

The Effect of Age and Sex on Self-Esteem among Adolescent Students in Secondary Schools in Tanzania

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Abstract

This paper quantitatively assessed the effect of age and sex on self-esteem development among adolescent students in secondary schools in Kinondoni Municipality. The study employed correlation research design, using exclusively a structured questionnaire for data collection. 511 participants were involved in this study out of which 324 were from public secondary schools and 187 came from private secondary schools. Furthermore, multiple regression analysis was conducted to test the significant effect of age and sex on adolescents' self-esteem. The Rosenberg Self-esteem scale, developed by Morris Rosenberg in 1965 was adopted for measuring levels of self-esteem. It was generally found that sex had a greater effect in self-esteem ($p=.037 < 0.05$) but age had no statistically significant effect on self-esteem ($p=0.107 > 0.05$).

Keywords: *adolescent, age, developmental patterns, secondary schools, self-esteem, sex.*

Introduction and Background to the Study

Sharma and Agarwala (2015) 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 the self-concept. Furthermore, Deepu (2010) states that the image an individual has about himself or herself always affects how one feels and perceives the world around. In the same way, low self-esteem may hold back someone from succeeding in school and work due to lack of beliefs and confidence in his or her abilities. The image of an individual has a tendency to transform and evolve throughout life from childhood to adulthood. People construct images about themselves based on experiences they come across with different people and environment (Canevello & Crocker, 2011). The images of individuals are shaped

by their thoughts and beliefs on how their successes and failures are treated by their family members, friends, teachers and parents. Therefore, self-esteem originates from how an individual is treated by other people through his or her experience and life activities. Furthermore, Veselska, Geckova, Orosova, Gajdosova, van Dijk and Reijneveld (2009) added that high self-esteem increases an individual's ability to cope with stress and serves as a cushion against anxiety.

Factors affecting self – esteem in adolescents

Adolescents become more cognitively sophisticated since the realities of society help them to make clear understanding of their abilities and capabilities (Sharma & Agarwala, 2011). The influencing factors on adolescents' self-esteem can be cognitive, biological and physical development. Naderi, Abdullah, Aizan, Sharir and Kumar (2009) have suggested that for people of all ages, the development of full human potential is enhanced through high self-esteem. People with high self-esteem possess effective and efficient defenses to sustain negative messages. Leary, Terdal, Tambor and Downs (1995) suggested that high self-esteem promotes positive effect by buffering the person against stress and other negative emotions and by enhancing personal adjustment. High self-esteem is also associated with optimism and lowered anxiety. It further serves as a buffer against the anxiety that people experience when they contemplate their own fragility and mortality. On the other hand, Low self-esteem is a feeling of inadequate, inferior, dull, socially inept, unattractive, unlikable and feeling of lonely against the world (Baumeister, Campbell, Krueger & Vohs, 2003). It is related to general negative overall opinion of oneself such as feelings of being useless, unlovable, unattractive and a loser. Low self-esteem has been associated with behavioural problems such as suicidal thought and depression (Sharma & Agarwala, 2015). A study by Rosenberg and Owen (2001) found that people with low self-esteem are more troubled by failures and tend to exaggerate events as being negative.

The effect of age on adolescents' self-esteem

Age is one of the demographic factors that influence the level of self-esteem in adolescents (Valibeygi, 2011). Various literatures have shown that self-esteem is high during childhood and tends to slowly decrease during adolescence. Different reasons have been given to explain variation in self-esteem in terms of age. Literatures also show that children have high self-esteem because it is artificially inflated, and the subsequent decline reflects an increasing reliance on more realistic information about the self. It is also attributed by the fact that physical changes associated

with maturation that occur during puberty and cognitive changes associated with emergence of formal operational thinking may have more profound negative effect on adolescents. At the age of 18-23 years young people are confronted with doubting reality of independence and feeling of being overwhelmed by the future. The period appears very disappointing to them because it is the time where self-esteem starts to decline slowly (Pickhardt, 2010).

