Menstrual knowledge, perception and hygiene practices of girls in secondary schools at Ubungo Municipal, Dar Es Salaam Tanzania

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MENSTRUAL KNOWLEDGE, PERCEPTION AND HYGIENE PRACTICES OF GIRLS IN SECONDARY SCHOOLS AT UBUNGO MUNICIPAL, DAR ES SALAAM TANZANIA

By

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Dissertation Submitted in (Partial) Fulfillment of the Requirement for the Degree of Master of Public Health of

Muhimbili University of Health and Allied Sciences
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CERTIFICATION

The undersigned certificate that, he has read and hereby recommends for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled: **"Menstrual Knowledge, Perception and Hygiene Practices of Girls in Secondary Schools at Ubungo Municipal, Dar es Salaam Tanzania",** in (partial) fulfillment of the requirements for the degree of Master of Public Health of Muhimbili University of Health and Allied Sciences.

_____

Dr. Deodatus Kakoko

(Supervisor)

_____

Date

DECLARATION AND COPYRIGHT

I, **Mariam El maamry,** declare that this **dissertation** is my own original work that it has not been presented and will not be presented to any other university for similar or any degree award.

Signature: ……. **Date:** …….

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With great respect, thanks do to all members of academic staff of the School of Public Health and Allied Sciences. It was from them that the foundation of this work grew. Sincere gratitude goes to my supervisor Dr. Deodatus Kakoko for his tireless guidance and support throughout the period of research. Lastly I would like to thanks Dr. Idda Mosha for her encouragement and guidance as well.

DEDICATION

This dissertation is dedicated to my lovely mother for laying the foundation of my education. I also dedicate this work to my family as a motivation to work hard.

ABSTRACT

Background: Menstrual knowledge, perception and hygiene practices among secondary school girls is a sensitive subject as it is regarded to be something confidential, unclean or shameful within the society. There is a need to empower girls with required knowledge that will build confidence during menstruation when they are at schools to ensure safe and healthy menstruation practices.

Main objective: To assess menstrual knowledge, perception and hygiene practices of adolescent girls in secondary schools.

Methods: This was a descriptive study which involved adolescent girls with a sample size of 403 of adolescent girls in Secondary Schools. Questionnaires were used to collect information on level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary schools. Cross tabulation and frequency tables were used to determine the level of menstrual knowledge, perception and menstrual hygiene practices of adolescent girls in secondary schools. Bivariate analysis was used to establish associations between different variables and Chi-square was used to test significance of association.

Results: Majority (82.9%) of the adolescent girls had high knowledge on menstruation while 53.8% had positive perception and 85.1% had good menstrual hygiene practices. Despite the high level of menstruation knowledge, restrictions from the community were found to affect hygiene practices of menstruation and perception. However, menstrual knowledge and menstrual perception are statistically significant associate with menstrual hygiene practices.

Conclusions and Recommendation: Restriction from the community that affect hygiene practices and perception during menstruation despite relatively good knowledge of menstruation. Efforts have to be put into the community by educating and breaking the silence at the community on meaning of menstruation, importance of good hygienic practice.

TABLE OF CONTENTS

CERTIFICATION i
DECLARATION AND COPYRIGHT ii
ACKNOWLEDGEMENT iii
DEDICATION iv
ABSTRACT v
TABLE OF CONTENTS vi
LIST OF TABLES ix
LIST OF FIGURES x
DEFINITIONS OF TERMS xii
CHAPTER ONE 1
1.0 INTRODUCTION 1
1.1 Background to the Problem 1
1.2 Problem Statement 2
1.3 Rationale for the Study 3
1.4 Research Question 3
1.4.1 Main Question 3
1.4.2 Specific Question 3
1.5 Objectives 4
1.5.1 Main Objectives 4
1.5.2 Specific objectives recognize 4
1.6 Theoretical and Conceptual Framework 4
CHAPTER TWO 6
2.0 LITERATURE REVIEW 6
2.1 Menstruation Knowledge 6
2.2 Menstrual Perception 7
2.3 Menstrual Hygiene Practices 8

CHAPTER THREE 9
3.0 METHODOLOGY 9
3.1 Study Design 9
3.2 Study Area 9
3.3 Study Population 9
3.4 Sample Size 9
3.5 Dependent variable 10
3.6 Independent variables 11
3.7 Inclusion criteria 12
3.8 Exclusion criteria 12
3.9 Sampling Technique 12
3.10. Data Collection Method 13
3.11. Recruitment of Research Assistant and Training 13
3.12. Pre- Testing of the Tool 13
3.13. Data Collection Procedure 14
3.14 Data Management and Quality Control 14
3.15. Data Entry and Data Analysis 14
3.16. Ethical Considerations 15
CHAPTER FOUR 16
4.0 RESULTS 16
4.1 Socio-demographic characteristics study participant 16
4.2 Level of Menstrual Knowledge of the Adolescent Girls in Secondary Schools 17
4.2.1 Source of Menstrual Information 19
4.3 Menstrual Perceptions 19
4.4 Menstrual Hygiene Practices 21
4.4.1 Restrictions during Menstrual Hygiene Practices 22
4.5 Association between Menstrual Knowledge and Menstrual Hygiene Practices 22
4.6 Associations between Menstrual Perception and Hygiene Menstrual Practice. 23

CHAPTER FIVE 24
5.0 DISCUSSION 24
5.1 Level of Menstrual Knowledge of the Adolescent Girls in Secondary Schools 24
5.2 Menstrual Perception 25
5.3 Menstrual Hygiene Practices 26
5.4 Associations between Menstrual Perception, Knowledge and Menstrual Hygiene Practices 27
5.5 Limitations of the Study 27
CHAPTER SIX 28
6.0 CONCLUSION AND RECOMMENDATION 28
6.1 Conclusion 28
6.2 Recommendations 28
REFERENCE 29
APPENDICES 34
Appendix I: Informed Consent Form - English Version 34
Appendix II: Informed Consent Form – Kiswahili Version 37
Appendix III: Questionnaire - English Version 40
Appendix IV: Questionnaire - Kiswahili Version 47
Appendix V: Ethical clearance letter 55
Appendix VI: Permission letter 56

LIST OF TABLES

Table 1: Socio-demographic characteristics of respondents……16

Table 2: Menstrual Knowledge of Adolescent Girls in Secondary Schools……18

Table 3: Menstrual Perception of Adolescent Girls in Secondary Schools…….....20

Table 4: Menstrual Hygiene Practices of Adolescent Girls…….……....21

Table 5: Association between Menstrual Knowledge and Hygiene Practices……...…..23

Table 6: Associations between Menstrual Perception and Hygiene Menstrual Practice....….23

LIST OF FIGURES

Figure 1: A Conceptual Framework 5

Figure 2: Source of Menstrual Information 19

Figure 3: Restrictions practiced during Menstruation 22

ABBREVIATIONS

DAS	District Administrative Secretary
DEO	District Education Officer
MHM	Menstrual Hygiene Management
MUHAS	Muhimbili University of Health and Allied Sciences
RAS	Regional Administrative Secretary
SNV	Netherlands Development Organization
SPSS	Statistical Package for the Social Sciences
TAWASANET	Tanzania Water and Sanitation Network
UNICEF	United Nations children Emergency Fund
WHO	World Health Organization

DEFINITIONS OF TERMS

Adolescent: Refers to transitional stage of physical and psychological human development from puberty to adulthood (WHO, 2013).

Culture: The learned behavior of a group of people that is generally considered to be the tradition of that people and is transmitted from generation to generation (Ramathuba, 2015).

Menarche: The first occurrence of menstruation (UNICEF, 2012).

Menstrual hygiene: Effective management of menstrual bleeding by women and girls (UNICEF, 2012).

Knowledge: Girls familiar with and awareness of menstruation, safe and correct menstrual practices and the risk related with unsafe menstrual practices (Park et al., 2015).

Menstruation: Normal vaginal bleeding or discharge of blood mucosal tissue from the uterus and vagina that occurs as part of a woman's monthly cycle (WHO, 2013).

Taboos: Vehement prohibition of an action/behavior based on the belief that such action/behavior is contradictory to socio-cultural norms. Violation of such norms is punishable (Sommer et al., 2014).

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Problem

Menstruation is a puberty stage in girls, it comes with many physical signs that a girl has to turn into a woman (Guya et al., 2014; Rumun et al., 2014). Menstruation occurs to serve one of the most fundamental purpose of mankind, which is reproduction and the occurrence of regular menstruation as an evidence of female's excellent reproductive health (WHO, 2013; Resources et al., 2013). Most of the adolescence despite of the advantageous action, menstruation comes with dramatic signs which affects girls socialization with family and community (Parvin et al, 2016; Nemade et al., 2009) .

