An inspection of the mean scores indicated that primary school students (M = 3.82, SD = 1.35) reported a slightly higher level of satisfaction about SRE they received at home than secondary school students (M = 3.43, SD = 1.64).

When respondents were asked to indicate the school level during which SRE should begin, a majority of students indicated that SRE should begin at primary school level (see Figure 3), with 76% of primary school students indicating that SRE should either begin at Class 4 (51.3%) or Class 5–7 (24.8%). Sixty-six per cent of the secondary school students indicated that SRE should begin either at Class 4 (14.9%) or at Class 5–7 (51.1%).

The influence of students' demographic factors on attitudes towards school-based SRE

A logistic regression analysis was performed with 'SRE should be provided in schools' as the dependent variable (DV) and respondents' religion, residential location, studentship (primary or secondary school student) and sex as predictor values. Prior to running the logistic regression analysis, scores for the DV were recorded into two values, 0 (No) and 1 (Yes). All responses with strongly agree and agree were coded as Yes, and those with strongly disagree and agree were coded as No.

A total of 715 cases were analysed and the full model significantly predicted agreement with the provision of SRE in schools (Omnibus Chi-square = 26.34, degree of freedom (df) = 4, $p < .0005$). The model accounted for between 4.5% and 9.6% of the variance in agreement with school-based SRE. Overall, 90.5% of the prediction was accurate.

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Table 2. Post-hoc comparisons for the four student age groups using Tukey HSD test.

(I) Your age	(J) Your age	Mean difference (I–J)	Std. error	Sig.	95% Confidence interval	
		Lower bound	Upper bound	Lower bound	Upper bound	Lower bound
Below 10	11–13	.580	.496	.647	–.70	1.86
	14–16	.308	.495	.925	–.97	1.58
	Above 16	.181	.492	.983	–1.08	1.45
11–13	Below 10	–.580	.496	.647	–1.86	.70
	14–16	–.272	.121	.113	–.58	.04
	Above 16	–.399[a]	.106	.001	–.67	–.13
14–16	Below 10	–.308	.495	.925	–1.58	.97
	11–13	.272	.121	.113	–.04	.58
	Above 16	–.127	.100	.580	–.38	.13
Above 16	Below 10	–.181	.492	.983	–1.45	1.08
	11–13	.399[a]	.106	.001	.13	.67
	14-16	.127	.100	.580	–.13	.38

[a]The mean difference is significant at the .05 level.

Table 1 displays coefficients and the Wald Statistic and associated dfs and probability values for each of the predictor variables, showing that only studentship predicted the students' attitudes towards the school-based SRE provision. The values of the coefficients show that a change in the level of school from primary to secondary school was associated with a change in the attitude towards SRE by a factor of 0.23 (95% confidence interval (CI) 0.12 and 0.42).

A one-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of age on the attitude towards school-based SRE as measured by the level of agreement students indicated with the statement, 'SRE should be provided in schools'. Participants were divided into four groups according to their age: Group 1: 10 or less; Group 2: 11-13; Group 3: 14-16 and Group 4: Above 16. There was a statistically significant difference at the $p <$. 05 level for the four groups in the scores measuring the attitude towards school-based SRE: F (3,693) =4.84, p =.002. Despite reaching statistical significance, the actual difference in mean scores between the four groups was small. The effect size, calculated using the eta squared, was only .02. Post-hoc comparisons (see Table 2) using Tukey HSD test indicated that the mean score for Group 2 (M = 4.02, SD = 1.33) was statistically significantly different from group 4 (M = 4.42, SD = 0.97). Group 1 (M = 4.60, SD = 0.55) and Group 3 (M = 4.29, SD = 1.11) did not statistically significantly differ from either Group 2 or 4.

Students' perceived importance of specific SRE topics

Table 3 summarises the results of student responses regarding the importance they assigned to specific SRE topics. The table shows that primary school students rated all but two topics either as very important, important or somewhat important. They rated sexual pleasure, enjoyment and homosexuality as not important. They rated three topics as very important: reproduction and birth, sexually transmitted diseases (STDs) and human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) and sexual coercion and assault.

Secondary school students rated all topics as very important, important or somewhat important. They rated seven topics as very important; namely, personal safety, puberty, reproduction and birth, abstinence, sexual decision making, condom use and STDs and HIV/AIDS.

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Table 3. Importance primary and secondary school students assigned to specific SRE topics.