A study by Cai, Brown, Deng and Oakes (2007) unfolds that, the developmental pattern of adolescents such as biological and psychological development can cause different impacts on the adolescents' self-esteem because the middle childhood is an exciting time with great optimism and enthusiasm. However, as soon as children emerge into life's challenges and respond to new challenges and demands, their self-esteem begins to diminish. Orth, Robins and Trzesniewski (2010) conducted a longitudinal study to examine the global self-esteem across life span. Results showed that self-esteem development increases during young adulthood and middle adulthood, reaching a peak at about age 60 and declines in old age. Different reasons have been given to explain variations in self-esteem in terms of age. Literature has shown that children have high self-esteem because it is artificially magnified and the subsequent decline reflects an increasing reliance on more realistic information about the self (Van Laar, 2008). During adolescence, the decline in self-esteem has been attributed to maturational changes associated with puberty and cognitive changes associated with emergence of formal operational thinking. In adulthood, the increase in self-esteem is attributed to maturity and superior functioning associated with midlife linked to generativity stage, during which an individual tends to be increasingly productive and creative at work while at the same time promoting and guiding the next generation (Orth, Robins & Trzesniewski, 2010).

Literatures show that age is one among the factors that contribute to variation in self-esteem among individuals. Robins, Trzesniewski, Tracy, Potter and Gosling (2002) conducted a study on global self-esteem across life span, which provided a comprehensive picture of age differences in self-esteem for a sample of respondents aged between 9 and 90 years. Results showed that levels of self-esteem were high in childhood, dropped during adolescence, rose gradually during adulthood and declined sharply in old age. Additionally, Similarly, Orth, Robins and Trzesniewski (2010) conducted a study on the global self-esteem across life span. Results showed that self-esteem development increases during young adulthood and middle adulthood, reaches a peak at about age 60 and declines in old age. In adulthood, increase in self-esteem has been partly explained by the psychosocial theory

propounded by Erick Erickson. The theory suggests that, the maturity and superior functioning associated with midlife is linked to generativity stage, during which an individual tends to be increasingly productive and creative at work while at the same time promoting and guiding the next generation (Orth, Robins & Trzesniewski, 2010). Studies show that decline in self-esteem in old age indicates the profound physical and emotional changes associated with aging may have more negative impact on self-esteem than other psychological adjustments.

Other studies have revealed a different trend in the relationship between self-esteem and age. For example, Canevello and Crocker (2011) carried out a study on the relationship between self-esteem and age among American older adults. The results showed that older adults reported higher self-esteem than younger people. Reasons behind these results are that, peak in self-esteem comes about when people's lives have achieved some professional success, formed good track records in personal relationships and have leisure time (Canevello & Crocker, 2011)

The effect of sex on adolescents' self-esteem

A study conducted in Western Europe especially in Norway by Birkeland, Melkevik, Holsen, Wold (2012) reported that the variation of sex in adolescence proved to be a factor that influences self- esteem. Sex places a greater vulnerability in adolescents. A recent cross sectional study conducted over 48 years in the western industrialized countries by Bleidorn, Arslan, Denissen, Rentfrow, Gebauer, Potter and Gosling (2016) on age and sex differences in self-esteem, consistently found that there was significant relationship between sex and self-esteem. In addition, a study done in America by Lee and Hakin (2009) reported that, as an impact of low self-esteem in adolescents, girls are facing the challenge of coping with life ambiguities and challenges and were at risk of developing problems. Furthermore, Finley (2009) conducted a study which established that there was slight significant difference between sex and the level of self-esteem among college students. In the same vein, a study conducted in Malaysia by Naderi, Abdullah, Aizan, Sharir and Kumar (2009) on self-esteem, sex and academic achievement of undergraduate students, revealed significant relationship between sex and self-esteem among adolescent students. In Norway, it was found that low self-esteem is more likely to happen to girls than boys. This underlines the vulnerability of girls to feelings of low self-esteem. Moreover, in sex difference, women are expected by the society to show guilt, embarrassment and shame while men are expected to show more pride. In totality, these significantly influence their level of self- esteem (Moksnes, Espnes & Lillefjell, 2012)

On the other hand, a study by Else-Quest, Higgins, Allison and Morton (2012) on sex differences in self-conscious emotional experience observed that between the ages of 13 to 19 years, there are numerous changes of self-esteem in adolescents, which lead to psychological problems such as anxiety and depression. When adolescents reach 19 to 22 years, their self-esteem begins to decrease slowly due to emerging adult responsibilities which are associated with life challenges and uncertainty (Moksnes, Espnes & Lillefjell, 2012). This has been attributed to physical changes that occurred during puberty which may have a more profound negative effect in girls than in boys (Orth, Robins & Trzesniewski, 2010). Few studies conducted in Africa, for example, a study done by Chinawa et al (2015) reported that self-esteem tends to gradually increase and become more positive when personal authority and role taking ability increases in adolescents in which more opportunities to behave in socially and appropriate ways are available.

