SOCIO ECONOMIC DETERMINANTS OF EFFECTIVE MENSTRUAL MANAGEMENT AMONG PRIMARY SCHOOL GIRLS IN RURAL SCHOOLS IN NYATIKE SUB COUNTY IN KENYA

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A DISSERTATION SUBMITTED TO THE SCHOOL OF EDUCATION AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF DEVELOPMENT STUDIES AT ST. PAUL'S UNIVERSITY

NOVEMBER, 2023

DECLARATION

This dissertation is a product of my own work and is not as a result of anything done in collaboration. It has not been previously presented to any other institution. I agree that this dissertation may be available for reference and photocopying, at the discretion of the University.

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DEDICATION

This research is dedicated to Anne Joensuu, who inspired me to pursue my true interest and taught me that context is crucial.

ACKNOWLEDGEMENT

I want to express my gratitude to God for guiding me through all of the challenges. Every day, I have felt your guidance. I will continue to put my faith in you for my future.

I would also like to express my gratitude and acknowledgement to my supervisors, Dr. Antony Odek and Dr. Petronilla Otuya, who made this work possible. I was able to complete all of my project's writing stages thanks to their direction and counsel. I am eternally thankful to you, Dr. Odek, for your invaluable counsel. You have held my hand from the conception of this study through the completion of the report, and many times you have gone beyond and above to provide direction for the study. In the same way, I want to thank you, Dr. Otuya, for the pearls of knowledge and wisdom that have enabled me to finish my dissertation. God's blessings on you both.

Additionally, I wish to pass my gratitude to St. Paul's University's administration, the post-graduate program, the staff, and the students for the support they have given me up until this point. I sincerely appreciate it.

Finally, I'd like to thank my brother, Dr. Okumu Vos, and my entire family for their unfailing support and understanding while I completed my research and wrote my project. I have made it this far thanks to your prayers for me.

ABSTRACT

Access to menstrual hygiene products is a major challenge facing women and girls in developing countries including Kenya. This study sought to determine the socioeconomic determinants of menstrual management among girls in Nyatike Sub County. Specifically, the study aimed at: establishing the effects of traditional practices on menstrual management among primary school girls, examining the effects of knowledge and awareness of hygiene on menstrual management, analyzing the effects of family income on the menstrual management of girls, and assessing the current measures that are in place to enhance menstrual health management of girls in rural primary schools of Nyatike Sub County. A descriptive survey design was used among 693 respondents who were mainly primary school girls, Head Teachers and teachers and the female heads of households. Focus Group Discussions, Interviews, and Questionnaires were the main data collection methods. Data was computed using quantitative approach including descriptive and inferential statistics. Thematic analysis was also done. The study revealed that 59.3% of the girls encountered traditional restrictions during their menstruation. About 74.4% of the respondents believe that knowledge about menstrual hygiene has improved their overall confidence and comfort during menstruation. 53.2% of the girls always have access to the menstrual hygiene products they need. However, 46.8% still have difficulties in obtaining the necessary products. 76.8% of the respondents revealed that their schools are sensitizing students about menstrual health and hygiene. The study concludes that traditional practices have various effects on menstrual management among the primary school girls. The study also concludes that there is a positive effect of knowledge and awareness of hygiene on menstrual management among primary school girls. It is also clear that most primary schools have implemented some menstrual health management strategies for the girls. The study suggests that age-appropriate and culturally sensitive materials be incorporated to ensure girls receive accurate information. Regular awareness and sensitization programs for students, teachers, parents, and the community to eliminate stigma, myths, and misconceptions around menstruation is also required in the area.

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LIST OF ABBREVIATIONS

CBC	Competency Based Curriculum
CBS	Central Bureau of Statistics
COVAW	Coalition of Violence against Women
HRM	Human Resources Management
MHM	Menstrual Health Management
NGOs	Non-Governmental Organizations
OECD	Organization for Economic Co-operation and Development
SPSS	Statistical Package for Social Sciences
TQM	Total Quality Management

CHAPTER ONE

INTRODUCTION

1.1 Overview of the Chapter

This chapter highlights the background of the study, statement of the problem, justification of the research, its purpose, the set objectives, research questions, and the significance of the study. It also presents the scope of the study, the limitations, and the assumptions.

1.2 Background of the Study

Women and girls all around the world depend on menstrual health management (MHM) as an essential part of their lives. The well-being of people depends on having access to good healthcare and sanitary conditions to ensure higher quality of life. Numbers 3, 4, 5, and 6 of the Sustainable Development Goals (objectives that must be achieved to guarantee that everyone has a brighter future) all call for access to clean water and sanitation, high-quality education, healthcare, and gender equality (UNDP, 2015). Countries attempting to address the issue of menstrual health must concentrate their efforts primarily on the MHM of girls and women, which is covered by these SGDs.

Rapid population expansion poses serious problems for global health, particularly for women and girls who are disproportionately impacted by poor sanitary facilities and limited access to water in many low- and middle-income countries. Poor results in sexual and reproductive health and a number of other health and welfare indicators show that many gendered imbalances are maintained in rural regions. The lack of safe, private spaces with water for changing, washing, bathing, and laundering reusable pads, menstrual cloths, and pads, as well as the lack of access to culturally appropriate, adequate disposal mechanisms for used menstrual materials, make women and adolescent girls in rural areas particularly vulnerable to menstrual experiences. In rural settings, taboos and shame surrounding menstruation are likely to make these problems worse (Goddard & Sommer, 2020).

Girls who are able to manage menstruation at school in supportive surroundings reported being less likely to be absent and able to concentrate better in class, potentially boosting their educational experience (Trinies, Caruso, Sogoré, Toubkiss, & Freeman, 2018). Menstruation is a normal experience but affects negatively girls from poor countries. This is because nearly 3.5

million girls miss learning days per month because of the challenges related to menstruation management (Secor-Turner, Schmitz & Benson, 2016). In countries such as the US and the UK, significant strides have been made in that the issue of menstrual management is not shrouded in mystery. Alphas (2019), states that these issues are discussed openly and as a result the girls do not find it hard sharing their experiences with parents and teachers. This makes it easy for them to be assisted and hence menstrual management cannot in any way hinder their educational achievement.

All around the world, stigma towards women and girls still exists, and they have limited access to the necessary Menstrual Health Management resources. For instance, men are not allowed to comment on or take part in the MHM of female relatives in India (Rajagopal & Mathur, 2017). Women, not men are in charge of controlling their periods. During their menstrual cycle, women and girls are not authorized to use water resources. The only possible answer is that they should not be in contact with anything since they are dirty. Nonetheless, the Fourth World Conference of the United Nations in 1995 agreed that women's participation in MHM was crucial. Similar circumstances may be seen throughout Africa, with Ghana and Malawi setting the bar for the least amount of male engagement in MHM. There aren't enough sanitary towels and absorbents for women in Malawi due to male attitudes about menstruation in the country (FSG, 2017). Women and girls in Ghana have been coerced into working at wage occupations in order to support their menstrual needs (Muriel, Lena, & Jonathan, 2019). In certain dire situations, some women have been compelled to get into partnerships where they provide sex in exchange for money in order to pay for menstrual cycle expenses.

Schools that offer puberty and menstruation instructions, as well as access to water, sanitation, and hygiene (WASH) facilities, help to create an enabling atmosphere in which girls may attend and participate. Many low-income girls do not have access to these opportunities (Fialkov et al., 2021). Girls are frequently misinformed and confused about what happens to their bodies when they reach menarche, which causes dread and bewilderment (Trinies et al., 2018). Students do not have access to sufficient amenities at school, such as water for personal hygiene, disposal facilities, and secure, private restrooms with working door locks (Crofts & Fisher, 2012). A Research conducted in Garissa County by Njue and Muthaa (2017) indicates that women's education increases economic productivity, decision-making skills, age at first birth,

family size, maternal mortality morbidity, and children's educational achievement. The researchers found out that girls' capacity to remain in school and attain better life outcomes for themselves and their future families may be jeopardized by inadequate menstrual hygiene management (MHM) in the classroom. A study by Korir (2018) about MHM practices among primary school girls from a pastoralist community in Kenya found that a third of adolescent pastoralist girls had poor menstrual management practices largely determined by inadequate latrine privacy and fear of teasing by boys. According to FSG (2017), there are significant barriers to menstrual hygiene given that only 50% of the girls are in a position to discuss openly issues to do with menstrual health.

According to studies in Kenya such as Korir, Okwara and Okumbe (2018) and Fialkov, Haddad, Ndungu, and Kibuga (2021), girls in Kenya have a difficult time managing their periods because of the inadequate conditions of WASH facilities. Free Primary School Education was introduced by the Kenyan government in 2003, which resulted in a 13% increase in student enrollment in the first year (Njue & Muthaa, 2017), placing pressure on the country's WASH infrastructure. Although girls' educational possibilities have increased, school systems have not yet reached gender equity, and girls are more likely to drop out of school (Fialkov et al., 2021). The Kenyan government launched a school health strategy in an effort to meet the needs of girls. This strategy includes providing sanitary pads for girls to administrators in public primary schools, increasing the number of students per toilet, and establishing pads disposal systems in public primary and secondary schools. According to the technical guidelines for national school WASH, each toilet block must have ablution facilities, disposal facilities, and at least one water point. The ratio of female students to toilets must be 1:25, and boys' and girls' restrooms must be separate. However, in 2013, the national average for girls in primary schools was 1:45, far below the recommended target (Muriel, Lena & Jonathan, 2019). Unknown are the amount of pupils that must share a water point as well as the pupil to water point ratio. There is a lack of information regarding the precise effects these policies have on girls' ability to manage their periods while attending school, as well as whether or not these policies contribute to unequal experiences for girls in public schools who gain from them and girls in private schools who do not (Girod, Ellis, Andes, Freeman, & Caruso, 2017).

In Kenya, menstrual management is a significant challenge for many girls, particularly those in rural areas despite the policies in place (Korir, Okwara, & Okumbe, 2018). There are various policies and guidelines that address menstrual health management in the country. One of the policies is the National Menstrual Hygiene Management Policy which was developed by the Ministry of Health to provide guidance on menstrual hygiene management in Kenya. The policy aims to promote menstrual hygiene management practices that are safe, dignified, and affordable (Republic of Kenya Menstrual Hygiene Management Strategy, 2019). The other one is the National Guidelines for Provision of Sanitary Towels in Public Primary Schools developed by the Ministry of Education to provide guidance on the provision of sanitary towels to girls in public primary schools. The guideline aims to ensure that all girls in public primary schools have access to sanitary towels to manage their menstrual hygiene (Genderadmin, 2018). Lastly, Kenya National Adolescent Sexual and Reproductive Health Policy provide guidance on the provision of sexual and reproductive health services to adolescents in Kenya. The policy recognizes the importance of menstrual hygiene management in promoting the sexual and reproductive health of adolescent girls (The National Adolescent Sexual and Reproductive Health Policy, 2015). However, these policies and guidelines aim to promote menstrual hygiene management practices that are safe, dignified, and affordable, and to ensure that girls have access to the necessary resources to manage their menstrual hygiene; this has not been possible to the girls in the rural areas.

Menstruation management remains a significant issue in Kenya, and several girls in rural areas miss school during menstruation. According to a survey conducted in Kenya, 95 percent of menstrual girls missed one to three school days, 70 percent said their grades suffered, and more than 50 percent said they fell behind in their studies as a result of their period (Mucherah & Thomas, 2017). The lack of access to appropriate menstrual products and inadequate sanitary facilities in schools is the leading cause of absenteeism among school going girls during their menstrual cycle (Korir et al., 2018). Socio-economic factors play a crucial role in menstrual management practices. In Kenya, poverty is a significant barrier to menstrual hygiene management, and many girls cannot afford to purchase sanitary products. In rural areas, many households do not have access to clean water or appropriate sanitation facilities, which makes it challenging for girls to manage their menstrual hygiene effectively (Njue & Muthaa, 2017). The cultural and social stigma surrounding menstruation is also a significant challenge, as many girls

are embarrassed to talk about their menstrual cycle or seek advice from elders or health practitioners.

There is heavy evidence that links poor menstrual health with low socio -economic status of households. This can be seen in the high number of dropout incidents of girls that are related to menstruation (Ogutu, 2020). Furthermore, to compound the challenge, many girls receive inadequate education on Menstrual Hygiene Management while at the same time having limited access to disposable pads. Many girls continue to experience challenges in managing menstrual hygiene, particularly in rural areas in which there is still heavy presence of socio-economic constraints related to menstruation. Being in the rural areas, Nyatike Sub County is still under the firm grip of low economic growth and traditional practices relating to menstruation, something which affects these school-going girls. It was therefore against this background that this study sought to determine the socioeconomic determinants of menstrual management among girls in Nyatike Sub County.

1.3 Statement of the Problem

Access to menstrual hygiene products is a major challenge facing women and girls in developing countries including Kenya. In Kenya, one million girls miss school each month because they cannot afford sanitary pads, while some share used ones (Mire, 2020). A study by Mucherah and Thomas (2017) estimates that 95% of menstruating girls missed one to three school days, about 70% exhibited a negative impact on their grades, and more than 50% revealed falling behind in school as a result of menstruation.

According to a number of qualitative studies conducted in Africa, girls' vulnerabilities are aggravated by their lack of knowledge about their bodies and rights, as well as their inability to efficiently and correctly manage their periods (Wood et al., 2022). When it comes to controlling their menstruation, girls and women in Kenya face a variety of challenges, including limited access to menstrual products and useful information. There are still significant barriers to effective menstrual hygiene management (MHM), and this is particularly true for girls and women from disadvantaged backgrounds. Women face challenges every month, with high number of Kenyan women and girls unable to buy sanitary pads (Higgins, 2017), according to available reports. Only a few girls admit they talk openly about their periods at home. A private space where female students may change their menstrual products is not even present in the rural

schools. Just a small portion of Kenyan girls would feel safe asking their fathers questions. Further shocking statistics show a connection between menstruation and more basic risks and gender inequality worries (Mohamed, 2018).

As much as menstrual health has gained attention in the global development agenda, in many countries, it is still considered a taboo. This is because of the cultural and social restrictions that have been imposed on women on account of menstruation. This status has negatively affected the attainment of Vision 2030 and the Sustainable Development Goals. For example, the Sustainable Development Goal (SDG) number 3 aspires to foster good health and well-being. At the same time, goal number 4 which deals with quality education for all is also compromised when girls miss school so as to attend to their menstrual periods (UNDP, 2015). However, the restrictions that are imposed on women as well as the lack of affordability of the menstrual products hinder this goal from being attained. During menstruation, many girls are forced to be out of school because of fear of embarrassment, especially because they fail to afford buying pads and at the same time the school environment is not conducive for them during this period (UNDP, 2015). As a result, they fail to get quality education enshrined in goal 4 of the SDGs. It thus becomes necessary to contextualize the issue; in so doing, it becomes imperative to establish the determinants of menstrual hygiene from a social and economic perspective.

It is therefore, important to state that menstrual management among primary school girls in rural areas of Kenya is a major concern. This is considering that many of them lack access to proper sanitary facilities and products, which negatively affects their education, health, and overall well-being. Despite the government's efforts to provide free sanitary pads, there are still challenges in ensuring effective menstrual management among primary school girls in rural schools in Kenya. Some of the challenges they confront are connected to economic situations, societal standards, and cultural stigmas, all of which continue to impede their access to proper sanitation and Menstrual Health Management. There is need to investigate the socio-economic determinants of effective menstrual management among primary school girls in rural schools in Kenya to develop sustainable interventions that can help to improve menstrual management practices and overall health outcomes.

1.4 Purpose of the Study

The main objective of the study is to investigate the socio-economic determinants of effective menstrual management among girls in rural primary schools in Nyatike Sub County.

