PSYCHOLOGICAL FACTORS ASSOCIATED WITH SEXUAL INITIATION AND SEXUAL INTENTION AMONG SCHOOL ADOLESCENTS AGED 12-14 IN DAR ES SALAAM, TANZANIA

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By

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A dissertation Submitted in Partial Fulfillment of the Requirement for the Degree of Master of Science in Clinical Psychology of the Muhimbili University of Health and Allied Sciences

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Muhimbili University of Health and Allied Sciences, a dissertation titled ***"Psychological factors associated with sexual initiation and sexual intention among school adolescents aged 12-14 in Kinondoni Municipal, Tanzania"***presented in fulfillment of the requirement for the Master of Science Degree in Clinical Psychology of Muhimbili University of Health and Allied Sciences.

_____

Prof. Sylvia F Kaaya – Psychiatrist (Supervisor)

Date _____

_____

Dr Elia J Mmbaga – Epidemiologist (Co-supervisor)

Date _____

DECLARATION AND COPYRIGHT

I, Mrema Noel Kilonzo do hereby declare that this is my original work and has never been submitted for a similar or other degree award in any other university.

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ABSTRACT

Introduction: There are about 3.4 million adolescents below 15 years reported to have HIV globally and approximately 90% are in sub-Saharan African countries. Studies have shown that adolescents engage into sexual risk behaviors such as early age of sex initiation, multiple partners and unprotected sex at an early age. Psychological wellbeing impacts highly on a person's decision-making process.

Several studies have highlighted a relationship between sexual risk behaviors and psychological factors. Low self-esteem, low self-efficacy and high depression have been seen to play a role in adolescent's engagement of risky sexual practice.

No retrievalbe studies on psychological factors and sexual risk behaviors have been conducted in Tanzania. The current study provides more insight on how psychological factors can influence engagement in sexual initiation and future sexual intentions that put adolescents at risk of HIV transmission in the Tanzanian context.

Objectives: To assess the levels of psychological factors (self-esteem, depression, self-efficacy) and their association with sexual risk behaviors (sexual initiation and sexual intention) in a school-based adolescents aged 12-14 years

Study design: This was a cross section study design nested within a cluster randomized control trial of school aged adolescents in Kinondoni District of Dar es Salaam city.

Methods: Employing a multistage random cluster sampling procedure six schools were randomly selected from a pool of 12 schools that are involved in a large cluster randomized intervention trial in the city. Participants from each of the 6 selected schools that met the study criteria had an equal chance to be in the study. A total of 250 participants willingly took part in this study.

A self-administered structured questionnaire was used for data collection and included information on socio-demographic characteristics and sexual behaviors. Four standardized scales were used to collect measures for depression, self-esteem,

HIV preventive self-efficacy and intentions to engage in sexual behaviors in the next six months.

Results: A total of 250 participants were included in the study, 128 (51.2) Male and 121 (48.8%) female adolescents. The mean age (SD) of the participants was 12.6 years (0.7). The proportion of adolescents with high self-esteem was found to be 35.6% (89) with almost similar proportion having low self-esteem. A little more than a third 36.5% (89) of participating adolescents had high HIV self-efficacy. While with regards to depression symptomatology score, the overall proportion of adolescents who had high depression symptomatology scores was found to be 35.2%.

The proportion of adolescents who had initiated sex was 35.6%. Adolescents who had high depressive scores were 3.6 times more likely to have initiated sexual activity as compared to those with low depressive score (OR, 3.62, 95% confidence interval 2.22, 9.06; p=0.001). Adolescents with low self-esteem were two and a half times more likely to have high risky sexual intentions compared to those with high self esteem (OR, 2.62 95% confidence interval 1.00, 6.92; p=0.04). Low HIV preventive self-efficacy was associated with almost three times the odds of high risky sexual intentions compared to adolescents with high HIV perceived self-efficacy, (OR, 2.72, 95% confidence interval 1.03, 7.32; p=0.04). Current depressive symptomatology did not significantly predict responses to future sexual intentions amongst participants.

Conclusion and recommendations: There is an increased prevalence of early sexual initiation among young adolescents in Dar es Salaam. This study showed that depression is associated with sexual initiation but not with future intention to engage in sex. HIV preventive self-efficacy and self-esteem are associated with future intentions to engage in sex but not with sexual initiation. It is therefore recommended that School based interventions that aim at increasing psychological wellbeing of young adolescents are needed. Reproductive health interventions should focus on the emotional aspect of engaging in sexual risk behaviors.

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LIST OF ABBREVIATIONS/ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
APA	American Psychiatric Association
CDI	Child Depression Inventory
HIV	Human Immunodeficiency Virus
HPSS	HIV Preventive Self-efficacy Scale
KMO	Kaiser-Meyer-Olkin
MUCHS	Muhimbili University College of Health Sciences
PCA	Principal Component Analyses
RSS	Rosenberg Self-esteem Scale
SD	Standard Deviation
SPSS	Statistical Package for Social Scientists
SRB	Sexual Risk Behaviour
STI	Sexual Transmitted Infection
TACAIDS	Tanzania commission of Acquired Immunodeficiency Syndrome
UN	United Nations
UNAIDS	United Nations Program on AIDS/HIV
UNICEF	United Nations Children's Fund
US	United States
WHO	World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

Adolescents' sexual behavior is an area that has increasingly become a focus of research. Studies in Tanzania (Masatu et al, 2003; Mwakagile et al, 2001; Exavery et al, 2011) have shown that young adolescents engage in sexual risk behaviors including sexual initiation at an earlier age, have multiple partners and unprotected sex. A number of studies in sub-Saharan Africa have explored psychosocial predictors of an early sexual initiation (Kaaya et al, 2002). There are no retrievable studies in the region that looked at psychological factors and sexual risk behaviors.

Globally some psychological factors have shown an association with sexual risk behaviors. However, the findings have been inconsistent. Some studies (Ethier et al, 2006; Siegel et al, 2001, Dixon et al. 2000) have shown statistically significant associations between psychological factors such as depression, self-esteem and self-efficacy and sexual risk behaviors such as condom use, sexual initiations, multiple partners and future intentions to engage in sex. However, other studies (Crosby et al 2001; McNair, 1998; Pleck et al, 1990) found insignificant relationships between psychological factors and sexual risk behaviors.

Psychological wellbeing has a strong impact on a person's decision-making process. Adolescents with high depressive symptoms are said to have increased sexual activity and may not be able to perceive risky behaviors (Brown et al 2006). Adolescents with low self-esteem are more likely to start sex at an early age and have unprotected sex so as to conform to their peers (Pleck et al, 1990; Dixon et al, 2000; Davies et al, 2003). Adolescents, who perceive they can execute a particular behavior, are more likely to engage in that behavior and thus higher self-esteem has been reported to be associated with condom use and abstaining from sex.

Globally, about 3.4 million adolescents below 15 years are said to have HIV. This study provides more insights on how psychological factors can influence engagement in sexual initiation and future sexual intentions that put adolescents at risk for HIV transmission. Future interventions and studies can benefit from these findings.

1.1 LITERATURE REVIEW

The Human Immunodeficiency Virus (HIV) is a retrovirusthat affects cells of the immune system, destroying cells making the immune systemweakerwith limited ability to fight off infections. Acquired Immune Deficiency Syndrome (AIDS) is the result of HIV infection and it can take 10-15 years for a person living with HIV to develop AIDS (WHO, 2001). AIDS has affected millions of individuals in the world; the spread of the disease has also affected the development of nations and the world at large (UNAIDS, 2004). For instance in Tanzania, 50% of hospital beds are occupied by people living with AIDS (TACAIDS, 2008). As already indicated more than 90% of children below age 15 years living with AIDS are reported to be from sub-Saharan Africa. Fortunately, the numbers have been declining since 2001, with a reported 30% difference estimated between 2001 and 2010(UNAIDS, 2011).

Tanzania is estimated to have 1.6 million people living with HIV/AIDS, 14% comprising adolescent aged 15-24 years old (TACAIDS, 2008). According to a global survey of HIV prevalence in 2004 by UNAIDS (2011), Tanzania is ranked 4thamongcountries of sub-Saharan Africa with high HIV sero-prevalence. In sub-Saharan Africa, a number of studies among adolescents (Kaaya et al, 2002; Swainson, 2000; Nicholas, 1998) have looked into proximal socio-cognitive factors (age, gender, condom use self-efficacy and school performance) associated with sexual risk behaviors. There is noretrievable study in Tanzania that examines psychological factors associated with sexual risk behaviors, and sexual initiation in particular.

Sexual risk behaviors: Adolescents engage into several sexual risk behaviors (SRB). The referred SRB include early age of sex initiation, multiple partnersand unprotected sex.In Tanzania, statistics show that only 49% of males and 46% of females adolescents used condom at their last high-risk sexual encounter (UNICEF, 2009). Sexual risk behaviors in the present study will be defined as sexual initiation before the age of 15, future intentions to engage in sex in the next six month, multiple partners and unprotected sex.

Early onset of sexual debut is another behavior that puts adolescents at risk of getting HIV. From a review of studies conducted in sub-Saharan Africa, Kaaya et al (2002) argue that the mean age of sexual onset is 16 years, indicating some initiate sex prior to reaching 16 years of age. In addition, their findings show that adolescents that had ever used condoms rangedfrom 10% to 48% and condom useat last sex was between 8% and 60%. Early sexual initiation has been linked with early pregnancy and abortion, it also influences adolescents to engage in sexual risk behaviors such as having multiple sex partners and not using condoms (Ethier et al, 2006). While sexual health knowledge alone does not reduce risk behaviors, it is an important pre-requisite for risk perception and protective actions (Crosby et al, 2001). In a survey using random cluster sampling, it was identified that less than 37% of young men aged 15-19 yearsknew three primary ways of avoiding HIV infection (i.e., abstinence, be faithful and consistent condom use), and 68% of girls aged 15-19 years had at least one major misconception about HIV/AIDS or had never heard of AIDS (UNICEF, Multiple Indicator Cluster Surveys, Measure DHS, 1999-2001).Matthew et al (in press) report that young school-based adolescents in Dar es Salaam initiate sexual intercourse as early as the age of 11 yearsand the prevalence of sexual debut in young persons aged between 11 to 17 years oldwas 16.7%. In this study, intentions to engage in sex was assessed longitudinally and correlated as expected with sexual initiation. There is evidence that having multiple sexual partners increases the chances of a person acquiring HIV (Ethier et al, 2006). A study by Exavery et al (2011) examining 612 adolescents in Tanzania aged10-19 revealed that 42% reported to have multiple sex partners.

Socio-environmental factors and adolescent sexual behavior: Some studies (Boden 2006; Smith, 1997; Spencer et al, 2002; Dixon et al, 2000) have shown associations between adolescents' sexual behaviors and personal characteristics. Adolescents who engage in early sexual activities are more likely to engage in other problem behaviors such as abusing drugs and have poor future school performance (Smith, 1997). Socio-economic status of the family has also been identified as a factor that influences whether or not an adolescent may initiate sex at an early age or delay sexinitiation. Beck (2004) argues that adolescents who are raised in less advantaged families economically are more likely to initiate sex early.

Psychological factors and sexual risk behavior: A number of studiesin the United States and Europehave explored the association between sexual risk behaviors and psychologicalfactors such as self-esteem, stress, depression, self-efficacy and anxiety. Some studies (Ethier et al, 2006; Siegel et al, 2001, Dixon et al. 2000) have shown that the named psychological factors are associated with engagement into sexual risk behaviors, while other studies (Crosby et al 2001; McNair, 1998; Pleck et al, 1990) failed to find such associations. However, most longitudinal studies manage to show that psychological factors are both predecessors and results of SRB (Butler et al, 2003; Spencer et al, 2002; Dixon et al, 2000).

Self-esteem and Sexual Risk Behavior: Looking at self-esteem, Boden (2006) argues that youth with low self-esteem tend to feel they have less worth and have a poor self-image. Studies have shown that individual's views of sex and sexuality are influenced by self-image (Baumeister, 1999; Tesser, 2001). Counter intuitively, this suggests youths with low self-esteem, are more likely to be involved in risky behaviors. This assertion can logically be a result of weaker internal locus of control in youths with lower self esteem (Tesser, 2001), which impedes abilities to evaluate their options and the consequences of their behaviors. The main assertion underlined here, is that youth who have low self-esteem compared to those with higher self-esteem may be more likely to engage themselves into SRB such as having multiple sexual partners, sexual initiation at an early age, using condoms inconsistently and/or incorrectly. A study in United States that explored associations between the number of sexual partners and low self-esteem among adolescents (Boden, 2006) found significant associations for the age interval 15-18 years and insignificant association for older ages (21-25 years). The author notes that mechanisms for this association may not be a direct association, but an indirect one working through other factors such as childhood and family experiences. Youths with low self-esteem can be more easily persuaded by peers to engage in SRB due to the desire to please others (Harrill, 2003).

In a longitudinal study, Spencer et al (2002) followed 188 young adolescents age between 12 to 14 years old in a study that aimed to determine temporality in associationsbetween self-esteem and sexual initiation by gender. Findings showed

that 40% of boys and 31% of girls initiated sex at the end of two-year follow up period. Boys with high compared to low self-esteemwere 2.4 times more likely to initiatesexual intercourse; while girls with low compared to high self-esteem were 3 times more likely to initiate sexual intercourse compared to sexual delay.

When examining psychological factors and SRB in155 adolescent females, Ethier et al (2006) showed that low self-esteem is associated with only some SRBs including having had a risky partner. However, having multiple partners was not significantly associated with self-esteem, although it was associated with more psychological distress. The findings suggest that the mechanisms of the association between low self-esteem and SRB in female adolescent may operate through the influence of self-esteem on choices made about types of sexual partners or ability to negotiate for safer sexual practices. Other studies have found associations between self-esteem and SRB. Davies et al (2003) reports low self-esteem foresees inconsistent condom use among female African American adolescents. Findings of associations between self-esteem and SRB are however not consistent. Kalina et al (2009) found insignificant association between self-esteem and inconsistent condom use in a sample of older adolescents/young adults who were university young adolescents. These findings supported those from other studies (McNair, 1998; Pleck et al, 1990) that were also unable to find significant relationships between self-esteem and inconsistent condom use.

Interventions that improve self-esteem have been reported to decrease SRB. Dixon et al. (2000) used a group intervention to improve self-esteem in pregnant African American adolescents and documented reductions in SRB post-intervening.

Self-efficacy and sexual risk behavior: Perceived self-efficacy is the belief of a person that he/she is able to achieve a particular behavior, if he/she is confident of undertaking the particular behavior (Bandura, 1989). In other words, perception of a person's ability to execute a behavior is an essential indicator of the likelihood of the behavior being carried out.

Self-efficacy is another psychological factor that has shown significant relationships with SRB among adolescent. The main notion is that when an adolescent believes less of their capability to engage in safe sexual practices, they are more likely to

engage in SRB. For example, when adolescent havelowself-efficacy for correct and consistent condom use, they are more likely not to use condom when they engage in sex. Adolescents with high self-efficacy of their ability to avoid risky sexual behaviorsare capable of understanding risk situations and are intrinsically motivated to avoidSRB such as multiple partners and unprotected sex (Holschneider and Alexander, 2003). Sexual initiation at an early age contributes to HIV infection risks; the ability of a young person to perceive that they are capable of preventing themselves from HIV increases the possibility that they will engage in safer sexual behaviors such as abstinence (Tenkorang & Maticka-Tyndale, 2008). In determining predictors of safer sexual behaviors, Kanekar and Sharma (2009) assessed 150 African American college young adolescentsusing self-report scales containing some socio-cognitive theory constructs including self-efficacy. Results of their study showed that self-efficacy is directly associated with safer sex behaviors (delay sex and condom use). This suggests that youth may attempt to engage in safer sex behaviors if they feel that they have the ability to practice such behaviors.