On the other hand, researchers have widely shown the importance of self-esteem in various arenas. High self-esteem has been linked with health relationships, positive social and mental development, as well as self-confidence. Self-esteem has also been linked with academic achievement, in which adolescent students with high self-esteem tend to demonstrate higher academic achievement than students with low self-esteem. Few studies have been conducted in Tanzania focusing on self-esteem as well as self-confidence in general (Exavery et al., 2011; Kilonzo, 2012; Ndunguru, 2011; Zakayo, 2011). There is, however, scarcity of studies in Tanzania which establish the relationship between age and sex on self-esteem among adolescent students in secondary schools. Little is, therefore, known about the extent to which age and sex influence adolescent students' self-esteem. Therefore, there is need to examine the relationship between age and sex on self-esteem among adolescent students in secondary schools' students in Tanzania. To this end, this study sought to examine the relationship between age and sex on self-esteem among adolescent students in selected secondary schools in Kinondoni Municipality.

Statement of the problem

In adolescence stage both males and females seem to follow essentially the same life span. For both sex, self-esteem is relatively high in childhood, drops during adolescence, rises gradually throughout adulthood before it tends to decline in old age (Orth & Robins, 2014; Robins & Trzesniewski, 2005; Wagner, Gerstorf, Hoppmann & Luszcz, 2013). Only a few studies have covered the entire life span, but various studies have explained the development of self-esteem during specific

life stages, particularly during the periods of late adolescence and early adulthood. The determined sex gap and the distinct age differences have led to a great deal of speculation about the underlying reasons for these patterns to adolescents. Why is it that boys have higher self-esteem than girls. What are the forces that drive the age-graded increases in self-esteem? Similar studies which have been conducted in Tanzania focused on self-esteem, self-confidence and academic achievement among adolescents in secondary schools (Exavery et al., 2011; Kilonzo, 2012) Ndunguru, 2011; Zakayo, 2011) Therefore, there is scarcity of studies in Tanzania that establish the effect of age and sex on self-esteem among adolescent students.

Purpose and objectives of the study

The purpose of this study was to assess the effect of age and sex on self-esteem development among adolescent students in secondary schools. Specifically, the study intended to:

- 1) identify levels of self-esteem among adolescent students in secondary schools.
- 2) determine the significant effect of age and sex on self-esteem among adolescent students.

Two null hypotheses guided this study: Adolescent student in secondary schools do not have self-esteem and second hypothesis was age and sex do not have any significant effect on self-esteem among adolescent students in secondary schools.

Significance of the study

The study is fundamentally important particularly to various educational stakeholders due to a number of reasons. In the first place, it will contribute towards widening an understanding of the concept and importance of self-esteem among adolescent students in secondary schools. Secondly, the results of the study will be a tool that can help the schoolteachers, administrators and parents guide adolescents to improve their self-esteem. Thirdly, the study is also useful to educational psychologists since it functions as an important reference for various educational programmers, curriculum developers, education policy makers and trainers, which may consequently lead to enhancing adolescents to raise their self-esteem. Lastly, the results of this study will lay a foundation for further studies in the area of self-esteem.

Methodology

This study employed a quantitative approach which sought to generate large amount of data on how one variable affects another in the issue being studied. The study used a correlation research design which helped the researchers to establish the relationship between age and self-esteem among secondary school adolescent students. The purpose was to determine whether and to what degree a relationship exists between the independent variable (age and sex) on one hand and self-esteem which is the dependent variable on the other hand.