However, source of information to adolescent girls on menstruation are either mothers, sisters, peers or teachers (Vaughn, 2013; Karout, 2016). The kind of knowledge they share to young adolescent are highly influenced by the cultural and religious belief than scientific way, this can be due to socio-cultural barriers and restrictions which they grew up (Tamiru et al, 2015; Karout, 2016). Due to inadequate sources of information about menstruation to girls, majority of adolescent girls are often reluctant to discuss menstruation with their parents and hesitate to seek help regarding menstruation problems (Kirk et al., 2004; Shanbhag et al., 2012).

In Tanzania, 70% of adolescent girls are not well prepared for menstruation (SNV, 2014; PATH, 2016; Campaign et al., 2014). However, many girls perceive menstruation as a secret thing and unclean as a result they feel ashamed about the process but in reality nothing unclean or shameful (Fehintola et al., 2017; Upashe et al., 2015).

Managing menstruation effectively and with dignity can be a challenge, and may result in adverse consequences such as behavioral restrictions, school absenteeism, or shame and embarrassment (Bachloo et al., 2017; Bachloo et al., 2017).

1.2 Problem Statement

Menstruation is often considered a taboo subject in Tanzania. This prevents open discussion about it. Adolescent girls can feel scared and isolated, often fearing they are ill or dying (SNV, 2014). Outdated myths are common in African communities, like the myth that if girls walk past men whilst menstruating they can get pregnant, or that their menstrual stomach cramps will stop if they get married or pregnant (Siabani et al., 2018; Guya et al., 2014). Young girls hide their periods from male family members and most mothers feel uncomfortable discussing the subject, because of limited knowledge of menstruation (Seenivasan et al., 2016; Karout, 2016; Siabani et al., 2018).

A study was done June 2014 in four countries Ethiopia, South Sudan, Tanzania, and Zimbabwe and found that more than 80% of the adolescent girls have knowledge about puberty in general but have limited know-how on handling the changes including menstruation. Also it indicates that on average 66% of the girls had not known about menstruation before it started (Tamiru et al., 2015). This results were similar with studies done in Nigeria and other part of India (Rumun et al., 2014; Raina et al., 2014; Nadiraet al., 2016; Karout, 2016).

However, on average girls in Tanzania miss five days of school a month during their periods. They do this to avoid the embarrassment of their male classmates teasing them about stains on their skirts, or to simply just avoid feeling uncomfortable in class because they don't have the knowledge to manage their periods hygienically (Guya et al., 2014; Campaign et al., 2014; Tamiru et al., 2015).

Many studies about assessment of menstrual knowledge, perception and hygiene practices were conducted and practiced all around the world, but only a few related to this subject were conducted in Tanzania mainly in rural areas (Campaign et al., 2014; Tamiru et al., 2015). Therefore, the purpose of this study was to assess level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary school at Ubungo Municipal.

1.3 Rationale for the Study

Since there is inadequate knowledge on menstrual among adolescent girls in Tanzania, this study will identify issues relevant to perception and menstrual hygiene practices among adolescent girls. The study also intends to identify necessary actions to be taken at local and national levels. It is also hoped that the findings from the study will generate further interest in the research field of menstrual knowledge and hygiene practices among parents and teachers in Tanzania.

1.4 Research Question

1.4.1 Main Question

What is the level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary schools?

1.4.2 Specific Question

i. What is the level of menstrual knowledge of adolescent girls in secondary schools?

ii. What are the perceptions about menstruation of adolescent girls in secondary schools?

iii. What are the hygiene practices of adolescent girls during menstruation?

iv. What is the association between menstruations related knowledge and practices of adolescent girls in secondary schools?

v. What is the association between menstruations related perceptions and practices of adolescent girls in secondary schools?

1.5 Objectives

1.5.1 Main Objectives

To assess level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary schools.

1.5.2 Specific objectives recognize

i. To determine level of menstrual knowledge of the adolescent girls in secondary schools.
ii. To assess perceptions about menstruation of adolescent girls in secondary schools.
iii. To assess menstruation hygiene practices of adolescent girls in secondary schools.
iv. To determine association between menstruations related knowledge and hygiene practices of adolescent girls in secondary school.
v. To determine association between menstruations related perceptions and hygiene practices of adolescent girls in secondary schools.

1.6 Theoretical and Conceptual Framework

Conceptual framework of this proposal illustrated in fig.1 shows that menstrual hygiene practices are hypothetically determined by the factors associated with menstrual knowledge (menstrual meaning, age of starting menstruation, menstruation duration, materials used and source of knowledge) and menstrual perceptions (self-care, social restrictions and materials used).

However, menstrual hygiene practices of adolescent girls in secondary schools are hypothetically associated with menstrual knowledge and menstrual perception. Therefore, the aim of this study is to assess level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary school at Ubungo Municipality.

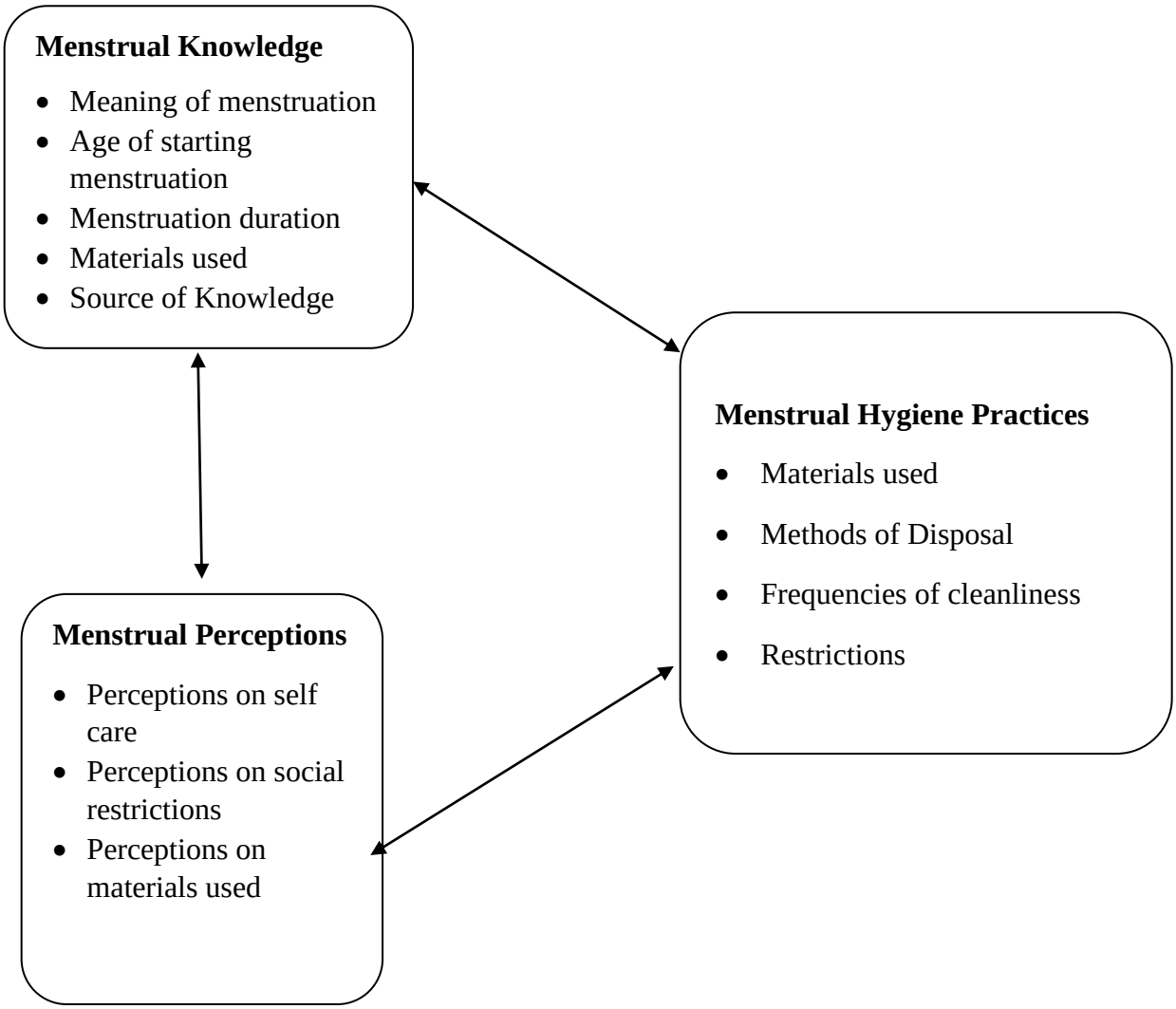


Figure 1: A Conceptual Framework

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter explores available literature and locate the study problem and the level of menstrual knowledge, perception and hygiene practices.

2.1 Menstruation Knowledge

Other studies report that most adolescent girls had basic knowledge on puberty issues, they only know the first stage of body changes but limited knowledge on how to handle and manage themselves during menstruation (SNV, 2014; Pradeepkumar et al., 2017; Ramathuba, 2015; Tegegne et al., 2014).