1.5 Specific Objectives

1. To establish the effects of traditional practices on menstrual management among primary school girls in rural primary schools of Nyatike Sub County.
2. To examine the effects of knowledge and awareness of hygiene on menstrual management among primary school girls in rural primary schools of Nyatike Sub County.
3. To analyze the effects of family income on the menstrual management of girls in rural primary schools of Nyatike Sub County.
4. To assess the current measures put in place to enhance menstrual health management of girls in rural primary schools of Nyatike Sub County.

1.6 Research Questions

1. How do traditional practices on menstrual management affect primary school girls in Nyatike Sub County?
2. In which ways does knowledge and awareness of hygiene affect menstrual management among primary school girls in the rural primary schools of Nyatike Sub County?
3. How does family education affect menstrual management among primary school girls in the rural primary schools of Nyatike Sub County?
4. What are the current measures put in place to enhance menstrual management of primary school girls in Nyatike Sub County?

1.7 Justification of the Study

Effective menstrual health management is still a fantasy despite government and non-governmental organization efforts. This might be because most of these initiatives have not focused on social and economic factors that are crucial in women's and girls' menstrual health management. Effective menstrual management is critical to the reproductive health and overall well-being of women and girls. In low-income countries, Kenya being one of them, many girls face significant challenges in managing their menstruation effectively, particularly in rural areas where access to resources and information is limited. The provision of sanitary pads alone has not been sufficient to address the issue, indicating that other socio-economic factors are at play.

The study sought to investigate the socio-economic determinants of effective menstrual management among primary school girls in rural schools in Kenya.

By examining the socio-economic factors that influence menstrual management among primary school girls in rural areas, the study aimed to provide evidence-based recommendations that can inform policies and interventions aimed at improving menstrual management practices. The study's findings are useful to policymakers, educators, and other stakeholders involved in addressing reproductive health issues among primary school girls in rural areas. The study is particularly relevant given the potential impact of menstrual management on girls' educational outcomes. Poor menstrual management practices can lead to absenteeism and decreased academic performance, negatively impacting girls' long-term educational prospects. By addressing the socio-economic determinants of effective menstrual management, the study can contribute to improving girls' educational outcomes and breaking the cycle of poverty that often affects rural communities in Kenya. It will also aid in the development of guidelines to achieve the Sustainable Development Goals (SDGs), specifically Goal 4 (quality education) and Goal 3(health and well-being), as well as other related goals. Overall, the study is significant as it aims to provide a deeper understanding of the socio-economic factors that influence menstrual management practices among primary school girls in rural areas in Kenya

1.8 Scope of the Study

This research focused on exploring the socio-economic determinants of effective menstrual management among primary school girls in rural schools in Nyatike Sub County. Nyatike Sub County is in Migori County. The sub County is found in the Nyanza region of Migori County. The study involved collecting data from primary school girls, teachers, and parents/guardians in the selected rural schools in Nyatike Sub County. It covered various aspects of menstrual management practices, including the use of sanitary products, availability and accessibility of sanitation facilities, cultural and religious beliefs, menstrual hygiene education, and the impact of menstrual management on girls' educational outcomes. The findings are limited to Nyatike Sub County, and generalizations to other rural areas in Kenya should be made with caution. The study's scope was limited to primary school girls in rural areas, and the findings may not be generalized to other age groups or settings.

1.9 Limitations of the Study

Some factors that are beyond the researcher's control may have an impact on the internal validity of this study. First is the shyness of the respondents in talking about their menstrual hygiene. This was countered by assuring them that the information is anonymous. The other limitation anticipated was that of respondents fearing to give information that is sensitive to their private lives. However, this was surmounted by assuring them of their confidentiality; they were made to understand that any information that they give is treated with utmost confidentiality. At the same time, their identities were anonymous to minimize the fear.

Cultural sensitivity is also another limitation. The study involved investigating cultural beliefs and practices that may be sensitive and personal to the participants. Therefore, appropriate measures, such as obtaining informed consent and maintaining confidentiality, was necessary to protect the participants' privacy and avoid ethical violations. The other limitation was the vastness of the sub county and the difficulty to traverse all the areas. Accessing participants in rural areas was challenging due to limited infrastructure and transportation. This may affect the study's ability to reach a representative sample of participants, which may limit the general outcome of the study's findings. However, this was countered by using research assistants who were well versed with the area hence minimizing the limitation. In all, all measures were taken to ensure that the limitations do not adversely affect the outcome of the research.

1.10 Assumptions of the Study

The study was guided by several assumptions. First, the study assumed that participants provided truthful and reliable responses to the study's questions, which may not always be the case due to social desirability bias or other factors that may affect the accuracy of their responses. Again, the study was based on the assumption that participants had a good understanding of the questions being asked and provided informed responses. They also were willing to participate in the study and provide the necessary information. Lastly, the study's sample was representative of the target population. The researcher assumed that the sample of primary school girls in Nyatike Sub County was a representative of the target population, which included primary school girls in rural areas in Kenya.

1.11 Operational Definition of Terms

The following terms have been operationalized in this study:

Cultural factors: These are barriers to long-term management of menstruation health that are influenced by society and cultural attitudes and practices. Among these include social support, the notion that menstruation is a woman's and a private affair that shouldn't be discussed in public or by men, and the stigma and guilt attached to menstruation.

Economic factors: The cost of sanitary products and women's and girls' access to the same commodities, as influenced by poverty, are the main barriers to long-term menstrual health management.

Menstrual Hygiene: It refers to those practices and procedures that are aimed at minimizing unhealthy or unpleasant menstrual experiences among girls.

Menstrual Management: A series of practices and actions that are geared towards effectively handling menstrual experiences among girls.

Menstrual Health Management: Menstrual Hygiene Management (MHM) is defined as the practice of "women and adolescent girls using a clean material to absorb or collect menstrual blood, and this material can be replaced as frequently as necessary in privacy during the menstrual month." MHM has disposal facilities for used menstrual management supplies as well as soap and water for occasional body cleaning.

Primary School Girls: Refers to female students between the ages of 6 and 12 years old who are enrolled in primary schools.

Rural schools: The rural schools are primary schools that are located outside of urban centers and may have limited access to resources and infrastructure.

Socio-economic determinants: These are the factors that influence menstrual management among primary school girls in rural schools in Nyatike Sub County, including household income, education level, occupation, and access to menstrual products and facilities.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter deals with the presentation of the literature, offering an overview of menstruation health across the world, as well as in Africa and Kenya. The chapter focuses on the literature in terms of context of the research theoretical review, empirical review, and the conceptual framework of the study. It focuses on the major research questions (traditional practices, knowledge and awareness and family education affect menstrual management among primary school girls. Looking also into the measures can be put in place to enhance menstrual management). This is then summarized into gaps that this paper has bridged.

2.1. Context of this Research

The section contains some critical contextual information concerning the study. First, it focuses on Menstrual Health Management Programs and Organizations in Kenya. It also investigates the current state of menstrual health management in Kenya.

2.1.1 Menstrual Health Management Programs and Organizations in Kenya

Effective menstrual health management is an act that helps women and girls, as well as the family as the fundamental unit of society and the whole nation (Jewitt & Ryley, 2014) When excellent Menstrual Health Management (MHM) practices are implemented, the gender equity gap narrows, which benefits the nation. As a result, the country becomes a developed entity in which both genders have equal access to the same resources. The health of women and girls has declined as a result of the negative MHM practices (Jewitt & Ryley, 2014). Low self-esteem among women and girls, stigma, unemployment, and finally deteriorating health are some of the primary adverse outcomes of inadequate MHM. Because a significant portion of Kenya's population lives in poverty, MHM methods have not been widely adopted (FSG, 2017). Because there is a gap in the purchasing power, numerous groups have stepped in to help with MHM. The availability of economic muscle determines access to adequate sanitary towels and cleanliness.

There are several menstrual health management programs and organizations in Kenya that aim to improve menstrual hygiene management for girls and women. These organizations have stepped up their participation in the MHM of the women and girls in the country. The first one is the Kenyan Ministry of Health which has launched several initiatives to improve

menstrual hygiene management, including the Menstrual Hygiene Management Policy Framework and Guidelines, which provides guidance for menstrual hygiene management in schools and other settings (Menstrual Hygience Management Policy, 2019). The next is Bill and Melinda Gates Foundation that has continued to support the female gender in MHM. Then there is an organization known as CARE, which has equally stepped up their participation in the MHM in rural Kenya. The other organization is WASH united which has been in the nation for a long period and has been managing the access to sanitation by women, girls, and minority groups in the country. The presence of these organizations has resulted in positive outcomes among women and girls.

There are several menstrual health management programs in Kenya. These programs aim to address the challenges faced by girls and women in managing their menstrual hygiene and promotion of menstrual health and empowerment (Menstrual Health in Kenya |Country Landscape Analysis, n.d.). There is the Menstrual Health Management Program run by the Kenyan Ministry of Health and that has been in place to promote menstrual hygiene management in schools and other settings. It includes the development of a Menstrual Hygiene Management Policy Framework and Guidelines, as well as training and capacity-building for teachers and other stakeholders (Menstrual Hygience Management Policy, 2019). A School program dubbed the "Always school programme" that has been present in the nation for the past 27 years has also seen the improvement of access to sanitary pads by girls in the country (Jewitt & Ryley, 2014). Proctor and Gamble is the company that is at the forefront of this campaign and has been central in the provision of sanitary pads to school-going girls. The result has been that these girls have been able to get an education that enables them to be empowered in society.

2.1.2 The Current State of Menstrual Health Management in Kenya

The current state of menstrual health management in Kenya is complex and multifaceted. While there have been significant efforts made to improve menstrual hygiene management, there are still significant challenges that need to be addressed. Many girls have little to no information on the Menstrual Health Management (MHM) (Korir et al., 2018). A large part of this gap is attributed to the lack of communication among the members of the family about MHM, as the cultural environment hinders such discussions (FSG, 2017). The attitudes that the society have towards this phenomenon is further made negative by the economic plight among the families.

The resulting effect is that these girls and women tend to suffer in silence and as a result end up being depressed and frustrated.

A study that was conducted by UNICEF reveals that approximately 66% of girls in the country have a fair to poor grasp of knowledge on MHM (Jewitt & Ryley, 2014). At the same time, a large part of this population is in the rural areas of the country. It is in the rural areas that these MHM practices are least observed and where the impact has been felt the most (KNBS, 2014). A large part of the difficulties these women and girls face are caused by taboos, cultural, and social hindrances. Several girls and women in Kenya still struggle to access affordable, high-quality menstrual products, which can lead to difficulties in managing their periods and increased risk of infection. There is also a lack of appropriate facilities in schools and other public spaces, which can make it difficult for girls to manage their periods in a safe and dignified way (Korir et al., 2018).

In Kenya, some barriers hinder access to adequate Menstrual Health Management facilities and resources. The first barrier is the economic barrier in which most households in the country earn little to no income. As a result, there is no access to sanitation and sanitary towels (Saiesha, 2021). The socio-cultural and economic situation in the nation hinders these girls and women from freely discussing their plight. In addition to this, they are unable to access these sanitation facilities in an unhindered manner. Again, cultural practices (Jewitt & Ryley, 2014) and beliefs tend to stigmatize girls and women for menstruating. In many cultures around the country, girls cannot access the same facilities as men. In other regions, girls and women are not allowed to attend church and even go to school for they are perceived to be dirty (Duke, 2012). Teachers have been left to participate in the MHM of these innocent girls. A study done by KNBS in 2014 revealed that about 49% of girls in the country can access guidance on MHM and speak openly about MHM (KNBS, 2014). Another 32% were found to be unable to talk about MHM and another 12% only discussed it with their mothers alone (KNBS, 2014).

2.2 Theoretical Review

2.2.1. The Social Exchange Theory

The Social Exchange Theory is an economics theory posited by Homans (1950, 1958, 1961) who, believed that social behavior often involves social exchange where people are often motivated to attain some valued reward in exchange for something of value to them. Peter Blau

(1964) later expanded on the social context to which economic and exchange principles were applied. He noted that social exchanges differ from economic exchanges in that terms of social exchanges are not spelled out per se but rather left for a given individual to decide who worked as Sociologists (Cook et al., 2013).

The main component of this theory is the self-interest of man and the notion that man makes decisions based on their ambitions and the benefits they may get from such. It analyzes the relationships that we have in society as humans and relies upon the gains and losses that man would incur in an endeavor. This theory goes further and says that an individual can make a balance of the benefits and losses inherent in a decision. This makes them all rational actors who then perform calculations relative to each other in an endeavor. The aim of being a rational person is to profit from the decisions that they make in life, the presence of benefits that determine the appropriateness of the current means and the possibility of there being free that is devoid of coercion (Cropanzano, Anthony, Daniels, & Hall, 2017).

In the menstruation, the rewards and costs associated with menstrual management practices can vary based on socio-economic factors such as income, education, and access to resources. For example, a person with a higher income and more education may have more options for menstrual products and access to menstrual health education, while a person with lower income and less education may have to make trade-offs between the cost of menstrual products and other basic needs. According to the Social Exchange Theory, individuals in these different socio-economic situations may make different decisions about their menstrual management practices based on the perceived rewards and costs. For example, a person with higher income and education may be more likely to invest in sustainable menstrual products that have long-term benefits for their health and the environment, while a person with lower income and education may prioritize low-cost options that are more immediately accessible.

This theory is relevant to this study in the sense that this research is trying to establish the relationships that economic status, cultural factors, and societal norms have on decisions men may make regarding their participation and to what extent they can support girls and women in the management of menses. The research shall rely on the social exchange theory to support the notion that before males decide to participate in MHM -related activities, they will look at the

rewards (both social and economic) as well as the cost and benefits to be accrued from such endeavors. The social exchange angle posited by the theory shall inform this study.

The main areas of improvement of the Social Exchange Theories are linked to its emphasis on individual self-interest and rational calculation of costs and benefits may overlook the influence of social and cultural factors in shaping behavior related to menstrual management. This theory may need fully account for the complex socio-economic determinants of effective menstrual management, such as social norms, cultural beliefs, and economic constraints. Additionally, individuals with limited financial resources may not have access to more sustainable menstrual products despite their long-term cost savings. Therefore, while Social Exchange Theory provides a useful framework for understanding individual decision-making, it may not fully account for the broader social and cultural factors that shape behavior related to menstrual management.

2.2.2. Social Cognitive Theory

Social Cognitive Theory (SCT) was developed by psychologist Albert Bandura. The theory builds upon the notion of reciprocal determinism, which posits that behavior is influenced by the interplay between personal factors, behavioral factors, and environmental factors.

Bandura suggested that people learn through observation and imitation of others and through their own direct experiences. He emphasized the role of cognitive processes in shaping behavior and proposed that people develop their beliefs, attitudes, and expectations based on their observations of others and their own experiences. He also introduced the concept of self-efficacy, which refers to an individual's belief in their ability to successfully perform a behavior (Abdullah & Ahmed, 2022).

SCT has relevance to socio-economic determinants of effective menstrual management, as it suggests that behavior is influenced by environmental factors, including the physical, social, and cultural context in which behavior takes place. In the context of menstrual management, personal factors such as attitudes and beliefs about menstruation, environmental factors such as access to menstrual products and facilities, and behavioral factors such as hygiene practices and menstrual product use all influence girls' ability to effectively manage their menstruation. Furthermore, SCT emphasizes the role of modeling and observational learning in behavior

change. Individuals may learn new behaviors by observing others, including their peers and role models, engage in effective menstrual management practices (Stajkovic & Sergent, 2019). This can include modeling of the use of sustainable menstrual products, as well as menstrual hygiene education.

SCT highlights the importance of self-efficacy in behavior change. Individuals who believe in their ability to effectively manage their menstrual cycles may be more likely to engage in effective menstrual management practices. Efforts to promote effective menstrual management practices should therefore include interventions that aim to increase self-efficacy, such as education on the benefits of sustainable menstrual products developing of skills for their effective use. It provides a theoretical framework for understanding the complex interplay between personal, behavioral, and environmental factors in shaping behavior, including behavior related to effective menstrual management (Rossouw & Ross, 2021). By considering these factors, interventions can be developed to promote positive behavior change and support the adoption of effective menstrual management practices, particularly in communities where socio-economic determinants may pose barriers to such practices.