Respondents' background information

The information collected based on the class level, age and sex of the respondents. A total of 511 questionnaires were returned from the respondents, out of which 324 (63.4%) questionnaires were from public secondary schools while the remaining 187 (36.6%) were from the private secondary schools. Basing on the sex factor, 140 (60.6%) were male students from public schools, 184 (65.7%) were female students from public schools. Conversely, 91 (48.7%) and 96 (51.3%) respectively were the males and female students from private secondary schools. It should be noted that the rationale behind selecting public and private secondary schools was due to the fact that private and public secondary school students are somehow treated differently by teachers, the attention to service by staff is also different but equally important, students' socio-economic backgrounds are different. All these factors may affect students' self-esteem directly or indirectly. Furthermore, the rationale behind selecting more students from public schools than private schools was due to the fact that the enrolment in public secondary schools was higher than in private schools, this affected the number of students selected per class.

Furthermore, based on the class level, the majority of the respondents were from Form One (157 students), whereby 120 (76.4%) were from public and 37 (23.6%) came from private secondary schools. Furthermore, 151 were Form Two students out of which 90 students (59.6%) were from public secondary schools while 61 (40.4%) came from private secondary schools. The respondents from Form Three were 120, whereby 69 (57.5%) came from public schools and 51 (42.5%) were from private secondary schools. The last category constituted the respondents representing Form Four students in which out of the total 83 students 45 (54.2%) were from public schools while 38 came (45.8%) from private schools.

Table 1: Respondents' Characteristics by School Category, Sex and Age

<i>Respondents</i>											
Variables	Public				Private				Total		
Sex	Male		Female		Male		Female		Male	Female	
Age	F	%	F	%	F	%	F	%	F	F	%
12	1	0.7	2	1.1%	2	2.2	3	3.1	3	5	1.6
13	11	7.9	23	12.5	6	6.6	4	4.2	17	27	8.6
14	28	20.0	47	25.5	13	14.3	24	25	41	71	21.9
15	31	22.1	55	29.9	19	20.9	20	20.8	50	75	24.5
16	26	18.6	31	16.8	18	19.8	21	21.9	44	52	18.8
17	25	17.9	17	9.2	15	16.5	13	13.5	40	30	13.7
18	14	10.0	8	4.3	12	13.2	10	10.4	26	18	8.6
19	4	2.9	1	0.5	6	6.6	1	1.0	10	2	2.3
Total	140	100	184	100	91	100	96	100	231	280	100
Form 1	48	34.3	72	39.1	19	20.9	18	18.8	67	90	30.7
Form II	35	25.0	55	29.9	31	34.1	30	31.3	66	85	29.5
Form III	35	25.0	34	18.5	28	30.8	23	24.0	63	57	23.5
Form IV	22	15.7	23	12.5	13	29.0	25	26.0	35	48	16.2
Total	140	100	184	100	91	100	96	100	231	280	100

Source: Field data, May, 2018

Sample and sampling procedure

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. An overall number of participants was 8,133 which included 5,888 students from public secondary schools and 2,245

students from private secondary schools. The main reason that made the researchers to choose such participants was to assess the significant effect of age and sex on self-esteem to adolescent students aged 12-19 years. The selection of sample for this study considered the purpose for of this study, the researchers applied a formula by Cohen et al. (2013) in their sample size statistical table (see Table 2) which suggests that, for the population size ranging from 5,000 to 10,000 with sampling error of 5% and confidence level of 95%, the sample size should be 520.

Table 2: *Sample Size, Confidence Levels and Sampling Error*

Size of total population	Sampling error of 5% with a confidence level of 95% Size of sample population	Sampling error of 1% with a confidence level of 99% Size of sample population
50	44	50
100	79	99
200	132	196
500	217	476
1,000	278	907
2,000	385	1,661
5,000	457	3,311
10,000	520	4,950
20,000	877	6,578
50,000	981	8,195
100,000	983	8,926
1,000,000	994	9,706

Source: Cohen et al. (2013).

The population size of the present study was 8,133 which included 5,888 students from public secondary schools and 2,245 students from private secondary schools. Applying Cohen's formula, the expected sample size was 511 respondents, with 324 students from public secondary schools and 187 students from private secondary schools.