Topics	Primary school students $N = 321–348$			Secondary school students $N = 344–358$		
	Mean	Median	SD	Mean	Median	SD
1. Correct names of genitalia	3.80	4	1.27	3.73	4	1.23
2. Personal safety	4.10	4	1.15	4.74	5	0.53
3. Puberty	4.02	4	1.24	4.61	5	0.71
4. Reproduction and birth	4.23	5	1.09	4.60	5	0.70
5. Abstinence	3.49	4	1.52	4.13	5	1.18
6. Sexual pleasure	2.63	2	1.60	3.05	3	1.46
7. Sexual decision making	3.85	4	1.31	4.23	5	1.11
8. Condom use	3.15	3	1.59	4.13	5	1.25
9. STDs and HIV/AIDS	4.00	5	1.47	4.78	5	0.65
10. Sexual coercion and assault	3.90	5	1.55	3.76	4	1.41
11. Masturbation	3.41	3	1.16	2.90	3	1.50
12. Homosexuality	2.70	2	1.51	3.07	3	1.67

SRE: sex and relationships education; SD: standard deviation; STDs: sexually transmitted diseases; HIV: human immunodeficiency virus; AIDS: acquired immunodeficiency syndrome. 1: not at all important; 2: not important; 3: somewhat important; 4: important; 5: very important.

Preferred school levels to introduce specific SRE topics

Table 4 summarises students' responses regarding their preference for introducing each of the 12 topics in the school curriculum. The table shows that a majority of primary school students wanted most of the topics to be introduced during the secondary education level, especially between Form 1 and 2 (ages 14–15). However, they indicated that three topics, STDs and HIV/AIDS, sexual coercion and sexual assault and masturbation, should be introduced during the primary education level (age 10–13).

Conversely, the majority of secondary school students wanted half of all topics to be introduced during the primary education level and half of other topics to be introduced during the secondary education level. The topics that secondary school students wanted introduced during the primary education level were: correct names of genitalia, personal safety, puberty, abstinence, STDs and HIV/AIDS and sexual coercion and assault. The topics they wanted introduced during the secondary education level were: reproduction and birth, sexual pleasure and enjoyment, sexual decision making, condom use, masturbation and homosexuality. Perhaps unsurprisingly, given the seriousness of the AIDS epidemic in Tanzania and other sub-Saharan African countries, the majority of respondents wanted STDs and HIV/AIDS to be introduced early at the primary education level. In fact, a substantial percentage of primary school students (33.3%) and secondary school students (29.2%) wanted this topic to be introduced as early as Standard 4 (age 10).

Sex and age differences in attitudes towards SRE topics

A two-way between-groups MANOVA was performed to investigate age and sex differences in the perceived importance of SRE topics. Preliminary assumption testing was conducted to check for the homogeneity of variance-covariance matrices, which revealed a number of variables with Levene's Test of Equality of Error Variances less than .05 indicating a serious violation of this

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Table 4. Percentage of primary and secondary school students indicating the class levels for introducing SRE in schools.

	% Primary school students indicating					% Secondary school students indicating				
	Class 4	Class 5–7	Form 1–2	Form 3–4	Form 5–6	Class 4	Class 5–7	Form 1–2	Form 3–4	Form 5–6
1. Correct names of genitalia	8.3	37.1	26.3	8.9	19.4	14.2	40.9	19.6	17.2	8.0
2. Personal safety	12.7	26.6	22.8	19.2	18.0	37.9	41.9	12.7	6.1	1.4
3. Puberty	8.2	26.9	42.3	14.2	8.5	16.4	61.9	14.6	6.0	1.2
4. Reproduction and birth	5.2	11.6	33.9	34.3	14.7	5.5	33.0	27.0	29.0	5.5
5. Abstinence	5.1	19.9	43.5	18.4	10.9	28.4	39.5	20.2	7.9	4.1
6. Sexual pleasure and enjoyment	5.8	14.3	39.5	31.0	9.4	5.2	12.5	19.5	27.4	35.4
7. Sexual decision making	3.1	9.4	14.4	20.4	52.7	6.3	23.3	22.2	27.7	20.5
8. Condom use	5.8	14.3	39.5	31.0	9.4	7.3	21.1	29.2	24.0	18.4
9. STDs and HIV/AIDS	33.7	29.2	18.2	16.7	1.8	29.2	48.1	16.3	4.6	1.7
10. Sexual coercion and sexual assault	33.7	29.2	18.2	16.7	1.8	22.7	37.9	21.5	12.5	5.4
11. Masturbation	25.4	29.8	22.4	20.4	1.5	8.6	24.2	34.3	19.0	14.1
12. Homosexuality	10.3	22.9	22.6	30.4	13.8	12.8	22.4	27.1	19.6	18.1