A cross-sectional study undertaken in India with 150 respondents reports that the majority of the girls did not fully understand the physical process of menstruation hence were not prepared for their first period (Raina et al., 2014). The study further highlights that majority of the girls did not know about the cause of menstruation while others believed it to be a physiological process.

However, the findings of the Raina et al. (2014) study correspond with the findings of a Ramathuba (2015), the findings shows that majority of the girls even did not know the sources of menstrual bleeding. This complies with the findings of another study on the menstrual hygiene management. The study was based on data collected from 595 girls aged between 13 and 17 years. It revealed that most girls had no prior knowledge about menstruation and its management. As a result they reported to have been faced with different psychological and emotional problems, including being shocked, scared and felt ashamed. Misconceptions about menstruation, such as being dirty and considering it as unhealthy situation, were common (Tegegne et al., 2014).

Furthermore, another study Shanbhag et al. (2012) testified inadequate knowledge of the menstruation process among school girls. The majority of the girls in the study have heard about menstruation, but none of them understood its process (Shanbhag et al., 2012). Their

main source of knowledge among adolescent girls relay on mothers to get knowledge of menstruation, but they don't provide enough education on menstruation issues and practices to their daughters, this has been connected with shame and silence pervading the issue of menstruation within the family and the community at large (Kamath et al., 2013; House et al., 2012).

A study was done and reveled that some of the men do prohibit their wives not to discuss with their children on issues of menstruation and when found discussing, they could be punished, or viewed as having hidden agenda (SNV, 2014). Findings from different study show that parents normally do not discuss menstruation with their daughters until menarche and believe that it is the school's responsibility to introduce these menstruation (Vaughn, 2013; Guya et al, 2014; Patel, 2017).

The above studies confirm the value of adequate information, and further, the fact that knowledge can influence attitudes towards good hygiene, behavioural practices and proper menstrual hygiene significantly. In Tanzania there was very little information regarding the level of menstrual knowledge especially in rural areas than urban areas. Therefore it is very important to know level of menstrual knowledge in urban and prepare adolescent girls prior to menarche sufficiently by educating them on menstruation and menstrual hygiene.

2.2 Menstrual Perception

Menstruation is seen as sign of maturity, unclean or dirty in most societies and linked with several misconceptions and practices such as use of sanitary pads, which results to cancers (Sultan et al., 2017; SNV, 2014; Fehintola et al., 2017).

However, different society have difference perception of menstruation as they believe that menstrual cloth seen by others will be results to a curse, while other society believe that, women should bury their cloths used in menstruation to prevent themselves from curse and being used by evil spirit, while others believes that menstrual blood is dangerous, and a malevolent person can do harm to a menstruating woman or girl by using black magic. It is also believed that a woman can use her menstrual blood to impose her will on a man. Native

female healers treat wounds and bruises with cloths soaked in menstrual blood. They believe this will help the wounds heal quicker and prevent scars being left behind, others restrict girls from participating activities in the society (House et al., 2012; Raina et al., 2014; Srinivas et al., 2016; Seenivasan et al., 2016; SNV, 2014).

2.3 Menstrual Hygiene Practices

Studies reveled that existing negative perception in the community and inadequate menstrual knowledge affect hygiene menstrual practices (Tamiru et al., 2015; Campaign et al., 2014).

Poor menstrual practices are associated with pain and discomfort (Sultan et al., 2017; Sapkota et al., 2014). Findings from other studies show that inappropriate practices of menstruation such as materials for very long time without changing may result to genital itching and discomfort, and may contribute to infections (Seenivasan et al., 2016; Fehintola et al, 2017; Siabani et al., 2018).

In African community, menstruation practices attached with restrictions such as involvement in the religion prayers in period, sharing food and many more restriction (Vaughn, 2013; Nwimo et al., 2016). A study conducted in in five countries such as Tanzania, Ethiopia, Uganda, south Sudan and Zimbabwe, found in Uganda (2014) at least 28%, South Sudan 52% of girls reported that people around them expect them to restrict their movement during menstruation. In Ethiopia reported problems faced during menstruation by the 650 post-menarche girls surveyed include isolation (48.8%), insult (26.7%) and discrimination (24.5%). In Tanzania menstruating girls are not allowed to touch water sources, cook, wash dishes, touch plants or pass through planted fields (SNV, 2014).

CHAPTER THREE

3.0 METHODOLOGY

This chapter describes methodology that was employed in this study. It outlines the study design and describes the research setting; it further defines the study population, as well as the sampling, the data collection and analysis. Lastly it explains ethical considerations underlying the study.

3.1 Study Design

A cross sectional study design was used to assess level of menstrual knowledge, perception and hygiene practices among adolescent girls. This design was found most appropriate as it measures the outcome and the exposure(s) in the population, and also their association.

3.2 Study Area

The study was conducted in secondary schools at Ubungo Municipal. The researcher selected the Municipal because it is new Municipal with a population of 56015(National Bureau of Standard, 2013) and growing very first than any Municipal in Dar es salaam. The schools selected in the Ubungo Municipal are from within two Wards (Kibamba and Magomeni) and different Divisions. Selected schools, are co- School (day school) and one school from single sex school (boarding school).

3.3 Study Population

The target population for the study was adolescent girls in secondary schools at Ubungo Municipal in Dar es Salaam region.

3.4 Sample Size

The sample size needed in order to obtain the number of adolescent girls in secondary schools was given by;

$$n = \text{Deft}^2 \times \frac{(1/P - 1)}{\alpha^2}$$

Where

Deft is design effect;

n is the net sample size in individuals;

P is the proportion value of the indicator; and

α is the desired relative standard error

P= 50% (since the Proportion for menstrual knowledge, Perception and practices of girls in Secondary Schools is unknown then P of 50% will be used), design effect (deft) = 1.5 (it is a standard) and alpha is 0.077 then the net sample size was 380 girls using non-response rate of 10%

Na= n/Response rate

Na= 380/0.9

Na= 422

The adjustment sample size was 422 students

A total of 403 adolescent girls respond to the questioner instead of 422 due form four national examinations. A number of 274 adolescent girls were from co school and 129 adolescent girls were from a single sex school. The number was derived proportionately basing on number of mixed and single sex secondary schools.

3.5 Dependent variable

The main dependent variable is menstrual hygiene practices among secondary school girls, which was measured using the six multiple questions and seven questions on restrictions practices during menstruation with options to choose yes or no. In scoring the students' menstrual practice, an arbitrary scoring system was used. Each correct response attracted one point, whereas any wrong respond received 0 marks.

However, each question under menstrual hygiene practices could be compared to each individual student either they get it right or wrong and summation was obtained for each question for those who got it right against those who respond wrong.

Thereafter score scale was prepared to asses students with good menstrual hygiene practice against those with poor menstrual hygiene practices in their overall marks of their respond. The scored scale range from 0-2 points under menstrual hygiene practices were determined as having poor menstrual hygiene practices; whereas those scored 3-6 were determined as having good menstrual hygiene practices.

3.6 Independent variables

The main two independent variables of interest are menstrual knowledge and menstrual perception. Other independent variables that may influence or explain our findings included: source of information and social demographic characteristics like age (in years), class, age at menarche, level of education for their mothers and fathers (primary school, secondary school, incomplete secondary school and secondary education and above), and religion.

Menstrual knowledge was measured using seven questions in which they were scored 1 if they got it correct and scored 0 if they had an incorrect response. A summative score was created by adding scores for all seven questions of knowledge. Respondents scored 0-2 points under knowledge were determined as having poor knowledge; whereas those scored 3-4 were adjudged as having low level and 5-7 were determined as good knowledge of menstruation.

Menstrual perception was scored based on a Likert scale from 0 to 8, strongly disagree to strongly agree. Respondent with the correct answer could get a mark which is 1 and wrong answer could get 0. Total marks for those who scored from 0-3 of menstrual perception were defined as having negative perception; whereas those with the total scored 4-8 were adjudged as positive menstrual perception.

3.7 Inclusion criteria

All adolescent girls in secondary schools at Ubungo Municipal both government and private schools such as from form one to form six were included in the study on the consideration of selected girls who attended school on that day of survey and willing to participate in the study.

3.8 Exclusion criteria

Adolescent girls who are ill, absent on the day of survey, girls who are not at menarche and those who refused to participate were excluded in the study.

3.9 Sampling Technique

Sampling technique that was used in the study was stratified random. Whereby, from the two wards that was Kibamba and Magomeni Wards strata was made about 14 strata. Nine strata were from Magomeni Ward and five strata were from Kibamba ward. Random selection was made in each strata in which three division from Magomeni ward and two division was selected from Kibamba ward.

Each division, list of schools were presented and randomly selection was done to choose five schools from five division. Therefore Barbro Johansson Model Girls Secondary school, Goba secondary school, Temboni secondary school, Mbezi Secondary school and Mgabe secondary school was selected.