In this study, the key respondents were selected through purposive sampling, stratified sampling and simple random sampling techniques. The schools were selected purposively so as to avoid unequal representation of respondents from

private schools because it was found that some of private schools had very little number of students compared to public secondary schools. Therefore, researchers formulated three strata from the target population. The first stratum was sex which included boys and girls. The second stratum was based on the class level of the participants ranging from form one to form four and the third stratum private- public secondary schools. Then from each stratum the required number of participants was randomly obtained. Simple random sampling was used to select secondary school adolescent students from form one to form four classes. Therefore, simple random sampling was conducted by assigning numbers on special cards; the cards had numbers ranging from 30 to 40 that were having numbers such as 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 and 40 to both male and female students. To select the respondents, the researchers asked the respondents to pick the cards as random as per sample size required for both male and female students in each class. Those students whose cards had even numbers were selected for the study.

Data collection methods

The current study employed questionnaires as the main tool for data collection. Questions constructed on a Likert scale were used to measure self-esteem among adolescent students in secondary schools. The questionnaire was used because it is believed to be relevant for collecting a wider range of quantitative information and attributes. Moreover, questionnaires can be used to investigate potential discomforting areas such as sexual matters more easily than other methods of data collection (TrueMan, 2015). In measuring levels of self-esteem, the Rosenberg self-esteem scale, developed by Morris Rosenberg in 1965 was used. The scale consists 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 a scale because other researchers had used it successfully with diverse populations (Finley, 2009; Kessy, 2010). The questionnaires were administered during regular class time, the total time to fill and complete questionnaires ranged from 20-30 minutes. During that time the researchers remained in the respective classes so as to provide an opportunity to respondents in case more clarifications could be required. All the responses were entered into SPSS computer software and the answers were converted into categories so as to simplify 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 if all values for all questions were correctly entered into software. The data for self-esteem and sexual risk-taking behaviours were coded, entered and scored in the SPSS. To measure the level of self-esteem, researchers used Rosenberg self-esteem scale. 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. Furthermore, the multiple regression analysis was performed to determine the significant effect of age and sex on self-esteem among adolescent students in secondary schools. The multiple regression analysis was used to predict the value of an independent variable based on the value of two or more other dependent variables which are in categorical variables (Cohen, Manion, & Morrison, 2013). In this case, the multiple regression analysis was used to assess the relationship between two independent variables which were age and sex and one dependent variable which self-esteem. Thus, the multiple regression analysis sufficiently determined the relative effect of age and sex on adolescents' self-esteem.

Results and Discussion

The levels of self-esteem among adolescent students

The level of self-esteem was measured using the Rosenberg self-esteem scale, a widely used self-report instrument for measuring individual's self-esteem. 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. Table 3. summarizes the participants' frequencies on the self-esteem scale per each scale item.

Table 3: Participants' Frequencies and Percentage on Self-esteem Scale

Self-esteem items	Strongly Agree	Agree	Disagree	Strongly Disagree
	N %	N %	N %	N %
1. On the whole, I am satisfied with myself.	341 66.7	89 17.4	17 3.3	51 10.0
2. At times, I think I am not good at all.	86 16.8	66 12.9	75 14.7	272 53.2
3. I feel that I have a number of good qualities.	151 61.6	129 25.2	52 10.2	91 17.8
4. I am able to do things just as most other people do.	237 46.4	92 18.0	54 10.6	117 22.9
5. I feel I do not have much to be proud of.	116 22.7	99 19.5	75 14.7	202 39.5
6. I certainly feel useless at times.	77 15.1	60 11.7	84 16.4	268 52.4
7. I feel that I am a person of worth, at least on an equal plane with others.	266 52.1	122 23.9	27 5.3	79 15.5
8. I wish I could have more respect for myself.	317 62.0	86 16.8	25 4.9	69 13.5
9 All in all, I am inclined to feel I am a failure.	45 8.8	25 4.9	64 12.5	366 71.6
10. I take a positive attitude toward myself.	259 50.7	70 13.7	47 9.2	125 24.5