Although the Social Cognitive Theory's emphasis on observational learning and self-efficacy may provide insights into how individuals learn and adopt effective menstrual management practices. It needs to fully account for the influence of structural and systemic factors that shape access to menstrual products and education. For example, lack of to education and information on menstrual hygiene may limit an individual's ability to learn about effective menstrual management practices. Additionally, stigma and discrimination around menstruation may limit an individual's self-efficacy and ability to adopt effective menstrual management practices. Therefore, while Social Cognitive Theory provides a useful framework for understanding individual behavior, it may not fully account for the broader socio-economic determinants that shape access to menstrual products and education.

2.2.3. The Rational Choice Theory

Rational Choice Theory (RCT) is an economic theory that suggests individuals make rational choices based on their preferences and the costs and benefits associated with different options. The theory suggests that people make choices that maximize their self-interest, and that these choices are based on rational calculations of the costs and benefits of different options. The

founder of Rational Choice Theory is often credited to be Jeremy Bentham, an English philosopher and social reformer, still the theory has been developed and refined by many economists and social scientists over the years. The argument claims that humans may make decisions based on logic rather than prior beliefs. The decision is taken by individuals because they have the freedom to make their own decisions without being pressured in any manner. As a result, balancing the costs and rewards is a critical factor in determining whether or not to engage. This will eventually lead to decisions being made based on the self-interest of individuals (Ogu, 2013).

The theory postulates that humans will make a decision if and when they are given accurate information on a particular decision. When cultural factors are considered, one will easily make a decision when they are given the pros and cons of taking a path that goes contrary to cultural norms and would result in a positive outcome (Burns & Roszkowska, 2016). The main crux of this theory in relation to this research is that in light of the information in favor of participating in MHM, one would go against cultural norms if the outcome is seen to be negative (Mcgee & Warms, 2013). It also has relevance to socio-economic determinants of effective menstrual management, as it suggests that individuals make choices based on their perceived costs and benefits. In the context of menstrual management, this could include decisions about which menstrual products to use, how frequently to change them, and how to dispose of used products.

RCT also suggests that individuals make choices based on their perceptions of the social norms and expectations around menstrual management (Burns & Roszkowska, 2016). For example, social norms around menstrual hygiene and disposal may influence an individual's choice of menstrual products and the frequency of changing them. The Rational Choice Theory applies to the current research as it will be used to test for the rational choice men make before participating in the Menstrual Health Management of women and girls. This study looks at the relationship that exists between the economic status, cultural factors, and social factors that influence decisions men make to participate in menstrual health management.

The theory implies that if men get correct information and knowledge concerning the menstrual cycle, they will be better placed to act and participate in a certain way regarding MHM. A deep understanding that is coupled with learning translates into better living standards.

The men will weigh the costs and benefits that come because of participating in MHM, and the decisions they will make will be informed decisions. Such an occurrence will need a good education system that will produce individuals who think before acting. In the end, the social education that will truly liberate the men from the taboos that hold them back from participating in MHM.

In terms of its weaknesses, this theory may not fully account for the broader socio-economic determinants that shape access to menstrual products and education. For example, individuals with limited financial resources may not have access to more sustainable menstrual products despite their long-term cost savings. Additionally, social norms and cultural beliefs around menstruation may influence an individual's behavior and choices, regardless of the perceived costs and benefits. Therefore, while Rational Choice Theory provides a useful framework for understanding individual decision-making, it may not fully account for the broader socio-economic determinants that shape behavior related to menstrual management.

2.3 Empirical Review

2.3.1 The Effects of Traditional Practices on Menstrual Management

Traditional practices can have a significant impact on menstrual management, both positive and negative. In some cultures, menstruation is considered a taboo topic, and there may be social and cultural restrictions placed on menstruating women, which can affect their ability to manage their periods effectively. According to Chebii (2014), there are social taboos that exist in the traditional society that make it difficult for young girls to operate their lives normally. In Asia, those girls who are menstruating are barred from visiting the kitchen area. At the same time, they are also barred from attending to guests when they are in their periods. Stoilova, Cai, Aguilar-Gomez, Batzer, Nyanza, and Benshaul-Tolonen (2022) argue that that in remote regions of India, menstruation is regarded a sin, and people who menstruate are considered an outcast until the process is over.

In some cultures, menstruating women are expected to seclude themselves from society during their periods. This can limit their ability to attend school, work, or social events and may prevent them from accessing menstrual products or proper hygiene facilities (Mukherjee et al.,

2020). In a study about Socio-cultural implications for women's menstrual health in the Pacific Island Countries and Territories (PICTs), Maulingin-Gumbaketi, Larkins, Whittaker, Rembeck, Gunnarsson and Redman-MacLaren (2022) observed that women's MHH issues are influenced by socio-cultural beliefs, norms and practices. The study proposes for incorporation of these factors in programs and education in order to be relevant to diverse population.

According to Stoilova et al. (2022), some cultures also have restrictions on bathing or washing, where women are discouraged from bathing or washing during their periods, which can increase the risk of infection and make it more difficult to manage menstruation hygienically. Even in religious traditions, there is still prejudice against menstruating females who are forbidden from leading prayers or touching sacred texts. According to McCammon, Bansal, Hebert, Yan, Menendez, and Gilliam (2020), the profiling of women who are menstruating frequently has an adverse effect on their menstrual hygiene. Further, they assert that the taboos and superstitions about menstruation held by girls and women in India lead to a decline in their sense of self-worth, which has an impact on their ability to learn and advance personally. While they were on their periods, women and girls were forbidden from laboring in the rice fields, going outside, or cooking (Maharaj & Winkler, 2020). If not resolved, this situation might make these girls fearful and have low self-esteem, which can increase school dropouts.

However, Thakuri, Thapa, Singh, Khanal and Khatri (2021) report that the case in India is with that in Nepal. In Nepal, menstruation is given a religious interpretation. The moment girls begin to menstruate, they are downgraded and lose their status as goddesses. Similar scenarios are in Africa, where menstruation is despised. In Uganda, for example, when a woman begins to menstruate, she is barred from drinking milk because it is believed that in so doing, she will lower the cow's production of milk. In these cultures, menstrual blood is considered impure or dirty and has adverse effects (Sugita, 2022), which can create a negative stigma around menstruation and discourage women from managing their periods effectively.

In Eastern Uganda again, Mohammed and Larsen-Reindorf (2020) report that menstruating women were barred from even engaging in groundnut plantations. It was believed that doing so would end up lowering the yields of the particular planting season. Again, menstruation was a kept secret in Central Uganda. The only person who was to know about it was the woman herself and she was not to share with anybody. These misguided thoughts also

extended to southern Africa where it was believed that when women menstruate, their blood is not only dangerous to men, but also to the crops fertility as well (Tellier & Hyttel, 2017). Those women who were menstruating had to isolate themselves in special huts so as to carry our religious experiences and exchange words of wisdom that concerns women. As they did that, their men had to take over their domestic chores in the household. The same scenario plays out in Ethiopia, where it was believed that the blood that comes from women during menstruation pollutes the environment (Afiaz & Biswas, 2021).

2.3.2 Effects of Knowledge and Awareness of Hygiene on Menstrual Management

Knowledge and awareness play a very critical role in enhancing menstrual hygiene. According to WHO (2019), menstrual hygiene practices were affected by cultural norms, parental influence, personal preferences, economic status, and socioeconomic pressures. Menstrual beliefs refer to misconceptions and attitudes towards menstruation within a given culture or religion. Menstrual beliefs, knowledge, and practices were all interrelated to menstrual hygiene management. By reviewing literature and articles published in journals and reports available on the Internet, we found many cultural and religious beliefs followed by people regarding menstruation (Rastogi, Khanna & Mathur, 2019). These norms are the barriers in the path of good menstrual hygiene practices. Many women experience restrictions on cooking work activities, sexual intercourse, bathing, worshipping, and eating certain foods. These restrictions were due to the overall perception of the people regarding menstruation as they consider it dirty and polluting.

Nagar (2017) explains that knowledge on menstrual hygiene is crucial for achieving freedom from these ideas. Because it aids in dispelling these taboos and unhealthy habits, education is a highly important instrument. It gives the girls an accurate understanding of health that is free from the stigma around menstruation. If they are educated, they will have no trouble taking care of their menstrual hygiene. Also, education gives individuals a wide range of alternatives for maintaining their cleanliness (Bhusal, Bhattarai, Shrestha, & Adhikari, 2020). They benefit from having self-confidence and self-esteem as well. All of the civilizations that have been discussed see culture as a barrier to the health of females since it not only denigrates them but also lowers their self-esteem and respect. Education and widespread public education about the need for menstruation hygiene among girls are the only ways to free girls and women

from the confines of these oppressive traditions. This will help people understand that having periods is not a sin or something to be despised (Bhusal et al., 2020).

Hygiene and culture are intertwined; according to Uskul (2019), teenagers need to be oriented to a culture that encourages hygiene early enough to enable them make the right decisions pertaining their hygiene. If they are not taught properly about menstrual hygiene and entrenched in their cultural outlook, it ends up posing a challenge to them later in their lives. Therefore, the level of parental education becomes a very important tool that ensures that they adequately coach their children properly on issues to do with menstrual hygiene. Education also helps to package the information in a proper way so that the parents are able to discharge the correct information that will not only make the girls perceive the issue positively but also that will make the child appreciate the developmental stages that she is undergoing without viewing it as unpleasant experience (Bulto, 2021).

Some studies also reported that parents are the main sources of information about reproductive health for their children. According to the findings of a study by Kaur (2017) in Nigeria, the sources of information about reproductive health for adolescent girls are parents (56.1%), friends (53.18%), books (45.56%), teachers (44.15%), and internet (45.19%) as well as health centers (54.14%). Kumar et al., (2020) showed that mothers were the main source of information for 75% of girls, and sisters were the source of information for 8.64% of girls. Yet, many studies worldwide and in Iran show that most sources of information about the reproductive health of adolescents are peers and the media. The findings of Kamalikhah et al. (2012) revealed that the majority of students believed that the best training providers are health educators because of their convenient communication with the students. Some students said that mothers do not teach kids because they think it makes children impudent, others expressed embarrassment at discussing it with their mothers, and some students believed that their families should not be involved in their sexual education.

Therefore, information is very instrumental in packaging the right communication regarding menstrual hygiene to the girls. If information is well packaged, it will lead to good decision making, but if not well managed, then the obvious result would be irreparable health ramifications to the girls. Proper information, which begins with the family set-up to the school set-up and is reinforced by the community interactions, ought to help in increasing the awareness

of the girls about their menstrual hygiene. The challenge lies in coming out of the cultural boxes that inhibit and suppress the right information to the girls.

2.3.3 Role of Family Income on Menstrual Hygiene

Family income plays a significant role in menstrual hygiene management, particularly in low-income households. Sommer (2019) reveals that much has not been studied in relation to the nexus between low-income households and menstrual issues. Much of the studies on this issue are derived from works that were conducted in the 80's and early 90's. These studies brought into the limelight the experiences of girls, particularly those in low and middle income families. Access to sanitary pads varies greatly between nations, according to Rossouw and Ross (2021). Just 17%, 14%, 10%, and 9% of women and girls in Kinshasa, Kenya, Ghana, and Indonesia report not using sanitary pads as a period hygiene product, respectively. Rajasthan has the highest rate of non-use (54%), followed by Ethiopia (41%), Nigeria (37%), and Uganda (36%). We routinely see uneven access to MHM based on financial status. The negative concentration indices across MHM factors and nations demonstrate this.

Women and girls from lower-income homes are less likely than women and girls from higher-income households to have access to soap and water, as well as clean, private, secure, and lockable rooms for managing menstruation hygiene (Behera et al., 2022). Ethiopia, Rajasthan, and Nigeria are the countries where these discrepancies are most noticeable. Women and girls who have fewer access to resources like money and education, who live in rural regions, or who are older than 35 regularly have less access to sanitary pads. Moreover, married and divorced women are less likely to have access to sanitary pads, although only in Ethiopia, Kenya, and Nigeria are these findings statistically significant. Interestingly, the main cause of the overall income-related discrepancy in access to sanitary pads in the majority of nations is wealth itself (Rossouw & Ross, 2021).

Menstrual products such as pads, tampons, or cups can be expensive, particularly in low-income households. Families with higher incomes may be able to afford these products more easily, while families with lower incomes may have to resort to using less effective or unhygienic methods to manage menstruation (Asumah et al., 2022). Families with higher incomes may have access to private bathrooms with running water, which makes it easier to manage menstruation hygienically. On the other hand, families with lower incomes may have to

share communal toilets or lack access to clean water (Budhathoki et al., 2018), which can make it more difficult to maintain proper hygiene during menstruation. In some low-income households, there may be a cultural or social stigma around menstruation, which can lead to shame and embarrassment about managing periods. This can make it more difficult for individuals to ask for help or access resources to manage their periods effectively (Rossouw & Ross, 2021).

2.3.4 The Measures to Enhance Menstrual Management among Girls

Enhancing menstrual management among girls requires a comprehensive approach that includes education, access to menstrual products and hygiene facilities, and creating a supportive and inclusive environment. By addressing these barriers, girls can manage their periods with dignity and without interruption to their education or daily activities. According to Oduor et.al (2014), one of the main reasons menstruation is a taboo and menstruation hygiene is neglected is gender inequality. Unequal rights given to men and women result in women's voices being ignored within households and communities and in development programs. Due to cultural norms and stigmas, menstruating women are not allowed to use water and sanitation facilities, and in some cases, even excluded from home as menstruation is considered impure. Therefore, comprehensive programs that engage both men and women should be organized related to menstrual hygiene.

Menstrual health and hygiene (MHH) is crucial for the wellbeing and empowerment of women and adolescent girls, according to Goswami (2019). More than 300 million women worldwide menstruate at any given time. An estimated 500 million people worldwide lack access to menstruation products and suitable period hygiene management facilities (MHM). Girls and women need access to WASH facilities, inexpensive and suitable menstrual hygiene products, education on good practices, and a welcoming atmosphere where they may manage their period without embarrassment or stigma to manage it properly. Providing education about menstruation, including proper hygiene practices and menstrual product options, can help girls feel more prepared and comfortable with managing their periods (Vayeda et al., 2021). This education can be provided in schools, through community programs, or educational materials such as pamphlets or videos.

Fodge et.al (2011) argue that decisions related to constructing toilets in houses are also taken by male members. It is a big barrier to menstrual hygiene as women find it difficult to clean and change menstrual materials in privacy. Women and girls who have toilets at home feel shy and embarrassed as the drain that leads out is not covered, and there is a chance of seeing blood flowing in the drain by others. In some reports, it was found that parents did not allow boys to discuss such topic as they were not important for their future, so the boys received information about menstruation from friends and the Internet which is inaccurate and incomplete. Fodge (2011) argues that most men do not know about menstruation and physiological changes in women during menstruation and menstrual cycle, so it is difficult to change their perception regarding menstruation and menstrual hygiene. Due to unwillingness, myths, prejudices, and misconceptions, it is difficult to talk about menstruation with men and boys. However, by engaging them in group discussions and regular community meetings, we can change their perception and make them aware of their role regarding menstrual hygiene management (Sommer, Caruso, Sahin, Calderon, Cavill, Mahon, & Phillips-Howard, 2018).

Oduor (2014) argues that in schools, teachers can make the school environment girl/women friendly to manage menstruation with dignity. Sex education in schools helps adolescents discover their sexual identity, protect themselves from sexual abuse, unwanted pregnancies, and sexually transmitted diseases, and know physiological changes occurring in the body and how to take care of personal hygiene. In most cases, teachers' attitudes are not good and supportive towards menstruating girls in schools. Different views of parents, teachers, and society affect sex education in schools and colleges. Cultural, religious, and social barriers also create hindrance in the path of sex education. According to Darling-Hammond et al. (2020), education sector plays an important role in child's growth and development by allowing them to respond to changes and challenges they are facing in day-to-day life. But many times, it avoids issues related menstruation and menstrual hygiene management by considering it one's personal matter and should be discussed within the house.