Interventions to reduce SRB have increasingly focused on strategies to improve HIV transmission prevention self-efficacy. For instance, Siegel et al (2001) found an increase in self-efficacy resulted in less sexual behaviors (multiple partners, condom use and sexual initiation) in intervention compared to control group participants after a 10 month follow-up period. Butler et al. (2003), in an intervention for HIV-positive adolescents with hemophilia showed higher self-efficacy significantly increased safer sexual behaviors (consistent condom use, outer-course, or abstinence). However, higher self-efficacy for some safe sexual behavior has not been consistently reported. A study by Crosby et al (2001) among African American females showed no significant relationship between self-efficacy for correct use of condoms and condom application skills. The authors argue that perceived ability to use condom may not relate with the actual skills.

Depression and Sexual risk Behavior: Depression may be either a mood state or when clustered with a number of core symptomsdepictsyndromesof mood disorders (including major depression, dysthymic disorder, and depressive disorder not otherwise specified). The present study will examine depressive symptoms expressed

by children, including loss of energy, feeling worthlessness, guilt, and poor concentration to name a few (APA, 2000). A number of risky behaviors such as drug abuse, suicide and sexual intercourse have been associated with depressive symptomatology (Hallfors et al, 2005; Spriggs et al, 2008).

Welsh et al (2003) found strong associations between psychological factors and early sexual intercourse among young adolescents in America, in a study exploring depression and romantic relationships. Adolescents who reported early sexual intercourse scored higher on depressive symptomatology. The finding suggests that early sexual initiation may be influenced by psychological distress in adolescents. In a similar study, Martin et al (2005) assessed SRB among young urban adolescent girls. Findings of this study showed that young sexually active girls compared to those not sexually active had a greater number of depressive symptoms. These findings are consistent with findings of other studies (Hallfors et al, 2005; Spriggs et al, 2008). However Spriggs et al (2008) only found associations between depression and SRB among females while in males, there was no association between sexual initiation and symptoms of depression.Similarly, Caminis et al (2007) examined 1,368 adolescents on their sexual behavior and associations with psychological factors. While findings showed males initiated sexual intercourse at an earlier age compared to females, they reported insignificant associations between depression and sexual initiation or other SRB. Age differencesin study samples of adolescents may explain some of the inconsistent findings. Findings of a study by Longmore (2004) that assessed associations between depressive symptomatology and sex initiation in older and younger adolescents showed female adolescents aged 13 years were more likely to have an association between depressive symptoms and sexual initiation than those aged 15 and 17 years.

1.2 STATEMENT OF THE PROBLEM

HIV/AIDS is a chronic life threatening disease that has rapidly affected millions of people in the world. The most recent data shows, a total of 3.4 million children below 15 years old in 2010 were reported to be living with HIV globally (UNAIDS, 2011). More than 90% of adolescents living with HIV reside in sub-Saharan Africa. The pandemic continues to disproportionally affect the people of sub-Saharan Africa,

accounting for 68% of the disease burden, albeit only accounting for 12% of the world's population. Tanzania has a population of 40 million; of whom 1.8 million are living with AIDS (TACAIDS, 2008). In Tanzania, heterosexual transmission is the major mode of HIV transmission, new infections continue to occur, and the highest incidence of the epidemic is reported among young people between the ages of 15-24 years (Shisana, 2005). Due to the continuing impact of HIV/AIDS in Tanzania, there is a clear need for more studies to focus on sexual risk factors, particularly psychological risk factors (proximal determinants of SRB), in order to understand the impact of the disease and inform policy and control programs.

Research has shown that the most dramatic of all the developmental events in the life of the adolescent are psychological and cognitive changes, including the increase in sexual desire, highlighted by new and mysterious feelings and thoughts associated with these sexual desires (Greathead, Devenish, & Funnell, 1998). Adolescents' decisions to pursue these desire or not, are influenced by various risk factors which need to be understood in order to be appropriately addressed. Studies on adolescent sexual risk taking behavior have shed some light on influences that put adolescents at risk for their reproductive health. For instance depression been has seen to play a role in influencing adolescents to engage into sexual risk behaviors such as early sexual initiation and multiple partners (Welsh et al, 2003); self-esteem has been implicated in the initiation of sexual acts (Spencer et al, 2002), and risky partner selection and unprotected sex (Ethier et al 2006); and lastly self-efficacy has been shown to influence safer sexual practices (Kanekar and Sharma, 2009). These studies have however, been conducted in high income Western cultural contexts where the psychological constructs may have a different meaning, and it is unclear if findings will translate to a low-income country with a different socio-cultural context such as Tanzania.Similar studies in other sub-Saharan Africa contexts are rare could not be retrieved from the literature.

Wide variations have been noted in self-reported SRBs amongst sub-Saharan African adolescents, and the possibility of culturally driven under-reporting in females and over-reporting in maleadolescents (Kaaya et al, 2002). A recent study shows that intentions to engage in SRBs is closely correlated to initiated acts when assessed

prospectively (Mathews et al, in press), providing a measure perhaps of greater accuracy when collecting self-reported information from young adolescents.

Studies in sub-Saharan Africa have shown associations between sexual risky behaviors and proximal psychosocial influencing factors in adolescents, such as normative values and individual attitudes towards sexual risk and protective behaviors (Kaaya et al, 2002; Swainson, 2000; Nicholas, 1998). However, few studies have explored relationships between psychological factors such as self-esteem and depression on sexual risk behavior like early sexual initiation in adolescent populations of sub-Sahara Africa.

There is a need for studies that provide a better understanding of the associations between SRBs and more complex psychological risk factors, in order to inform the development of more targeted and comprehensive interventions aimed at controlling the spread of HIV infection. There is an added advantage in understanding associations between SRBs and self-efficacy, depression and self-esteem, as intervening early may have longer lasting influence on how a person behaves in the future. This is because intervening can happen prior to full integration of personality and hence have a positive influence in shaping personality in a direction that fosters safer sexual practices. The focus of the proposed study is to better understand the influence of these psychological factors on intentions to engage in sex and initiation of sexual behavior.

1.3 RATIONALE

Most studies and interventions on HIV prevention have examined socio-cognitive andpsychosocialfactors influencing sexual transmission risks and less have systematically determined core psychological factors associated with SRBs. The current study provides more insight on how psychological factors can influence engagement in sexual initiation and future sexual intentions that put adolescents at risk of HIV transmission.

Findings of the current study will provide information on psychological factors (depression, self-efficacy and self-esteem) among young adolescents in a low-income country. Information will also be provided on whether these psychological factors may influence adolescents' intentions to engage in sex and practice of sexual risk behaviors.

The findings will inform a more comprehensive interventions for HIV transmission risk reduction in adolescent populations. Focusing on decreasing psychological risk factors in Tanzania will augment existing strategies to increase awareness of sexual risk behaviors as well as increasing knowledge of HIV/AIDS.

1.4 THEORETICAL FRAMEWORK

Bandura's social cognitive theory (1971) and its underlying constructs will be integrated to answer the research questions. Constructs such as motivation and self-efficacy, have the primary goal of examining behavior and its prediction.

Social Cognitive Theory

In an effort to explain behavior, theorists, like Bandura (1971) developed the social cognitive theory. This theory, "... suggests that behavior, the environment and personal factors all influence each other" in determining behavior (Eggen & Kauchak, 1999). Several underlying constructs are important within this theory.

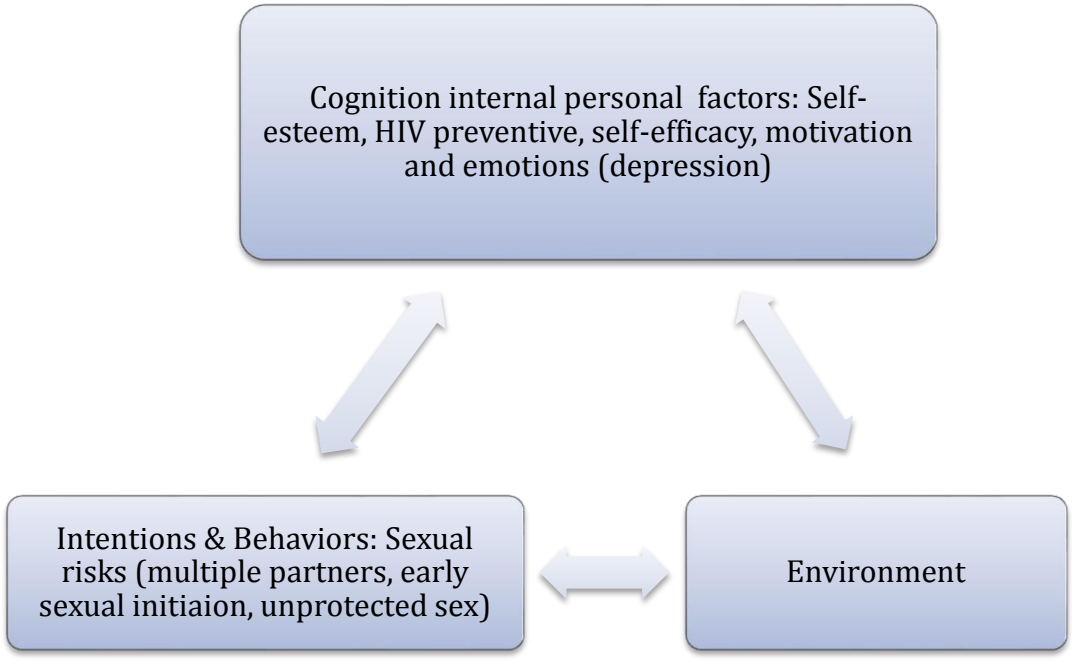
Motivation

From a cognitive theory perspective, motivation is a process that directs an individual's behavior towards completion of a goal. It propels an individual to seek a better understanding of life experiences and fosters a sustained expectation of successful goal achievement. Positive incentives in the form of positive reinforcement support this motivational process (Bandura, 1971). Also, unless an individual perceives a successful outcome, they are less likely to take action. Ultimately, motivation can be intrinsically or extrinsically influenced (Bandura, 1971). Studies have shown a link between depression and motivation (Musty & Kaback, 1995) Therefore the proposed study conceptualize that adolescent with high depressive symptoms may not be motivated to practice safer sexual behaviors.

Self-efficacy

The concept of self-efficacy is an important construct that extended Bandura's theory. "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act" (Bandura, 1995). "Self-efficacy beliefs are based on individuals' expectations that one possesses certain knowledge and skills, as well as the capability to take actions required to overcome problems and to succeed under the stresses and pressures of life (Sutton & Fall, 1995). In other words, a person's perceived self-efficacy is strongly influenced by ones perceived behavioral control (Ajzen, 1991). According to Bandura's theory (Sinclair & O'Boyle, 1999), judgments regarding one's own competence and not just confidence that the behavior can be done successfully are a critical efficacy factor necessary to produce a behavior change.

Figure 1: Conceptual Framework



Source: Adapted from Bandura, A. Social foundations of thought and action: A social cognitive theory, Prentice-Hall, Englewood Cliffs, NJ, 1986.

1.5 Operational definitions

Adolescence: Adolescence is defined as a period of transition from child to adulthood. It includes teenagers (aged 13 to 19 years) and may overlap with youth (aged 15 to 24 years). Literature defines adolescence as the period of time from early adolescence to late adolescence, between the approximate ages of 10 years to 21 years of age (Neinstein et al., 1996); others have defined it as a period between 10 to 19 years (Kiangi 1995) and from 12 or 13 to 19 years of age (Jarvis, 1996). For this study, young adolescence is defined as the period between 12 to 14 years of age.

Self Esteem: One's attitude towards oneself or ones opinion or evaluation of oneself, which may be positive (favorable or high), neutral, or negative (unfavorable or low). Also called self-evaluation.

Depressive symptomatology: State of sadness, gloom, and pessimistic ideation, with loss of interest or pleasure in normally enjoyable activities, accompanied in severe cases by anorexia and consequent weight loss, insomnia (especially middle and terminal insomnia)or hypersomnia, asthenia, feelings of worthlessness or guilt, diminished ability to think or concentrate, or recurrent thoughts of death or suicide. It appears as a symptom of many mental disorders

AIDS: Acquired immune deficiency syndrome, a disorder believed to be caused by HIV retrovirus and transmitted by infectious blood entering the body.

HIV: Human immunodeficiency virus, a retrovirus that is transmitted through sexual contact, infected blood or blood products, and from mother to child via placenta, and breaks down the body's immune system

Preventive HIV/AIDS self-efficacy: Ability to achieve desired results in preventing oneself against HIV/AIDS disease. Perceived self-efficacy includes beliefs about one's ability or competence to bring about intended results with regards to HIV/AIDS prevention.

Personal Factors: Modifying variables that describe specific demographic data (Larouche, 1998). In this study, it includes age, gender, grade (standard), parent's level of education, and religion.

1.6 RESEARCH QUESTIONS

The broad research question of the proposed study is:

- "Do psychological factors (self-esteem, depression and HIV preventive self-efficacy) influence sexual initiation and sexual intentions in school-based young adolescents?"

Specifically:

- "What is the level of self-esteem in school based young adolescents?"
- "What is the prevalence of depressive symptomatology among school based young adolescents?"
- What is the proportion of school based young adolescents with high HIV preventive self-efficacy?
- "Is there an association between self-esteem and sexual initiation and sexual intentions in school-based young adolescents?"
- "Is depressive symptomatology associated with sexual initiation and sexual intentions in school-based young adolescents?" and
- "Is HIV preventive self-efficacy associated with sexual initiation and sexual intentions in school-based young adolescents?"

1.7 STUDY OBJECTIVES

1.7.1 Broad Objective

To assess the levels of psychological factors (self-esteem, depression, self-efficacy) and their association with sexual risk behaviors (sexual initiation and sexual intention) in school-based adolescents aged 12-14 years

1.72 Specific Objectives

1. To determine levels of self esteem amongst school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam
2. To determine the prevalence of depressive symptomatology among school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam
3. To assess the level of HIV preventive self-efficacy among school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam
4. To determine associations between self-esteem and SRB (sexual initiation and future sexual intentions) in school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam
5. To determine associations between depression symptomatology and SRB (sexual initiation and future sexual intentions) in school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam
6. To determine if HIV preventive self-efficacy is associated with SRB (sexual initiation and future sexual intentions) among school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam

CHAPTER TWO

2.0 RESEARCH METHODOLOGY

2.0.1 Study Design

This was a cross section study design nested within a cluster randomized control trial of school aged adolescents in Kinondoni District of Dar es Salaam, city. The study involved adolescents in the intervention naïve control arm of the trial. This design was adequate in providing point estimates of the level of psychological factors and examination of the association between these factors and sexual risk behaviors. The nesting design allowed for the utilization of the already established relationship with district and school authorities as well as logistical issues that proved beneficial in the conduct of this study.

2.0.2 Description of Study Area

The study was conducted in Kinondoni municipal, Dar es Salaam City. The city is bounded by the Indian Ocean on the East and by the Coast Region on the other sides. Dar es Salaam, which is among 27 regions in Tanzania, is the largest city with 3 administrative municipalities namely; Kinondoni, Ilala and Temeke. According to Tanzania Population Census (2002), the city has a total population of 2,487,288 of which 1,254,853 are male and 1,232,435 are female.