Source: Field data, May, 2018

The results in Table 3 reveal two levels of feelings which are positive and negative. In so far the positive feelings were concerned, 341 (66.7%) students were satisfied with themselves, 151 (61.6%) responded to have number of good qualities, 237 (46.4%) perceived themselves as capable of doing things just like other people do while 266 (52.1%) strongly agreed that they felt that they were the people who are worthy and at least they were on an equal plane with others. Moreover, 237 (46.4%) of the respondents thought they were able to do things just like others. At the same time, 317 (62.0%) responded to have more respect for themselves, while 259 (50.7%) of the students responded to have positive attitude towards themselves. However, 272 (53.2%) of the students responded not to feel good at all about themselves, while 202 (39.5%) responded that they did not have much to be proud of and 268 (52.4%) reported that they felt useless at times while 366

(71.6%) were inclined to feel that they were a group of failures.

To determine the level of self-esteem, frequencies were run for all 10 items for the self-esteem scale among adolescent students in private and public secondary schools. The interpretation of the scores ranged from 1-2.5 (Low self-esteem) 2.6-3.5 (Moderate self-esteem) and 3.6-4 (High self-esteem). The results from cross tabulation indicated that the majority of the respondents were found to have reasonably moderate level of self-esteem (58%), followed by adolescents with low self-esteem (30%), while only 12% of the adolescent students were reported to have a high level of self-esteem. These results imply that, the majority of secondary school adolescent students had reasonably moderate level of self-esteem. Figure 1 summarizes the results.

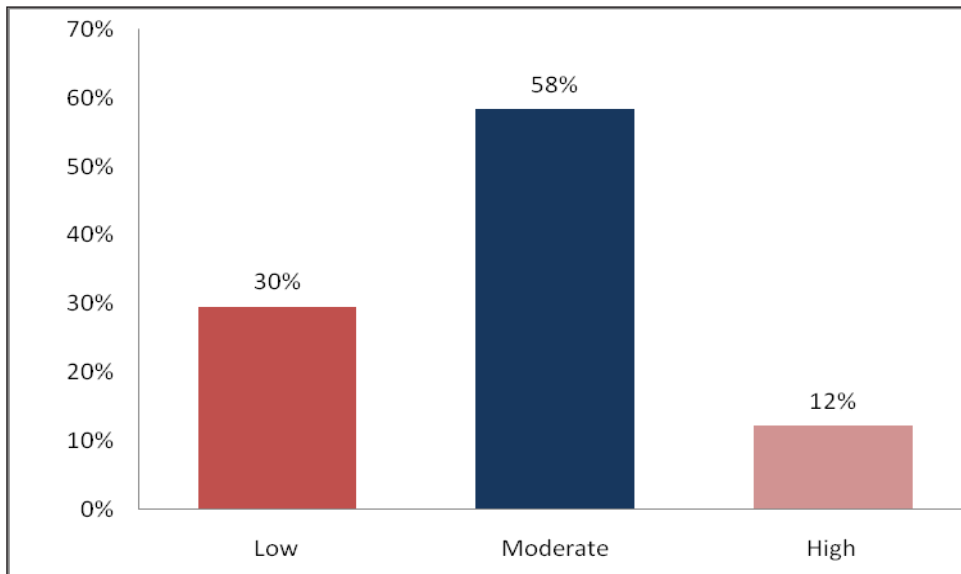


Figure 1: Respondents' level of self-esteem in percentages

The results on the respondents' level of self-esteem revealed that majority of secondary school adolescent students had reasonably moderate self-esteem. Based on the results, the null hypothesis which stated that adolescent students do not have reasonably high level of self-esteem was rejected and the directional hypothesis was accepted.

The results of this study are similar to those by Kiragu and Chepchieng (2013) who conducted a study on self-esteem and academic performance focusing on HIV/AIDS orphaned secondary school students. They involved a sample of 190 students.

Their findings indicated that majority of the students (about 60%) had moderate level of self-esteem, while students with low self-esteem were 20% and the last group were those with the high self-esteem who scored about 20%. In addition, they reported that students with high and moderate level of self-esteem had good family care, and this involves attention from both parents as well as sufficient provisions compared to those with low self-esteem who came from dysfunctional families. This implies that family separation, parental divorce, and family quarrels have a bearing on the development of low self-esteem among adolescent students.