However, in each selected school number of respondents were selected depend on the number of students in each form. Therefore Temboni secondary school 138 adolescent girls were randomly selected from form one to form four, Goba secondary school 136 girls were selected from form one to four and Barbro Johansson 129 girls were randomly selected in form one, form two , form five and six. The two remaining schools they could not participate in the study due to national examination for form four.

3.10. Data Collection Method

Data on level of menstrual knowledge, perception and hygiene practices of adolescent girls in secondary schools was collected using a questionnaire. The questionnaire comprised three parts:

A. Socio-demographic information: age, form, parent's education, age at menarche

B. Menstruation - related knowledge: menstrual definition, menstrual cycle, normal age for menstruation, normal flow, cause of menstruation, organ that menstrual come, absorbent for menstruation and sources of information for menstruation.

C. Perception on menstruation: personal hygiene, change of menstrual absorbents, storage of menstrual absorbents, sitting near boys during menstruation, menstrual as sign of a curse by God.

D. Menstrual hygiene practices: material used during menstruation, material used for cleaning, storage of menstrual material, disposal method, and cleaning hands during menstruation, and restrictions questions during menstruation.

The tool was pilot tested to ensure face validity and accurate capture of idioms specific to the Tanzanian context.

3.11. Recruitment of Research Assistant and Training

Data was collected by the investigator with one assistance researcher. Assistant researcher was trained for one day before the fieldwork. The training content comprised of introduction of the study, sampling process, familiarization and administration of research tools. Other important issues was ethical concerns in data collection and research administrative issues such as work schedule and data storing was emphasized as per the training manual.

3.12. Pre- Testing of the Tool

Pre- testing of the questionnaire was conducted in Oysterbay Secondary School in Kinondoni district with the sample size of 50 adolescent girls. The aim of the pretest was to test the validity and reliability of the questionnaire.

3.13. Data Collection Procedure

Before getting into Ubungo Municipal, the researcher obtained permission from the Regional Administrative Secretary (RAS) of Dar es Salaam region, then down to the District Administrative Secretary (DAS), then to District Executive Director and met Education officer in charge of Ubungo District whereby he gave me list of schools and division with specific location of Ward and Division.

After obtaining all permits, we started visiting schools which were selected randomly in specific Division that was appointed. When we went to the schools, we met Head Teacher or Academic Master. We introduced ourselves with the research permits and explained the purpose of the study. After accepting our request, we explained the purpose of the study to the adolescent girls and requested their consent for the purpose of filling out questionnaires.

The respondents were instructed not to write their names in the questionnaire and the tool for the confidentiality. The questionnaires filling procedure took an average of thirty (30) minutes. After completion the respondents submitted the filled questionnaires to the Research Assistant while the principal researcher aligned other participants ready for filling the questionnaire. Next stage by Research Assistants was to check the questionnaires were completed.

3.14 Data Management and Quality Control

The principal researcher participated in data collection and supervision of the study. The questionnaire was inspected daily to check for consistency.

3.15. Data Entry and Data Analysis

Data was processed using Statistical Package for the Social Sciences (SPSS) version 16. Data were entered into the SPSS and cleaned before categorization and analysis. Double entry of data was made for validation. Data were summarized in tables and graphs, which displayed computed frequencies, means, standard deviation and range.

Cross tabulation and frequency tables were used to determine the level of menstrual Knowledge, perception and menstrual hygiene practices of adolescent girls in secondary schools. Bivariate and multivariate analysis was used to establish associations between

different variables and Chi-square was used to test significance of association. Statistical significance was set at a p-value of 0.05 and estimates are reported with their 95% confidence interval.

3.16. Ethical Considerations

The proposal passed through the ethical review processes by Institutional Review Board of the Muhimbili University of Health and Allied Sciences (MUHAS). Permission to conduct the study was sought from relevant authorities including obtained from Regional Administrative Secretary (RAS), then to District Administrative Secretary (DAS) and went to District Executive Director (DED) and District Education Officer (DEO) of Ubungo Municipal. Informed consent was sought and obtained from the head of school and students who participate in the study. Prospective study participants were informed about the objectives of the study and that their participation was voluntary as there would be no any kind of coercion for participation.

Furthermore, participants were free to decline or withdraw at any time in the course of the study without any repercussion. It was also clarified that the information to be provided, was for research purposes and would strictly be anonymous and dealt with confidentialityy.

CHAPTER FOUR

4.0 RESULTS

4.1 Socio-demographic characteristics study participant

Table 1 indicates that the majority of the respondents (45.9%) were aged between 15 and 17 years, with 30.3% between 18 and 20 years, whilst 23.7% fell within the ages of 12-14. Of the respondents 24.6% were in form five and six, 75.4% were in form one to four. Nearly half of the respondents mother's education (36%) were at higher level, 42.2% with secondary level of education, 20.3% with primary level of education and 1.5% were illiterate.

However, 73% started menstruation below 12 years of age and 76.6% started menstruation at the age of 13 years and above. The findings suggest that the mean age for girls to start menstruating is 13 years in the (Table 1).

Table 1: Socio-demographic characteristics of respondents (N = 403)

Variables	N	%
Age		
12-14	96	23.7
15-17	185	45.9
18-20	122	30.3
Class		
Form One	99	24.6
Form Two	71	17.6
Form Three	73	18.1
Form Four	61	15.1
Form Five	49	12.2
Form Six	50	12.4
Mother's Level of Education		
Illiterate	6	1.5
Primary	82	20.3
Secondary	170	42.2
Higher Education	145	36.0
Age at Menarche		
≤ 12 years	94	23.2
≥ 13 years	309	76.6

4.2 Level of Menstrual Knowledge of the Adolescent Girls in Secondary Schools

Regarding the level of menstrual knowledge of the adolescent prior to menarche, 42.9% had moderate level of menstrual knowledge followed by 40.2% of adolescent girls who had high level of menstrual knowledge and 16.4% had very low level of menstrual knowledge.

However, 81.4% reported to be able to define menstrual period, One quarter of adolescent girls 25.6% could not define Menstrual Cycle, whilst (14.4%) could not mention normal age for Menstruation to begin and 55.8% reported they failed to explain normal flow of menstruation blood during period. Seventy three percent failed to explain the cause of menstruation, whilst 63.3% of 403 failed also to explain the organ that menstrual blood comes from. Nevertheless, 88.8% were able to explain absorbent that likely to be used during menstruation.

Table 2: Menstrual Knowledge of Adolescent Girls in Secondary Schools (N = 403)

Variables	N	%
Menstrual Definition		
From the first day of bleeding to ovulation	48	11.9
From the end of the bleeding to ovulation	26	6.5
From the bleeding end to the next period	44	10.9
From first day of the bleeding to the last bleeding day	210	52.1
Don't know	75	18.6
Menstrual cycle definition		
From the end of the bleeding to ovulation	34	8.4
From the bleeding end to the next period	145	36.0
From first day of the bleeding to the last bleeding day	72	17.9
First day of bleeding to the first day of next bleeding	49	12.2
Don't know	103	25.6
Normal age for menstruation		
12 years	254	63
13 years	40	9.9
14 years	32	7.9
15 years	19	4.7
Don't know	58	14.4
What is the normal flow		
1-2 days	27	6.7
3-5 days	111	27.5
6-7 days	178	44.2
8-10 days	3	0.7
Don't know	84	20.8
Cause of menstruation		
Hormonal action	296	73.4
Curse from God	9	2.2
Dirty fluids in the body	71	17.6
Diseases	5	1.2
Don't know	22	5.5
Which organ does the menstruation blood comes		
Urethra	20	5.0
Vagina	220	54.6
Uterus	148	36.7
Ladder	4	1.0
Don't know	11	2.7
Absorbent used during menstruation		
Sanitary pad	358	88.8
Old clothes	33	8.2
Toilet papers	3	0.7
Cotton	2	0.5
Don't know	7	1.7

4.2.1 Source of Menstrual Information

During Menarche, it was revealed that 47% of 189 adolescent girls receive first information from mothers as their source of information, while 40% of 163 adolescent girls used books, communication materials about 38% of 153 adolescent, about 14.2% of 59 adolescent girls received information from friends and 12.2% of 49 adolescent girls received the first information from Teachers and Sisters as sources of inform.