Kinondoni is one of the three municipalities of Dar es Salaam with the largest number of habitats at around 1,083,913 (National Bureau of Statistics, 2003). It has both commercial and non-commercial centers therefore giving a heterogeneous exposure of its habitats in both urban and semi-urban environments. The selection of the study site is based on logistical consideration as well as available time and financial constraints. Previous intervention studies in primary schools have been conducted in this municipality by MUHAS, and the author selected to work in 12 schools that represented the control group of this previous study (Aaro et al., 2006; Mkumbo et al 2008)

2.0.3 Study Population

Participants were adolescents in standard 5 and 6 aged 12-14 who had been registered in the school and had agreed to participate in the study. Six schools were randomly selected from a pool of 12 schools that are involved in a large cluster randomized intervention trial in the city. The schools have been randomized as control schools and set for delayed intervention sites of a previous adolescent reproductive health intervention. The school sample was convenient allowing for the author to collect information within the limited time and resources availed for the proposed study. Participants from each of the 6 selected schools who met the study criteria, had an equal chance of being in the study or not.

Inclusion Criteria

All adolescent male and female participants

- Must be registered in a school
- Must be 12-14 years old
- Resident of Dar es Salaam
- Must have assented to participate
- Must have sent an information sheet to parents and parents have not returned rejection of their participation (passive parental consent) or parent agreed
- Must know how to read and write in Swahili.

Exclusion criteria

- Young adolescents not in class on day of data collection
- Young adolescents whose parents did not consent to their participation
- Young adolescents who did no assent to participate

Sample size estimation

The estimated sample size N was computed using the formula below,

$$N = \frac{z^2 pq}{d^2}$$

Where;

N = Estimated Sample Size

Z = is the standard normal deviate, which is 1.96 on using the 95% confidence interval.

P= estimated prevalence of adolescent's sexual initiation beginning age 11 years old is 16.7%

q = (1-P) = proportion of adolescent with multiple partners

d= margin of error= 5%

Therefore;

$$N=\frac{1.96^2 \times 0.167(1-0.167)}{0.05^2}$$

N= 214

Adjusting for non response, we add 10% of the estimated sample size n= 21

Therefore, the minimum estimated Sample Size was about 235

2.0.4 Study Instrument and Measures

A self-administered structured questionnaire was used for data collection and collected information on socio-demographic characteristics and sexual behaviors. Four standardized scales were used to collect measures for depression, self-esteem, HIV preventive self-efficacy and intentions to engage in sexual behaviors in the next six months. These measures are outlined as follows:

Socio-demographic characteristics

Participants' demographic details were recorded. The demographic questionnaire included 22 questions that recorded participant's age, gender and social economic status questions.

Sexual Behaviors Characteristics Sheet

Nine questions were used to collect risk and protective sexual behaviors information. Data on actual practice or intention to practice sexual behavior in the next six months were collected. Explored sexual behaviors were if they have/had a sexual partner, initiated sex (oral, anal or vaginal) and their description of the contexts related to the first time they had sex.

Children Depression Inventory (CDI) (Kovacs, 1992)

The study used the CDI for measuring depressive symptoms. The original 27 items version was used. Each item had 3 choice options that required a child to fill one of the options. The scale has acceptable good face validity and preliminary reliability in the Tanzanian context (Traubel et al, 2010). The scale has five subscales (sub-constructs) including negative mood, interpersonal problems, ineffectiveness, anhedonia and negative self-esteem.

Rosenberg Self-esteem Scale (Rosenberg, 1965)

For measuring self-esteem, the study used the ten items Rosenberg self-esteem scale. The inventory that measures how people feel about themselves assesses two dimensions of self-esteem including a self-enhancing and self-derogation dimension. The scale item responses were coded using a three-point scale from 0 being strongly disagree to 3 being strongly agree.

HIV/AIDS Preventive Self-efficacy Scale

It is a self-developed scale that includes items from a study conducted in school based adolescents in three sub-Saharan African sites including Dar es Salaam that were reported to be reliable measures of HIV preventive self efficacy (Matthews et al in press). The scale examines perceived self-abilities to undertake actions for HIV/AIDS transmission prevention. It comprises four questions that includescondom use self-efficacy, avoidingmultiple sexual partners self-efficacy and sex abstaining self-efficacy. Each item was scored on a three-point scale from 0 being strongly disagree to 3 being strongly agree.

Future Intentions to Engage in Sexual Behaviors

Intentions to engage in sexual behavior in the next six months were assessed using a 4 items scale that is being used by a reproductive health study in Dar es Salaam. Future intention questions included “I intend to have sex in the next six months”, “When I have a steady partner, I intend to stay faithful and not have sex with somebody else”, “I intend to always carry a condom in my pocket during the next six months” and “I intend to use a condom the next time I have sex”. Each item scored on a five-point scale from 1 being definitely yes to 5 being definitely no; direction of

scoring depending on whether the questions indicated higher or lower intentions to engage in risky sexual practices as summarized in Table 1. The scale has shown adequate reliability in the Tanzania context for each of the clusters of high-risk sexual behaviors (Mathews et al in press).

Table 1. Sexual Intentions Scale

	Items	Mean	Range
1	I intend to have sex in the next 6 months	4.12	1-Definetly no - 5-Definetely yes
2	When I have a steady partner, I intend to stay faithful and not have sex with somebody else	3.64	1-Definetely yes - 5-Definetly no
3	I intend to always carry a condom in my pocket during the next 6 months	4.18	1-Definetely yes - 5-Definetly no
4	I intend to use a condom the next time I have sex	3.63	1-Definetely yes - 5-Definetly no

Total sum mean score of 3.9, SD=1.01

Translation of instruments: Scale items were translated from English to Swahili and then later back translated to English. Comparison between the original English questionnaire and the "back translation" was done to ensure the meanings of scale items were retained. All the four scales were included in the main study instrument (see appendix I)

Pre-testing of Study Instrument: A total of 10 adolescents were invited for the pilot of the questionnaire. The pilot assisted in checking whether the questionnaire was understandable to young adolescents and to estimate the time taken to complete it.

*Psychometric properties of scale measures:*To ensure face validity of inherent dimensions of the constructs assessed by the standardized scales in the Dar es Salaam contexts as well as theirinternal consistency certain psychometric tests were conducted.

Separate principal component analyses (PCA) with varimax rotation conducted on 10 items of the Rosenberg self-esteem scale, 27 items of the CDI, four items of the HIV Preventive Self-efficacy Scale and four items on the Future Intention to Engage in Sex Scale. All Kaiser-Meyer-Olkin (KMO) values were above the acceptable limit of 0.5 (Field, 2009). The Rosenberg Self-Esteem scale factored into two components; the dimension that clustered into component 1 suggested a self-derogation subscale (27.41% variance explained) and component 2 suggested a self-enhancing subscale (25.41% variance explained). These dimensions were similar to those conceived by the originators suggesting some adequacy at face validity assessment (Rosenberg, 1965). The HIV Preventive Self-efficacy Scale and Future intention on sex scale produced one component suggesting a single construct and hence was retained (developed from formative work in Dar es Salaam). The CDI did not factor into its original five components (negative mood, interpersonal problems, ineffectiveness, anhedonia and negative self-esteem) suggested by Kovacs (1992). This has been previously observed in a study in Tanzania (Traube et al 2010). However, as all the items were understood by young adolescents during the pilot this scale was retained.

Reliability tests were conducted to ascertain internal consistency of the scales. Reliability test allows checking how internally consistent the items on each of the scales were (Field, 2009, p.673). In measuring the reliability of scales used in this study, Chronbach's alpha estimates were computed. Kline (1999) argues that values of 0.8 and above are appropriate for cognitive tests and those below 0.7 can be expected for psychological constructs. The Rosenberg Self-Esteem Scale, Child Depression Inventory (CDI) and HIV Preventive Self-efficacy Scales had high reliability, with Chronbach's alpha estimates of 0.80, 0.85 and 0.81 respectively (see Table 2). The Future Intention to Engage in Sex Scale had a Chronbach's alpha estimates of 0.68, and was also acceptable. In each scale, there were no items that would have increased the reliability if deleted.

Table 2. Internal reliability of scales

Scale and (item sum score range)	N of cases	N of items	α
Rosenberg Self-Esteem Scale (0-30)	231	10	.802
Child Depression Inventory (0-54)	202	27	.846
HIV Preventive Self-efficacy Scale (0-12)	242	4	.811
Future Intention on Sex Scale (1-25)	250	4	.680

Scale distributions: Tests for normality for all the three scales showed that they're distributions were not normal. Mean sum scores of each scale was examined, Rosenberg self-esteem scale was 13.97 (SD=6.70), CDI had mean score of 13.40 (SD= 8.38) and mean of HIV preventive self-efficacy was 5.85 (SD=3.70) Equal categories using tertlies were computed for further analyses, to represent low, moderate and high scores for each scale which gave an opportunity to show dose effect relationships. Moreover, on the current study, outliers were examined. A systematic examination of variables revealed no significant outliers in the sample.

2.0.5 Recruiting and Training of Research Assistants

The study recruited and trained three research assistants for two days. Their main tasks were to ensure confidentiality at all times of the study, and facilitate the process of data collection and data entry. The research assistants were trained on the objective of the study, details of the data collection tool (questionnaire) and ethical issues.

2.0.6 Sampling and Study Procedures

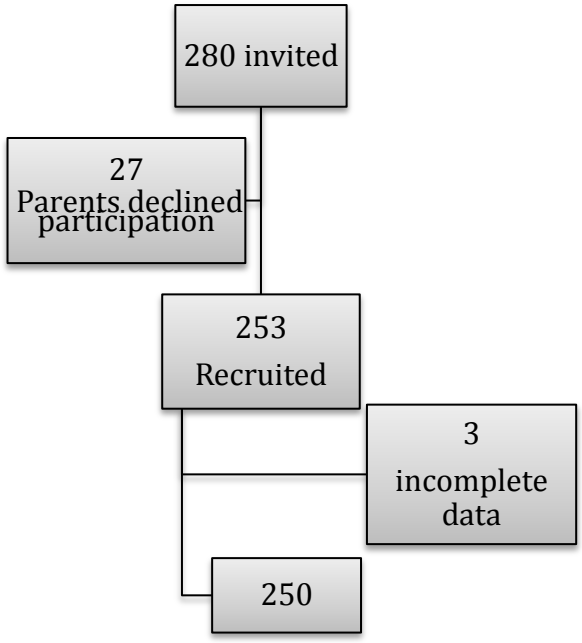
The sampling procedure was a multistage random cluster sampling procedure that was implemented as follows: a sampling frame/list of names of 12 government primary schools involved as control schools during the SATZ study (Leif et al 2006; SATZ study internal documents, Dar es Salaam site) (clusters) in Kinondoni municipal was obtained.From the sampling frame, simple random sampling was used to select six primary schools.At the school level, all eligible participants were invited to participate into the study.

Participant assent and consenting procedures: Information about the study accompanied with an ethical clearance certificate was submitted to the Municipal Educational Officer and head teachers of each of the selected primary schools. All six invited school accepted to join the study andyoung adolescents were given the study's information letter and consent form to give to their parents.A date for collecting consents forms from parents was set.

Data collection procedures: All young adolescents whose parents had not declined their study participation and who had assented having been informed about the objectives of the study, its risks, benefits and measures to ensure anonymity, were recruited as participants. A study eligibility form was used to ensure eligibility criteria were met and included indications of age, sex and objective assessment of literacy. The latter involved being able to read a short story and to write a short comment regarding the read passage. Eligible young adolescents were enrolled and given a unique identifying number on a slip of paper in an open envelope. They then returned the slip of paper to the envelope; sealed it, printed their names on the envelope and returned it to the recruiting research assistant.

On the scheduled data collection day, research assistants called out names of all young adolescents from the sealed envelopes on which they had printed their names. Young adolescents were required to transcribe these numbers onto the study questionnaire prior to filling it. After the completion of the questionnaire, questionnaires were collected and young adolescents retained the envelopes with their names. This procedure allowed young adolescents to confirm anonymity of their responses.

Figure 2. Recruitment of participants



2.1 Ethical Issues and Research Clearance

Ethical clearance was requested and received from the University Senate Research and Publications Committee. As the study involved minors, careful consideration was given to ethical issues. The study sought permission from the Kinondoni Municipal Director, the Municipal Education Officer and Head teachers.Parental passive consent was also sought meaning information was sent to parents through their children requiring their response only if they did not want their child to participate. Young adolescents were required to assent to participation in the study after being informed about the objectives of the study, and potential risks and benefits of their participation.

All participation was voluntary, meaning participants had autonomy to participate or not without any consequences related to their schooling. They were also advised to respond to questions according to their own comfort level. All participants were informed prior to participating in data collection that they had the right to withdraw from the study at any time or refuse to answer any questions.

The confidentiality of all participants enrolled in this study was protected to the fullest extent possible.Study participants were not identified by name on any questionnaires. All study records were kept in a locked room with limited access.All computerized data identified participants with coded identification numbers only. Participants were not reported by name in any report or publication resulting from this study. At the end of the study, the log that links names to study was destroyed. Furthermore, confidentiality was ensured through careful collection and handling of data. In writing up findings of the study, no mention is made of the schools involved in order to protect confidentiality.

Consenting process: Participant assent was written and was done in a setting where confidentiality was ensured. A passive parental consent approach involved a parent information letter that had important information such as the purpose of the study, procedures, risks, benefits, contact information for questions, and an explanation of the voluntary nature of the study (See Appendix III). All assenting young adolescents were given the information sheet to give to their parents.

2.2 Data Management

All data obtained was stored by in the principal investigator's office in a secure environment with limited access.A data entry file was created and data entry was done using SPSS version 18. Data was doubly entered and quality control checksdone whereby cross frequency of two entrants files after every 50 entries.

2.3 Data Analysis

Principal component analysis was done to check for scale properties and Chronbach's alpha was used to examine the internal consistency of the scales. The developed scales were categorized based on theoretically and practically meaningful cut-off points.For allcategorical variables, comparison of proportions were examined using $\chi 2$ test (Chi-square test) for differences in proportions. Continuous variables were summarized into means and differences between means examined using t-test. To examine for independent association between the psychological factors, other predictors and sexual risk behaviors, stepwise logistic regressionmodels were built.

Odds ratios and 95% confidence intervals are reported. All the analyses were two tailed and significance level was set at 0.05.

Research Question 1: "What is the level of self-esteem in school based young adolescents?" To determine prevalence of self-esteem among adolescents involved computation of sum of the10 items of Rosenberg Self-esteem Scale. Equal categories using tertlies were computed for further analyses, to represent low self-esteem (11 and below), moderate self-esteem (11 to 16) and high self-esteem (17 and above). Frequencies were run to obtain proportions (levels) of different categories of self-esteem among school based young adolescents.

Research Question 2 and 3:"What is the prevalence of depressive symptomatology and HIV preventive self-efficacy among school based young adolescents?" Sum of depressive symptomatology and HIV preventive self-efficacy were computed and tertile was constructed. For depressive symptomatology, a tertile below 9 was reported as low, between 9 and 15 was reported moderate while tertile above 16 was reported high. For the case of HIV preventive self-efficacy: low was reported to be a tertile below 4, a tertile between 4 and 7 was reported moderate and high preventive self-efficacy was a tertile of 8 and above. Frequencies were run to determine the prevalence of depressive symptomatology and the proportion of adolescents in different categories of HIV preventive self-efficacy.