SRE: sex and relationships education; STDs: sexually transmitted diseases; HIV: human immunodeficiency virus; AIDS: acquired immunodeficiency syndrome.

assumption. Because of this violation, and in line with Tabachnick and Fidell's recommendation,[13] a more conservative alpha level at .01 was set for determining significance for all the variables that had less than .05 significance value.

There was a statistically significant difference between age groups: F (36, 1655) = 3.55, $p <$ .0005; Wilks' Lambda = .80, partial eta squared = .07, as well as between males and females: F (12, 560) = 3.33, $p <$ .0005; Wilks' Lambda = .93, partial eta squared = .07 on the combined dependent variables. The interaction between the two variables (age and sex) was also statistically significant: F (12, 560) = 2.23, p = .01; Wilks' Lambda = .95, partial eta squared = .05. However, when an inspection of the mean scores was made, the actual age differences were statistically significantly notable for only three topics; namely, personal safety (students aged 10 and below rated this topics less favourably than students aged 11 and above), abstinence (students aged 10 and below and those aged above 16 rated this topic more favourably than those aged 11–13 and 14–16) and condom use (students aged above 16 years rated this topic more favourably than students of other age groups). The sex differences were also statistically significantly for only three topics: personal safety, sexual pleasure and enjoyment and sexual decision making; boys rated these topics more favourably than girls.

Religious differences in attitudes towards SRE topics

A one-way MANOVA was performed to examine religious differences in attitudes towards 'controversial' or 'sensitive' topics; namely, masturbation, homosexuality and condom use, which were selected on the basis of their poor rating in the scale measuring the perceived importance of topics. Prior to running the MANOVA, an inspection of Box's Test of Equality of Covariance Matrices and Levene's test of Equality of Error Variances was performed, which revealed no serious violation of this assumption.

The results of the MANOVA showed that there was a statistically significant religious difference in the attitudes towards the above controversial topics: F (8, 1098) = 5.587, $p <$ .0005; Wilks' Lambda = .92, partial eta squared = .04. Catholics (M = 3.08, SD = 1.47) and Protestants (M = 3.22, SD = 1.37) rated masturbation more favourably than Muslims (M = 2.97, SD = 1.44). Similarly, and perhaps unsurprisingly, Catholics (M = 3.37, SD = 1.60) and Protestants (M = 2.87, SD = 1.64) rated homosexuality more favourably than did Muslims (M = 2.60, SD = 1.54). Again, Catholics (M = 4.30, SD = 1.78) and Protestants (M = 3.61, SD = 1.51) rated condom use more favourably than Muslims (M = 3.53, SD = 1.49).

Discussion

This study investigated students' attitudes towards the provision of SRE in schools, as well as their preferences of SRE topics and the level during which they thought it should be included in the curriculum. The study also examined how students' demographic factors were associated with their attitudes towards the provision of SRE in schools.

The results show that an overwhelming majority of primary and secondary school students in Tanzania support the provision of SRE in schools. More than 80% of primary school students (ages 10–14) and almost all secondary school students (ages 15–18) who took part in the study strongly agreed or agreed that SRE should be provided in schools. Again, the majority of students, both at primary and secondary school levels, wanted SRE to begin at primary school level (age 10–14) rather than at secondary school level (age 15–18). These results are strikingly consistent with the results of other similar studies conducted in developed countries, which also demonstrated overwhelming student support for the provision of SRE in schools.[26,27]

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The results also show that the majority of students were generally dissatisfied with the quality and amount of sex education they may have received at home and school. However, primary school students seemed to be more dissatisfied with SRE they might have received both at home and at school than their counterparts in secondary schools. This suggests that parents may be more willing to talk to their older children about sexuality than their young children. These results may also reflect the amount and quality of SRE offered at primary and secondary schools. The results suggest further that the amount and quality of SRE may be better at the secondary school level than at the primary school level. Results of previous studies show that a great deal of sex education in schools in Tanzania is covered during secondary education (ages 14–17),[28] which is arguably too late because it has been demonstrated that sex education works effectively if, among other factors, it begins before young people reach puberty.[29]