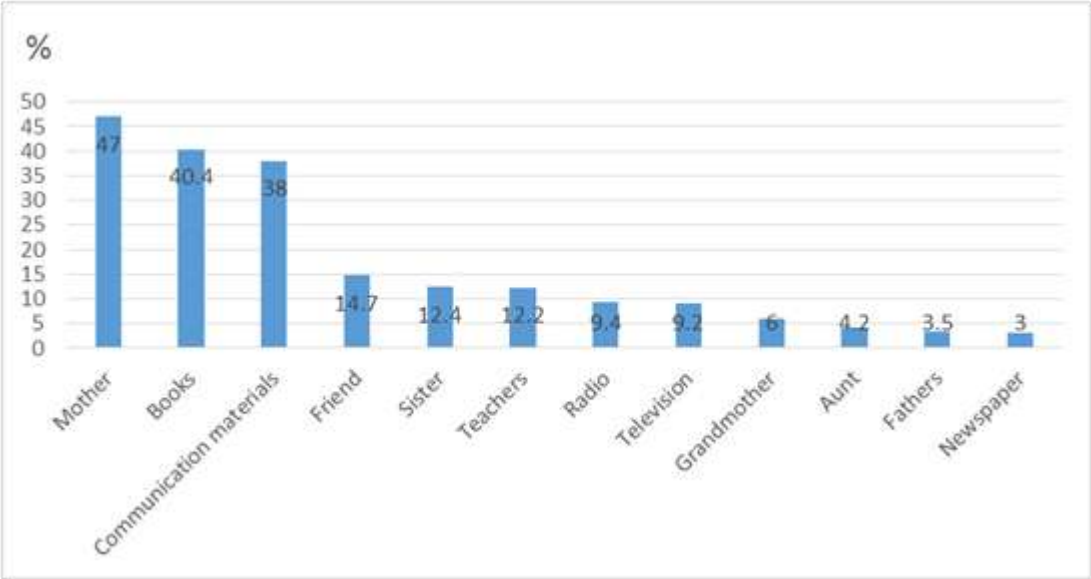


Figure 2: Source of Menstrual Information

4.3 Menstrual Perceptions

It was found that 53.8% of 217 adolescence girls had positive perception towards to menstruation while 46.2% of 186 adolescent girls had negative perception towards menstrual perception.

Table 3: Menstrual Perception of Adolescent Girls in Secondary Schools (N = 403)

Variables	N	%
Take care Personal Hygiene		
strongly Disagree	21	5.2
Disagree	35	8.7
Agree	130	32.3
Strongly Agree	217	53.8
Absorbents should be change at home		
strongly Disagree	207	51.4
Disagree	143	35.5
Agree	43	10.7
Strongly Agree	10	2.5
Cloth used for menses should be washed and dried at hidden place		
strongly Disagree	227	56.3
Disagree	115	28.5
Agree	47	11.7
Strongly Agree	14	3.5
Girls should not seat near boys		
strongly Disagree	209	51.9
Disagree	124	30.8
Agree	45	11.2
Strongly Agree	25	6.2
Menstrual cycle shows girls are no longer virgin		
strongly Disagree	239	59.3
Disagree	125	31
Agree	35	8.7
Strongly Agree	4	1
Not to go to school in menses		
strongly Disagree	248	61.5
Disagree	126	31.3
Agree	21	5.2
Strongly Agree	8	2
Menstruation is sign that women are cursed by God		
strongly Disagree	254	63.0
Disagree	119	29.5
Agree	21	5.2
Strongly Agree	9	2.2
Clothes are better during menstruation		
strongly Disagree	216	53.6
Disagree	109	27.0
Agree	59	14.6
Strongly Agree	19	4.7

4.4 Menstrual Hygiene Practices

Participants reported various hygiene practices related to menstruation, whereby 87.8% reported to be using sanitary pad, regarding storage of unclean materials during menses 23.1%, store in the bathroom, 66.3% used water and soap in cleaning their genital while 28% store with routine cloth and 80.9% they burnt their unclean material used during menses. Those wash hands before cleaning genitals during menses, 2.5% they always wash their hands before cleaning genitals while 11.2% they don't wash hands before cleaning genitals during menses.

Table 4: Menstrual Hygiene Practices of Adolescent Girls (N = 403)

Variables	N	%
Material use for menstruation		
Sanitary pad	354	87.8
Old cloth	34	8.4
New cloth	15	3.7
Material use for cleaning of external genitalia		
Only water	118	29.3
Soap and water	267	66.3
Water and antiseptic	18	4.5
Storage of material used for menstruation		
Bathroom	93	23.1
Storage with routine cloth	113	28.0
Don't know	197	48.9
Method used to dispose material used for menstruation		
Burn it	326	80.9
Throw it in dustbin	35	8.7
Flush in toilet	42	10.4
How many times do you clean external genitals during menses	16	4
Not at all	316	78.4
More than 2 times	71	17.6
Less than 2 times		
How often do you wash hands before cleaning genitals during menses		
Not at all	45	11.2
Sometimes	192	47.6
Most of times	156	38.7
Always	10	2.5

4.4.1 Restrictions during Menstrual Hygiene Practices

There were restrictions of menstrual hygiene practices on adolescent girls from the community as about 45.9% were restricted to attend religious function during their menses, 9.4% restricted to perform house work during menstruation, 13.9% restricted to handle family food during menstruation. Some of the respondents were restricted to sleep on routine bed during menstruation about 10.4%.



Figure 3: Restrictions during Menstruation hygiene practices

4.5 Association between Menstrual Knowledge and Menstrual Hygiene Practices

The study found positive association and statistically significant association between menstrual knowledge and hygiene practices. It was noted that 40% of adolescent with high level of menstrual **k**nowledge and good menstrual hygiene practices, as opposed to 4% who had poor menstrual practices with low level of knowledge.

Table 5: Association between Menstrual Knowledge and Hygiene Practices (N=403)

	Low Level of Menstrual Knowledge N (%)	Moderate Level of Menstrual Knowledge N (%)	High Level of Menstrual Knowledge N (%)	Total N (%)	χ^2
Poor Menstrual Practices	15(4)	43(11)	2(1)	60(15)	0.000
Good Menstrual Practices	51(13)	130(32)	162(40)	343(85)	
Total	66(16)	173(43)	164(41)	403(100)	

4.6 Associations between Menstrual Perception and Hygiene Menstrual Practice.

The study found positive association and significant association between menstrual perception and hygiene practices. It was noted that 44% of adolescent with good perception had also good menstrual practices as opposed to 41% who had negative perception and good practices. The findings also reveals that 12% of adolescent with negative perception had also bad menstrual practices while only 2.5% of adolescent with good perception had bad practices. The results suggest that good perception is positively correlated with good practices.

Table 6: Associations between Menstrual Perception and Hygiene Menstrual Practice N=403

	Positive Perception N (%)	Negative Perception N (%)	Total N (%)	χ^2
Poor Menstrual Practices	10 (2.5%)	50 (12%)	60 (15%)	0.000
Good Menstrual Practices	176 (44%)	167 (41%)	343 (85%)	
Total	186 (46%)	217 (54%)	403 (100%)	

CHAPTER FIVE

5.0 DISCUSSION

Majority (*n* = 403, 45.9%) of the study population was in the age group of 15–17 years. The mean age of the study population was 13 years. The results were near similar to study by (Miiro et al., 2018; Nadira et al., 2016; Srinivas et al., 2016; Sapkota et al., 2014); where the average age was 13–17 years.

Similar to other studies, most (76.6%) of the adolescent girls in our study reported of having attained menarche at the age of 13. But, according to the study conducted in Ghana, 221 (75.4%) reported having reached their menarche between the age of 13 years (Ameade et al., 2016;Ramathuba, 2015).

Majority (42.2%) of adolescent girl's mothers have studied only till ordinary level (secondary school level). In contrast to the results of this study, the study done in West of Iran showed that majority of mothers (38.6%) have completed high school level (Siabani et al., 2018; Nadira et al., 2016).

5.1 Level of Menstrual Knowledge of the Adolescent Girls in Secondary Schools

In this study, 52.1% and 12.2% of adolescent girls revealed correct definition of menstruation and menstrua cycle. Contrary to our study, only 85.5% were aware of normal age for starting menstruation and 44.2% were are of number of days of menstruation as normal flow of blood. Similar to this study, 37% and 7% 62.9% were able to give correct definition of menstruation and menstrual cycle (Sultan et al., 2017).

In our study, 30.7% of adolescent girls were aware of the correct organ from which blood comes during menstruation, 88.8% were aware of the correct absorbent to use during menstruation while in (Ameade & Garti, 2016), the score for the knowledge on the source of the menstrual blood being the uterus was 55.9% but up to 44.0% did not know or stated other organs such as vagina, ovaries, unfertilized ovum, and fallopian tubes as the origin of the menstrual blood and 70% of the respondent were aware of the proper absorbent during menstruation.

Overall, correct knowledge regarding menstruation was present in 40.2% of the adolescent girls had high level of menstruation, 42.9% had moderate level and 16.4% had low level of menstrual knowledge, which was slightly different from other study done by Screenivasa and as 68.2% had good knowledge and about 31.8% had poor knowledge (Sreenivasa et al., 2017); while 60.9% had good menstrual knowledge (Upashe et al., 2015).

Moreover, major source of information for the adolescent girls were their mothers (47%), followed by Books (40.4%). Our study results were similar to other studies (Sreenivasa et al., 2017). Contrary to our study results, in another study, the source of information about menstruation were (70%) from mother, (16%) from sisters, (10%) from friends, (2%) from teachers and (2%) was from television and radio (Sultan et al., 2017).