To overcome these issues, male teachers and employees in the schools and institutes should be well educated and confident regarding menstruation and menstrual hygiene management to support girls/women by providing safe environment and privacy. A committee of teachers including both male and females should be made in the schools to collect funds for

providing sanitary napkins, soaps, water, and toilet facilities in schools so that girls manage their menstruation with ease and safety (Sommer et al., 2018). The Committee should also provide dustbins for menstrual waste disposal. Separate toilets for girls and boys with proper doors and locks should be built in the schools. Teachers should educate girls about menstrual health management and its link to their health. They should also make Female students aware of how to dispose of used menstrual products at home and in schools and about the consequences of throwing them in the open or flushing them in toilets. Open discussions on puberty, sex education, menstruation, and so forth should be organized by schools in every class to make students aware. This will solve their unsolved queries by providing them with the correct knowledge, promote social interaction, and also develop a trust relationship with fellow friends and teachers. School-level health policies should be made by the school management committee to promote and educate students regarding health and safety, to ensure adequate water and sanitation facilities, and protect girl students and staff from bullying and sexual harassment (Hammond et al., 2020).

2.4 Research Gaps

According to the review, excellent menstrual health management is an act that helps women and girls and the family as the fundamental unit of society and the whole nation. When appropriate MHM practices are addressed, the gender equality gap tends to diminish, which benefits the nation. As a result, the country becomes a developed entity in which both genders have equal access to the same resources. Poor MHM practices have resulted in the degradation of women's and girls' health. The studies reviewed have provided information about the issue of menstrual hygiene among girls. However, a majority of the research is not contextual to the rural setting, particularly in an area such as Nyatike Sub County where girls experience unique challenges.

The existing research on MHM primarily focuses on broader issues and may not capture the nuanced challenges faced by primary school girls in rural Nyatike Sub County. There is a need for research that delves deeply into the local context, considering factors such as cultural beliefs, economic conditions, and infrastructure limitations that may affect MHM practices. While studies have identified barriers to effective MHM, they often do not address the specific challenges that rural primary school girls in Nyatike Sub County encounter. These might include

issues related to the availability of sanitary products, access to clean and private facilities, and the impact of seasonal factors on MHM. The studies mention "socio-economic determinants" as a focus area still there is a need for a more detailed exploration of how economic conditions in Nyatike Sub County directly influence girls' ability to manage menstruation effectively. The focus could involve examining household income levels, access to menstrual products, and the economic burden of MHM on families.

2.5 Conceptual Framework

From Figure 2.1, the independent variables for the study will be four namely: Traditional practices, Knowledge and Awareness of menstrual hygiene, Family income, and Measures that can be put in Place. On the other hand, the dependent variable shall be Girls' menstrual management in rural areas. The moderating variables is guidance and counseling programs in schools, free pads offered through GOK and private sponsors to girls as well as the use of recyclable sanitary pads.

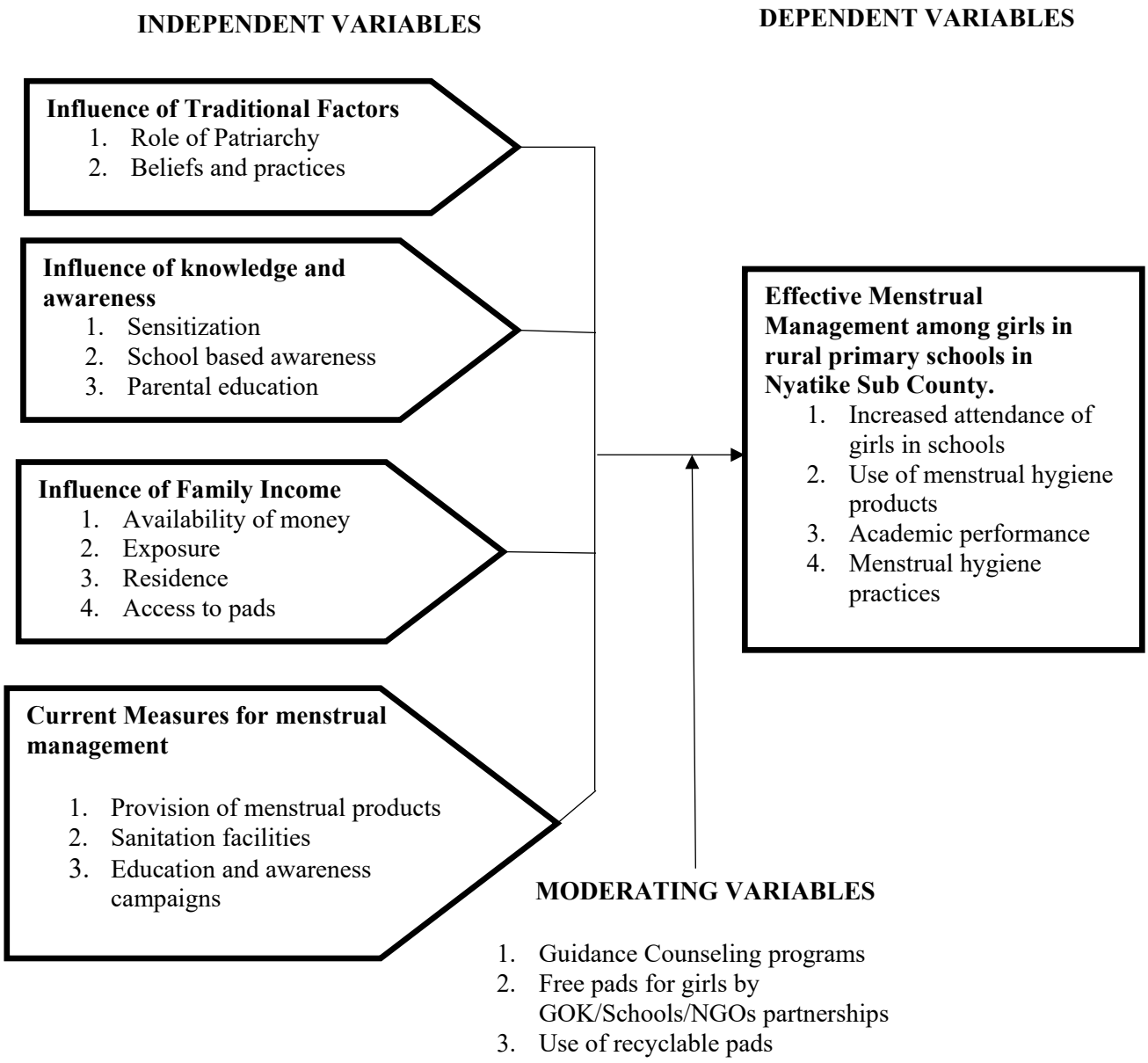


Figure 2.1 Conceptual Framework

This conceptual framework highlights the complex interplay between traditional factors, knowledge and awareness, family income, and current measures to improve menstrual management among girls in rural schools. The moderating variables further emphasize the importance of guidance and counseling programs, access to free menstrual products, and the use of environmentally sustainable menstrual products in promoting effective menstrual management among girls in rural schools.

2.6 Chapter Summary

This chapter begins with a literature review based on theoretical and empirical framework. Thereafter, it proceeded to present the conceptual frameworks that underscored the interrelationships between the various variables that guided the study. The last part reveals a research gap that this study sought to fill on the issue of menstrual hygiene and its interplay with social and economic factors.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that guided the study. Specifically, it gives the research design, study area, sample size, target population, data collection, and data analysis as well as the ethical issues that are considered in the course of the study.

3.2 Research design

Research design generally means a structure to plan and execute research (Dubey & Kothari, 2022). It is therefore a crucial research as it includes the strategy, the conceptual framework, and the identification of whom and what to study and the tools and procedures to be used for collecting and analyzing data. This study uses a mixed research design, qualitative and quantitative research rolled together in Nyatike Sub county case. The research design employed in the study is descriptive survey design, which is a research method that involves collecting data to describe a population, a phenomenon, or a situation. It is suitable for the study because it aims at collecting the data on the socio-economic determinants of menstrual hygiene in Nyatike Sub County. Besides, it allows the study to explore the phenomena in both qualitative and quantitative terms (Creswell, 2014). Social and economic factors that influence decision making are best investigated through this design. The design helps collect in-depth information regarding the socio-economic determinants of effective menstrual management among primary school girls.

3.3 Study Site

The study was carried out in Nyatike Sub County of Migori County. Nyatike sub-county is situated in the western part of Kenya, within the Nyanza region. It is located approximately 45 kilometers southeast of Kisumu, the largest city in western Kenya. The coordinates of Nyatike sub-county are approximately latitude 0.0962°S and longitude 34.2102°E. It is bounded to the south by Suba South, to the east by Ndhiwa, Uriri, and Suna East, and to the west by Suna West and a portion of the international line between Kenya and Tanzania. It is divided into seven wards: North Kadem, Kanyasa, Kaler, Macalder/Kanyaruanda, Got Kachola, Muhuru, and Kachieng (NGCDF Nyatike Constituency, n.d.).

The population of Nyatike sub-county consists primarily of rural communities. The sub-county is inhabited by various ethnic groups, including the Luo, Kuria, and Suba. The population of Nyatike sub-county was estimated to be around 176,162 people as of the latest available data. The sub-county covers an area of approximately 676.9 square kilometers. The region is characterized by diverse geographical features, including hilly terrain, valleys, and the presence of Lake Victoria, which borders the sub-county to the east. Since Nyatike is a semi-arid area, fishing is the main source of income for the locals. Fishing is a significant economic activity due to the sub- county's proximity to Lake Victoria. Others practice agriculture in the area. Small-scale gold mining has also turned into a source of income around Macalder and Osiri (NGCDF Nyatike Constituency, n.d.).

The selection of Nyatike sub-county as the study site was justified for several reasons. First, the Sub County was selected based on its low enrollment of Girls in the entire county. According to UNICEF, the county has a lower enrollment of girls when compared with boys. Nyatike Sub County represents a typical rural setting, which is often associated with unique challenges and limited resources concerning menstrual management. This choice allows for a focused investigation into the specific socio-economic factors that influence menstrual management practices in rural areas. The predominant fishing economy of Nyatike Sub County is relevant to the research focus. The socio-economic factors associated with the local fishing sector may influence menstrual management practices and access to menstrual hygiene products among primary school girls. The area also has many school girls from low-income households who face challenges in accessing menstrual products and managing their menstruation effectively. This therefore, gave a better context for the study.

3.4 Target Population

The target population of a study refers to the elements or units in which the researcher aims to make inferences (Busetto, Wick, & Gumbinger, 2020). They are all units possessing certain characteristics which are of interest to the person conducting the study. The population under study was therefore the community or the groups that the researcher targeted. Therefore, in the study, the target population included the primary school girls, Head Teachers and teachers in the rural schools, and the female heads of households with primary school going girls in Nyatike Sub County.

First, the study focused on primary school girls who are currently menstruating or have started menstruating. This group included girls enrolled in primary schools in rural areas of Nyatike Sub County. The research aimed to understand their experiences and challenges related to menstrual management. The primary school girls were represented or guided by their teachers, parents, or guardians. Then, the study targeted Head Teachers and teachers of primary schools in rural areas of Nyatike Sub County. This was because the targets were located in remote areas and faced challenges in providing access to menstrual hygiene products and sanitation facilities. Their participation was crucial as they played a significant role in creating a supportive and conducive environment for effective menstrual management among primary school girls. They possessed valuable knowledge about the school policies, practices, and available resources related to menstrual hygiene management.

Lastly, the study was concerned with the socio-economic determinants of menstrual management among primary school girls. Therefore, the target population included female heads of households with primary school- going girls. This group included women who were the primary caregivers and decision-makers in households with primary school-going girls in Nyatike Sub County. Their perspectives were important to understanding the socio-economic factors that influence menstrual management practices. They provided insights into the availability of resources, financial constraints, cultural beliefs, and community support related to menstrual hygiene management. The target population for categories consisted of 5,400 primary school girls, 50 head teachers, 450 teachers, and 490 female heads of households.

The research aimed at investigating the socioeconomic determinants of effective menstrual management among girls in rural primary schools. Including primary school girls as the target population directly aligned with the research objective, as their experiences, challenges, and practices regarding menstrual management were of central interest. Involving primary school girls in the target population also allowed researchers to capture first-hand insights into the realities and perceptions of girls regarding menstrual health in the school environment. Their experiences shed light on the barriers they faced and the support they needed. Headteachers and teachers are essential stakeholders in the school environment. Including them in the target population allowed researchers to understand how the school setting impacted menstrual management practices among girls. Their perspectives provided insights into existing

policies, support systems, and potential areas for improvement. Female heads of households with primary school-going girls were crucial for understanding the broader socioeconomic factors that influenced menstrual management. Their experiences and decisions related to menstrual health resources and practices within the household context can significantly impact girls' experiences at school.

3.5 Sample Size and Sample Procedures

3.5.1 Sample Size

According to Busetto et al. (2020) a sample is a set of entities drawn from a population to estimate characteristics of the population. The basic idea of sampling is selecting some of the elements in a population so that the same conclusions can be drawn about the entire population (Asenahabi, 2019).

To determine the sample size for primary school girls, a representative sample approach was used. A commonly used sample size for representative surveys is around 5-10% of the population. Considering the target population of 5,400 primary school girls, a sample size of approximately 10% was reasonable. Therefore, a sample size of 540 primary school girls was suitable. For head teachers, a smaller sample size was applicable since they represent a smaller group within the population. A sample size of around 20-30% is often used for this group. Considering the target population of 50 head teachers, a sample size of approximately 20% was reasonable, resulting in a sample size of 10 head teachers. Since we had a sample size of 10 head teachers, our focus was on 10 primary schools spread across the sub-county. A representative sample technique was used to calculate the sample size for teachers. 5–10% of the population is the typical sample size for representative surveys. For teachers, with a target population of 450, a sample size of around 10% yielded approximately 45 teachers. For the female heads of households, a representative sample approach was applicable similar to the primary school girls. A sample size of around 20-30% was suitable for the female heads of households. Therefore, considering the target population of 490 households, a sample size of approximately 20% was reasonable, resulting in a sample size of 98 households.

Table 3.1 Sample Size Categories

Category	Target Population	Sample Size	Percentage (%)
Primary School Girls	5,400	540	10
Head Teachers	50	10	20
Teachers	450	45	10
Female Heads of Households	490	98	20
Total	**6,390**	**693**	

Source: Personal Analysis (2023)

3.5.2 Sample Technique and Procedure

In this study, different sampling procedures were used for each category. For the primary schools, the selection criteria relied on the wards with the highest number of schools and the ones with the lowest. Based on these criteria a combination of stratified sampling and purposive sampling techniques was used. First, Stratified Sampling was used to divide the sub -county into two strata based on the number of primary schools. Stratum 1 comprised of North Kadem, Macalder, and Kachieng since they had the highest number of primary schools and Stratum 2 had Kanyasa, Kaler, Got Kachola, and Muhuru since they had lowest number of primary schools. Purposive Sampling was used within each stratum to select the desired number of primary schools based on the ones with the highest number of students in the upper primary sections. For Stratum 1 (North Kadem, Macalder, and Kachieng) the selection was for 2 primary schools each since they had the highest number of primary schools. For Stratum 2 (Kanyasa, Kaler, Got Kachola, and Muhuru) the selection was for 1 primary school each since they had the lowest number of primary schools. This approach ensured representation from each ward while also accounting for the variations in the number of primary schools within the sub-county. since the sample size was 10, for the head teachers, simple random sampling was used. By using simple random sampling, each head teacher was given an equal chance of being selected, ensuring a fair representation of each school.