Research Question 4, 5 and 6, "Is there an association between self-esteem and sexual initiation and sexual intentions in school-based young adolescents?", "Is depressive symptomatology associated with sexual initiation and sexual intentions in school-based young adolescents?" and "Is HIV preventive self-efficacy associated with sexual initiation and sexual intentions in school-based young adolescents? "To address these research questions, bivariate and multivariate analyses of the association between the three psychological factors and sexual risk behaviors (sexual intention and sexual initiation) were done. Logistics regression models were used for the dichotomizedsexual initiation variable and multinomial regression for future intentions dependent variable.

CHAPTER THREE

3.0 RESULTS

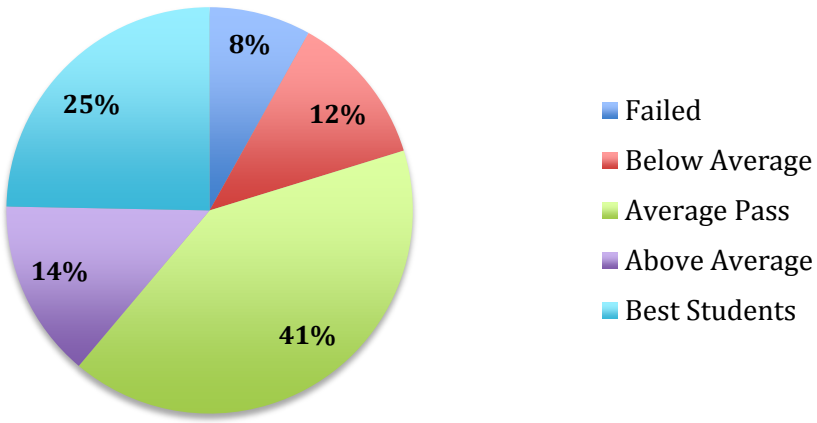
3.1 Descriptive Statistic

3.1.1 Description of the study population

A total of 280 adolescents were eligible for participation in the study and 253 (90.3%) of parents/guardians consented. Data from 250 (99%) of 253 participants who completed the study questionnaire were complete and used in this analysis (Figure 2). Male adolescents constituted 51.2% (128) of all participants. The mean age (SD) of the participants was 12.6 years (0.7). Males were significantly older than females (12.7 (0.8) years versus 12.4 (0.6) years ($p = 0.0006$).

Table 3 presents the distribution of socio-demographic, psychosocial and behavioral characteristics by gender. A large proportion of female adolescents were younger (aged 12 years) as compared to male (62.5% versus 46.8%) ($p<0.001$). Distribution of religious affiliation and grades did not differ by sex. While a significantly large proportion of adolescent male reported their mothers to have no formal education, females adolescent tended to report their mothers to have completed primary education ($p<0.05$). A total of 25 (10.4%) of the participants reported to have repeated a class with the proportion of male adolescents (132%) being larger than that of female adolescent (7.6%), however, this difference was not statistically significant.

Figure 3. Distribution of performance on last exam



On their last final exam 20 (8%) of the study participants responded a failure score, 30 (12%) reported scores less that average. Majority of participants (n = 101, 41%) stated to have passed on average on their last final exam, those who reported to have passed above average and to be among the best young adolescents in the class were 35 (14%) and 61 (25%) respectively.

Table 3. Distribution of socio-demographic, psychosocial and behavioral characteristics by gender

	Gender		Total (%)
	Male N= 128 (%)	Female N= 121 (%)	[1]N= 250
Age[2]			
12	59 (46.8)	75 (62.5)	134 (54.5)
13	38 (30.2)	37 (30.8)	75 (30.5)
14	29 (23.0)	8 (6.7)	37 (17.0)
Religion			
Muslim	68 (54.0)	59 (49.2)	127 (51.6)
Christian	58 (46.0)	61 (50.8)	119 (48.4)
Grade			
Standard 5	42 (33.6)	35 (29.2)	77 (31.4)
Standard 6	83 (66.4)	85 (70.8)	168 (68.6)
Education level of Mother[3]			
Don't Know	22 (17.3)	14 (11.7)	36 (14.4)
University Education	9 (7.1)	21 (17.5)	30 (12.0)
Secondary Education	12 (9.4)	10 (8.3)	22 (8.8)
Primary Education	38 (29.9)	43 (35.8)	81 (32.4)
No formal Education	46 (36.2)	32 (26.7)	78 (14.4)
Repeated class			
No	105 (86.8)	110 (92.4)	216 (89.6)
Yes	16 (13.2)	9 (7.6)	25 (10.4)
Self-esteem			
High	42 (33.3)	46 (38.0)	89 (35.6)
Middle	45 (35.7)	43 (35.5)	88 (35.2)
Low	39 (31.0)	32 (26.4)	71 (28.4)
HIV Preventive Self-efficacy			
High	41 (32.8)	48 (40.3)	89 (36.5)
Middle	43 (34.4)	43 (36.1)	86 (35.2)
Low	41 (32.8)	28 (23.5)	69 (28.3)
Depression			
High	52 (41.6)	34 (28.6)	86 (35.2)
Moderate	38 (30.4)	39 (32.8)	77 (31.6)
Low	35 (28.0)	46 (38.7)	81 (33.2)

	Gender		Total (%)
	Male N= 128 (%)	Female N= 121 (%)	[1]N= 250
Sexual Initiation			
Yes	45 (36.6)	44 (37.3)	89 (35.6)
No	78 (63.4)	74 (62.7)	152 (63.1)
Future Sexual Intentions			
Low	43 (33.6)	39 (32.2)	82 (32.9)
Moderate	43 (33.6)	40 (33.1)	83 (33.3)
High	42 (32.8)	42 (34.7)	85 (33.8)

[1] All variable totals <250 are due to missing responses
[2] $p<0.001$
[3] $p\leq0.05$

3.1.2 Description of psychological factors

The overall self-esteem mean score of adolescents was 13.97 (SD = 13.97).The mean score for female adolescents was higher 14.21 (6.28) compared to male 13.68 (7.10). Depressive symptomatology showed an overall mean score of 13.39 (SD= 8.40), male had higher means score of 15.07 (9.08) compared to female 11.63 (7.25). The overall mean score of HIV preventive self-efficacy among young adolescents was 5.84 (SD = 3.71) (see Table 4)

Scales were summarized as tertilies and distribution of self-esteem, depressive symptomatology and HIV self-efficacy by sex across these tertilies did not vary significantly. The proportion of adolescents with high self-esteem was found to be 35.6% (89) with almost similar proportion having low self-esteem. Distribution of the level of self-esteem in this population did not differ by sex. A little more than a third 36.5% (89) of participating adolescents had high HIV self-efficacy and theproportion was relatively high for females (40.3%) as compared to male respondents (32.8%). This difference did not attain statistical significance at 5% level. For depression symptomatology score, the overall proportion of adolescents who had high depression symptomatology score was found to be 35.2%. The proportion of male with high depression score were relatively higher than that of female adolescents with a borderline statistical significance (41.6% versus 30.4%, p=0.077) (Table 3).

Table 4. Mean distribution of psychological and behavioral characteristics by gender

		Overall	Gender	
			Male [1]N = 128	Female [1]N = 121
	[1]N	Mean (SD)	Mean (SD)	Mean (SD)
Self-esteem	247	13.97 (6.7)	13.68 (7.10)	14.21 (6.28)
Depression	244	13.39 (8.40)	15.07 (9.08)	11.63 (7.25)
HIV Preventive Self-efficacy	244	5.84 (3.71)	5.37 (3.71)	6.34 (3.65)
Future Sexual Intentions	249	3.92 (1.01)	3.89 (1.04)	3.96 (0.98)

[1] All variable totals <250 are due to missing responses

3.1.3 Description of sexual behaviors

With respect to sexual behavior characteristics of participants, 181 (72.4%) reported to currently having a boyfriend or girlfriend. As seen in Table 3, the proportion reporting sexual initiation was 35.6% (n=89). The proportion of adolescent reporting sexual initiation was comparable for males (36.6%) and females (37.3%) The context of first sexual encounters was explored among sexually initiated participants; 40 (44.9%) reported to have been self-motivated to have sex the first time, 28 (31.5%) were persuaded to engage into sex, five (5.6%) were tricked, 12 (13.5%) participants reported their first sexual encounter to have been forced (reluctantly coerced) while two (2.2%) were raped the first time they had sex. When participants were asked about their intention to have sex in the future (next six months), 85 (33.8%) reported to have high intentions to engage in sexual activity with almost a third reporting low intention. The intention to engage in sexual activity in the future did not differ by sex. Overallmean score was 3.92 (SD = 1.01).

3.2 Bivariate analyses

3.2.1 Factors associated with sexual initiation

There were not any significant associations between social demographic factors of participants (Age, sex, religion, grade, education level of mother and pocket money) and sexual initiation. Furthermore, repeating class due to failing and performance in the last examination had no significant relationship with whether the participants had initiated or not initiated sex (p=0.2) and (p=0.38) respectively. There was a significant association between levels of depression and sexual initiation (p<0.001).

There was no significant association between level of self-esteem and sexual initiation (p=0.93). Furthermore, there was no significant relationship between HIV self-efficacy and sexual initiation (p=0.80) (Table 5).

Table 5. Bivariate analysis of predictors of Sexual Initiation among young adolescents Aged 12-14 in Dar es salaam, Tanzania

	Sexual Initiation		Total[1]N=250	Chi - square	P-Value
	Not Initiated n= 152 (%)	Initiated n= 89 (%)			
Sex				0.01	0.91
Male	78 (63.4)	45 (36.6)	123		
Female	74 (62.7)	44 (37.3)	118		
Age				3.08	0.22
12	76 (58.0)	55 (42.0)	131		
13	51 (69.9)	22 (30.1)	73		
14	24 (66.7)	12 (33.3)	36		
Religion				0.06	0.81
Muslim	78 (63.9)	44 (36.1)	122		
Christian	73 (62.4)	44 (37.6)	117		
Grade				0.46	0.50
Standard 5	44(60.3)	29 (39.7)	73		
Standard 6	107 (64.8)	58 (35.2)	165		
Mother's Education				5.37	0.25
Don't Know	18 (11.8)	17 (19.3)	35		
University Education	20 (13.2)	9 (10.2)	29		
Secondary Education	12 (7.9)	9 (10.2)	21		
Primary Education	55 (36.2)	22 (25.0)	77		
Not formal Education	47 (30.9)	31 (35.2)	78		
Repeated class				1.65	0.20
No	136 (65.1)	73 (34.9)	209		
Yes	13 (52.0)	12 (48.0)	25		
Self-esteem				0.15	0.93
High	53 (63.1)	31 (36.9)	84		
Middle	57 (64.8)	31 (35.2)	88		
Low	42 (61.8)	26 (38.2)	68		
HIV Preventive Self-efficacy				0.46	0.80
High	54 (61.4)	34 (38.6)	88		
Middle	53 (63.9)	30 (36.1)	83		
Low	44(66.7)	22 (33.3)	66		
Depression[2]				20.04	0.00
High	36 (45.0)	44 (55.0)	80		
Middle	51 (66.2)	26 (33.8)	77		
Low	63 (78.8)	17 (21.3)	80		

[1] All variable totals <250 are due to missing responses

[2] $p<0.05$

3.2.2 Factors associated with intentions to engage in sexual behaviors

As evident in Table 6, there was a significant association between levels of self-esteem and sexual intentions (p=0.008). A significant relationship was also seen between HIV preventive self-efficacy and sexual intentions (p=0.012). With regards to levels of depression, there was no any significant relationship with intentions to engage in sexual behaviors. There were no significant associations between social demographic characteristics (sex, age, religion, grade, education level of mother and school repetition) and future sexual intentions.

However, as summarized in Table 6, the majority of 14 years old participants reported high future intentions to engage in sexual behaviors (n=15, 40.5%). Amongst class repeaters (n= 25), 12 (48%) scored high intentions to engage in sexual behaviors compared to moderate (n=4. 24%) and low intentions (n=7, 28%). These variations were however not significant.

Table 6: Bivariate analysis of predictors of Sexual intention in the next six month among young adolescents aged 12-14 in Dar es Salaam, Tanzania

	Sexual Intentions			Total	Chi	P-
	Low n = 82 (%)	Moderate n = 83 (%)	High n= 85 (%)	[1]N = 250	square	Value
Sex					0.12	0.95
Male	43 (33.6)	43 (33.6)	42 (32.8)	128		
Female	39 (32.2)	40 (33.1)	42 (34.7)	121		
Age					2.01	0.73
12	45 (33.3)	45 (33.3)	45(33.3)	135		
13	23 (30.7)	28 (37.3)	24 (32.0)	75		
14	12 (35.1)	9 (24.3)	15 (40.5)	37		
Religion					2.55	0.28
Muslim	47 (37.0)	39 (30.7)	41 (32.3)	127		
Christian	33 (27.5)	43 (35.8)	44 (36.7)	120		
Grade					0.47	0.79
Standard 5	27 (35.1)	26 (33.8)	24 (31.2)	77		
Standard 6	54 (32.0)	55 (32.5)	60 (35.5)	169		
Mother's Education					2.78	0.99
Don't Know	12 (33.3)	12 (33.3)	12 (33.3)	36		
University Education	9 (30.0)	9 (30.0)	12 (40.0)	30		
Secondary Education	6 (27.3)	9 (40.9)	7 (31.8)	22		
Primary Education	25 (30.9)	27 (33.3)	29 (35.8)	81		
No formal Education	11 (30.6)	14 (38.9)	11 (30.6)	36		
Not Educated	17 (39.5)	12 (27.9)	14 (32.6)	43		
Repeated class					2.53	0.28
No	71 (32.9)	75 (34.7)	70 (32.4)	216		
Yes	7 (28.0)	6 (24.0)	12 (48.0)	25		
Self-esteem[2]					13.85	0.008
High	34 (38.2)	34 (38.2)	21 (23.6)	89		
Middle	31 (35.2)	29 (33.0)	28 (31.8)	88		
Low	15 (21.1)	20 (28.2)	36 (50.7)	71		
HIV Preventive Self-efficacy[2]					12.87	0.012
High	35 (38.9)	35 (38.9)	20 (22.2)	90		
Moderate	27 (31.4)	29 (33.7)	30 (34.9)	86		
Low	16 (23.2)	19 (27.5)	34 (49.3)	69		
Depression					1.47	0.83
High	27 (31.4)	29 (33.7)	30 (34.9)	86		
Middle	29 (37.2)	26 (33.3)	23 (29.5)	78		
Low	24 (29.6)	27 (33.3)	30 (37.0)	81		

[1] All variable totals <250 are due to missing responses

[2] $p<0.05$

3.3 Multivariate analyses

3.3.1 Factors associating with sexual initiation

Forward logistic regression analysis provided the optimal model for determining which socio-demographic and psychological factors best predict likelihood of sexual initiation among young adolescent. Symptoms of depression were the only factor found to significantly predict the chance of adolescent to initiate sex in the current study. Adolescents who had high depressive scores were 3.6 times more likely to have initiated sexual activity as compared to those with low depressive score (OR, 3.62, 95% CI: 2.22-9.06)

Table 7. Logistic regression of independent predictors of sexual initiation among adolescentsaged 12-14 in Dar es Salaam, Tanzania

	[1]N=250 (%)	Sexual Initiation		
		OR (95%CI)	[3]AOR 95% CI	P-Value
Age				
12	135 (54.0)	1.45 (0.67-3.14)	2.22 (0.89-5.53)	0.09
13	75 (30.0)	0.86 (0.37-2.03)	1.27 (0.48-3.33)	0.63
14	37 (14.8)	1.00	1.00	---
Gender				
Male	128 (51.2)	0.97 (05.8-1.64)	0.90 (0.50-1.62)	0.72
Female	121 (48.4)	1.00	1.00	---
Self-esteem				
High	31 (36.9)	1.00	1.00	---
Moderate	31 (35.2)	0.93 (0.50-1.73)	1.06 (0.50-1.73)	0.82
Low	26 (38.2)	1.06 (0.55-2.05)	1.42 (0.55-2.05)	0.87
HIV preventive self-efficacy				
High	34 (38.6)	1.00	1.00	---
Moderate	30 (36.1)	0.90 (0.48-1.67)	0.72 (0.35-1.49)	0.73
Low	22 (33.3)	0.80 (0.41-1.55)	0.56 (0.30-1.34)	0.50
Depression				
High	44 (55.0)	4.20 (0.22-0.80)	3.62 (2.22-9.06)	0.001
Moderate	26 (33.8)	2.20 (0.11-0.44)	1.90 (0.93-3.86)	0.081
Low[2]	17 (21.3)	1.00	1.00	---

[1]All variable totals <250 are due to missing responses
[2] $p<0.05$
[3] Adjusted for all variables in the table

The age of participants did not significantly predict whether one would initiate sex or not. However, young adolescents aged 12 were two times more likely to initiate sex compared to those aged 14 years. Adolescent's gender, self-esteem or HIV preventive self-efficacy did not significantly predict sexual initiation. (See Table 7)

3.3.2 Factors associated with intentions to engage in sexual behaviors

Multinomial analysis was conducted in examining predictors of future intentions to engage in sexual behaviors among primary school young adolescents. There was no significant relationship between social demographic factors and intentions. In other words, neither did age or gender significantly predict whether a learner would have moderate intention risks or high risks intentions compared to those with low risks intentions. However, on the case of gender, the odds of high risks sexual intentions compare to low risks sexual intentions is 0.90 (Table 8).

