

The Relationship between Self-Esteem and Sexual Risk-Taking Behaviours among Adolescent Students in Tanzania

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Abstract

This paper quantitatively assessed the relationship between self-esteem and sexual risk-taking behaviours among adolescents. The study employed a correlation design, using a questionnaire for data collection. A total of 511 students participated in this study. The data was analysed using Pearson's Correlation Coefficient. Results showed no significant relationship between self-esteem and sexual debut ($r = .081, p > 0.05$), self-esteem and safe sex ($r = .081, p > 0.05$) and a weak positive relationship between self-esteem and multiple partners ($r = .033, p .470$). This implies that self-esteem did not influence sexual risk-taking behaviours. The study recommends for a related study using a qualitative approach to explore the role of other socio-cultural aspects that can influence adolescents to be involved in sexual risk-taking behaviours.

Keywords: adolescents, multiple partners, safe sex, sex debut

Introduction

Sexual risk-taking behaviours among adolescents can be described as behaviours involving unprotected vaginal, oral, or anal intercourse, inconsequent usage of condoms, having multiple sexual partners, and drug or alcohol use before or while having sexual activity (Chawla & Sarkar, 2019; O'chieng, 2013). Additionally, it has been specified that the key indicators of risk sexual behaviours for adolescents include: unprotected sex, early sexual activity before age 18, and multiple sex partners (Seff, Steiner, & Stark, (2021). Harris and Orth (2019) define self-esteem as a person's global sense of self, which includes perceptions of aptitude, self-worth, self-image, self-efficacy, and other aspects of self-concept. Harris and Orth (2019) added that high self-esteem increases an individual's ability to cope with stress and serves as a cushion against anxiety. Low self-esteem has a significant association with sexual risk-taking behaviours such as unprotected sex, early sexual debut, and multiple partners.

Various studies have shown that self-esteem is high during childhood and tends to slowly decrease during adolescence (Ogihara, 2020). Different reasons have

been given to explain the variation in self-esteem in terms of age. Literature shows that children have high self-esteem because it is artificially magnified and the subsequent decline reflects an increasing reliance on more realistic information about themselves (Ogihara, 2020). During adolescence, the decline in self-esteem has been attributed to maturational changes associated with puberty and cognitive changes associated with the emergence of formal operational thinking. Literature shows that there is a decline in self-esteem during the end of adolescence between 18–23 years. This is the period when young people are confronted with the doubting reality of independence and the feeling of being overwhelmed by the future. It is very disappointing to them because it is the time where their self-esteem starts to decline slowly (Karina, 2012)

Researchers worldwide have been working on the influence of adolescents' self-esteem on sexual risk-taking behaviours. Both correlation and longitudinal studies have been conducted and reported that there is a positive relationship between self-esteem and adolescents' involvement in sexual risk-taking behaviours (Currie et al., 2012; Hensel et al., 2011; Veselsk et al., 2019; Wang et al., 2018; Waston, 2017; This means that a low self-esteem has negative implications for an adolescent's life. The better and richer adolescents are in self-esteem, the less they are involved in sexual risk behaviours. Studies conducted in Europe, America, Sweden, Portugal, and Hong Kong on the relationship between self-esteem and sexual risk behaviours showed that self-esteem had a significant effect associated with sexual risk-taking behaviour among adolescents. In the same vein, they found that adolescents with low self-esteem were involved in particular sexual risk-taking behaviours (; Currie, Zanotti, Morgan, Currie, de Looze, Roberts, and Barnekow, 2012; Favara, 2013; Unis, Johansson, and Sallstrom, 2015; Wing et al., 2011;).

In developing countries such as Nigeria, Botswana, South Africa, and Kenya, the key argument has been that the low self-esteem of adolescents places them at a high risk of engaging in sexual risk-taking behaviours including unprotected sex (Chilisa, Tlhabano, Vista, Pheko, Losike, Mosime, Mpeta, & Balogun, 2013). A study conducted by Mercy and Peter (2014) in Nigeria showed that self-esteem helped to boost adolescents' confidence and reduced sexual risk-taking behaviours. In South Africa, a study by Macapagal (2019) found that self-esteem placed adolescents at high risk of engaging in sexual behaviours such as unsafe sex and multiple partners. In a similar way, the study conducted by O'chieng (2013) in Kenya showed that most adolescents started to have multiple partners at the age of 16 years, and there was a significant association between having multiple partners and their level of self-esteem (chi square=42.209; p=.000). In addition, adolescents with low self-esteem who engaged in drinking alcohol and drug abuse were at a greater chance of engaging in sexual risk-taking behaviours that were highly related to STDs (p=.003).