For the teachers, the sample size was determined per school. A combination of stratified sampling and simple random sampling techniques was used. Since each school should have an equal number of samples, strata was created based on the 10 schools. Each school was considered as a separate stratum. Then there was a determination of the number of teachers to sample from each school. Since there were 45 teachers to sample and 10 schools, 45 was divided by 10 to obtain an equal sample size for each school, which is 4.5. Since you cannot have a fraction of a teacher, the number was rounded to the nearest whole number. In this case, 4 teachers were selected from each school regardless of gender. The remaining 5 teachers were randomly selected from the schools with the highest number of teachers.

A combination of stratified sampling and simple random sampling techniques was used to select a representative sample of primary school girls. Since each school should have an equal number of samples, strata was created based on the 10 schools. Each school was considered as a separate stratum. Since there were 540 girls to sample and 10 schools, 540 was divided by 10 to get an equal allocation of 54 girls per school. Within each school, simple random sampling was used to select the desired number of girls who were in class 6, 7, or 8. To sample the female heads of households from the 7 wards, a combination of stratified sampling and simple random sampling techniques was used. Since the ward should have an equal number of samples, strata were created based on the 7 wards. Each ward was considered as a separate stratum. The researcher then randomly sampled households within each ward. This approach ensured representation from different areas within the sub-county (Busetto et al., 2020)

3.6 Data Collection Tools

Data collection for the research involved various methods to gather comprehensive information. The research instruments that were used include Focus Group Discussions, Interviews, and Questionnaires.

Questionnaires: Since the study also involved a survey, questionnaires were used to collect relevant information. A questionnaire is the best tool to use since it is less costly, objective, and convenient. A questionnaire containing open-ended and closed-ended questions designed exclusively for primary school girls was employed. The open- and closed-ended questions were employed because they captured both qualitative and quantitative data, resulting in data triangulation that was useful in answering the particular objectives of the study. The

questionnaires included age-appropriate questions constructed based on the specific objectives of the study. Questionnaires were relevant for primary school since they can be tailored to suit their age group. The questions were framed using simple language and easy-to-understand formats, ensuring that the girls could respond comfortably and accurately. It was also deemed appropriate for this study as it allowed data to be collected in a short time.

Interviews: The researcher conducted interviews with key stakeholders, head teachers, and teachers. These interviews were semi-structured, allowing for a more in-depth exploration of their experiences, perceptions, and knowledge related to effective menstrual management. The interviews delved deeper into their role in educating primary school girls about menstruation, their observations regarding menstrual management practices, and the support they provide to students. The interview questions also explored their perspectives on the socio-economic factors influencing menstrual management among primary school girls. Interviews allow researchers to gain an in-depth understanding of the perspectives, experiences, and challenges faced by head teachers and teachers regarding menstrual management among girls in rural schools. Through open-ended questions, researchers explored complex issues and received detailed responses. They also provided the opportunity to gather context-specific information about the school environment, resources, and existing initiatives related to menstrual health management. This contextual understanding is crucial for designing effective interventions and policies tailored to the specific needs of the schools.

Focus Group Discussions: The researcher organized focus group discussions with female heads of households to facilitate group interactions and gather qualitative insights. We divided the participants into smaller groups to ensure active participation. This method was chosen since the variables under study are best understood through in-depth investigation best applicable to focus group discussion. The study intended to understand the relationship of economic status, cultural factors, and social factors that influence socioeconomic determinants of effective menstrual management among girls in rural primary schools. The researcher divided the participants into smaller groups to encourage active participation and ensure everyone had an opportunity to share their experiences and perspectives on menstrual management. Take notes or record the discussions with consent, and transcribe the data for analysis.

3.7 Pretesting of the Research Tools

The researcher ensured the reliability and validity of the research instruments by carrying out a pretesting exercise; this entailed selecting two out of the five wards and administering the questionnaire to respondents who did not form part of the final study. The responses are compared with those of the main study to ascertain their consistency and reliability.

3.8 Instruments Reliability

Reliability is the degree or the dependability with which a research instrument measures whatever attribute (Creswell & Clark, 2018). Questionnaires used in collecting data should pass reliability tests. Different studies suggest that Cronbach's alpha test of reliability should help determine the level of the questionnaire's internal consistency (Walliman, 2021). Data reliability and internal consistency should have values ranging between 0 and 1, However, the recommended value should be greater or equal to 0.7 (Yardley & Bishop, 2017). The Cronbach Alpha test was carried out for the study, and the findings showed that the Cronbach's Alpha was 0.79. The test demonstrated the questionnaire had a high degree of internal consistency, demonstrating its suitability for use in the study. The reliability of the qualitative data was achieved via the interceder agreement suggested by Creswell and Clark (2018). This involved creating a codebook, and coding a transcript of the piloting data by the interviewers. Finally, a comparison of the coded transcripts was done to check for any similarities or differences in the coding and it clearly showed that everything was perfect.

3.9 Instruments' Validity

Validity refers to the degree to which the research instruments measure what it is expected to measure (Yardley & Bishop, 2017). In addition, Elder and Odoyo (2018) stated that validity could be termed as the degree to which the research instruments are in a state where they can establish knowledge or truth. In the current study, the researcher relied on the opinions of experts including the university supervisors, who helped in designing the questionnaires. Furthermore, the researcher relied on the parents of the girls.

3.10 Data Analysis and Presentation

Being a Descriptive Survey, the study mainly employed a combination of not only quantitative methods, but also qualitative in the analysis of the collected data. After the data collection phase, the gathered information underwent a systematic and thorough analysis. The

Statistical Package for the Social Sciences (SPSS) software was employed for data analysis, particularly on generating frequencies and percentages. The researcher coded, cleaned,and analyzed quantitative data using Statistical Package for Social Sciences (SPSS) version 21. A descriptive statistical analysis was done which involved the calculation of frequencies, percentages and their tabulation. The tabulation allowed for a quick overview of how many respondents answered in the affirmative and how many in the negative for each question. For the open-ended questionnaire questions, a qualitative analysis was conducted to identify common themes, patterns, and sentiments expressed by the primary school girls regarding their experiences and practices related to menstrual management.

For the qualitative data, thematic analysis was conducted where data was analyzed according to the study's objectives and then the findings were presented in the form of narratives. It focused on identifying recurring themes and patterns within the qualitative data obtained from focus group discussions (FGDs), and interviews. The Thematic analysis involved coding techniques to categorize and analyze the data, while content analysis explored the content of the qualitative data to identify key concepts, ideas, or categories. Narrative analysis delved into the stories and narratives shared by participants, providing a deeper understanding of their experiences and perspectives. Comparative analysis was conducted to compare and contrast different cases or groups within the qualitative data.

After that , the data was presented in the form of graphs, frequencies, percentages, tables, and numbers. This data was used to analyze the findings using descriptive analysis. On the other hand, the qualitative data, which was in form of responses from the interviews as well as from the open-ended questions, were grouped into themes in accordance with the set objectives and research questions. This analysis was in prose and excerpts as well as direct quotations were employed to compliment the quantitative analysis. Narrative descriptions were provided to offer a written summary of the key findings. The narrative involved highlighting significant trends, patterns, and relationships observed in the data and using descriptive language to convey the results in an accessible manner. Relevant quotes or excerpts from FGDs, or interviews, were included to support and illustrate the findings. These direct quotes added depth and authenticity to the research outcomes, providing firsthand perspectives from the participants.

3.11 Ethical Consideration

In this study, ethics and codes of conduct were observed and followed at all stages of the research. The appropriateness of one's actions with respect to the rights of individuals who become the topic of the work or are impacted by it is referred to as ethics in the context of the research (Yardley & Bishop, 2017). The researcher acquired research permission from the university, which provided the study approval and credibility. The researcher first ensured that consent was sought from the respondents before the research. This entailed the respondents being given a Letter of Introduction to help them identify the researcher and the researcher explaining to the respondents the nature of the research and what they were expected to do. For the primary school girls, special attention was given to obtain informed consent from the head teachers of the schools. The researcher ensured that the purpose, procedures, potential risks, and benefits of the study were clearly explained in a language and manner that the participants easily understood

Consent forms were written in simple language and signed voluntarily without coercion. During the study, anonymity, privacy, and confidentiality of the respondents were adhered to. Therefore, the researcher assured the respondents of confidentiality by stating that the information given was only for research purposes. Furthermore, the researcher was given a letter from the university to which a research permit was sought from the National Council for Science Technology and Innovation (NACOSTI) before getting clearance from the County commissioner. Thereafter, the researcher visited Nyatike Sub-County and Migori County offices to seek permission to conduct research in the area. Data collection, analysis, and reporting, as well as the dissemination of results and suggestion, all adhered to ethical norms in society and academia.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the results and discussions of the study on the socioeconomic determinants of effective menstrual management among primary school girls in rural schools in Nyatike Sub County. It presents the findings of the data analyzed and interprets the findings in a systematic manner. Tables and charts are used to present quantitative data, whereas narratives are used to present qualitative data.

4.2 Response Rate

Before delving into the detailed findings, it is essential to provide information about the response rate of the study. The study aimed to collect data from of 693 participants, including 540 primary school girls, 10 head teachers, 45 teachers, and 98 female heads of households. The overall response rate for the study was 92.06%, with a total of 638 participants completing the research instruments. Of these 495 were primary school girls, 10 were head teachers, 43 were teachers, and were 90 female heads of households participating in the research. This means that Interviews recorded the highest response rate at 96.36%, followed by focus group discussions at 91.84% then questionnaires at 91.67%. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Therefore, the study attained an excellent response rate. The response rate has been presented in the tables below.

Table 4.1 Response rate per category

Category	Targeted	Reached	Response Rate (%)
Primary school girls	540	496	91.67
Head teachers	10	10	100.00
Teachers	45	43	95.56
Female heads of households	98	90	91.84
Total	**693**	**638**	**92.06**

Source: Field Data (2023)

Table 4.2 Response rate per research instruments

Category	Targeted	Reached	Response Rate (%)
Interviews	55	53	96.36
Focus group discussions	98	90	91.84
Questionnaires	540	496	91.67
Total	**693**	**638**	**92.06**

Source: Field Data (2023)

4.3 Demographic Information

This section presents the demographic information for each category of participants involved in the study, including primary school girls, head teachers, teachers, and female heads of households.

4.3.1 Primary School Girls

This section presents demographic data regarding age, class level, and parent occupation of primary school girls.

4.3.1.1 Age

The results showed that the age of the girls ranged from 11 to 16 years. This helps to understand the age diversity of the respondents. The understanding is crucial because different age groups might have distinct knowledge of socio-economic determinants of effective menstrual management. 16% were aged 11, 15% were aged 12, 18% were aged 13, 20% were aged 14, those aged 15 years comprised 14% while those aged 16 years comprised 17% as summarized in Figure 4.1.

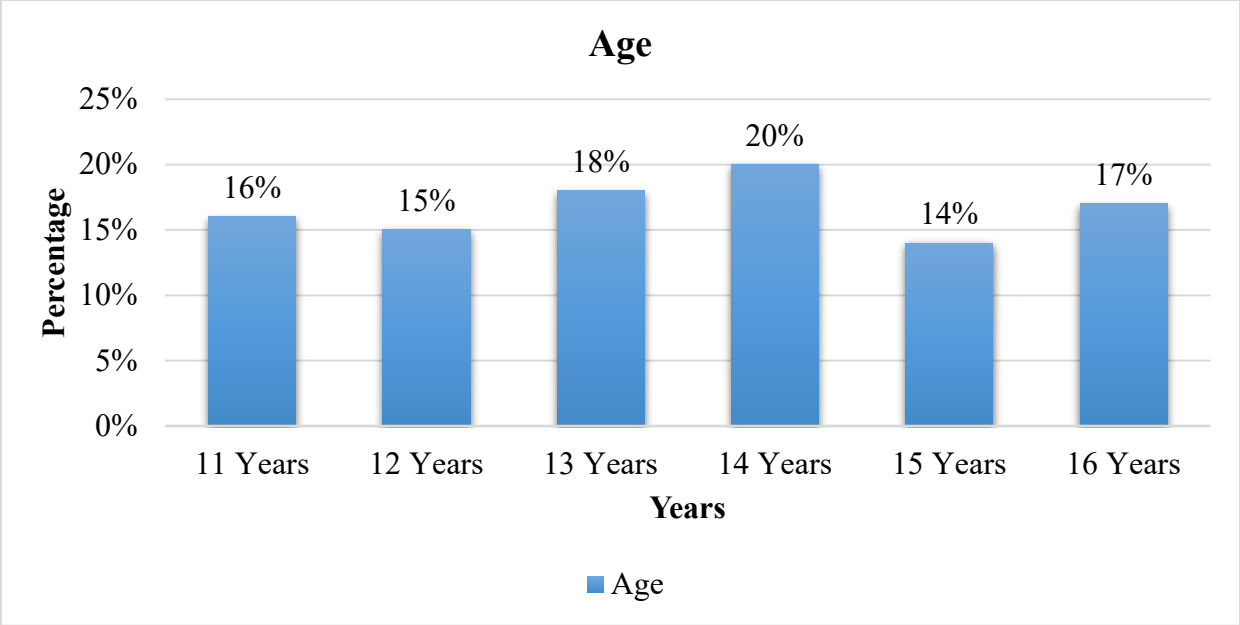


Figure 4.1 Ages of Primary School Girls (Source: Field Data, 2023)

4.3.1.2 Class Level

The class levels for the primary school girls were 6, 7, and 8. The majority of the girls were in class 8 (47.5%), followed by class 7 (36.8%) and class 6 (15.7%).

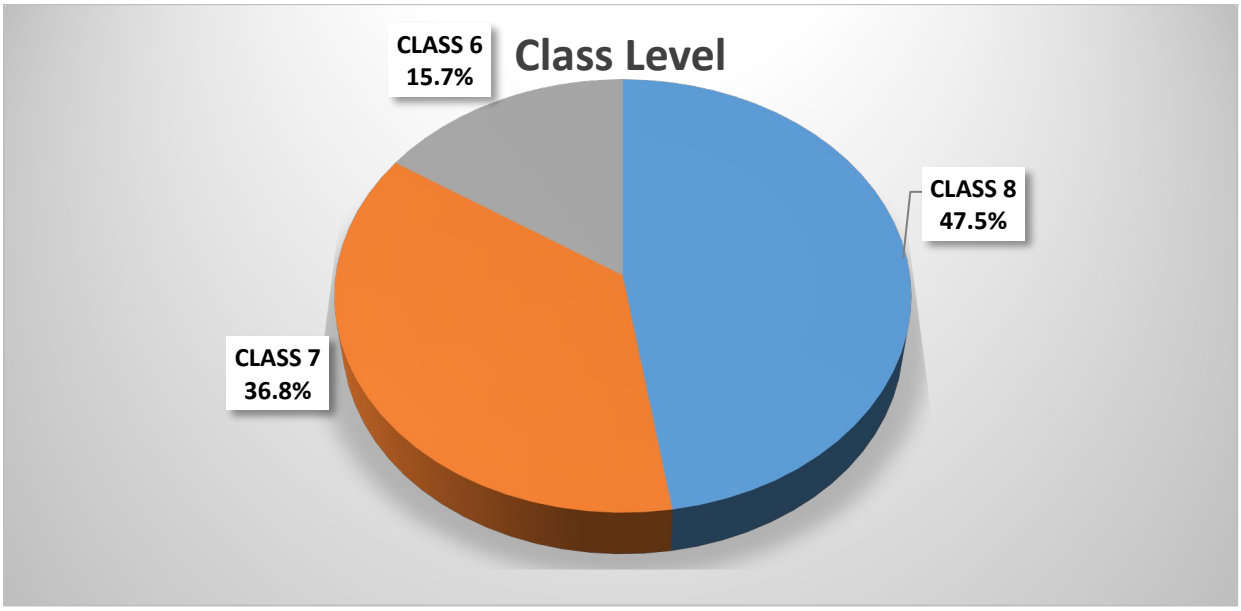


Figure 4.2 Class levels of the primary school girls (Source: Field Data, 2023)

Understanding class- level distribution is very important in this research. The Class level reflects the girls' stage of education, their age, and their developmental phase. These factors can significantly impact understanding of menstruation, knowledge of hygiene practices, exposure to traditional beliefs family roles, and readiness for interventions. It can be deduced that most of the respondents were in class 8 hence were adequately versed in the subject matter. This is because they are likely to have a more comprehensive understanding of menstruation due to their advanced age and exposure to educational content.