With regards to psychological factors, as shown in Table 6, adolescents with low self-esteem were two and a half times more likely to have high risky sexual intentions compare to those with high self esteem (OR, 2.62 95%CI: 1.00-6.92). Low HIV preventive self-efficacy was associated with almost three times the odds of high risky sexual intentions compared to adolescents with high HIV perceived self-efficacy(OR, 2.72, 95%CI: 1.03-7.32). Current depressive symptomatology did not significantly predict responses to future sexual intentions amongst young adolescents.

Table 8. Logistic regression of independent predictors of Sexual Intention within next six month among young adolescents aged 12-14 in Dar esSalaam,Tanzania

		Intention to engage in sex					
		Moderate Intentions			High Intentions		
	[1]N	OR (95% CI)	[3]AOR (95% CI)	P-value	OR (95% CI)	[3]AOR (95% CI)	P-value
Age	247	0.92 (0.60-1.41)	0.91 (0.58-1.43)	0.68	1.07 (0.71-1.62)	0.97 (0.61-1.54)	0.89
Gender							
Male	128	0.98 (0.53-1.80)	1.09 (0.57-2.08)	0.81	0.91 (0.49-1.67)	0.90 (0.48-1.85)	0.86
Female	121	1.00	1.00	----	1.00	1.00	----
Self-esteem							
High	89	1.00	1.00	----	1.00	1.00	----
Moderate	88	0.94 (0.47-1.87)	0.92 (0.44-1.91)	0.82	1.46 (0.69-3.09)	1.31 (0.59-2.92)	0.51
Low[2]	71	1.33 (0.59-3.03)	1.35 (0.51-3.57)	0.55	3.89 (1.73-8.75)	2.62 (1.00-6.92)	0.04
HIV Preventive Self-efficacy							
High	88	1.00	1.00	----	1.00	1.00	----
Moderate	83	1.07 (0.53-2.17)	1.07 (0.53-2.17)	0.84	1.94 (0.91-4.14)	1.78 (0.76-4.06)	0.19
Low[2]	66	1.19 (0.53-2.68)	1.02 (0.39-2.71)	0.96	3.72 (1.66-8.35)	2.72 (1.03-7.32)	0.04
Depression							
High	86	1.05 (0.49-2.24)	1.19 (0.53-2.68)	0.68	1.13 (0.53-2.38)	1.80 (0.78-4.14)	0.63
Moderate	78	0.84 (0.40-1.76)	0.87 (0.41-1.89)	0.76	0.71 (0.32-1.52)	0.82 (0.36-1.84)	0.17
Low	81	1.00	1.00	----	1.00	1.00	----

[1]All variable totals <250 are due to missing responses
[2] $p<0.05$
[3] Adjusted for all variables in the table

CHAPTER FOUR

4.0 DISCUSSION

The broad objective of this study was to assess associations between psychological factors and sexual risk behaviors among school-based adolescents aged 12-14 years. Specifically, the current study examined the effect of depressive symptomatology, HIV preventive self-efficacy and self-esteem on adolescents sexual initiation or sexual intentions. The discussion will include findings of univariate descriptive statistics, bivariate and multivariate analysis based on the specific research questions of the study.

Findings of this study revealed the prevalence of sexual initiation among adolescents to be 35.6%. The proportion was relatively higher compared with prevalence of other studies on adolescents in Dar es Salaam. Matthew et al, (in press)found a prevalence of 16.7% among adolescents aged 11 to 17 years old in Dar es Salaam while a similar study in Dar es Salaam by Exavery et al, (2011) reported a prevalence of 23.4%. The comparison suggests an increase of proportion of sexual initiation among adolescents over time. Furthermore, there was no significant difference between the prevalence of male and female young adolescents in this study, which was inconsistent with other studies (Zenilman, 2005; Alan Guttmacher Institute, 1999; Spencer et al 2002) that found male adolescents to report higher rates of sexual initiation compare to female adolescents. A third of adolescents in this study also expressed a high risky intention to engage in sex behaviors within the coming six months. The proportion was relatively lower compared with prevalence of 46.8% of condom use future intentions among primary school adolescents in Arusha, Tanzania (Masatu et al, 2003)

The first research question of the study states, “What are the levels of self- esteem amongst school-based young adolescents aged 12-14 years in Kinondoni, Dar es Salaam?” Findings of the current study showed one third of the young adolescents to have scored high in the self-esteem scale. Results on high self-esteem are similar to that of Kalina et al (2009) in a study examining psychological and behavioral factors

associated with sexual risk behavior among Slovak adolescents and theyfound a proportion of 25%

In answering the second research question of the study, results of the current study showed that 34.4% of the adolescents to have high depressive symptomatology and 31.2% have moderate depressive symptomatology,with an overall mean score of 13.39 (SD = 8.40) with no gender difference. This suggests that there are a number of young adolescents who are distressed and their ability of self-regulating emotions may have diminished (Raffaelli and Crockett, 2003). Findings of the current study differ from other reports were female adolescents were more likely to present with depression than their male counterparts (Rimpela & Laippala, 2003; Kalina et al 2009).Additionally, results of the current study showed that young adolescents who reported to have high depressive symptoms were 55%, this figure is higher compared to 25.3 % found by Johnson et al (2003) when examining sexual activity and depression of female adolescents.

Results of the present study show that 36% of young adolescents scoredhigh HIV preventive self-efficacy while almost similar proportion scored low self-efficacy, with an overall mean score of 5.84 (SD = 3.71). Findings by Lawrance et al (1990) on self-efficacy related to performing AIDS prevention behaviors among pregnant adolescents in America to be one third.

Self-efficacy was not found to be associated with sexual initiation. Finding of the fourth research question was consistent with those from results of previous studies (McNair, 1998; Pleck et al, 1990; Kalina et al, 2009) that found no significant association between self-esteem and sexual initiation. However, the findings differ from other studies (Davies et al 2003; Longmore, 2004; Spencer et al 2002.) that found a significant association between self-esteem and sexual initiation.

On the other hand, this study found an association between sexual intentions and self-esteem. Young adolescents with low self-esteem compared to those with high self-esteem were more likely to have high future sexual intentions than to have low risk sexual intentions.Young adolescents with low self-esteem expressedtheir

intention to engage into highsexual risks intentions in the future compared tothose with high self-esteem and that could be due to negative self concepts such as a feeling less worthy and having poor self-image, aspects that can influence perceptions of self-risk and their views on engaging in sex (Boden, 2006; Baumeister, 1999; Tesser, 2001). However, other studies such as that by Tashakkori and Thompson (1992) did not find any significant association between self-esteem and future intentions in taking precautions against AIDS among adolescents. These observed inconsistencies in findings might in part be related to a lack of stability of self-esteem measures over time in adolescents.

Berk (2004) argues that self-esteem is the evaluation of the self-concept and fluctuates during adolescence. Ever had sex was assessed for sexual initiation and intention to engage in both safe and more risky sexual practices in the next six months was evaluated for future intention. As self-esteem lacks stability over time, this may suggest that when an adolescent was initiating sex he/she had a different level of self-esteem compared to when they were reporting. However their level of self-esteem during the time they are reporting maybe associated with future perceived intentions. Hence, the results of the present study on self-esteem show inconsistent finding between sexual initiation and sexual intentions.

The fifth research question of the present study asks if depressive symptomatology is associated with sexual initiation and sexual intentions in school-based young adolescents.Results showed a significant association between depressive symptomatology and sexual initiation. The findings predicted that young adolescents with high symptoms of depression were approximately three and a half times more likely to have initiated sex compared to those with low depressive symptomatology. The findings of the present study confirm previous research findings. Kaltiala-Heino et al (2003) that examined depressive symptomatology and sexual risk behaviors of 22236 adolescents in Finland and found a significant relationship between depression and sexual initiation. In similar cross-sectional studies, findings demonstrate a consistent strong association between depressive symptomatology and early sexual initiation (Martin et al, 2005; Welsh et al, 2003; Whitbeck et al, 1992). Odds of a depressed adolescent initiating sex is slightly higher in this study compared to the

findings reported by Johnson et al (2003) that found female adolescents who are depressed are three times more likely to be sexually active than not to be sexually active.

Symptoms of depression, however, did not, predict whether young adolescents intended to engage in less safe sexual behaviors in the future. These findings were, similar to results of Raffaelli and Crockett (2003) who found no correlation between distress and perceived future sexual activities.

The last research question was to identify whether HIV preventive self-efficacy associated with sexual initiation. Findings showed insignificant variations between levels of HIV preventive self-efficacy and sexual initiation. The present study was able to show significant association between sexual intentions and HIV preventive self-efficacy. Results showed that young adolescents with low HIV preventive self-efficacy were almost three times more likely to express intention for future practice of risky sexual behaviors as compared to young adolescents with high HIV preventive self-efficacy. The results are consistent with findings reported by Tesser (2001) that showed significant relationships between sexual self-efficacy and intended sexual behaviors. Therefore, findings suggest that young adolescents who perceive they are more capable ofpreventing themselves from HIV are less likely to intend not to engage in future sexual risky behaviors. However, intentions to avoid sexual risk behavior may not suggest the actual behaviors unless perceived self-efficacy is attended with actual protective skills needed for abstinence and avoiding other SRB (Crosby et al, 2001). The lack of associations between HIV preventive self-efficacy and sexual initiation but presence of associations with future intentions to engage in sex may suggest young adolescents who have not initiated sex are over-estimating their HIV protective skills; or that initiation of sex may result in changing ones estimation of their self efficacy. The cross-section nature of this study makes it difficult to tease our causal relationships between HIV preventive self-efficacy, intentions to engage in sexual behaviour and sexual initiation.

4.2 Study Limitations

The current study had a number of limitations, some were identified during the proposal development and specific measures to adjust were taken. The first study's limitation is the way the question to capture sexual initiation was phrased. Ever had sex was the method used to assess sexual initiation and intention to engage in both safe and more risky sexual practices in the next six months was the method used to assess future intention. It may not capture the emotional state of the adolescent at the time of sexual initiation and the associated psychological feeling will be filtered through current emotion state. It might have affected the association, due to the fact that psychological emotional states fluctuate with time especially among adolescents.

Approximately 10% of parents/guardian did not give consent for their children to participate in this study and this could be due to the fact that the study explored sexual behaviors. Future study should consider the possibility of teachers communicating and educating parents on the study and its importance prior to sending the information letter and consent forms.

Ability to read and write was one of the inclusion criteria, this eliminated the pool of adolescents who may have been engaging into sexual risk behaviors, having depression, low self-esteem and hence may affect their performance in school. It is also likely that this group of adolescents may have had higher rates of problem behaviors and psychological concerns that made then unable to effectively attend classes and learn how to read and write.

Furthermore, self-reporting onsensitive sexual related behaviors may have resulted in a desirability bias. Some of the young adolescents may have felt the need to respond in a socially desirable way because sex is culturally prohibited at that young age. However, use of self administered questionnaires rather than face to face interviews and assurance of confidentiality evidenced by showing that only the participants kept any information that linked their names to their unique IDs was one strategy to increase collection of valid responses. This was reinforced by the anonymous way and privacy in which the information was collected. In addition on the instruction section, young adolescents were informed that they do not have to respond in the

way society expects them to behave and that all the information they writewould be confidential. All these steps were designed to minimize desirable bias andensure improved the self-reporting and hence adding to validity estimations.

The study used young adolescents only from public primary schools. There are a number of adolescents aged 12 to 14 who are either in private school or who do not go to school. Therefore, not including this population limits the ability of generalizing the findings to young adolescents aged 12 to 14 in Kinondonimunicipal. The current study recommends future studies that examine psychological factors and sexual risk behaviors of adolescents who are out of school and those who are in private schools.

Lastly, the study used cross-sectional design that has inherent weakness in evaluating temporal relationship between exposure and outcomes. Therefore it is difficulty for the results to clearly show the direction of association. There is a need for future research to conduct longitudinal studies looking at the association between sexual risk behaviors and psychological factors.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATION

The findings of this study indicate that only one third of the school–aged adolescents between 12-14 years experience high self-esteem or HIV preventive self-efficacy. Similar proportion of adolescents was found to have high depressive symptomatology score. Additionally, a third of adolescents reported to have had initiated sex with almost a third expressing intention to engage in risky sexual behaviors in the future. High depressive symptomatology was an important psychological predictor of sexual initiation among adolescents in Dar es Salaam. Moreover, the main psychological determinants of intention to engage in risk sexual activities in the future were low self-esteem and low HIV preventive self-efficacy.

Future research is needed in order to investigate the psychological factors and SRB with the use of a larger sample size that will allow the study to be generalized.

School based intervention that aims at increasing the psychological wellbeing of young adolescentsis needed in schools. Reproductive health interventions should focus on the emotional aspect of engaging into sexual risk behaviors.

5.1 Implications of Study Findings

Findings of this study showed that depression was an important psychological predictor of sexual initiation among adolescents in Dar es Salaam. The main psychological determinants of intention to engage in risk sexual activities in the future were low self-esteem and low HIV preventive self-efficacy.

Additionally this study is the first in the country to provide estimates on the magnitude of psychological factors and it’s association with sexual risk behaviors.

The high proportion of young adolescentsreporting sex behavior transition also suggests a need for more interventions aimed at reducing potential HIV transmission risks in this population sub group. The association of sexual transition with depression suggests the need for future longitudinal studies to determine if this

association is causal or consequent (that is sex transition results in higher distress). Low self-esteem independently predicts future sexual intentions in this study as did low HIV preventive self-efficacy. This suggests need for interventions that aim at increasing self-esteem, through strategies that increase a sense of self-worth and enhance locus of control amongst primary school adolescents in urban Tanzania, in addition to improve HIV preventive self efficacy amongst urban school-based young adolescents.