Considering the context of Tanzania, the study conducted by Karina (2012) showed the link between adolescents' involvement in sexual behaviours and their self-esteem ($r=.045$, p value $=.001$). This implied that young teenagers with low self-esteem were more likely to have multiple partners and have unsafe sex. In the same study, the findings showed that adolescents with low self-esteem engaged in sexual activities intentionally compared to those with high self-esteem. The implication of these findings is that the majority of adolescents in Tanzania engage in sexual risk behaviours. This argument is supported by the data provided by the Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2017-2018. (2018) which indicated that among adolescents, condom use is as low as 37% in adolescent girls and 35% in adolescent boys between the ages of 15–19. The report further revealed that condom use among adolescents is lower than expected. Less than one-third of adolescents reported using condoms at their first sexual intercourse. This implies that many adolescents engaged in sexual activity without using condoms. Thus, they remained at a high risk of contracting HIV and early unplanned pregnancies. Likewise, James, John, and Zacharia (2016) reported that a substantial proportion of adolescents in Tanzania engage in high-risk sexual behaviours and are therefore, at risk of getting STDs.

The previous review and empirical evidence from literature showed that adolescents engage in sexual and risky behaviours and that self-esteem plays a vital role in influencing sexual risk-taking behaviours among adolescent students. However, in the context of Tanzania, the extent to which self-esteem is associated to adolescents' sexual risk-taking behaviours is not well known. Although there are several studies conducted in Tanzania on adolescents' sexual risk behaviours, very little is known about the relationship between self-esteem and sexual risk-taking behaviours. It is against this backdrop that the current study has found to investigate the relationship between self-esteem and sexual risk behaviours among adolescent students in Tanzania.

Sexual risk-taking behaviours have become a problem to many adolescents. These behaviours normally leave long-lasting negative consequences to adolescent students such as, unwanted pregnancy, emotional harm and sexual transmitted diseases, which reduce their chances to accomplish their educational goals. Studies have shown that adolescents with high self-esteem tend to demonstrate higher academic achievement, health relationships, positive social and mental development, as well as self-confidence. Although several studies have been conducted in Tanzania on self-esteem it is unknown as to what extent self-esteem is associated with adolescents' involvement in sexual risk-taking behaviours. Given this limitation and knowledge gap, this study was set to investigate the relationship between self-esteem and sexual risk-taking behaviours among adolescent students in secondary schools in Tanzanian context.

1.1

1.2 **Research Objectives**

This study was guided by the following objectives:

1. To assess the level of self-esteem among adolescent students in private and public secondary schools.
2. To examine the relationship between self-esteem and sexual risk-taking behaviours among adolescent students in secondary schools.

1.3

1.4 **Research Hypotheses**

This study was guided by the following null hypotheses

1. Adolescent students do not have a reasonably high level of self-esteem.
2. There is no statistical significant relationship between self-esteem and sexual risk-taking behaviours among adolescent students in secondary schools.

Methodology

Research Approach and Design

This study employed a quantitative approach which sought to generate large amount of data on how one's self-esteem is associated with sexual risk-taking behaviours in the case being studied. The study employed a correlation research design to establish the relationship between self-esteem and sexual risk-taking behaviours among secondary school adolescent students. The study collected the respondents' background information from private and public secondary schools.

Population, sample and sampling techniques

The target population of this study included all secondary school adolescent students from form one to form four classes of both private and public secondary schools in Kinondoni Municipality in Dar es Salaam. The overall number of participants was 8,133, which included 5,888 students from public secondary schools and 2,245 students from private secondary schools.