5.2 Menstrual Perception

The findings of this study shows that 46.2% of adolescent girls had negative perception , this was seen in the issues such as changing absorbents at home 51.4%, 56.3% perceived as cloth used for menses to be washed and dried at hidden place, negative perception of sitting near boys during menstruation about 51.9%, perceived that menstrual cycle shows girls are no longer virgin about 59.3% of 239, 61.5% of adolescent girls failed to go to school during menses, 63% perceived that menstrual is a sign that women are cursed about, and 53.6% perceived that clothes are better during menstruation. This finds were similar with the study that was done in Ethiopia, South Sudan, Tanzania, Uganda, Zimbabwe.

In South Sudan, 23% felt that they are seen as unclean by the community during menstruation, in Tanzania 60% of respondents mentioned that the menstruation are associated with traditional taboos, such as ideas relating to impurity, witchcraft and local superstitions, which lead to negative perceptions and practices (SNV, 2014).

5.3 Menstrual Hygiene Practices

Majority (87.8%) of the study population used sanitary pads and only 8.4% cloth, which is similar to many studies as (66.2 %) of girls were using commercial made sanitary pads as absorbent material during menstruation and out of one hundred fifty seven girls who were using clothes eighty three (52.9 %) usage of sanitary pads is more prevalent than cloth. Majority (48%) of them stored unclean material with routine cloth and 80.9% burn their sanitary pad, 78.4% clean eternal genitals during menses while 47.6% sometimes washed before cleaning genitals, which were similar to other studies like (Prajapati et al., 2015; Fehintola et al., 2017).

Contrary to that, 45.9% were restricted to attend religious function during their menses, 9.4% restricted to perform house work during menstruation, 13.9% restricted to handle family food during menstruation. Some of the respondents were restricted to sleep on routine bed during menstruation about 10.4%, these restrictions were similar in the study of (Bachloo et al., 2017); whereby 9.7%adolescent girls did not practice any restriction. Remaining girls practiced different types of restrictions during menstruation. Among them 25.3% of adolescent girls were restricted from physical activities, 90.3% of girls were restricted to visit religious place, 44.4% adolescents avoid eating certain food items and 32.35% girls avoided doing kitchen work.

Overall level of good hygiene practices of menstrual among adolescent girls were 85.1% and 14.9% had poor menstrual hygiene practices. This finds were likely the same with the study done in Ghana where 80.2% as the level of good menstrual hygiene practices of respondents (Ameade et al., 2016).

5.4 Associations between Menstrual Perception, Knowledge and Menstrual Hygiene Practices

More adolescents girls are in the age group 15-17 years (42.9%) had moderate level of menstrual knowledge with positive menstrual perception and good hygiene practices of menstruation. Therefore, there was a statistically significant association between menstrual knowledge, perception and hygiene practices. This study was similar with the study done to assess knowledge, attitude and practice about menstruation and menstrual hygiene among secondary high school girls in Nigeria and found out that there was a statistically significant association between good practices of menstrual hygiene and menstrual knowledge of adolescent girls (Fehintola et al., 2017).

5.5 Limitations of the Study

The study was limited by the quantitative data collection method; if triangulated with focus group discussions, more in-depth information might have been sought.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Majority of adolescent girls in secondary school possessed moderate level of knowledge on menstruation with positive perception and good hygiene practices of menstruation.

It was also observed that, there was a positive and significant association between menstrual knowledge, perception and hygiene practices of menstruation.

However, despite of good menstrual knowledge and positive perception, their menstrual practices are being affected by restrictions imposed from the community and leads to affect their perception.

It was also observed that the mean age at menarche was 13 years which means that education on menstruation and menstrual hygiene management should start from primary so that young girls would be well informed on this normal phenomenon before menarche.

6.2 Recommendations

The study concluded that majority of the adolescents affected by restriction from the community that affect hygiene practices and perception during menstruation despite relatively good knowledge of menstruation. Efforts have to be put into the community by educating and break the silence at the community on meaning of menstruation, importance of good hygienic practice.

It is also very important that both parents provide support during the period of menses as it showed in this study that there is an association between menstrual knowledge, perception and hygiene practices of menstruation.

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APPENDICES

Appendix I: Informed Consent Form - English Version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

DIRECTORATE OF RESEARCH & PUBLICATIONS.

ID-NO _____

Consent to participate in this study

Greetings, my name is …..... from Muhimbili University of Health and Allied Sciences, Dar es Salaam. We are carrying out a study to assess level of knowledge, perception and hygiene practices on menstruation among adolescent girls in secondary schools at Ubungo Municipality, Dar es Salaam, Tanzania.

Purpose of the study

This study has the purpose of collecting information on girls to assess level of knowledge, perception and hygiene practices on menstruation among adolescent girls in secondary schools at Ubungo Municipality, Dar es Salaam, Tanzania. You are being asked to participate in this study because you have particular knowledge and experiences that may be important to the study.

What participation involved

If you agree to participate in this study, you will be required to answer series of questions that have been prepared for the study through interviewing in order to obtain the intended information regarding assessing level of knowledge, perception and hygiene practices on menstruation among adolescent girls in secondary schools at Ubungo Municipal, Dar es Salaam.

Confidentiality

I assure you that all the information collected from you will be kept confidential. Only people working in this research will have access to the information. We will be compiling a report

which will contain responses from several adolescent girls on their level of knowledge, perception and hygiene practices towards menstruation without any reference to any individual. We will not put your name or other identifying information on the records of the information you provide.

Risks

You will be asked questions about factors that are associated with parents or family members. Some questions could potentially make you feel uncomfortable. You may refuse to answer any particular question and stop the interview at any time. We do not expect any harm to happen to you because of participation in this study.

Right to withdraw and alternatives

Taking part in this study is completely your choice. If you choose not to participate in the study or if you decide to stop participating in the study you will not get any harm. You can stop participating in this study at any time, even if you have already given your consent. Refusal to participate or withdrawal from the study will not involve penalty or loss of any benefits to which you are otherwise entitled.

Benefits

The information you provide will help to increase our understanding on the level of knowledge, perception and hygiene practices on menstruation among adolescent girls in secondary schools at Ubungo Municipality, Dar es Salaam and communicate the findings to policy makers in the council and advice on the formulation of adolescent sexual and reproductive health policy in Tanzania.

Responsibility of Investigator

In the case where the girl will feel like stop answering the questionnaire, she should not be forced.

In case of injury

We do not anticipate that any harm will occur to you or your family as a result of participation in this study.

Who to contact

If you have questions about this study, please don't hesitate to contact:

Mariam El maamry, The Principal Investigator Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam (Tel. no. 0713 835443).

If you ever have questions about your rights as participants, you may call Chairman of MUHAS Senate Research and Publications P. O. Box 65001, Dar es Salaam. Tel: 2150302-6.

Signature

Do you agree?

Participant agrees…… Participant does not agree……..

I ……. have read the content in this form, my questions have been answered, I agree to participate in this study

Signature of Participant…….……

Signature of Research assistant……

Date of signed consent……

Appendix II: Informed Consent Form – Kiswahili Version

CHUO KIKUU CHA AFYA NA SAYANSI YA TIBA MUHIMBILI

KURUGENZI YA UTAFITI NA UCHAPISHAJI

FOMU YA RIDHAA KUSHIRIKI KATIKA UTAFITI

ID-NO _____

Ridhaa ya kushiriki

Habari. Ninaitwa……. Ninafanya kazi ya kutafiti juu ya kiwango cha uwelewa Na kufanya Kwa vitenda kuhusu hedhi kwa wasichana walio pevuka katika shule za msingi. kesi ya manispa ya ubungo, mkoa wa Dar es Salaam.

Madhumuni ya utafiti

Utafiti huu unakusudia kuchunguza sababu kiwango cha uwelewa, mtazamo na kufanya kwa vitenda kuhusu hedhi kwa wasichana walio pevuka katika shule za sekondari. kesi ya manispa ya ubungo, mkoa wa Dar es Salaam. Unaombwa kushiriki kwenye utafiti huu kwa sababu unao ujuzi ama unafahamu matukio ambayo ni ya muhimu.

Nini kinahitajika ili kushiriki

Ili kushiriki katika utafiti huu inabidi kukubali na kujiunga kwa kujibu maswali toka kwenye dodoso wa kwa ajili ya utafiti huu.

Usiri

Ninakuhakikishia kuwa taarifa zitakazokusanywa kutoka kwako kupitia dodoso hili zitakua siri na hakuna mtu yeyote ambaye hafanyikazi kwenye utafiti huu atakayeambiwa ulichosema.

Itaandaliwa taarifa ya utafiti huu ambayo haita tamtaja mshiriki yeyote. Jina lako wala utambulisho mwingine wowote hauta wekwa kwenye taarifa unazozitoa. Taarifa zako zitaingizwa kwenye king'amuzi kwa kutumia namba za utambulisho.

Hatari

Hakuna hatari yeyote itakayotokea kwako kutokana na ushiriki wako kwenye utafiti huu.