Findings of the present study have shown that there is a high proportion of young adolescent who are sexually active and that a number of them intend to engage in sexual risk behaviors in the near future. There is a need for teachers and parents to educate young adolescents on how their emotional wellbeing my influence their decisions related to their sexual health behaviors. Teachers also need to communicate to leaners the emotional aspects of abstaining from sex or not and not only the physical consequences.

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Appendix I: Questionnaire, English version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

DATE

dd mm yy

STUDENT'S ID

Please help us by completing this questionnaire.

We are trying to find out better ways of preventing the spread of HIV/AIDS among young people. Your responses are very important to us and will hopefully help to keep young people in Tanzania healthy.

***This is not a test and there are no right or wrong answers. PLEASE BE HONEST WHEN YOU ANSWER*. Do NOT give us answers that you think we want. We need to know what you really think to develop the best programs to fight the spread of HIV.**

***It is voluntary for you to participate in this study.* This means that you can decide to participate or not. You can withdraw from the study at any time.**

***Please do not write your name on this questionnaire*. All the information you give us will be kept private; nobody will know who filled in this questionnaire. Your teachers, neighbors, family and other young adolescents will not see your answers.**

Please take your time and answer carefully.
In questions where there are boxes, please tick the box next to the answer you want to give.

If you have any questions or are unsure about a question please raise your hand and ask the project staff present in the classroom.

THANK YOU VERY MUCH FOR YOUR HELP!

Please tell us a little about yourself by answering the following questions.

1. **What year were you born in?** **orHow old are you**

2. **What is your sex?**

- ☐ Girl
- ☐ Boy

3. **What grade are you in?**

- ☐ Fourth grade
- ☐ Fifth grade
- ☐ Sith grade
- ☐ Seventh grade

4. **What class are you in (for example: 3A, 3 Green)?**

5. **What is your religion?**

- ☐ Christian
- ☐ Muslim
- ☐ Hindu
- ☐ African traditional
- ☐ Other, please specify:

6. **How do you identify yourself?**

- ☐ Black
- ☐ White
- ☐ Indian
- ☐ Arab
- ☐ Other, please specify:

7. **Who looks after you at home?**

☐ Mother	☐ Sister
☐ Father	☐ Grandfather
☐ Uncle	☐ Grandmother
☐ Aunt	☐ One of my other family members
☐ Brother	☐ Someone else (no family member)

8. **What is the highest education level of your mother (or primary caregiver)?**

☐ No formal education	☐ Secondary school education
☐ Less than primary education	☐ College/university education
☐ Primary school education	☐ I do not know

9. **What is the highest education level of your father (or secondary caregiver)?**

☐ No formal education	☐ Secondary school education
☐ Less than primary education	☐ College/university education
☐ Primary school education	☐ I do not know

Do you have any of the following at your home?	**Yes**	**No**
10. Tap water inside the house	☐	☐
11. A toilet inside the house	☐	☐
12. Electricity	☐	☐
13. A landline (house telephone)	☐	☐
14. A mobile telephone	☐	☐
15. A fridge	☐	☐
16. A television	☐	☐
17. A car	☐	☐

18. **Which of the following best describes your home?**

- ☐ Shack
- ☐ Tent or traditional home
- ☐ Wendy house or backyard shack
- ☐ Brick house or flat
- ☐ Other, please specify:

19. **How much pocket money (or lunch money) do you get per week?**

- ☐ 500 TShs – 1000 Tshs
- ☐ 1500 Tshs- 2000 Tshs
- ☐ 2500 Tshs- 3000 Tshs
- ☐ 3500Tshs – 4000 TShs
- ☐ 4500Tshs – 5000 TShs
- ☐ More than 5000 Tshs
- ☐ I do not get pocket money

20. **Last year, how well did you do in school compared to the others in your class?**

- ☐ I scored among the very best of my class
- ☐ I scored better than average
- ☐ I scored about average
- ☐ I scored below average
- ☐ I scored among the worst of my class

21. **Have you ever repeated a school year due to failing exams?**

- ☐ Yes
- ☐ No

22. **What do you think you will do when you finish secondary school?**

- ☐ I will probably be unemployed
- ☐ I will start a business
- ☐ I will get a paid job
- ☐ I will do some training
- ☐ I will go to trade school
- ☐ I will go to university, technikon or a college

HIV preventive self-efficacy

23. I will be able to use a condom to protect myself from getting HIV even if it is difficult to get condom

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

24. I will find it easy to convince my partner to use condom even if my partner is not ready to use condom every time we decide to have sex

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

25. I will be able to abstain sex even if my partner is older than me

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

26. I would find it easy to have a single partner even if my close friends have multiple partners

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

Self-esteem

Below is a list of statements describing general feelings you might have about yourself. Please tick the extent to which you agree or not with each statement numbered 48 to 57. (**SITUATION NOW AT EACH ADMINISTRATION OK)**

27. On the whole, I am satisfied with myself

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

28. At times, I think I am not good at all

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

29. I feel that I have a number of good qualities

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

30. I am able to do things as well as most other people

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

31. I feel I do not have much to be proud of

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

32. I certainly feel useless at times

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

33. I feel that I am a person of worth, at least on an equal plane with others

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

34. I wish I could have more respect for myself

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

35. All in all, I am inclined to feel that I am a failure

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

36. I take a positive attitude toward myself

☐ Strongly agree	☐ Disagree
☐ Agree	☐ Strongly disagree

Depression
Please tick on one among the three statements that apply on you

37.

- ☐ I am sad once in a while
- ☐ I am sad many times
- ☐ I am sad all the time

38.

- ☐ Nothing will ever work out for me
- ☐ I am not sure if things will work out for me
- ☐ Things will work out for me O.K

39.

- ☐ I do most things O.K.
- ☐ I do many things wrong
- ☐ I do everything wrong

40.

- ☐ I have fun in many things
- ☐ I have fun in some things
- ☐ Nothing is fun at all

41.

- ☐ I am bad all the time
- ☐ I am bad many times
- ☐ I am bad once in a while

42.

- ☐ I think about bad things happening to me once in a while
- ☐ I worry that bad things will happen to me
- ☐ I am sure that terrible things will happen to me

43.

- ☐ I hate myself
- ☐ I do not like myself

- [ ] I like myself

44.

- [ ] All bad things are my fault
- [ ] Many bad things are my fault
- [ ] Bad things are not usually my fault

45.

- [ ] I do not thing about killing myself
- [ ] I think about killing myself but I would not do it
- [ ] I want to kill myself

46.

- [ ] I feel like crying every day
- [ ] I feel like crying many days
- [ ] I feel like crying once in a while

47.

- [ ] Things bother me all the time
- [ ] Things bother me many times
- [ ] Things bother me once in a while

48.

- [ ] I like being with people
- [ ] I do not like being with people many times
- [ ] I do not want to be with people at all

49.

- [ ] I cannot make up my mind about things
- [ ] It is hard to make up my mind about things
- [ ] I make up my mind about things easily

50.

- [ ] I look O.K
- [ ] There are some bad things about my looks

- [ ] I look ugly

51.

- [ ] I have to push myself all the time to do my schoolwork
- [ ] I have to push myself many times to do my schoolwork
- [ ] Doing schoolwork is not a big problem

52.

- [ ] I have trouble sleeping every night
- [ ] I have trouble sleeping many nights
- [ ] I sleep pretty well

53.

- [ ] I am tired once in a while
- [ ] I am tired many days
- [ ] I am tired all the time

54.

- [ ] Most days I do not feel like eating
- [ ] Many days I do not feel like eating
- [ ] I eat pretty well

55.

- [ ] I do not worry about aches and pains
- [ ] I worry about aches and pains many times
- [ ] I worry about aches and pains all the time

56.

- [ ] I do not feel alone
- [ ] I feel alone many times
- [ ] I feel alone all the time

57.

- [ ] I never have fun at school
- [ ] I have fun at school only once in a while

- [ ] I have fun at school many times

58.

- [ ] I have plenty of friends
- [ ] I have some friends but I wish I had more
- [ ] I do not have any friends

59.

- [ ] My schoolwork is alright
- [ ] My schoolwork is not as good as before
- [ ] I do very badly in subjects I used to be good in

60.

- [ ] I can never be as good as other kids
- [ ] I can be as good as other kids if I want to
- [ ] I am just as good as other kids

61.

- [ ] Nobody really loves me
- [ ] I am not sure if anybody loves me
- [ ] I am sure that somebody loves me

62.

- [ ] I usually do what I am told
- [ ] I do not do what I am told most times
- [ ] I never do what I am told

63.

- [ ] I get along with people
- [ ] I get into fights many times
- [ ] I get into fights all the time

Now we want to ask you about <u>your own experiences</u> in the past and your plans for the future. Remember that all of your answers <u>will be kept private</u> and that your name is not attached to this questionnaire.

If we ask about sex, we mean the following:

<u>Oral sex</u>: The boy or girl uses the mouth to please the penis or vagina.
<u>Anal sex</u>: The penis enters the anus.
<u>Sex</u>: The penis enters the vagina or anus.

	Yes	No
64. Do you currently have a boyfriend or girlfriend?	☐	☐
65. Have you ever had a boyfriend or a girlfriend?	☐	☐
66. Have you ever had sex?	☐	☐
67. Have you had sex in the last 6 months?	☐	☐

How many times during <u>the past 6 months</u>	**Every day**	**Every week, but not every day**	**Every month, but not every week**	**Seldom**	**Not at all**
68. have you had oral sex?	☐	☐	☐	☐	☐
69. have you had anal sex?	☐	☐	☐	☐	☐
70. have you had vaginal sex?	☐	☐	☐	☐	☐
71. have you had sex with someone who was not your boyfriend or girlfriend?	☐	☐	☐	☐	☐

72. **Which of the following best describes the <u>first</u> time you had sex**

☐ I have never had sex
☐ I was eager/interested/motivated to have sex
☐ I was persuaded
☐ I was tricked
☐ I was forced
☐ I was raped

What are your intentions for the future? Please answer honestly!
All your answers will remain private!

	Definitely Yes	Probably yes	Yes/no	Probably no	Definitely No
73. **I intend to have sex in <u>the next 6 months</u>**	☐	☐	☐	☐	☐

	Definitely Yes	Probably yes	Yes/no	Probably no	Definitely No
74. **When I <u>have a steady partner</u>, I intend to stay faithful and not have sex with somebody else**	☐	☐	☐	☐	☐

	Definitely yes	Probably yes	Yes/no	Probably no	Definitely no
75. **I intend to always carry a condom in my pocket during <u>the next 6 months</u>**	☐	☐	☐	☐	☐

	Definitely yes	Probably yes	Yes/no	Probably no	Definitely no
76. **I intend to use a condom <u>the next time</u> I have sex**	☐	☐	☐	☐	☐

We thank you very much for your participation!

Appendix II: Questionnaire - Swahili Version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

TAREHE NAMBA YA UTAMBULISHO

Siku Mwezi Mwaka

DODOSO la UTAFITI

Tafadhali tunakuomba utusaidie katika kujaza hojaji hii.

Tunajaribu kutafuta njia nzuri zaidi za kuzuia maambukizi ya virusi vya UKIMWI (VVU/UKIMWI) kati ya vijana wadogo.Majibu yako ni muhimu sana na tunatumaini yatasaidia katika kulinda afya ya vijana wa Tanzania.

Huu sio mtihani na hakuna majibu sahihi wala yasiyo sahihi.

TAFADHALI, UWE MKWELI KATIKA KUJIBU.USITUPATIE majibu unayodhani kuwa tunayataka.Tunahitaji kujua kipi unachofikiria kiuhalisia katika kuandaa programu bora za kupambana na maambukizi ya VVU.

Ushiriki wako katika utafiti huu ni wa hiari. Hii inamaanisha kwamba unaweza ukaamua kushiriki au kutoshiriki.Unaweza acha ushiriki wakati wowote.

Tafadhali usiandike jina lako kwenye hojaji hii.Taarifa zote utakazotupatia zitakuwa ni siri, hakuna atakayemjua mtu aliyejaza hojaji hii.Walimu wako, majirani zako, familia yako na wanafunzi wengine hawataona majibu yako.

Tafadhali chukua muda wa kutosha kusoma kisha ujibu maswali kwa umakini. Tafadhali weka alama ya vema kwenye kisanduku mbele ya jawabu unalolikusidia katika kujibu maswali yenye visanduku.Kama una swali, au hauna uhakika kuhusu swali unalolijibu tafadhali nyoosha mkono na muulize mtumishi wa mradi huu aliyeko darasani.

ASANTE SANA KWA USHIRIKI WAKO!

Tafadhali tueleze kwa ufupi kuhusu wewe mwenyewe kwa kujibu maswali yafuatayo:

1. Ulizaliwa mwaka gani? mingapi Au Una miaka

2. Jinsia yako ni ipi?

- ☐ Msichana
- ☐ Mvulana

3. Unasoma darasa la ngapi?

- ☐ darasa la nne
- ☐ darasa la tano
- ☐ darasa la sita
- ☐ darasa la saba

4. Unasoma mkondo gani?(mfano darasa la tatu A, darasa la tatu kijani)

5. Dini yako ni ipi?

- ☐ Mkristo
- ☐ Muislamu
- ☐ Mhindu
- ☐ Dini za kienyeji za kiafrika
- ☐ Nyingine taja.

6. Asili yako ni ipi?

- ☐ Mwafrika
- ☐ Mzungu
- ☐ Mhindi
- ☐ Mwarabu
- ☐ Mwingine,taja….

7. Nani anakulea nyumbani?

☐ Mama	☐ Dada
☐ Baba	☐ Babu
☐ Mjomba	☐ Bibi
☐ Shangazi	☐ Mmoja wa wanafamilia yangu
☐ Kaka	☐ Mtu mwingine tofauti na wanafamilia.

8. Nini kiwango cha elimu cha mama yako (au mtu anayekulea?)	
☐ Hana elimu rasmi	☐ Elimu ya sekondari
☐ Chini ya Elimu ya msingi	☐ Elimu ya chuo/chuo kikuu
☐ Elimu ya msingi	☐ Sijui

9. Nini kiwango cha elimu cha baba yako (au mtu wa pili katika kukulea wewe)?	
☐ Hana elimu rasmi	☐ Elimu ya sekondari
☐ Chini ya Elimu ya msingi	☐ Elimu ya chuo/chuo kikuu
☐ Elimu ya msingi	☐ Sijui

Je, kuna kitu chochote nyumbani kwenu kati ya vifuatavyo?	Ndio	Hapana
10. Maji ya bomba kwenye nyumba	☐	☐
11. Choo ndani ya nyumba	☐	☐
12. Umeme	☐	☐
13. Simu ya mezani	☐	☐
14. Simu ya mkononi	☐	☐
15. Friji	☐	☐
16. Luninga (Televisheni)	☐	☐
17. Gari	☐	☐

18. Lipi kati ya yafuatayo linaelezea vizuri zaidi kuhusu ya nyumba yenu?
☐ imejengwa kwa makuti
☐ hema au maboksi
☐ Imejengwa kwa udongo au miti
☐ Nyumba ya tofali au ghorofa
☐ aina nyingine, (Taja)

19. Je ni kiasi gani cha pesa ya kujikimu (pesa ya chakula cha mchana) unayopata kwa juma? Ho	
☐ 500 TShs – 1000 Tshs	☐ 4500Tshs – 5000 TShs
☐ 1500 Tshs- 2000 Tshs	☐ More than 5000 Tshs
☐ 2500 Tshs- 3000 Tshs	☐ Sipati pesa ya kujikimu
☐ 3500Tshs – 4000 TShs	

20. Matokeo yako ya mwaka jana yanaonesha ulifauluje uikilinganishwa na wengine darasani kwako?
☐ Nilikuwa kati ya wanafunzi bora darasani kwetu.
☐ nilifaulu kupita wastani
☐ Nilifaulu kwa wastani
☐ Nilipata chini ya wastani

☐ Nilifeli vibaya sana

21. Umewahi kurudia shule kutokana na kufeli mitihani?

☐ Ndio ☐ Hapana

22. Unadhani utafanya nini ukimaliza shule ya sekondari?

☐ Sitaajiriwa.
☐ Nitaanzisha biashara/Kujiajiri mwenyewe
☐ Nitapata kazi itakayoniingizia kipato.
☐ Nitafanya mafunzo kidogo
☐ Nitaenda kwenye shule ya biashara
☐ Nitaendelea na elimu ya chuo kikuu,Ufundi au chuo

Mategemeo ya kuzuia maambukizi ya VVU katika kupunguza uwezekano wa kusambaza VVU.