To get the sample size for this study, the researchers applied a formula by Cohen, Cohen (2018). in their sample size statistical table, which suggests that, for a population size ranging from 5,000 to 10,000 with a sampling error of 5% and a confidence level of 95%, the sample size should be 520. So, using Cohen's formula, the number of respondents involved in this study was 511, with 324 students from public high schools and 187 students from private high schools. The sample size of the study was selected from Kinondoni Municipality. The selection of Kinondoni Municipality was based on the following reason. First, Kinondoni municipality is the smallest in square kilometer (about 531 km²) compared to other districts in

Dar es Salaam and country wide in general, but it is the most densely populated and a business center which attracts many people from different angles of Tanzania including adolescents in secondary schools. Its population makes a total number of 1,083,913 people (NBS, 2017). The population comprises heterogeneous characteristics in terms of socio-economic background, education level and culture which represent people from all regions of Tanzania. These heterogeneous features of the population have a significant effect on adolescents' self-esteem development and their involvement on sexual behaviours. That allowed wider and in-depth collection of information from the adolescent students from secondary schools.

The key respondents were selected through, stratified sampling and simple random techniques. Therefore, researchers formulated three strata from the target population. The first stratum was based on sex. The second stratum was based on the class level. The participants ranged from form one to form four and the third stratum was based on category of secondary schools (i.e private and public secondary schools). Then from each stratum the required number of participants was randomly selected. Simple random sampling was used to select secondary school adolescent students from form one to form four classes. The key focus was to collect information on the relationship between self-esteem and sexual risk-taking behaviours among secondary school adolescent students. Therefore, simple random sampling was conducted by assigning numbers on special cards; the cards had numbers ranging from 30 to 40. To select the respondents, the researchers asked the respondents to pick the cards randomly. Students whose cards had even numbers were selected for the study. Thus, a total of 511 respondents, including 324 students from public secondary schools and 187 students from private secondary schools were selected to participate in this study.

Data collection Instruments

Structured questionnaire was employed in this study as the main data collection tool. There were three main sections of the questionnaire. Section A of the questionnaire assessed participants' demographic information; section B consisted of scale measuring initiation of sex before 18 years, while section C consisted of scale measuring information on safe sex. Section D consisted of scale measuring information on multiple partners and section E consisted of scale measuring levels of self-esteem.

In measuring levels of self-esteem, a self-esteem scale developed by Dr. Morris Rosenberg in 1965 was used. The Rosenberg Self-esteem scale, the scale consisted of ten items with four response options: Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D). Participants were asked to tick the statements according to how they felt at the time of completing the questionnaire. The researchers

opted to use such scale because other researchers had used it successfully with diverse population (Kessy, 2010; Adams, 2010). Sexual risk-taking behaviours were measured by using sexual risk survey scale adapted and modified from Turchik and Garske (2010). The researcher decided to use this scale because it is commonly believed that it is a taboo to talk about sexual matters when you are a student. Thus, other methods like interview and focus group discussion would reduce authenticity of the respondents in providing information.

1.5 Validity and Reliability of the Instruments

Validity at the early stage of instruments construction, construct and content validity was taken into consideration. The questionnaires were pre-tested during a pilot study which involved two selected public and private secondary schools using 40 students from Ilala Municipality. A total number of 20 students from private schools and 20 students from public schools were selected. To make the sample to be representative, five students from each class (from Forms I-IV) were selected from public and private secondary schools respectively. The pilot was conducted so as to determine the major and minor issues of content and feasibility and to test validity and reliability of the questionnaires. This enabled the researcher to make some changes, edit, and format the questionnaires with regard to structure and vocabularies as was used in the questionnaires.

Peer review was also used as a mechanism and principle for evaluating and assuring the quality of research instruments before. The researchers distributed the questionnaires to his peers who have got experiences and knowledge on the construction and use of questionnaires. Peers reviewed the questionnaires and collected all mistakes and unnecessary information contained in the questionnaires and returned them to the researcher. Furthermore, the tools were originally written in to English. To ensure their validity, the tools were translated in to Kiswahili because majority of the respondents in the targeted population were more likely to respond easily and comfortably in Kiswahili rather than English. The translated tools were given again to experts to translate them back to English so as to maintain the original intended meaning.

Internal and overall reliabilities of each component of the questionnaires which are sexual risk survey scale and self-esteem questionnaires were tested by Cronbach's Alpha Coefficient scale. In this study, the Rosenberg self-esteem scale reliability was 0.75 while that of scale of initiation sex before 18 years was 0.8; scale on safe sex was 0.75 and scale on multiple partners was 0.8.