Haki ya kujitoa au vinginevyo

Ushiriki katika utafiti huu ni hiari .Kutokushiriki au kujitoa kutoka kwenye utafiti hakutakua na adhabu yeyote na hutapoteza stahili zako endapo utaona ni vema kufanya hivyo.

Faida

Kama utakubali kushiriki kwenye utafiti huu itakua ni faida kwa vile utafiti huu una lengo la kuchunguza kiwango cha uwelewa, mtazamo na kufanya kwa vitenda kuhusu hedhi kwa wasichana walio pevuka katika shule za sekondari. Kesi ya manispa ya ubungo, mkoa wa Dar es Salaam.

Waajibu wa mtafiti

Endapo mwanafunzi akisha jibu maswali kwenyenye dodoso, asilazimishwe.

Endapo utapata madhara au la

Hatutegemei kupata madhara yoyote kutokana na ushiriki wako katika utafiti huu.

Nani wa kuwasiliana naye

Kama kuna swali kuhusiana na utafiti huu itakubidi kuwasiliana na mtafiti mkuu Mariam El maamry wa Chuo Kikuu cha Afya na Sayansi ya Tiba Muhimbili, S.L.P. 65001 DSM. Simu (Tel: 0655 216355). Kama una maswali zaidi unaweza kuwasiliana na Mkurugenzi wa Kamati ya Utafiti na Uchapishaji, Chuo Kikuu cha Muhimbili S.L.P. 65001 DSM, simu namba: 2150302-6.

Je, Umekubali?

Mshiriki amekubali…… Mshiriki hajakubali……

Mimi……...nimesoma maelezo ya fomu hii, maswali yangu yamejibiwa na nimeridhika. Nakubali kushiriki katika utafiti huu.

Sahihi ya Mshiriki……

Sahihi ya mtafiti msaidizi……

Tarehe ya kutia sahihi ya kushiriki…….

Appendix III: Questionnaire - English Version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

SCHOOL OF PUBLIC HEALTH AND SOCIAL SCIENCES

KNOWLEDGE, PERCEPTIONS AND HYGIENE PRACTICES ON MENSTRUATION AMONG ADOLESCENT GIRLS IN SECONDARY SCHOOL: A CASE STUDY OF UBUNGO MUNICIPALITY

Questionnaire Number ……. Date of interview …….2018

Time taken to fill the questionnaire, start time …….Finish time……..

Name of the school……

SOCIO-DEMOGRAPHIC INFORMATION OF PARTICIPANTS:

1. How old are you? ..... (In years)

2. Which form are you?

    a) Form One
    b) Form Two
    c) Form Three
    d) Form Four
    e) Form Five
    f) Form Six

3. Which religion are you?

    a) Christian
    b) Moslem
    c) Others

4. What is the education level of your mother?

    a) Illiterate
    b) Primary level

c) Secondary level
d) Higher education
e) Degree and above

5. What is the education level of your father?

a) Illiterate
b) Primary level
c) Secondary level
d) Higher education
e) Degree and above

6. At what age you were in menarche? …… (Years)

MENSTRUATION-RELATED KNOWLEDGE:

7. How do you define a menstrual period?
   a) From the first day of the bleeding to ovulation
   b) From the end of the bleeding to ovulation
   c) From the bleeding end to the next period
   d) From first day of the bleeding to the last bleeding day
   e) Don't know

8. How do you define a menstrual cycle?
   a) From the end of the bleeding to ovulation
   b) From the bleeding end to the next period
   c) From first day of the bleeding to the last bleeding day
   d) First day of bleeding to the first day of next bleeding
   e) Don't know

9. What is the normal age for menstruation to begin?
   a) 12 years
   b) 13 years
   c) 14 years

d) 15 years
e) Don’t know

10. What is the normal flow?
    a) 1-2 days
    b) 3-5 days
    c) 6-7 days
    d) 8-10 days
    e) Don’t know

11. What is the cause of menstruation?
    a) Hormonal action
    b) Curse of God
    c) Dirty fluids in the body
    d) Diseases
    e) Don’t know

12. From which organ does the menstrual blood come?
    a) Urethra
    b) Vagina
    c) Uterus
    d) Bladder
    e) Don’t know

13. What absorbent should ideally be used during menstruation?
    a) Sanitary pad
    b) Old cloths
    c) Toilet papers
    d) Cotton
    e) Don’t know

Sources of information about menstruation:-

From which of the following people did you hear about menstruation before your menarche?

S/N	Source	
14.	Mother	
15.	Fathers	
16.	Grandmother	
17.	Aunt	
18.	Sister	
19.	Friend	
20.	Teachers	
21.	Health workers	

From which of the following media did you hear about menstruation before your menarche?

S/N	Source	
22.	Radio	
23.	Television	
24.	Newspaper	
25.	Communication materials (fliers/leaflets/posters)	
26.	Books	

PERCEPTIONS ABOUT MENSTRUATION:

27. It is important to take care of personal hygiene during menstruation

a) Strongly disagree
b) Disagree
c) Agree
d) Strongly agree

28. Menstruation absorbents should be changed at home and not at school

a) Strongly disagree
b) Disagree
c) Agree
d) Strongly agree

29. Cloth used for menses should be washed and dried at hidden places instead of exposing them under the sun
    a) Strongly disagree
    b) Disagree
    c) Agree
    d) Strongly agree
30. Girls should not seat near boys when they are in menses
    a) Strongly disagree
    b) Disagree
    c) Agree
    d) Strongly agree
31. The start of menstruation cycle shows that a girl is no longer virgin
    a) Strongly disagree
    b) Disagree
    c) Agree
    d) Strongly agree
32. Girls should not go to school when they are in menses
    a) Strongly disagree
    b) Disagree
    c) Agree
    d) Strongly agree
33. Menstruation is a sign that women were cursed by God
    a) Strongly disagree
    b) Disagree
    c) Agree
    d) Strongly agree
34. Clothes are better during menstruation than sanitary pads
    a) Strongly disagree
    b) Disagree

c) Agree
d) Strongly agree

MENSTRUAL HYGIENE PRACTICES:

35. During your most recent menstruation, which material did you use?
    a) Sanitary pad
    b) Old cloth
    c) New cloth
36. During your most recent menstruation, which material did you use for cleaning of external genitalia?
    a) Only water
    b) Soap and Water
    c) Water and antiseptic
37. During your most recent menstruation, where did you store the material that you used for menstruation?
    a) Bathroom
    b) Store with routine cloth
    c) Don't store
38. During your most recent menstruation, what method did you use to dispose the material that was used for menstruation?
    a) Burn it
    b) Throw it in dustbin
    c) Flush in toilet
39. How many times do you clean your external genitals during menses?
    a) Not at all
    b) More than 2 times
    c) Less than 2 times

40. How often do you wash hand before cleaning genitals during menses?
    a) Not at all
    b) Sometimes
    c) Most of times
    d) Always

Restrictions practiced during menstruation:

41. Do you attend school during menses?
    a) Yes
    b) No
42. Do you attend religious functions during menses?
    a) Yes
    b) No
43. Do you do house work during menses?
    a) Yes
    b) No
44. Do you handle family food during menses?
    a) Yes
    b) No
45. Do you sleep on routine bed during menses?
    a) Yes
    b) No
46. Do you touch family members during menses?
    a) Yes
    b) No
47. Do you play with others during menses?
    a) Yes
    b) No

Thank you for your time and giving good response to the questionnaire provided I wish you all the best in your studies.

Appendix IV: Questionnaire - Kiswahili Version

CHUO KIKUU CHA AFYA NA SAYANSI YA TIBA MUHIMBILI
SHULE YA SAYANSI YA AFYA YA JAMII

UTAFITI JUU YA KIWANGO CHA UJUZI, MTAZAMO NA VITENDO KUHUSU HEDHI KWA WASICHANA WALIO PEVUKA KATIKA SHULE ZA SEKONDARI. KESI YA MANISPA YA UBUNGO

Numberi ya Dodoso ……. Tarehe …….2018

Muda ulio tumika kuanza Dodoso, muda wa kuanza……. Muda wa kumaliza……

Jina la Shule……

MAELEZO YA KIJAMII NA IDADI YA WATUWALIO SHIRIKI:

1. Una umri gani? ..... (miaka)
2. Upo kidato cha ngapi?
    a) Kidato cha kwanza
    b) Kidato cha Pili
    c) Kidato cha Tatu
    d) Kidato cha Nne
    e) Kidato cha Tano
    f) Kidato cha Sita
3. Wewe Ni dini gani?
    a) Mkristo
    b) Muisilamu
    c) Wengineo

4. Mama yako ana elimu gani?
    a) Hajasoma
    b) Elimu ya shule ya Msingi
    c) Elimu ya Sekondari
    d) Elimu ya Juu
    e) Elimu ya shahada na kuendelea
5. Baba yako ana elimu gani?
    a) Hajasoma
    b) Elimu ya shule ya Msingi
    c) Elimu ya Sekondari
    d) Elimu ya Juu
    e) Elimu ya shahada na kuendelea
6. Katika umri gani ulivunja ungo? …… (Miaka)