23 Kujadiliana na vijana wenzangu kuhusu uwezekano wa maambukizi ya VVU kutawazuia kuanza ngono.

☐ Nakubali kabisa ☐ Sikubali
☐ Nakubali ☐ Sikubali kabisa

24 Kujadiliana na vijana wenzangu kuhusu uwezekano wa maambukizi ya VVU ,kutawahamasisha kutumia kondomu kila wakati wakitaka kufanya ngono.

☐ Nakubali kabisa ☐ Sikubali
☐ Nakubali ☐ Sikubali kabisa

25 Kujadiliana na vijana wenzangu kuhusu uwezekano wa maambukizi ya VVU kwa kuwa na wapenzi wenye kuwazidi umri kutawazuia kufanya ngono na watu wanaowazidi umri.

☐ Nakubali kabisa ☐ Sikubali
☐ Nakubali ☐ Sikubali kabisa

26 Kujadiliana na vijana wenzangu kuhusu uwezekano wa maambukizi ya VVU kwa kuwa na wapenzi wengi kutawafanya wasifanye ngono na wapenzi wengi.

☐ Nakubali kabisa ☐ Sikubali
☐ Nakubali ☐ Sikubali kabisa

Stashi-binafsi (Self-esteem)
Hapa chini kuna kauli zinazoelezea kwa ujumla hisia unazoweza kuwa nazo juu yako mwenyewe. Tafadhali weka alama ya vema kwa kiasi unavyokubaliana au hukubaliani na sentensi za namba 111 hadi120. (HALI KWA SASA)

27 Kwa ujumla, ninaridhika na mimi mwenyewe nilivyo.

☐ Nakubali kabisa 3	☐ Sikubali 1
☐ Nakubali 2	☐ Sikubali kabisa 0

28 Wakati mwingine, nafikiri mimi sikitu kabisa

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

29 Nahisi kama ninasifa nyingi nzuri

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

30 Ninaweza kufanya vitu sawa na watu wengine wengi

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

31 Nahisi sina mengi ya kujivunia

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

32 Hakika, wakati mwingine najihisi sifai.

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

33 Ninahisi kwamba mimi ni mtu wa thamani angalau sawa na wengine

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

34 Natamani ningekuwa ninaweza kujiheshimu zaidi

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

35 Pamoja na hayo, nimewaangusha wengine na mimi mwenewe (Najiona kama nimeshindwa)

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

36 Nina mtazamo chanya juu yangu mwenyewe.

☐ Nakubali kabisa	☐ Sikubali
☐ Nakubali	☐ Sikubali kabisa

Mifadhaiko

Tafathali niambie ni sentensi ipi kati ya hizi tatu unayoona inalingana na mawazo au hisia zako…

37

- ☐ Nakuwa na huzunimara moja moja
- ☐ Mara nyingi nakuwa na huzuni
- ☐ Kila wakati nina huzuni

38

- ☐ hakuna jambo litakalofanikiwa kwangu
- ☐ Sina uhakika kama jambo langu lolote litafanikiwa
- ☐ Mambo yangu yote yatafanikiwa

39

- ☐ Nafanya mambo mengi zaidikwa usahihi
- ☐ Nafanya mambo mengikwamakosa
- ☐ Nafanya kila kitu kwa makosa

40

- [ ] Najifurahisha na vitu vingi
- [ ] Najifurahisha na baadhi ya vitu
- [ ] Hakuna ninachofurahishwa nacho

41

- [ ] Mimi ni mbaya kila wakati
- [ ] Mimi ni mbaya mara nyingi
- [ ] Mimi ni mbaya mara moja moja

42

- [ ] Mara chache huwa nafikiria mabaya yanayonitokea
- [ ] Nahofia kuna mabaya yatanitokea
- [ ] Nina hakika kuna mambo ya kutisha yatanitokea

43

- [ ] Ninajichukia
- [ ] Sijipendi
- [ ] Najipenda

44

- [ ] Mambo yote mabaya yanatokana na makosa yangu
- [ ] Mambo mengi mabaya yanatokana na makosa yangu
- [ ] Mambo mabaya kwa kawaida hayatokani na makosa yangu

45

- [ ] Sifikirii kuhusu kujiua
- [ ] Huwa nafikiria kujiua, lakini sitafanya hivyo
- [ ] Nataka kujiua

46

- [ ] Najisikia kulia kila siku
- [ ] Najisikia kulia mara nyingi
- [ ] Sijisikii kulia

47

- [ ] Kila wakati kuna mambo yananikera
- [ ] Mara nyingi kunamambo yananikera
- [ ] Kwa kawaida kuna mambo huwa hayanikeri

48

- [ ] Napenda kujumuika na watu
- [ ] Sipendi kujumuika na watu mara kwa mara
- [ ] Sitaki kabisa kujumuika na watu

49

- [ ] Huwa siwezi kufanya maamuzijuu ya mambo
- [ ] Ni vigumu kufanya maamuzijuu ya mambo
- [ ] Huwa nafanya maamuzijuu ya mambo kwa urahisi

50

- [ ] ninaonekasawa
- [ ] Kunabaadhi ya ubayakatika muonekano wangu
- [ ] Ninaonekana kuwa na sura mbaya

51

- [ ] Wakati wote najilazimisha kufanya kazi za shule
- [ ] Mara nyingi najilazimisha kufanya kazi za shule
- [ ] Kufanya kazi za shule sio shida kubwa kwangu

52

- [ ] Napata taabu kupata usingizi kila siku
- [ ] Mara kwa mara napata taabu kupata usingizi
- [ ] Nalala vizuri sana

53

- [ ] Nakuwa mchovu mara moja moja
- [ ] Nakuwa mchovu kwa siku nyingi
- [ ] Nakuwa mchovu wakati wote.

54

- [ ] sijisikii kula siku zote
- [ ] sijisikii kula siku nyingi
- [ ] Huwa nakula vizuri sana

55

- [ ] Huwa sina wasiwasijuu yamaumivuya mwili
- [ ] Mara nyingi huwa nina wasiwasi juu ya maumivuya mwili.
- [ ] Wakati wote nina wasiwasi juu ya maumivu yamwili

56

- [ ] Sijisikii mpweke
- [ ] Najisikia mpweke
- [ ] najisikia mpweke mara nyingi

57

- [ ] Huwa sina raha ninapokuwa shuleni
- [ ] Huwa nina raha mara mojamoja nikiwa shuleni
- [ ] Wakati wote niwapo shuleni naona raha

58

- [ ] Nina marafiki wengi
- [ ] Nina baadhi ya marafiki lakini natamani ningekuwa na wengi zaidi
- [ ] Sina marafiki

59

- [ ] Kazi zangu zote za shule ni sawasawa.
- [ ] Kazi zangu za shule siyo nzuri kama zamani
- [ ] Siku hizi hufanya vibaya katika masomo niliyokuwa nafanya vizuri.

60

- [ ] Siwezi kuwa bora kama watoto wengine
- [ ] Nikitaka naweza kuwa bora kama watoto wengine
- [ ] mimi ni bora kama watoto wengine

61

- ☐ Hakuna mtu ambaye ananipenda kwa uhakika
- ☐ Sina uhakika kama kuna yeyote anayenipenda
- ☐ Nina hakika kuwa kila mtu ananipenda

62

- ☐ ni kawaida yangu kutekeleza yale yote ninayoagizwa
- ☐ Wakati mwingi hutekeleza ninayoagizwa
- ☐ Huwa kamwe sitekelezi lolote ninaloagizwa

63

- ☐ Huwa naelewana na watu
- ☐ Mara nyingi huwa nagombana
- ☐ Huwa nagombana mara zote

Tunahitaji kukuuliza kuhusu uzoefu wako siku za nyuma au mipango yako ya baadae.kumbuka majibu yako yanahifadhiwa kwa usiri na jina lako halitaambatanishwa kwenye hojaji.

Tukikuuliza ngono tunamaanisha yafuatayo:

Ngono kwa njia ya mdomo:	msichana au mvulana kutumia mdomo kuridhisha uke au uume
Ngono kwa njia ya haja kubwa:	uume kuingia haja kubwa
Ngono:	uume kuingia kwenye uke au haja kubwa

	ndiyo	hapana
64 Una rafiki wa kike au wa kiume kwa sasa?	☐	☐
65 Ulishawahi kuwa na rafiki wa kiume au wa kike?	☐	☐
66 Umeshawahi kufanya ngono?	☐	☐
67 Umeshafanya ngono miezi 6 iliyopita?	☐	☐

	Ndiyo	Hapana
68 Je ulishawahi kufanya ngono kwa njia ya mdomo?	☐	☐
69 Ulishawahi kufanya ngono kwa njia ya haja kubwa?	☐	☐
70 Ulishawahi kufanya ngono kwa njia ya uke?	☐	☐

71	Ulishawahi kufanya ngono na mtu ambaye siyo rafiki yako wa kike au rafiki yako wa kiume?	☐	☐

Nini adhima zako katika maisha yako ya baadae?Tafadhali kuwa mkweli. Majibu yako yote yatakuwa ni ya siri

		kwa hakika ni ndiyo	Labda ndiyo	Ndiyo/hapana	Labda hapana	Kwa hakika ni hapana
72	Ninadhamiria kufanya ngono ndani miezi sita ijayo	☐	☐	☐	☐	☐

		Kwa hakika ni ndiyo	Labda ndiyo	Ndiyo/hapana	Labda hapana	Kwa hakika hapana
73	Wakati nikiwa na mpenzi wa kudumu, nimedhamiria kuwa mwaninifu na kutofanya ngono na mtu mwingine	☐	☐	☐	☐	☐

		Kwa hakika ni ndiyo	Labda ndiyo	Ndiyo/ hapana	Labda hapana	Kwa hakika hapana
74	Nadhamiria kubeba kondomu kwenye pochi yangu katika kipindi cha miezi 6 ijayo	☐	☐	☐	☐	☐

		Kwa hakika ni ndiyo	Labda ndiyo	Ndiyo/ hapana	Labda hapana	Kwa hakika hapana
75	Nimedhamiria kutumia kondomu nitakapofanya ngono	☐	☐	☐	☐	☐

Asante sana kwa ushiriki wako

Appendix IIIa: Information letter and consent form for parents: English Version

Dear parent/legal guardian

ABOUT THE STUDY
Your child's school is one of the school selected to participate on a study looking at psychological issues and sexual behaviors among adolescents. The Municipal Department of Education and the school head teacher and parents committee have given permission for the study to take place.

WHAT WILL HAPPEN?
With your consent, your child will take part in the study. He or she will be asked to complete a questionnaire. Filling in questionnaires that will asses knowledge, beliefs, and experiences of peer influences and sexual behaviors and other health related issues. This activity be conducted within the school premises

WILL ANYONE ELSE READ ABOUT WHAT MY CHILD HAS SAID IN THE DISCUSSION GROUP OR WHAT HE/SHE ANSWERED ON THE QUESTIONNAIRE?
NO. Your child's participation on the questionnaire are strictly confidential. Your child's name will not appear anywhere on the questionnaire. Only the research staff will see the questionnaires but will not be able to link this information with a child's name. The findings of the research will be reported with all of the young adolescents' answers combined. These strategies have been put in place to ensure that information provided by your son/daughter will **NOT** be identifiable or linked in any way to him or her as an individual.

ARE THERE ANY RISKS?
There is a chance that if your child is sexually active and/or has been coerced or abused in any way, he or she may feel emotional during the lessons, discussion groups or during the questionnaire. If this occurs, he/she will be able to talk with the researcher who will arrange for your child to receive support from one of the teachers at the school. If your child needs further help, with your consent, we will be able to arrange for more professional support services from a youth friendly health care service.

CONFIDENTIALITY
A high degree of confidentiality will be ensured during the whole process of data collection and handling. Firstly we will not ask you child to indentify him or herself by name on the questionnaire or during the group discussion. Therefore the name of your child will not appear on any questionnaire.

DOES MY CHILD HAVE TO PARTICIPATE?
NO. Taking part in the evaluation of this study is completely voluntary. If your child does not take part in the study, there will be no negative consequences.

WHAT ABOUT THE RESULTS OF THE STUDY?
No information will be given to anyone about any individual learner's involvement with any activities. The research staff will report the overall results of the study to the school.

WHO CAN I ASK IF I HAVE QUESTIONS ABOUT THE STUDY?
If you have any questions about the study, please contact the school head teacher or:

Principal Inventigator: Mrema Kilonzo
P.o.box 65466 DSM. Simu namba 0658077787

School of Medicine
MUHAS
P.0.Box 65001 DSM
Tel: 222150473/6

WHAT SHOULD I DO IF I <u>GIVE PERMISSION</u> FOR MY CHILD TO TAKE PART IN THE STUDY?

If you **<u>GIVE PERMISSION for your child to take part in the study,</u>** you do not need to do anything more.
If you **<u>DO NOTWANT your child to take part in the study</u>**, please complete the form below and return it to the researchers or the school head teacher.

Parent / Guardians statement of consent form

<u>Denial of consent for my child's participation in evaluation activities for the PREPARE project</u>

Learner's registration number: _____School number: _____

I, ……*(print own name)*, parent / legal guardian of my child……. ……*(print child's name*), **DO NOT GIVE PERMISSION** for my child to participate in any data collection activities for the PREPARE study which is taking place at my child's school.

Signature……

……. Date…….

Contact telephone number: ……..

Appendix IIIb: Information letter and consent form for parents: Swahili Version

UTAFITI JUU YA TABIA ZA KIPSYCHOLOJIA NA TABIA HATARISHI ZA KUJAMIIANA BAINA YA VIJANA

TAARIFA KWA MZAZI NA BARUA YA RIDHAA

Mpendwa mzazi/mlezi/mlezi/mlinzi wa kijana

KUHUSU UTAFITI
Shule ya kijana wako, ni miongoni mwa shule zinazoshiriki katika utafiti maalumu kuhusu tabia hatarishi za kujamiiana baini ya vijana kwenye manisipaa ya Kinondoni. MUHAS au wizara ya Elimu na mkuu wa shule za sekondari/msingi, wametoa kibali/ruhusa utafiti huu kufanyika shuleni hapo. Mtoto wako amealikwa kushiriki katika utafiti huu.