Another study was conducted by Sharma and Jagdev (2012) on the use of music therapy for enhancing self-esteem among academically stressed adolescents involving adolescent students aged 14-18. They found that majority of adolescents had moderate level of self-esteem. They reported that those students with low self-esteem had high academic stress such as failure to perform well in their examinations as 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 school students, it was found out that majority (83.3%) of the students' self-esteem was moderate. But 6.2% had low self-esteem while 11.5% of the students had high self-esteem. They concluded that majority of students in secondary schools suffer from academic stress and there was a strong relationship between self-esteem and academic performance among secondary school students. These results imply that if students perform poorly in class compared to others, their level of confidence is reduced, which in turn leads to negative self-image that makes them feel as failures and losers. Consequently, it leads to low self-esteem.

However, some studies have reported the results which contradict with the findings of the current study. For example, Chinawa, Obu, Manyike, Obi, Isreal and Chinawa (2015) conducted a study on self-esteem among adolescents in Nigerian secondary schools using a sample of students aged 10-19. They 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 lower parental divorce rate and expressed feelings of higher competence by adolescents. Thus, the relationships of adolescents' family either positively or negatively impact on the adolescents' self-esteem development. Similarly, Signh and Bhata (2012) conducted a study on self-esteem among secondary school students in relation to their family environment. The study involved 175 students from both private and public secondary schools. They found that 71% of the respondents had high self-esteem and 29% of them had low self-esteem. The results of their study also showed that students with high

level of self-esteem belonged to families with positive relations. As such the results suggested that family environment highly contributes to adolescents' self-esteem.

The discrepancies in the results might be explained by the ecological factors where the child grew up. Such factors include children's early relationship with caregivers, peers, teachers at schools, friends and family whereby friends may help adolescents to develop positive self-image or bring it down (Elfhag, Tynelius & Rasmusse, 2010; Santrock, 2010; Walsh, 2015). Likewise, if the adolescents receive support and care which enhance feelings of adequacy in the family their self-esteem is likely to raise. These may have significant contribution to their healthy development, leading to positive self-esteem. In addition, cognitive, biological and physical developments play a significant role in determining adolescents' self-esteem (Shaffer & Kipp, 2010). Divya and Manikandan (2012) added that the transition from childhood to adolescence marks the rapid maturation change in social, emotional, intellectual and physical dimensions. During this stage, adolescents move from independence to dependence and they focus more on the group relationship and sense of belongingness. Therefore, these results suggest that peers, teachers and the family environment should be supportive to create the adolescents' healthy mind and positive image. In general, one would argue that it is highly imperative to minimize the development of negative perceptions on the adolescents' self-image in order to boost development of their self-esteem

The effect of age and sex on self-esteem development

The second objective of this paper examined the effect of age and sex on self-esteem development. To attain the objective, multiple regression analysis was applied. The results are summarized in Table 4.

Table 4: *Multiple Regression Analysis on the Effects of Age and Sex on Self-esteem*

	Unstandardized coefficients		Standard coefficients	t	Sig.(2-tailed)
	B	Std. Error	Beta		
(Constants)	2.458	.239		1.264	.000
Age	.023	.014	.076	1.617	.107
Sex	.093	.044	.098	2.089	.037

Source: Field data, May, 2018

The results from multiple regression revealed that sex had a statistically significant effect on self-esteem ($p=0.037<0.05$). Thus, the research hypothesis which stated that sex had no significant effect on self-esteem was accepted. On the other hand, the results revealed that age had no statistically significant effect on self-esteem ($p=0.107>0.05$). Thus, the research hypothesis which stated that age had no statistically significant effect on self-esteem was also accepted.

The results of this paper are consistent with the results of a study conducted by Valibeygi and Kord (2011) on the impact of sex and age on self-esteem which involved 206 students, whereby 105 were males and 101 were females. They found no statistically significant difference between age and self-esteem ($p=0.99$). However, the same study found that sex had statistically significant effect on self-esteem whereas male adolescent students demonstrated high self-esteem compared to their counterparts. The study also found that the variation in self-esteem in terms of sex was due to the ability to handle criticism where females were prone to criticism related to their body image, appearance and impression compared to males. On the other hand, the male adolescent students tend to have positive evaluation based on their physical appearance and emotional wellbeing, while females focused much on their negative self-evaluation which affects their confidence level and self-image, leading to low self-esteem.