1.6 Administration of the Questionnaire and Tests

After getting consent of both school authorities and students, the questionnaires were administered to the students. A total number of 511 questionnaires were administered to students. Generally, 324 questionnaires were administered to public secondary schools and 187 to private secondary schools. The researcher managed to get back all questionnaires administered to the students. Each classroom had a research assistant who was clarifying issues which were not clear in the questionnaires. All students managed to fill in the questionnaires and all questionnaires were collected by the researcher afterward. The questionnaires were administered during regular class time. The total time for filling and complete questionnaires ranged from 20-30 minutes. During that time, the researcher and his two assistants remained in the respective classes so as to provide an opportunity to respondents for more clarifications. All the responses were entered into SPSS computer software and the answers were put into different categories so as to simplify the process of data analysis.

Data analysis Procedures

The quantitative raw data were systematically analysed by using statistical package for social sciences (SPSS) version 20. The data were cleaned, checked and rechecked to ensure all values for all questions were correctly entered into software. To measure the level of self-esteem, researchers used Rosenberg self-esteem Scale. All negative items (2, 5, 6, 8, and 9) in this scale were reversed during coding process. The average score was computed for all 10 items, the items were answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. The interpretation of scores ranged from 1-2.5 (low self-esteem) 2.6-3.5 (moderate self-esteem) and 3.6-4 (high self-esteem). Frequencies were run for all 10 items for the self-esteem scale to determine the level of self-esteem among adolescent students in private and public secondary schools. Moreover, Pearson's Correlation Coefficient was used to determine the degree to which a relationship between self-esteem and sexual risk-taking behaviours is linear.

Ethical Considerations

The researchers followed the required ethical procedures by first requesting and obtaining a letter of permission from the University Vice Chancellor's office which introduced him to Dar es Salaam Regional Administrative Secretary (RAS) and from there to District Administrative Secretary (DAS). Then the DAS introduced the researchers to Municipal Executive Director who forwarded the permission letter to the heads of secondary school where the study was conducted. Informed consent was obtained from the heads of school, students and academic masters after the researchers had introduced themselves and explained the objectives of the study, importance of the information the study would generate and how respondents

would participate in the study.

Some of the participants were less than 18 years old. Since sex is a sensitive topic, the researchers asked consent from the heads of school who work on behalf of the parents. Privacy and confidentiality were adhered to throughout data collection, analysis and writing of the research report for this study. The questionnaire instrument did not require respondents to indicate their names or other details about their personal identities. To ensure anonymity, the schools were given special codes such as SCO1, SCO2, SCO3, SCO4, SCO5, SCO6, SCO7 and SCO8. In addition, the participants were informed about their right to participate in the study and withdraw from the study at any point if they so wished without explaining to the researcher and without any consequences. The sample size of this study comprised 511 respondents, 324 students from public secondary schools and 187 students from private secondary schools

Findings

1.7 Background Characteristics of the Respondents

The study collected respondents' information about class level, age and sex. A total of 511 questionnaires were returned whereby 324 questionnaires were from public secondary schools and 187 questionnaires from private secondary schools. The results revealed that majority 324 (63.4%) of respondents were from public secondary school students, and 178 (36.6%) students were from private schools. Based on sex factor, from public schools 140 (60.6%) were male students and 184 (65.7%) were female. From private schools, 91 (48.7%) were male and 96 (51.3%) were female. Furthermore, based on the class level, the majority of respondents were from form one 157 students, whereby 120 (76.4%) were from public and 37 (23.6%) from Private schools. About 151 were Form two students, whereby 90 (59.6%) were from public schools and 61 (40.4%) from private schools. Form three were 120 whereby 69 (57.5%) were from public schools and 51 (42.5%) from private schools. Form four students were 83 of which 45 (54.2%) were from public schools and 38 were (45.8%) from private schools. Table 1.1 summarizes the background characteristics of the respondents.