Dhumuni kuu la utafiti huu ni kupata uelewa wa sababu au viashiria gani vinavyochangia mienendo hatarishi ya kujamiana baina ya vijana. Taarifa zitakazopatikana zitasaidia katika kuandaa mpango maalum/program yenye lengo la kuboresha na kuhamasisha stadi ya maisha kuhusu maswala ya kujamiiana na Afya ya uzazi salamasiku kwenye za usoni .

NI NINI KITATOKEA?
Kwa ridhaa na ruhusa yako, kijana/mtoto wako atashiriki kwenye utafiti huu hapo shuleni kwake. Kijana ataombwa kushiriki katika utafiti huu kwa kujaza dondoo za hojaji kuhusu ufahamu, imani na uzoefu katika mienendo hatarishi ya kupenda kujamiana.

KUNA YEYOTE ATAKAYEJUWA KUHUSU YALIYOSEMWA NA MTOTO? KIJANA WANGU KWENYE MJADALA WA VIKUNDI AU KUPATA MAJIBU YALIYOMO KWENYE DONDOO HOJAJI?

HAPANA, Ushiriki wa kijana wako wa kike/kiume wa namna alivyojibu maswali kwenye dondoo za hojaji utakuwa ni siri na faragha kubwa .Jina la kijana wako halitatokea kabisa katika dondoo za hojaji. Ni mtafiti mkuu pekee atakayeruhusiwa kutumia dondoo hojaji.Taarifa za matokeo ya utafiti huu zitatolewa pamoja na majibu yote ya wahojiwa vijana, hiyo ikimaanisha kuwa taarifa binafsi ya kijana wako kike/kiume haitaweza kutambulika.
KUNA HALI YEYOTE HATARISHI?
Kuna uwezekano kuwa, iwapo kijana wako amejihusisha kwenye tabia zozote hatarishi za kujamiiana anaweza kupata hisia ya hofu na mshtuko pindi anapojaza dondoo hojaji. Iwapo hili likitokea kijana wako atapata fursa ya kuzungumza na mtaalamu/mtafiti, ambaye atamuandaa ili apatiwe msaada zaidi kutoka kwa waalimu hapo shuleni.Iwapo mwanao atahitaji msaada zaidi, na kwa ridhaa/ruhusa yako, utatupatia fursa ya kupanga maandalizi ya kuumpatia kijana wako huduma ya msaada kiutaalamu zaidi. Pia tutawapatia vijana wote washiriki katika utafiti huu,

karatasi /kipeperushi maalum chenye orodha ya mahali au taasisi mahsusi ambapo vijana wanaweza kupata msaada zaidi wa matatizo yao.

PANA ULAZIMA WA MTOTO AU KIJANA WANGU KUSHIRIKI?

HAPANA. Ni kwamba ushiriki wa kijana wako katika utafiti huu/zoezi hili ni wa hiari , na sio wa lazima. Iwapo mwanao hatashiriki katika zoezi hili , hakutakuwa na madhara yoyote mabaya. Mwanao wa kike/kiume anaweza kuacha kushiriki katika kujaza dondoo hojaji, au kuamua kutojibu maswali kadhaa kwenye dondoo hojaji wakati anapohisi kuwa anafadhahishwa na mahojiano.

NI KWA VIPI MATOKEO YA UTAFITI YATAFAHAMIKA?

Taarifa ya matokeo ya utafiti huu na utambulisho wa washiriki katika zoezi zima hayatatolewa kwa mtu yeyote, na wala kuelezea namna ya ushiriki wa kijana wako. Mtafiti atatoa taarifa ya matokeo ya jumla ya utafiti.

NI NANI WA KUMWULIZA IWAPO NINA MASWALI KUHUSU UTAFITI HUU?

Iwapo unayo maswali kuhusu utafiti huu, tafadhali wasiliana na mkuu wa shule au

Mtafiti mkuu: Mrema Kilonzo
Chuo kikuu cha TIBA na sayansi ya Afya muhimbili
P.o.box 65466 DSM. Simu namba 0658077787

School of Medicine
MUHAS
P.0.Box 65001 DSM
Tel: 222150473/6

NIFANYE NINI IWAPO NITATOA RUHUSA KWA MWANANGU KUSHIRIKI KATIKA UTAFITI HUU?

Iwapo unataka kijana wako ashiriki katika utafiti huu tafadhali kamilisha/jaza fomu hapo chini na irudishe kwa mtafiti mkuu au mkuu wa shule husika.

Mimi…….[chapa jina lako kamili], ni mzazi /mlezi/mlinzi wa amani /mlezi wa mtoto/kijana……[chapa au andika jina la mtoto]

NATOA RUHUSA KWA mwanangu kushiriki kwenye utafiti huu ambao unafanyika shuleni kwa mwanangu
Sahihi…….siku/Tarehe……..
Simu ya Mzazi…….

NIFANYE NINI IWAPO NITAKATAA MWANANGU KUSHIRIKI KWENYE UTAFITI HUU?

Iwapo utakataa kutoa ruhusa kwa mwanao kushiriki kwenye utafiti huu, Tafadhali jaza na kamilisha fomu hapo chini, na irudishe kwa mtafiti mkuu au mkuu wa shule husika.
Jaza hii fomu iwapo HUTAKI mwanao ashiriki katika utafiti huu.

UTAFITI WA Tabia hatarishi za kujamiiana.
Mimi……[andika jina kamili] mzazi/mlinzi wa Amani/mlezi wa mtoto/kijana……..[andika jina lake]

NAKATAA KUTOA RUHUSA kwa kijana wangu kushiriki kwenye utafiti huu ambao unafanyika shuleni kwake.
Sahihi ……
Siku/Tarehe……
Simu yangu…….

Appendix IV a: Learner's Information and Assent Letter, English Version

Dear learner

ABOUT THE STUDY
Your school is one of the school selected to participate on a study looking at psychological issues and sexual behaviors among adolescents. The Municipal Department of Education and the school head teacher and parents committee have given permission for the study to take place.

WHAT WILL HAPPEN?
If your parents have consented to your participation, after you took home and showed them the letter about the study, and if you decide to take part in providing us with information, you might be engaged in one or both of the following activities:

We will ask you to complete a questionnaire about yourself and what you know and your sexual health decision-making and relationships.

Staff from the Muhimbili University will be in the areas where you will complete the questionnaire. No teachers will be in the area at this time.

ARE THERE ANY RISKS?
There is a chance that the questions you are asked may make you feel uncomfortable or emotional. If this happens, trained research staff will be available to either discuss with you or if you wish, refer you to someone else such as a teacher, the school counselor, a health care worker or an individual trained to help young people with such problems. We will also providing all participants with information sheets which list various places in the community where you can seek help.

DO I HAVE TO PARTICIPATE?
NO. Taking part in providing information for this study is completely voluntary. If you choose not to participate in the study, there will be no negative consequences. You can skip any questions that you don't want to answer. However, your participation is important for us to gain a better understanding of how young people your age experience these issues.

WILL ANYONE KNOW WHAT YOU SPOKE ABOUT IN THE DISCUSSIONS?
NO. We will not use your name on the questionnaire. **Parent**s, teachers, and other school staff will **NOT** kno**w h**ow you responded to issues raised in the group discussions.

WHAT ABOUT THE RESULTS OF THE STUDY?
No information will be given to anyone about any individual learner's involvement with any activities. We will use the results of the study to improve the PREPARE programme so that it is meets the needs of young people.

Mrema Kilonzo
Chuo kikuu cha TIBA na sayansi ya Afya muhimbili
P.o.box 65466 DSM. Simu namba 0658077787

School of Medicine
MUHAS
P.0.Box 65001 DSM
Tel: 222150473/6

Assent to participate provided: (to be filled by research assistant)
☐ Yes I agree to participate in filling the questionnaire
☐ No I do not agree to participate in filling the questionnaire
Did you understand why you have been invited to participate and were all your questions answered
☐ Yes ☐ No

Appendix IV b: Learner's Information and Assent Letter, Swahili Version

KUHUSU UTAFITI
Shule yako ni moja kati ya shule za msingi za mkoa wa Dar es Salaam zilizochakuliwa katika utafiti wa tabia hatarishi za mapenzi kwa vijana wadogo. Ofisi ya elimu ya manispaa ya Kinondoni na mwalimu mkuu wametupatia ruhusa kwa mradi huu kufanyika katika shule za manispaa hii. Unaombwa kushiriki katika utafiti huu.

JE, NINI KITATOKEA?
Ikiwa mzazi wako watapata taarifa zilizoko kwenye fomu itakayo kuruhusu wewe kushiriki katika utafiti. Utaombwa kujibu maswali yaliyomo kwa fomu (Dodoso). Wafanyakazi kutoka Chuo Kikuu Kishiriki cha Afya Muhimbili (MUHAS) watakusaidia katika kujaza fomu hiyo ya utafiti na kujibu maswali utakayokuwa nayo.

JE, KUNA HATARI ZOZOTE?
Kuna uwezekano kuwa maswali utakayoulizwa yanaweza yakakufanya ukose raha. Ikiwa hii itatokea, wataaalamu wetu watakuwepo kuzungumza na wewe ikiwa utapenda au kukuelekeza kwa mtu mwingine kama mwalimu, mshauri nasaha au mtu mwingine ambaye anafanya kazi ya kusaidia vijana wadogo wenye matatizo.

JE, NI LAZIMA NISHIRIKI?
HAPANA. Kushiriki katika utafiti huu ni kwa ridhaa kabisa. Ikiwa utaamua kutoshiriki katika utafiti, hakutakuwa na madhara yoyote. Pia unaweza kuruka maswali yoyote ambayo hutapenda kuyajibu. Lakini, ushiriki wako ni muhimu sana kwetu kwa ajili ya kuweza kufahamu zaidi jins vijana wadogo wa umri wako wanavyopitia maswala.

JE, MTU YEYOTE ATAFAHAMU MAJIBU YAKO?
- **HAPANA**. Hutatakiwa kuweka jina lako katika karatasi ya maswali.Wazazi, waalimu na wafanayakazi wengine wa shule **HAWATAFAHAMU** majibu uliyotoa

JE, VIPI KUHUSU MATOKEO YA UTAFITI HUU?
Hakuna taarifa zozote zitakazotolewa kuhusu ushiriki wa mwanafunzi yeyote.

JE, NITAWEZA KUMUULIZA NANI KAMA NINA MASWALI KUHUSU UTAFITI?
Kama una mwaswali yoyote unaweza kumuuliza mtafiti aliyekupatia fomu hii

Mtafiti mkuu: Mrema Kilonzo
Chuo kikuu cha TIBA na sayansi ya Afya muhimbili
P.o.box 65466 DSM. Simu namba 0658077787

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MUHAS
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☐ **Amekubali** kushiriki

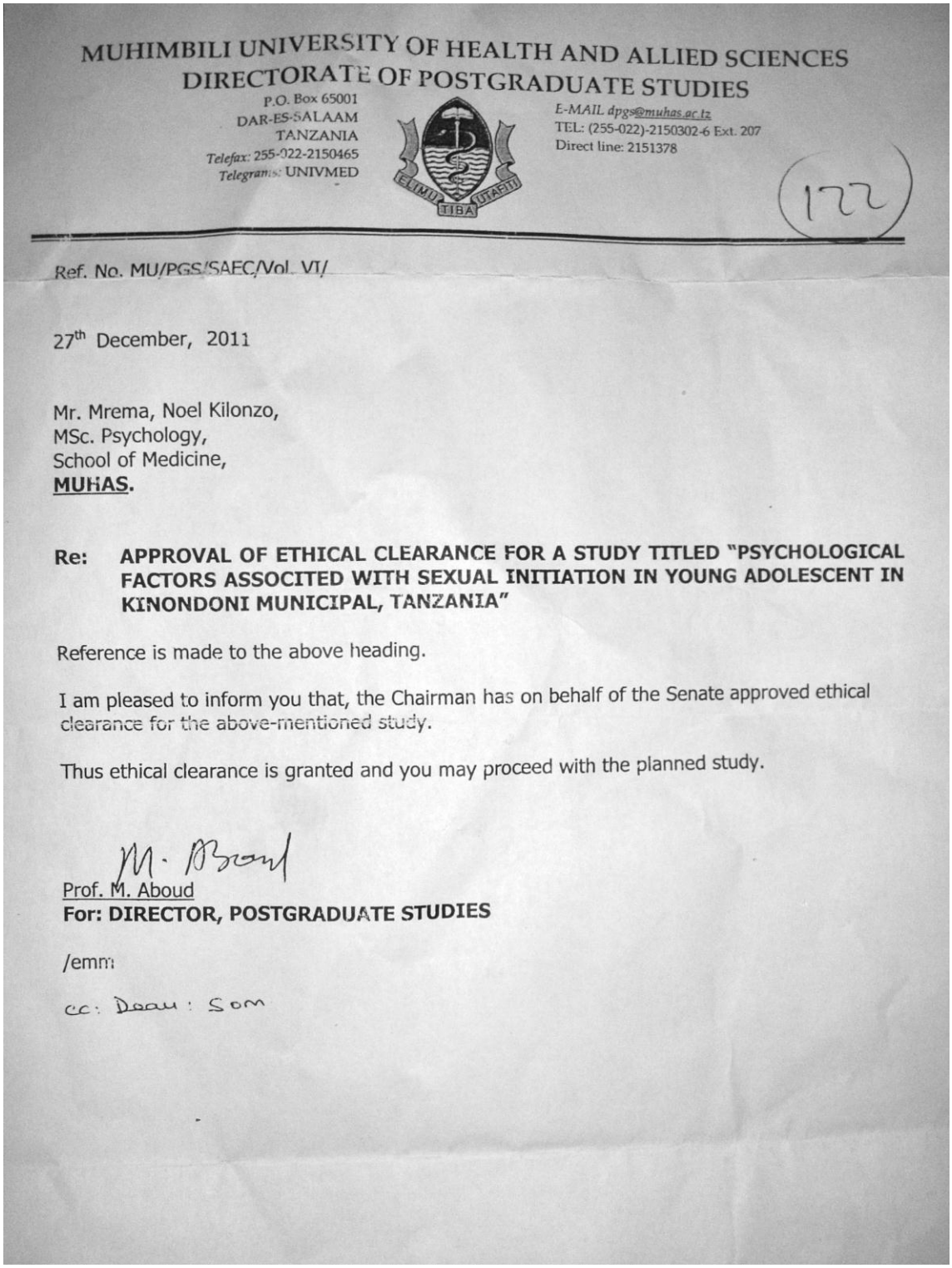
☐ **Hakukubali** kushiriki

Je, umeelewa sababu za kuombwa kushiriki katika utafiti huu na maswali yako yote yamejibiwa?

☐ **Ndiyo**

☐ **Hapana**

Appendix V: Ethical clearance



MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR-ES-SALAAM
TANZANIA
Telefax: 255-022-2150465
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E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

ELIMU TIBA UTAFITI

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Ref. No. MU/PGS/SAEC/Vol. VI/

27th December, 2011

Mr. Mrema, Noel Kilonzo,
MSc. Psychology,
School of Medicine,
MUHAS.

Re: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "PSYCHOLOGICAL FACTORS ASSOCITED WITH SEXUAL INITIATION IN YOUNG ADOLESCENT IN KINONDONI MUNICIPAL, TANZANIA"

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has on behalf of the Senate approved ethical clearance for the above-mentioned study.

Thus ethical clearance is granted and you may proceed with the planned study.

M. Aboud

Prof. M. Aboud
For: DIRECTOR, POSTGRADUATE STUDIES

/emm

cc: Dean: SOM