4.3.1.4 Parents' Occupation

The parents' occupation findings are important in the research. Parents' occupation is a crucial socio-economic factor that directly impacts family income, access to resources, and the overall well-being of the household. It provides insights into the economic conditions of the families within the target population. The study revealed that 83.6% of the parents had informal jobs while only 16.4% had formal jobs.

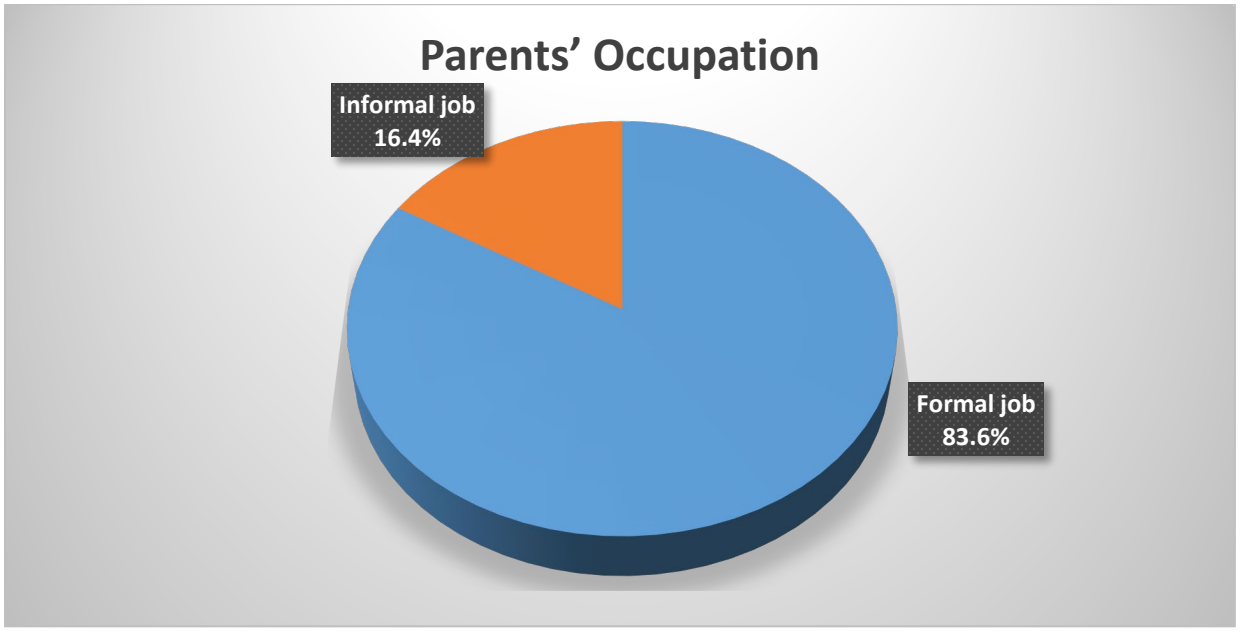


Figure 4.3 Parents' Occupation (Source: Field Data, 2023)

The distribution suggests that the majority of families are likely to face economic challenges due to the nature of informal employment. Families with informal jobs might have irregular and less stable incomes, impacting their ability to consistently afford menstrual hygiene products (Rossouw & Ross, 2021). Incorporating these findings contributes to a more

comprehensive understanding of how parents' occupation interacts with other determinants in influencing menstrual management practices.

4.3.2 Head Teachers

This section contains demographic information on the head teachers' ages, genders, and years of service.

4.3.2.1 Age

The study sought to establish head teachers' age categories to get an overview of the age distribution among head teachers in the study area. This would show whether their age influenced the subject matter that is the knowledge of Socio Economic Determinants of Effective Menstrual Management among Primary School Girls in Rural Schools in Nyatike Sub County. Results are presented in Figure 4.5.

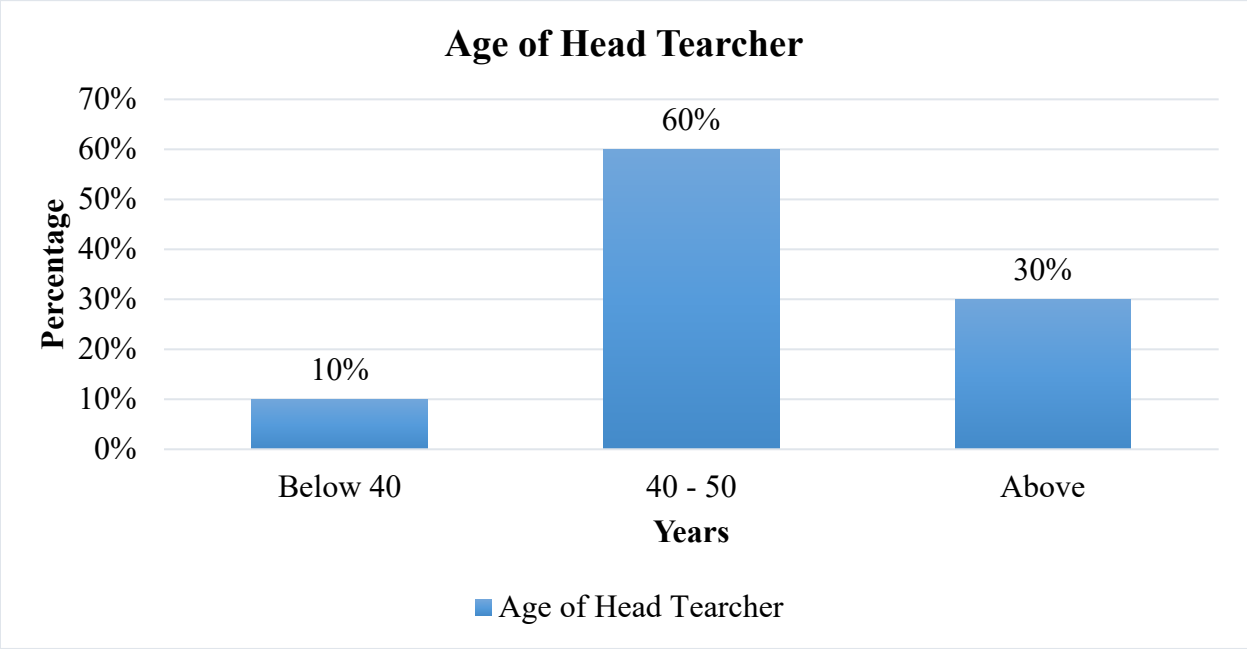


Figure 4.4 Ages of Head Teachers (Source: Field Data, 2023)

As illustrated in Figure 4.5, a majority of head teachers (60%) fell within the 40 - 50 years' category, followed by 30% within the above 50 years category, and then below 40 years category are 10%. It can be deduced that respondent age was within a good range with the majority being within the 40 - 50 years category, hence adequately versed in the subject matter. The age range helped understand the age-related trends and how they might impact the

effectiveness of menstrual health management efforts. The older age groups (above 50 years) were more exposed to traditional practices that can affect menstrual management. The younger head teachers (below 40 years) were more exposure to modern educational approaches, including comprehensive hygiene education.

4.3.2.2 Gender

It was deemed necessary to investigate the genders of the head instructors because the subject matter was gender-inclined. Therefore, the study intended to ascertain the answer about the gender of the head teachers in order to demonstrate the gender distribution in the study region with relation to the study goals. The results are shown in Figure 4.6.

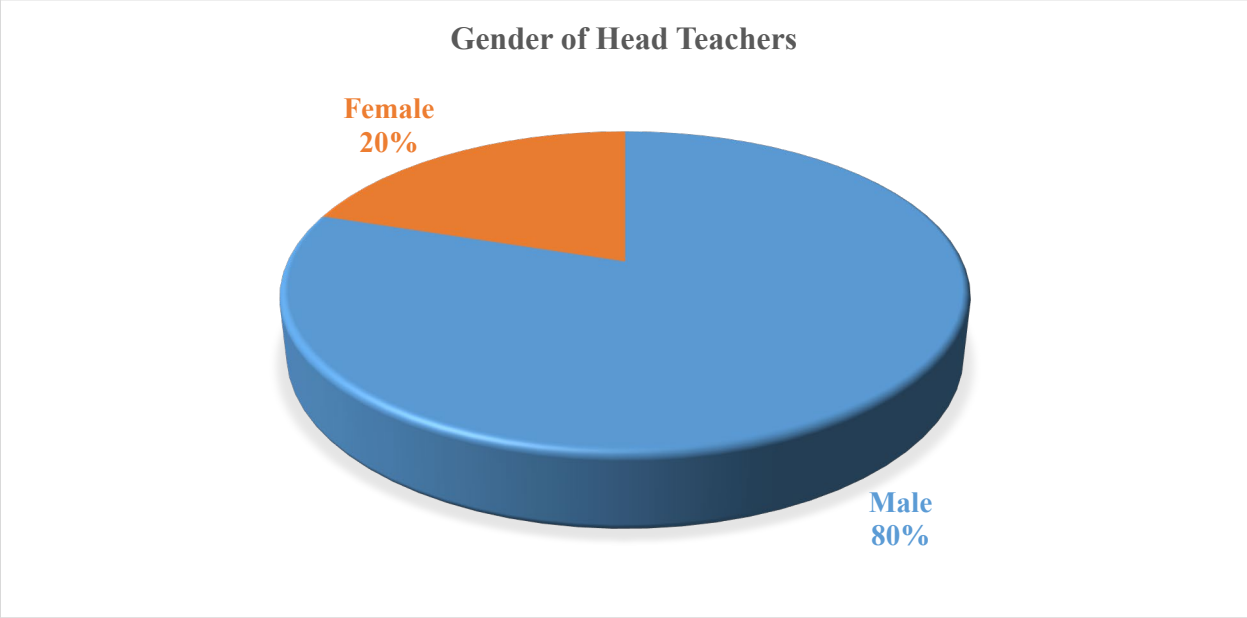


Figure 4.5 Genders of head teachers (Source: Field Data, 2023)

As represented in Figure 4.6, male head teachers were the most respondents, followed by female head teachers. The male respondents were 80% while females were 20%. This shows that from the schools participated the largest portion of the head teachers are males.

4.3.2.3 Years of Service

With some level of working experience in establishing the study objectives, the study found it necessary to establish the years of service the head teachers had in the schools. Results are as presented in Figure 4.7.

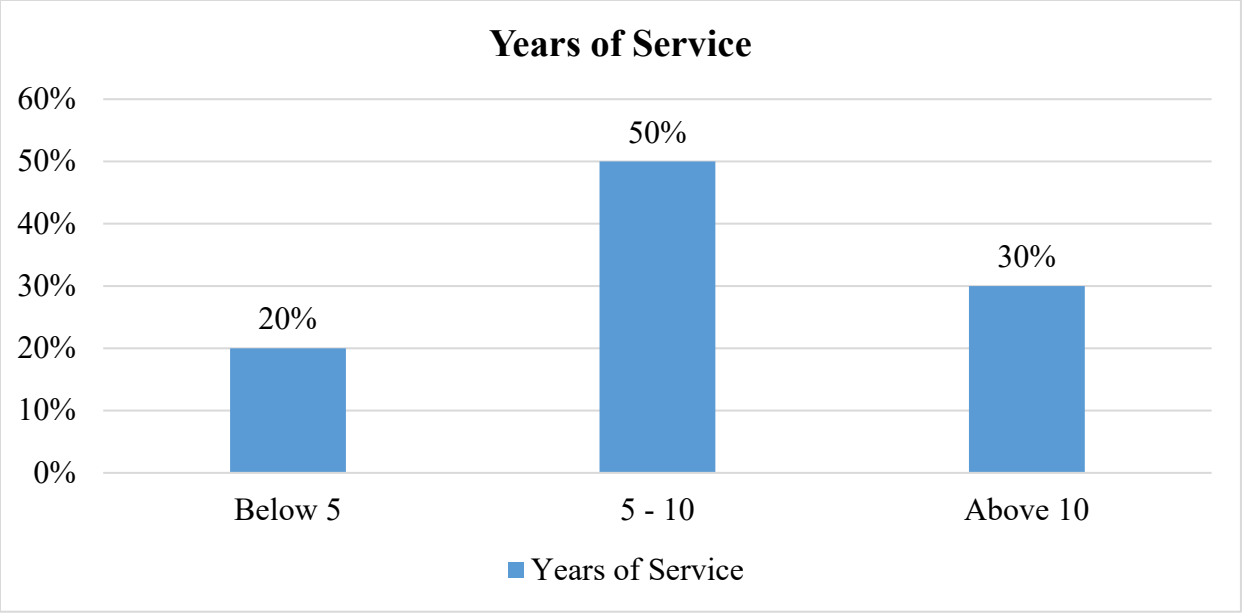


Figure 4.6 Years of Service for the Head Teachers (Source: Field Data, 2023)

It was established that most head teachers that were respondents (50%) have been in service between 5 to 10 years. This was followed by 30% of respondents who have been in service for more than 10 years, then 20% have been in service for less than 5 years. It shows that most head teachers have been in service between 5 to 10 years. This means that they are more versed and understand the situations in the schools.

4.3.3 Teachers

This section contains demographic information on the teachers' ages, genders, and years of service.

4.3.3.1 Age

To acquire a general idea of the age distribution among teachers in the research area, the study attempted to categorize the teachers' ages. By doing so, it would be possible to determine if their ages had any bearing on their understanding of the socioeconomic factors that affect effective menstrual management among primary school girls in rural schools in Nyatike Sub County. The results are shown in Figure 4.8.

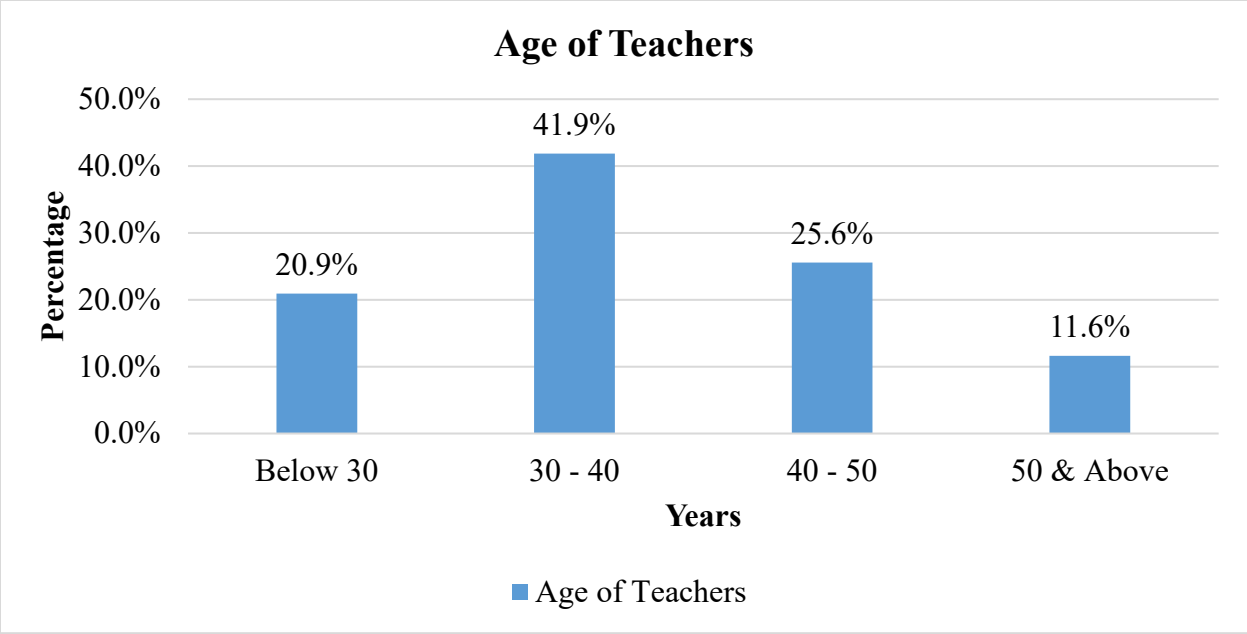


Figure 4.7 Ages of Teachers (Source: Field Data, 2023)

As illustrated in Figure 4.8, a majority of teachers (41.9%) fell within the 30 - 39 years' category, followed by 25.6% within the 40 - 49 years' category, then below 30 years' category are 20.9%% and lastly, 50 & above years are 11.6%. The age distribution of teachers reflects a diverse pool of experiences and perspectives that enriched the research. Younger teachers were more open to adopting modern approaches to menstrual health education, while older teachers provided insights into historical contexts and the changes they've witnessed. Their diverse experiences and perspectives provided a holistic view of the socio-economic determinants of effective menstrual management among primary school girls.