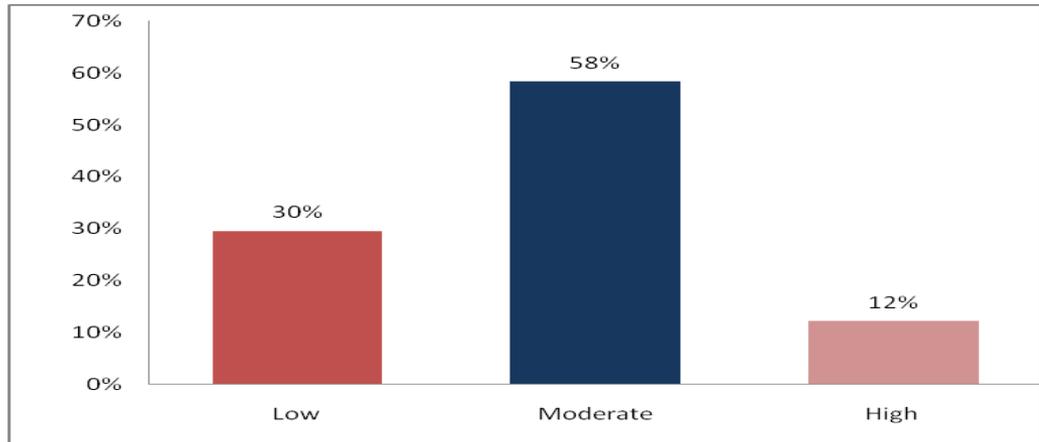
1.8 Level of Self-esteem among Adolescent Students in Secondary Schools

The first objective of the study was to determine the level of self-esteem among secondary school adolescents. The level of self-esteem was measured using the Rosenberg self-esteem scale. The average scores were computed for all 10 items, which were answered by using a 4-point Likert scale format, ranging from strongly agree to strongly disagree. To determine the level of self-esteem, frequencies were

run for all 10 items on the self-esteem scale among adolescent students in private and public secondary schools. The interpretation of the score ranged from 1–2.5 (Low self-esteem), 2.6–3.5 (Moderate self-esteem), and 3.6–4 (High self-esteem). Figure 1.1 summarises the results.

Figure 1:1

Respondents' Level of Self-Esteem in Percentages.



The results from Figure 1.1 indicate that the majority of the respondents were found to have a moderate level of self-esteem, followed by adolescents with low self-esteem, while only 12% of adolescent students were reported to have a high level of self-esteem. These results imply that the majority of secondary school adolescent students had a reasonably moderate level of self-esteem.

1.9 Relationship between Self-esteem and Sexual Risk-taking Behaviours among Adolescent in Secondary Schools

The second objective investigated the relationship between self-esteem and sexual risk-taking behaviours. In exploring the relationship between self-esteem and sexual risk-taking behaviours, self-esteem was treated as an independent variable while sexual risk-taking behaviours were treated as dependent variables under three categories, sex before 18 years, safe sex, and multiple partners. Table 1.1 presents the correlation coefficient of self-esteem and sexual risk-taking behaviours.

1.9.1 Table 1.1:*1.9.2 Correlation between Self-esteem and Sexual risk-taking Behaviours among Public and Private Schools*

Sexual risk-taking behaviours	Correlation (r)	Level of	M	SD
	Self esteem	Significance		
Sex Debut (Initiation of sex <18 years)	0.081	0.066	1.368	0.429
Multiple Partners	0.033	0.470	1.529	0.614
Safe Sex	0.081	0.066	1.860	0.624

The results from Table 1.1 showed that there was a weak positive and non-significant relationship between self-esteem and initiation of sex before 18 years ($r = .081$, p value > 0.05) and between self-esteem and safe sex ($r = .081$, p value > 0.05). Lastly, the results revealed that there was a weak positive relationship between self-esteem and multiple partners ($r = .033$, p value $.470$). This result implies that an increase in adolescents' self-esteem was not associated with a decrease in adolescents' engagement in sexual and risk behaviours. However, the results reveal that an increase in self-esteem was to some degree associated with adolescents' less engaging in sexual and risk behaviours. In this case, the hypothesis that there is a statistically significant relationship between self-esteem and secondary school adolescents' sexual risk-taking behaviours was rejected and the null hypothesis was accepted.

Discussion

The results of the first objective indicate that the majority of the respondents were found to have a moderate level of self-esteem, followed by adolescents with low self-esteem, while only 12% of adolescent students were reported to have a high level of self-esteem. These results implied that the majority of secondary school adolescent students had a reasonably moderate level of self-esteem. The results of this study are similar to those of Kirangu and Chepchieng (2013) who found that the majority of the studied students had a moderate level of self-esteem of about 60%, students with moderate self-esteem formed (20%), and the last group was that of adolescents with low self-esteem of about 20%. In addition, they reported that students with high and moderate levels of self-esteem had good family care compared to those with low self-esteem who came from dysfunctional families. These results imply that family separation, parental divorce, and family quarrels contribute to the development of low self-esteem among adolescent students.