ELIMU KUHUSU- HEDHI:

7. Unaelewa nini kuhusu kuvunja ungo?
    a) Kuanzia siku ya kwanza kuvunja ungo mpaka kupevuka
    b) Kuanzia siku ya mwisho kutoka na damu mapaka kupevuka
    c) Kuanzia siku damu inakwisha mpaka mzunguko ujao
    d) Kuanzia siku ya kwanza ya damu kutoka mpaka siku ya mwisho
    e) sijui
8. Una elewa nini kuhusu mzunguko wa hedhi?
    a) Kuanzia siku ya mwisho ya hedhi mapaka linapo pevuka
    b) Kipindi hedhi inapofika mwisho mpaka mzunguko mwengine

c) Kuanzia siku ya kwanza ya damu kutoka paka siku ya mwisho
d) siku ya kwanza ya hedhi mpaka siku ya kwanza ya mzunguko mpya
e) sijui

9. Upi ni umri wa kawaida kuvunja ungo?
   a) Miaka 12
   b) Miaka 13
   c) Miaka 14
   d) Miaka 15
   e) Sijui
10. Upi ni mtiriko wa kawaida ukiwa kwenye hedhi?
   a) Siku 1-2
   b) Siku 3-5
   c) Siku 6-7
   d) Siku 8-10
   e) Sijui
11. Nini sababu ya hedhi?
   a) Vitendo vya Homoni
   b) Laana ya Mungu
   c) Uchafu wa majimaji unao kutoka mwilini
   d) Magonjwa
   e) Sijui
12. Damu ya hedhi hutoka kupitia sehemu gani za mwili?
   a) Urethra
   b) uke
   c) Uterasi
   d) kibofu
   e) sijui

13. Vifa gani unatumia ukiwa kwenye hedhi?

a) Pedi
b) Nguo za ndani
c) Karatasi za chooni
d) kotoni
e) sijui

Chimbuko la tarifa kuhusu hedhi:-

Kupitia nani umesikia kuhusu hedhi kabla ya kuvunja ungo?

Nambari	**Chanzo**	
14.	Mama	
15.	Baba	
16.	Bibi	
17.	Mama Mdogo/ Shangazi	
18.	Dada	
19.	Rafiki	
20.	Walimu	
21.	Wafanyakazi wa Afya	

Kupitia chombo gani cha habari umesikia kuhusu hedhi kabla ya kuvunja ungo?

nambari	**Chanzo**	
22.	Redio	
23.	Runinga	
24.	Magazeti	
25.	Vipeperushi	
26.	Vitabu	

MTAZAMO JUU YA HEDHI:

27. Nimuhimu kujali afya binafsi kipindi ukiwa katika hedhi.

    a) Ninakataa kabisa
    b) Ninakataa
    c) Ninakubali
    d) Ninakubali sana

28. Vifaa vya heshi vinatakiwa kubadilishiwa nyumbani na si shuleni.

    a) Nina kata kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali sana

29. Vitamba vinavyo tumika katika hedhi vina takiwa kufuliwa na kuanikwa sehemu za siri na si mahali pa wazi kupigwa na jua.

    a) Nina kata kabisa
    b) Nina kataa
    c) Ninakubali
    d) Ninakubali sana

30. Wasichana hawatakiwi kukaa karibu na wavulana kipindi wakiwa kwenye hedhi.

    a) Ninakataa kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali sana

31. Kuanza kwa mzunguko wa hedhi inaonyesha dhahiri msichana si bikira

    a) Nina kata kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali kabisa

32. Wasichana wasiende shule wakiwa katika hedhi
    a) Nina kata kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali kabisa
33. Hedhi ni dalili ya mwanamke kulaniwa na Mungu
    a) Nina kataa kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali kabisa
34. Vitamba ni vizuri Zaidi kwenye hedhi kuliko pedi
    a) Nina kataa kabisa
    b) Nina kataa
    c) Nina kubali
    d) Nina kubali kabisa

VITENDO VYA HEDHI KUZINGATIA AFYA:

35. Kipindi cha hivi karibuni, kifaa gani ulitumia katika hedhi?
    a) Pedi
    b) Kipende cha nguo cha zamani
    c) Kipande kimpya cha kitamba
36. Kipindi cha hedhi hivi karibuni, vitu gani uitumia kujisafisha sehemu zako za siri?
    a) Maji pekee
    b) Maji na sabuni
    c) Maji yenye dawa
37. Kipindi cha hedhi hivi karibuni, wapi ulihifadhi vifaa vyako ulivyo tumia katika hedhi?
    a) Sehemu ya kuogea
    b) Ninapo hifadhia nguo safi
    c) Siweki kokote

38. Kipindi cha hedhi hivi karibuni, njia gani ulikuwa unatumia kuteketeza kifaa kilicho tumika katika hedhi?
    a) kuchoma
    b) kutupa katika mapima ya uchafu
    c) kudumbukiza chooni
39. Ni mara ngapi unasafisha sehemu zako za siri kipindi ukiwa kwenye hedhi?
    a) Sisafishi kabisa
    b) Zaidi ya mara mbili
    c) Chini ya mara mbili
40. Ni mara ngapi unasafisha mikono kwanza kabla ya kusafisha sehemu zako za siri kipindi cha hedhi?
    a) Sisafishi kabisa
    b) Muda mwengine
    c) Mara zote

VITENDO VYA VIKWAZO KIPINDI CHA HEDHI:

41. Una hudhuria shule kipindi ukiwa kwenye hedhi?
    a) Ndiyo
    b) Hapana
42. Unashiriki ibada ukiwa kwenye hedhi?
    a) Ndiyo
    b) Hapana
43. Unafanya kazi za nyumbani ukiwa kwenye hedhi?
    a) Ndiyo
    b) Hapana
44. Unashiri kuandaa chakula cha familia kipindi cha hedhi?
    a) Ndiyo
    b) Hapana

45. Una lala masaa ya kawaida ukiwa kwenye hedhi?

a) Ndiyo
b) Hapana

46. Unaweza kumshika mwana familiya kipindi ukiwa kwenye hedhi?

a) Ndiyo
b) Hapana

47. Unaweza kucheza na wengine kipindi ukiwa kwenye hedhi?

a) Ndiyo
b) Hapana

Asante Sana kwa kushiri kwa muda wako na majibu mazuri uliyo toa katika dodoso hili, nakutakia masomo mema.

Appendix V: Ethical clearance letter

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR ES SALAAM
TANZANIA
Web: www.muhas.ac.tz

Tel G/Line: +255-22-2150302/6 Ext. 1015
Direct Line: +255-22-2151378
Telefax: +255-22-2150465
E-mail: dpgs@muhas.ac.tz

Ref. No. DA.287/298/01A/

31st October, 2018

Ms. Mariam El-Maamry
MPH-Executive Track
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED: "KNOWLEDGE, PERCEPTION AND PRACTICES OF MENSTRUATION AMONG PRIMARY SCHOOL ADOLESCENT GIRLS IN UBUNGO MUNICIPAL, DAR ES SALAAM"

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. Hence you may proceed with the planned study.

The ethical clearance is valid for one year only, from 26th October, 2018 to 25th October 2019. In case you do not complete data analysis and dissertation report writing by 25th October, 2019, you will have to apply for renewal of ethical clearance prior to the expiry date.

Dr. Bruno Sunguya
ACTING: DIRECTOR OF POSTGRADUATE STUDIES

cc: Director of Research and Publications
cc: Dean, School of Medicine

Appendix VI: Permission letter

UBUNGO MUNICIPAL COUNCIL

ALL CORRESPONDECES TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

TEL: 0222926341
Fax Na: 0222926342

In reply please quote:

Ref No: **HA. 22/288/01**

MUNICIPAL DIRECTOR
UBUNGO MUNICIPAL COUNCIL
S.L.P. 55068,
DAR ES SALAAM

DATE: 30/10/2018

The headmaster/Headmistress
Secondary Schools ..MAFOFA.....
DAR ES SALAAM.

RE: RESEARCH PERMIT

Refer to the above heading.

The research permit has been offered to **Mariam El-Maamry** students/researchers from **Muhimbili University (MUHAS)**; She will conduct research on **"Menstrual Knowledge Perception and Hygiene Practices of Girls in Secondary School".**

Upon receipt of this letter, please give her all the assistance required.

During the period of research she will be required to obey **rules and regulations of institution** as she will be defined by the Head of School.

Wishing you the best.

.....
Wema Mwakibinga
FOR: MUNICIPAL DIRECTOR
UBUNGO MUNICIPAL COUNCIL

Copy: Director,
Muhimbili University (MUHAS),
P. o. Box 65001,
DAR ES SALAAM.