4.3.3.2 Gender

Because the subject matter was gender-oriented, it was deemed important to explore the genders of the teachers. As a result, the study sought to identify the gender distribution of teacher responses to illustrate the gender distribution in the study region in connection to the study's aims. Figure 4.9 depicts the results.

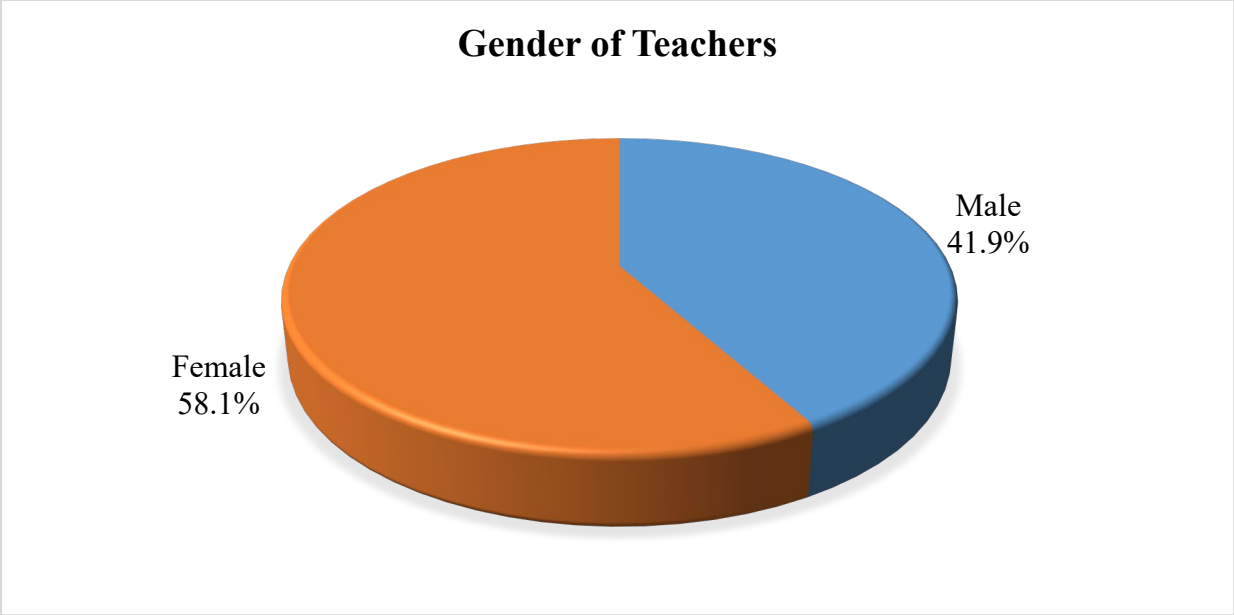


Figure 4.8 Genders of Teachers (Source: Field Data, 2023)

As represented in figure 4.9, female teachers were the most respondents followed by male teachers. The female respondents were 58.1% while male, were 41.9%. The finding is of relevance to the present study as it is an indication that the views and perspectives of both genders concerning menstrual health management are represented.

4.3.3.3 Years of Service

The study determined that it was important to ascertain the years of service the teachers had in the schools since some level of professional experience was required in setting the study goals. The outcomes are shown in Figure 4.10.

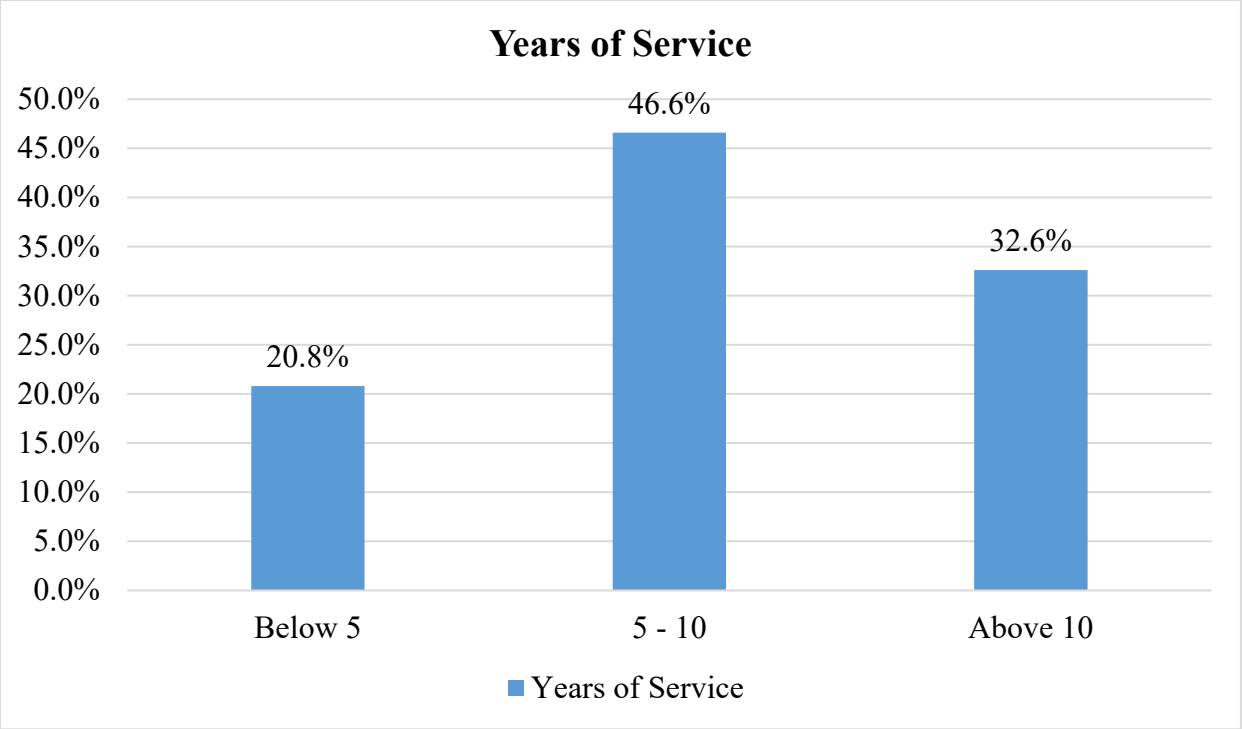


Figure 4.9 years of service of the teachers (Source: Field Data, 2023)

4.3.4 Female Heads of Households

In this section, demographic information specifically related to the female heads of households who participated in the study. The data collected focused on age, education level, occupation, household income, and the period they lived in Nyatike Sub-County.

4.3.4.1 Age

In order to gain an overview of the age distribution of female heads of households in the research region, the study set out to categorize their ages. The diverse age distribution provided insights into the experiences and perspectives of female heads of households across different life stages. The results are shown in Figure 4.11.

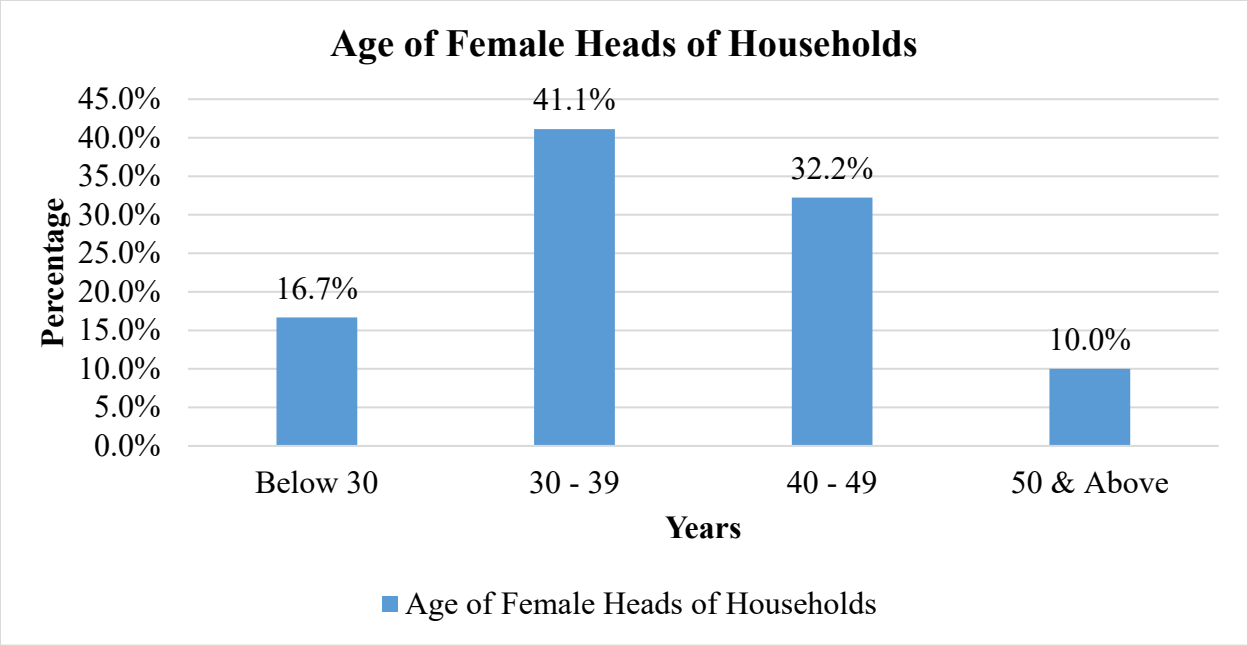


Figure 4.10 Ages of Female Heads of Households (Source: Field Data, 2023)

Figure 4.11 shows that the bulk of respondents (41.1%) fell into the 30-39 age category, followed by 32.2% in the 40-49 age category, followed by 16.7% of respondents who were below 30 years old, and 10.0% who were 50 years and above. It may be inferred that respondents were mostly youthful to middle-aged and were hence knowledgeable about the topic.

4.3.4.2 Education Level

Respondents (female heads of households) were also asked about their educational levels. This is to demonstrate if the topic content, socioeconomic variables impacting girls' effective menstruation management in rural primary schools in Nyatike Sub County, was influenced by academic background. It allowed for an understanding of how education levels might influence their knowledge, decision-making, and engagement in managing menstrual health. Results are as presented in Figure 4.12.

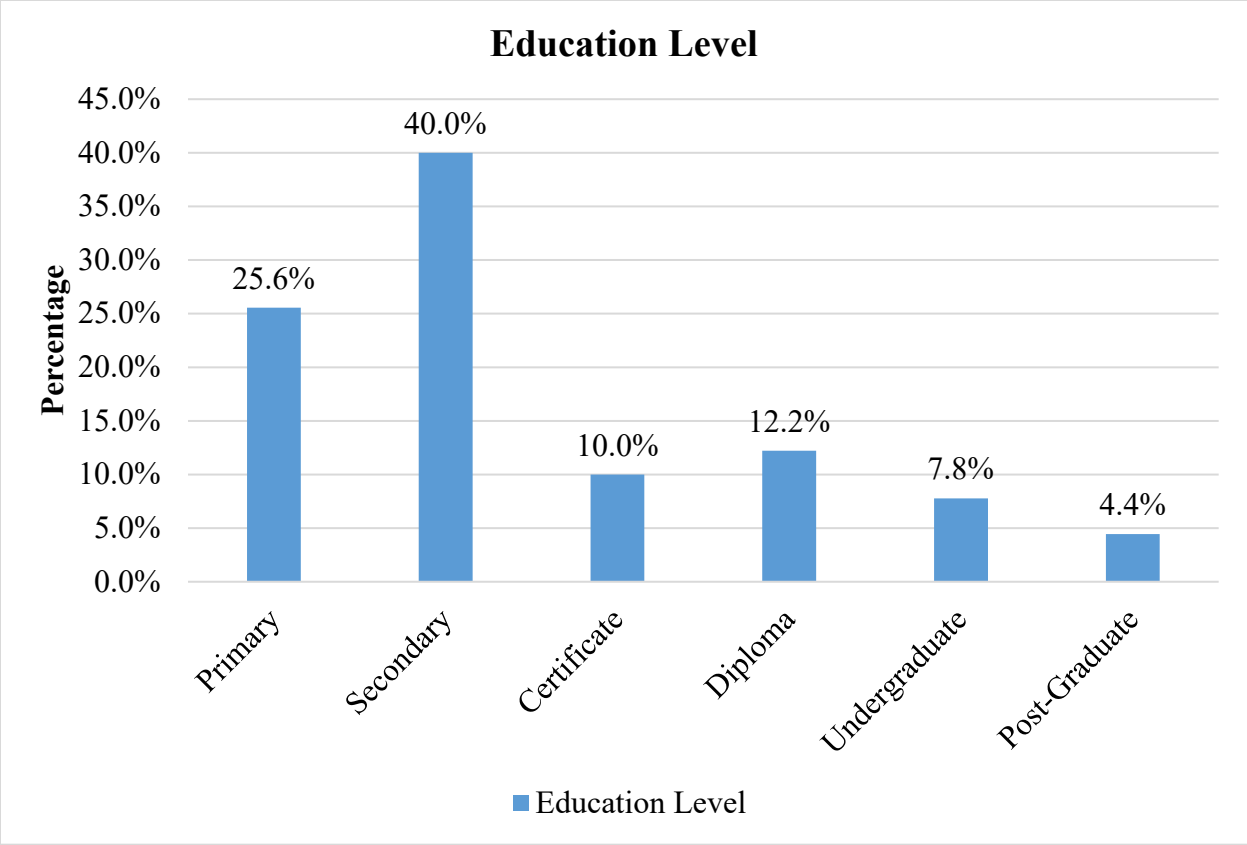


Figure 4.11 Level of Education (Source: Field Data, 2023)

Figure 4.12 above presents the level of education for female heads of households. From the findings, a majority of respondents (40.0%) indicated having attained a Secondary education level, followed by 25.6% affirming reaching the Primary level, then 12.2% to Diploma level and 10.0% to Certificate education level. Only 7.8% and 4.4% indicated having attained Undergraduate and Post-graduate levels. From the findings, it is evident that most respondents only attained low to tertiary levels of education. These results are expected as most were drawn from the fishing, agriculture and gold mining communities.

4.3.4.3 Occupation

Respondents (female heads of households) were also asked what they did for a living. The purpose of this study is to see if the subject matter, socioeconomic determinants influencing girls' efficient menstruation management in rural primary schools in Nyatike Sub County, was impacted by occupation, which is a determinant of income level for the individuals. It shed light on the economic circumstances and livelihoods of the female heads of households, which could

impact their ability to afford menstrual hygiene products and support their daughters in effective menstrual management. The results are shown in Figure 4.13.