The results are also similar to those of Sharma and Jagdev (2012), who found that

the majority of adolescents had a moderate level of self-esteem. They reported that students with low self-esteem had a high academic stress leading to failure to perform well in their examinations compared to their counterparts. In the same vein, in a correlation study by Nikitha, Jose, and Valsaraj (2014) on academic stress and self-esteem among secondary students, it was found that the majority of the students' self-esteem had a moderate level of self-esteem. But 6.2% had low self-esteem, while 11.5% of students had high self-esteem. They concluded that the majority of students in secondary schools suffer from academic stress, and there is a strong relationship between self-esteem and academic performance ($r=.60$, p value= .001). The implications of these results mean that if students perform poorly in class compared to others, their level of confidence is reduced, which, in turn, leads to a negative self-image that makes them feel like failures and losers. Consequently, it leads to low self-esteem.

On the other hand, some studies reported results that contradicted the results of the current study. For example, Chinawa et al. (2015) conducted a study on self-esteem among adolescents in Nigerian secondary schools and found that adolescent students in secondary schools had high self-esteem. They reported that the high level of self-esteem was attributed to factors such as a lower parental divorce rate and expressed feelings of higher competence by adolescents. Thus, adolescents' family relationships, either positive or negative, have an impact on their self-esteem development. Similarly, Singh and Bhatia (2012) found that 71% of the respondents had high self-esteem and 29% of them had low self-esteem. The results from Singh and Bhatia (2012) also showed that students with a high level of self-esteem (71%) belong to families with positive relations. The results indicated that family environment highly contributes to adolescents' self-esteem.

The discrepancies in the results between the current study and those of Chinawa et al. (2015) and Singh and Bhatia (2012) can be attributed to the fact that, public and private secondary schools involved in this study might have had students with similar levels of development in the area of self-esteem. In addition, it can also be attributed to the fact that the schools sampled for this study were from the same municipality. Another reason for discrepancies might be explained by the ecological factors where the child grew up which include children's early relationships with caregivers, peers, teachers at schools, friends, and family, whereby friends may help adolescents to develop positive self-image or bring them down (Santrock, 2010; Tynelius & Rasmusse, 2010; Walsh, 2015). Similarly, when the adolescents receive support and care, which is in line with feelings of adequacy in the family that works together and tries to boost each other up, it has a significant contribution to the healthy development of self-esteem. In addition, cognitive, biological, and physical development played a significant role in determining adolescents' self-esteem (Shaffer & Kipp, 2010).

1.10 Relationship between Self-esteem and Sexual Risk-taking Behaviours among Adolescent in Secondary Schools

The results from the second objective showed that there was a weak positive and non-significant relationship between self-esteem and initiation of sex before 18 years ($r = .081$, p value > 0.05) and between self-esteem and safe sex ($r = .081$, p value > 0.05). Lastly, the results revealed that there was a weak positive relationship between self-esteem and multiple partners ($r = .033$, p value $.470$). The results of this study are similar to the study conducted by Udoh et al. (2019) on the influence of self-esteem on sexual behaviours among adolescent students. The study revealed that there was no statistically significant relationship between self-esteem and adolescent students' sexual risk-taking behaviours, and that adolescents' involvement in sexual risk-taking behaviours is heavily influenced by poverty and family separation, which cause adolescents to feel emotional and social loneliness, leading to behaviours such as sex debut, having multiple partners, and engaging in unprotected sex. This is in line with the cross-sectional study conducted by Park, Young-Ho, Seon-Joo, Sooyeon, and HaeJeung (2016) on the relationship between self-esteem and overall health behaviours in Korean adolescents, which consistently found that self-esteem, had no statistically significant relationship with sexual risk-taking behaviours. The results from Park, et al. (2016) also revealed that the majority of adolescents who were found to have a moderate level of self-esteem were able to slightly adjust to personal challenges and school life and hence reduced their level of involvement in sexual risk-taking behaviours.