Similarly, a cross sectional study conducted over 48 countries by Bleidorn et al. (2015) on age and sex differences in self-esteem, consistently it was found statistical significant relationship between sex and self-esteem. The study revealed that male students had high self-esteem than female students, reason behind being the ability of male students to withstand negative comments from others as well as not relying on other peer approvals as compared to female students. This implied that sex has an impact on influencing self-esteem among adolescent students and female students were more likely to be affected than their male counterparts.

However, a study conducted by Mbagaya, Othuon and Migunde (2016) found that female students had high self-esteem than males. The study revealed that female students possessed high level of internal locus of control and they believed that their success in school and life was much of their personal effort than external efforts. The results showed that sex also influenced internal locus of control. Thus, being either a male or female has a great role in shaping the level of self-esteem. Furthermore, the multiple regressions analysis showed that age had no statistical significance on self-esteem ($p=.107>0.05$). Thus, the results of this study contradicted those of the results from previous studies on age and self-esteem. For

example, Cai et al. (2014) found that age had significant effect on self-esteem. They asserted that the developmental patterns of adolescents such as biological and psychological development can cause different impact on the adolescents' self-esteem. They further maintained that middle childhood is an exciting time with great optimism and enthusiasm, but as soon as children emerged into life's challenges and respond to those new challenges and demands, they tended to have low confidence. In addition, Lee and Hakin (2009) asserted that as an impact of low self-esteem in adolescents, girls as opposed to boys faced the challenge of coping with life uncertainties and hence were at risk of developing low self-esteem.

Moreover, Orth, Robins and Trzesniewski (2010) conducted a longitudinal study to examine global self-esteem across life span. Results revealed that self-esteem increases during young adulthood and middle adulthood and reaches a peak at about age 60 and declines in old age. It is further reported that the variation in self-esteem in terms of age, young children have high self-esteem because it is artificially exaggerated, and the subsequent decline reflects an increasing reliance on more realistic information about the self.

Studies revealed that a decline in self-esteem in adolescents' age indicates the profound physical and emotional changes associated with aging which may have more negative impact on self-esteem than other psychological adjustment (Cai et al., 2014; Valibeygi, 2011). This implied that, as the adolescent students' age increases while in secondary schools, the level of self-esteem decreases. This might be a result of changes in roles and responsibilities. Finally, the levels of variation in self-esteem based on sex could be attributed to the physical and emotional changes that occurred during puberty that have a more profound negative effect in girls than in boys. This is supported by Orth, Robins and Trzesniewski (2010) who noted that during puberty, females fight against adjustment to their mindset and bodies, changes like weight gain, maturing faster or slower than others may likely cause development of girls' low self-esteem. In addition, female students undergo a number of challenges relative to male students during puberty in so far as changes in physical appearance are concerned. For example, they want to look slim and beautiful, hence some of them occasionally feel shy and not attractive compared to other girls in schools. Thus, this reduces their self-esteem. In turn, such a situation may also affect their academic performance in schools.

Conclusion

Based on the results of this paper, it can be concluded that, in the context of Tanzania, self-esteem is not dependent on age, however, boys seem to have higher self-esteem than girls. Reason to this is attributed to girl's self-image, comments from peers and comparison with others which directly affect their self-esteem compared to their counterpart.

Recommendations

This study was confined to assessing the significant effect of age and sex on self-esteem among adolescents' students in secondary schools. The study did not examine sociocultural and environmental aspects that influence self-esteem. There is, therefore, a potential research context for other researchers to explore how sociocultural and environmental aspects influence self-esteem. This study employed quantitative research approach, thus there is a room for other researchers to approach this study qualitatively. The present study used only self-esteem scales. Therefore, there is a need to conduct another study using multiple instruments of data collection such as interviews, focus group discussions and questionnaires and compare the results from all instruments. This could assist to capture the hidden truth about adolescent students' effect of age and sex on self-esteem. Finally, this study involved secondary schools within urban area. The study recommends future studies to also look at self-esteem variations among rural students or by comparing urban and rural.

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