Young people's dissatisfaction with the amount and quality of sex education provided at home and in schools is not unique to Tanzanian youth. Results of previous studies in developed countries have consistently shown that young people express strong dissatisfaction with the amount and quality of sex education provided in schools in which they felt that their sex education was too little, too late, unhelpful and they wanted it to be introduced earlier in the curriculum.[30–32]

Regarding the perceived importance of SRE topics, students supported a wide range of topics to be included in the SRE curriculum. However, unsurprisingly, they showed little support for topics that are normally regarded as controversial, including homosexuality and masturbation; students rated these topics as not important or just somewhat important. Parents in Tanzania also strongly reject the inclusion of homosexuality as part of the sex education curriculum in schools.[9] The objection to the teaching of homosexuality can partly be linked to respondents' religious beliefs about homosexuality, which are generally reflective of those of the Tanzanian society at large. Homosexuality in Tanzania, and indeed in other countries in Africa, is largely seen as an aberration or illness and, from a religious point of view, blasphemous and heretical.[33] Furthermore, negative attitudes towards homosexuality in Tanzania have been associated with low level of knowledge about same-sex relationships; more than 80% of young people in the southern part of Tanzania, for example, report having never heard of same-sex relationships and less than 1% report having seen a homosexual in their community.[34]

Objection to the inclusion of homosexuality, masturbation and other related topics may also be attributable to teachers' attitudes towards teaching these topics. These topics are commonly described by teachers as sensitive and difficult to teach in the field of sex education.[35] The results of a recent study in Tanzania showed that, although teachers overwhelmingly supported the teaching of sex education in schools and the inclusion of a wide range of topics in the curriculum, the majority of them expressed difficulty and discomfort in teaching some of the topics, including homosexuality, masturbation and sexual pleasure.[36]

In general, students' attitudes were more favourable towards SRE topics that have a direct relation to, and a bearing on, HIV prevention. This perhaps is understandable given the magnitude of the AIDS crisis in Tanzania and other sub-Saharan African countries. This has the implication that students perceived SRE more as a tool for enabling them to avoid diseases related to sexual behaviour than as a vehicle for promoting young people's sexual health in general.

Young people's need for the early introduction of sex education in schools is also partly attributable to the high prevalence of HIV infection rates in sub-Saharan African countries and the importance of HIV education programmes in protecting young people against the epidemic. This is further confirmed by the fact that the majority of young people particularly wanted topics on HIV/AIDS and STDs to be introduced as early as at age 10 (primary school standard 4).

The attitudes towards SRE and the inclusion of specific topics in schools were related to sex, age and religious affiliation. Similar to findings of previous studies,[37] attitudes towards sex education

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varied with sex, whereas boys demonstrated more favourable attitudes towards the provision of sex education in schools than girls. This could imply that boys and girls may have different sources and levels of exposure to sex education at home, school and in the community. According to a recent survey, a higher proportion of young men (47%) have comprehensive knowledge about HIV/AIDS than young women (40%) aged 15–24.[38] Similarly, a recent survey in Ethiopia revealed that young women were less likely to have comprehensive HIV/AIDS knowledge compared to male youth.[39]

Religiosity is generally associated with less favourable attitudes towards sex education.[40,41] Nevertheless, when religious affiliation was correlated with attitudes towards sex education, the results showed that Christian attitudes towards sex education were less negative than Muslim attitudes. Further studies are needed to explore the reasons for the variation in Christian and Muslim attitudes towards SRE.

Summary and conclusion

Understanding students' attitudes towards SRE is critical in designing effective SRE programmes targeting young people in schools. Thus, students' views about SRE should be sought, understood and incorporated in the process of developing and implementing SRE programmes. In this study, the majority of students overwhelmingly supported the provision of school-based SRE and the inclusion of a wide range of topics in the curriculum. This should encourage policy makers, researchers and programme developers in Tanzania to effectively integrate comprehensive sex and relationships education in schools. Nevertheless, caution should be exercised in introducing some of the perceived controversial topics such as homosexuality, which seem to be less welcome by students and other key stakeholders, including parents and teachers.

The results of this study are based on a sample of students drawn from only two districts out of more than 130 districts in Tanzania. Furthermore, the results are wholly based on a self-report measure whose reliability is clearly limited. As such, generalisations from the findings of this study take place cautiously.

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Conflict of interest

None declared.

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