Moreover, a correlation study conducted by Chilisa et al. (2013) revealed that there was a weak statistically significant relationship between self-esteem and sexual risk-taking behaviours. The study pointed out that self-efficacy as opposed to self-esteem had the greatest contribution in helping adolescents not to get involved in sexual risk – taking behaviours. This implies that the change in student behaviour in schools is largely attributed to a sense of strong self-control, which results in better health and higher academic achievement for the students. Furthermore, the study conducted by Savi and Tagay (2017) found out that there was no relationship between self-esteem and adolescents' involvement in risk-taking sexual behaviours. It is also suggested that peer influence played a significant role in predicting sexual risk-taking behaviours in adolescents because they are valued and admired by their peer groups for engaging in those behaviours.

However, the results of this study are inconsistent with previous studies on the relationship between self-esteem and sexual risk-taking behaviours among secondary school adolescent students, which revealed a significant relationship between self – esteem and sexual risk-taking behaviours. (Jodon & Tripath, 2017; Kilonzo, 2012; O'chieng, 2013; O'Sullivan & Orr, 2011; Unis et al., 2015). The reason for the

inconsistency of results was due to the differences in methodological approaches used in different studies. For example, in the present study, the researchers used one scale to measure self-esteem and one scale to measure sexual risk-taking behaviours contrary to some previous studies such as Unis et al. (2015), which used basic self-esteem and an earning self-esteem scale to measure the level of self-esteem in adolescents. On the other hand, the current study used sexual risk-taking behaviours and a self-efficacy scale to measure risk taking behaviours to adolescent students. Again, the current study used correlation research design as opposed to previous studies such as (O'Chieng, 2013; Unis et al., 2015), which used cross sectional design to collect information. Perhaps these are the reasons for the disparities in results.

The inconsistency was attributed to the fact that self-esteem becomes high when parents and children sit together and discuss issues related to sexual risk-taking behaviours. This helps to boost adolescents' self-esteem, hence minimising the chance of students to engage in sexual risk-taking behaviours (Mercy 2014). When parents and teachers work together as a team, they help students to develop awareness of their purpose in life and reduce their involvement in sexual risk-taking behaviours. This is contrary to the Tanzanian context, where it is commonly believed that it is taboo to talk about sexual matters when you are a student (Jarome et al., 2017). This reason was assumed to influence the inconsistency of results from this study. Another reason for inconsistency may be due to the tools used for data collection.

The current study was based on a questionnaire exclusively administered to students. The questionnaire was self-completed by students as some of the questions focused on sensitive personal issues. It is probable that some of the respondents intentionally misreported due to feelings of shame about being honest to respond to sensitive issues like sexual behaviours which are culturally prohibited at a young age in the Tanzanian context. Also, the results could be attributed to the fact that the scales that have been used may not entirely capture the wide range of sexual risk-taking behaviours in the context of Tanzania. So, differences in the methodology used can be a major factor associated with inconsistencies in results between the current study and some previous studies.

Conclusion and Recommendation

Based on the results of this study, the following conclusions were made. Firstly, secondary schools' adolescent students aged 12-19 had moderate level of self-esteem. These results imply that something should be done so as to improve the level of self-esteem among adolescent students in secondary schools. For example, personal development programmes should be introduced in secondary schools based on how students can boost their self-esteem. Again, parents, caregivers and teachers should be informed on how they can increase the levels of self-esteem

among adolescents. This can be done by parents spending quality time with their adolescents and openly sharing issues related to sexuality. Secondly, the results of the present study revealed that there was no statistically significant relationship between self-esteem and sexual risk-taking behaviours among adolescent students in secondary schools. Thus, adolescent students' involvement in sexual risk-taking behaviours is determined by other factors such as peer pressure, poverty and attitude towards sex.

However, adolescence stage is a stage where majority of youth are sexually active and some of them engage in sexual risk behaviours. Thus, this study recommends the need for educational stake holders in Tanzania, including curriculum developers and policy makers to introduce self-esteem and moral development programmes and incorporate them in the school curriculum. These programmes should focus on cultivating students' awareness of avoidance of health risk behaviours, increasing students' self-esteem and self-confidence and helping them develop appropriate healthy behaviours in schools and home environments. The programmes should also focus on creating awareness on other factors associated with sexual risk-taking behaviours. This is significant because when students have high self-esteem and practise appropriate behaviours will not only help them not to engage in sexual risk-taking behaviours, but also increase academic performance in schools. This goes in line with the assessment of self-esteem and their influence on sexual risk-taking behaviours and how they affect students' academic performance.

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