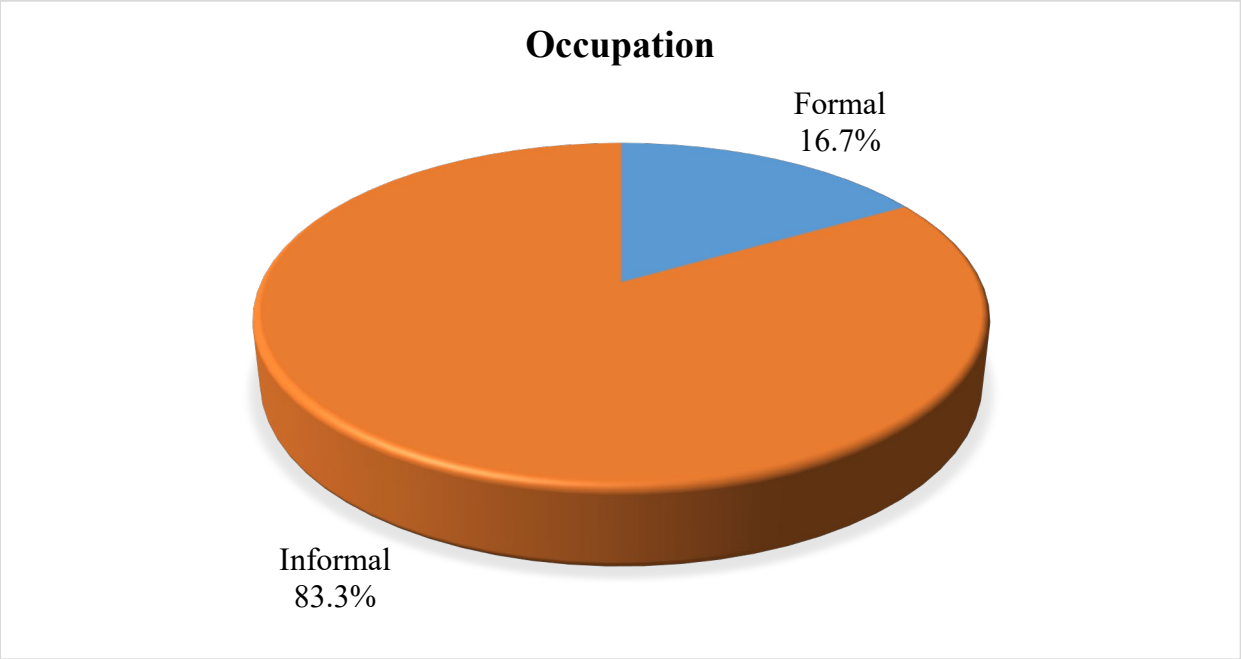


Figure 4.12 Occupations of Female Heads of Households (Source: Field Data, 2023)

Regarding the occupation of female heads of households, the study found that 83.3% had informal jobs while just 16.7% had formal jobs. This is to be anticipated given that the majority of individuals in the region had informal jobs, fishing, agriculture, and gold mining.

4.3.4.4 Period Lived in Nyatike Sub-County

Respondents (female heads of households) were also asked how long they had lived in the area. With some level of living experience necessary in establishing the study objectives, the study found it necessary to establish the length of time in years; respondents lived in the Nyatike Sub-County. The results are shown in Figure 4.14.

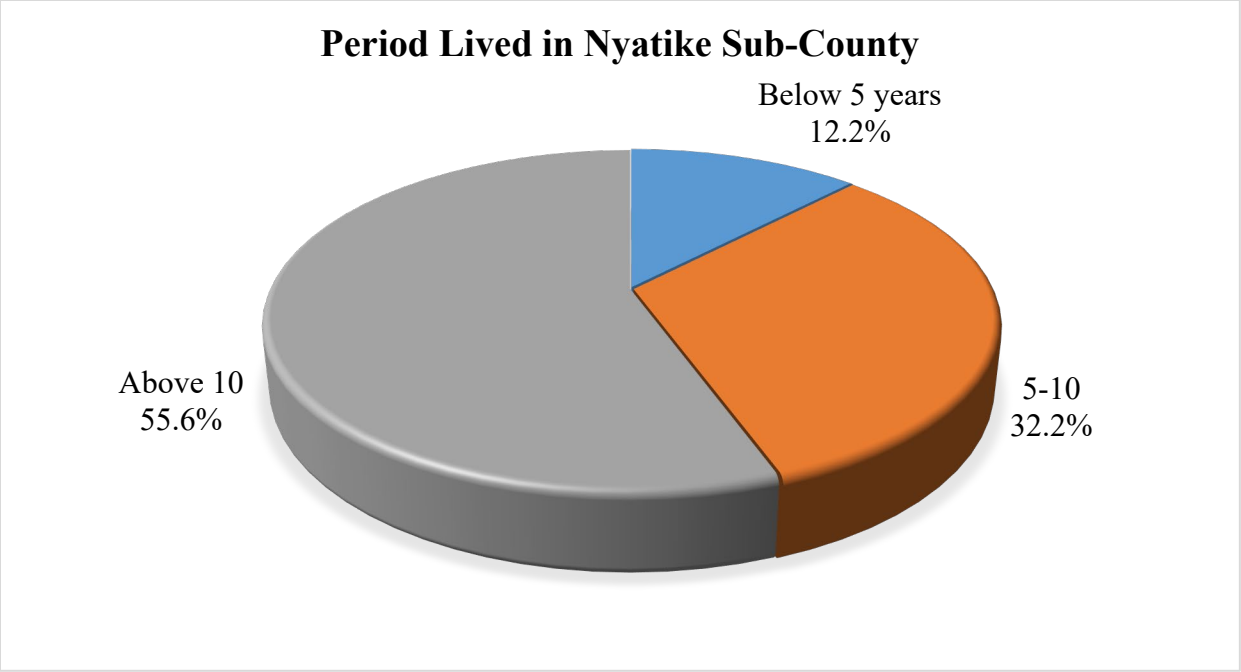


Figure 4.13 Period Lived in Nyatike Sub-County (Source: Field Data, 2023)

The majority of respondents (55.6%) were found to have resided in the research region for more than 10 years. Following this were 12.2% of respondents who had resided in the study region for less than 5 years, followed by 32.2% who had lived there for between 5 and 10 years. The distribution of years showing the length of experience residing in Nyatike Sub-County is quite skewed, according to the data. The majority of respondents have lived for more than 10 years; therefore, their responses are well-grounded in experience.

4.3.4.5 Household Income

The study also collected data on the household income levels of the female heads of households. This information is to provide insights into the economic resources available to them and their families. Understanding the household income context is crucial for comprehending the financial challenges associated with accessing menstrual hygiene products and implementing effective menstrual management practices. The results are shown in Figure 4.15.

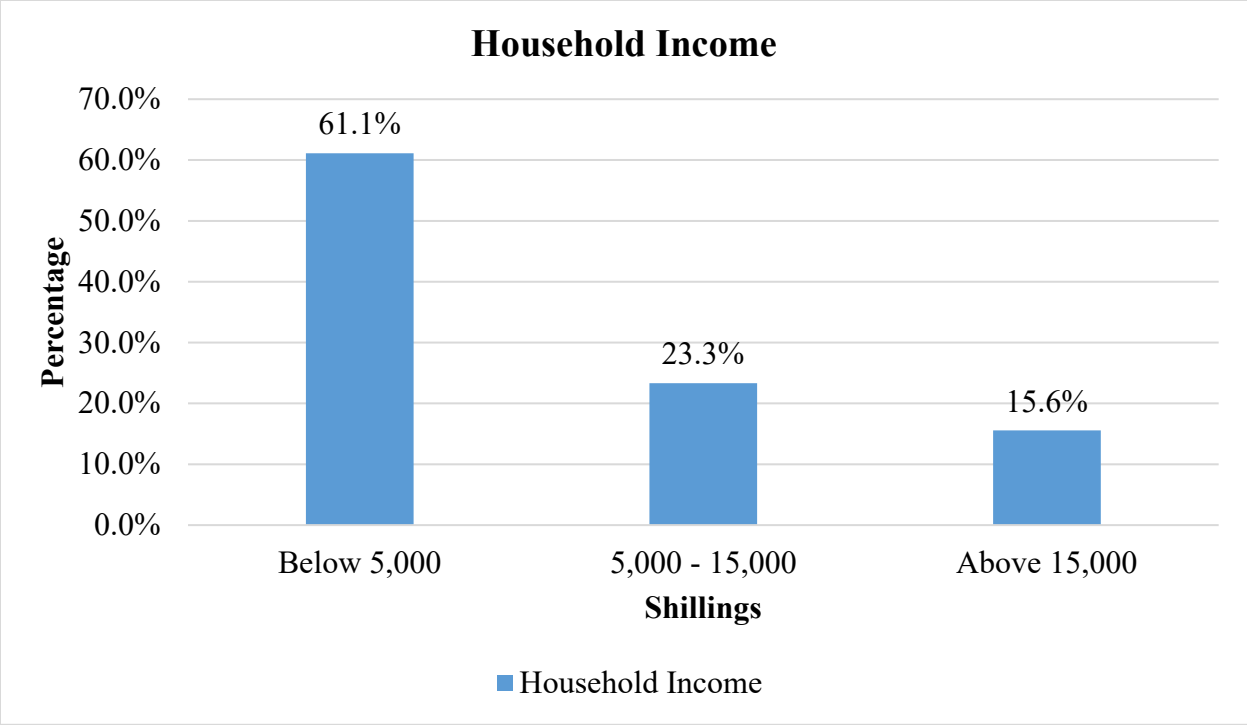


Figure 4.14 Household Income (Source: Field Data, 2023)

According to Figure 4.15, the income levels varied, with the majority falling within the low-income bracket (61.1%) which is below 5,000 shillings. Following this were 23.3% of respondents who had income of between 5,000 to 15,000 shillings, followed by 15.6% of respondents who had an income of more than 15,000 shillings. The results clearly show that most female heads of households have low-income, which could affect the menstrual health management practices and access to menstrual hygiene products.

4.4 The Effects of Traditional Practices on Menstrual Management

In this section, the first objective establishes the effects of traditional practices on menstrual management among primary school girls in the study area. To this end, respondents were asked to respond to pertinent questions posed to establish the objective. The results are presented in Table 4.3.

Table 4.3 Effects of Traditional Practices on Menstrual Management

Questions	Yes	No	Total Respondents
Awareness of Traditional Practices or Beliefs	340 (68.5%)	156 (31.5%)	496
Personal Encounter with Traditional Practices or Restrictions	294 (59.3%)	202 (40.7%)	496
Comfortable Discussing Menstruation Openly with Family, Friends, or Teachers	352 (70.9%)	144 (29.1%)	496
Comfortable Discussing Menstruation Openly with Father, Brothers, or Male Teachers	211 (42.5%)	285 (57.5%)	496
Feelings of Shame or Stigma Due to Traditional Practices or Beliefs	192 (38.7%)	304 (61.3%)	496

Source: Field Data (2023)

From table 4.3, approximately 68.5% of the girls were aware of traditional practices and beliefs related to menstruation in their community. Approximately 59.3% of the girls reported encountering traditional practices or restrictions during their menstruation. While a majority of girls (70.9%) feel comfortable discussing menstruation openly with family members, friends, or teachers, a significant portion (29.1%) do not. Similarly, when discussing menstruation with male family members or teachers, only 42.5% feel comfortable doing so while 57.5% do not. The results indicate that 27% of the girls have experienced feelings of shame or stigmatization during menstruation due to traditional practices or beliefs.

Most girls are aware of traditional practices related to menstruation in their community. Some of the practices or methods that they specified are the use of pieces of clothes or rugs, and use of some traditional medications. They also stated some traditional beliefs which include beliefs around menstruation as being "dirty", isolation or seclusion of girls and women during menstruation, and prohibition of girls to interact with their fathers during menstruation. The girls also explained that they are uncomfortable discussing menstruation openly with the males because of fear due to the community norms. The girls explained that the traditional practices make it difficult for them to discuss or seek support for menstrual health needs.

The results were complemented by interviews from head teachers and teachers, and also focus group discussions from female heads of households. From these, it was revealed that there are traditional practices that affect the girls in their menstruation management.

From the interviews, the head teachers observed various traditional practices among the girls in their schools. These practices included the use of cloth instead of sanitary pads and cultural restrictions during menstruation. traditional practices can have various effects on menstrual management. The use of cloth instead of proper menstrual products may lead to hygiene issues and discomfort.

One headteacher from the interview for instance, observed and noted that:

> *"…… some girls still follow certain traditional practices during their menstruation, such as using cloth and rag instead of the known menstrual pads. There are cases where girls may face restrictions in participating in certain activities such as sports during their periods due to cultural beliefs……"* (Head Teacher Aged 40 years)

Another head teacher went ahead and stated that:

> *"……. traditional practices related to menstrual management often lead to a lack of comfort and confidence among the girls during menstruation. The restrictions can prevent them from fully participating in school activities, affecting their overall engagement and well-being. The using of unhygienic materials which are the cloth pieces and rags can pose health risks and increase the chances of infections……"* (Head Teacher aged 39 years)

Similarly, it emerged from interviews with the teachers that there are various traditional practices related to menstrual management among the girls in their school. These practices included adhering to cultural taboos (it is taboo to engage the males on matters of menstruation) and restrictions during menstruation and using traditional or unhygienic methods for menstrual hygiene. The teachers acknowledged that traditional and cultural practices can hinder girls from discussing their menstrual hygiene openly. The prevalence of stigma and misconceptions due to the traditions may cause girls to feel ashamed or embarrassed, inhibiting open communication about their experiences.

A teacher, interviewee for instance argued that:

> *"…… traditionally, they still believe that period topics are a female thing, it is for girls…… the girls are afraid to talk with the males about menstrual issues…. Actually, even the boys in class do not participate actively during menstruation lessons, to them that are girls' thing....."* (Teacher, aged 31 years)

Another teacher added that:

> *"……. these traditional beliefs create a lot of shame and discomfort, making it challenging for some girls to openly discuss their menstrual hygiene. Because of the taboos the girls are reluctant to seek guidance or even sharing their experiences……"* (Teacher, aged 29 years)

The study also probed in focus group discussions with the female heads of households to find out whether traditional practices had an effect on menstrual management among primary school girls. During the focus group discussion with female heads of households, several traditional practices related to menstrual management were identified in the community. These practices include the cultural norm that menstruation is a female thing and males should not be involved. They noted that according to cultural norms, girls generally do not talk freely with males about issues of menstrual management, including family members and teachers. The participants noted that a sense of embarrassment and hesitation when discussing such topics with males due to prevailing taboos.

A member stated that:

> *"…… one traditional practice that is partly still there is that when a girl is on her period only that mother should be involved and not the father…. In fact, they should stay away from their fathers during their periods……" (*Head of household, aged 49 years)

Another member added that:

> *"….. this norm brings a lot of fear to the girls and they find is very difficult to talk to the males…. It makes them suffer in silence when the mothers are not around hence, they can't get pads to manage their periods…."* (Head of household, aged 53 years)

It can thus be deduced that, overall, traditional practices have various effects on menstrual management among the primary school girls in Nyatike Sub-County. This can be attributed to girls having feelings of shame or stigmatization during menstruation due to traditional practices or beliefs, The use of pieces of clothes or rugs, reusable cloth pads that can be washed and reused and some traditional medications. The girls are also not comfortable discussing menstruation openly with the males because of fear that exists due to the norms

available in the community. It makes it difficult for them to discuss or seek support for menstrual health needs. The finding agrees with Maulingin-Gumbaketi et al. (2022), who found that managing menstrual health with dignity was challenging for many women and girls because menstruation is associated with menstrual taboos and shame. Restrictive practices are found to affect women socially and psychologically including their ability to manage menstruation effectively.

4.5 Effects of Awareness of Hygiene on Menstrual Management

The section sought to examine the effects of knowledge and awareness of hygiene on menstrual management among primary school girls in rural schools in Nyatike area. It focused on understanding the impact of menstrual hygiene education on girls' menstrual management practices and their overall confidence and comfort during menstruation. Respondents were asked to answer relevant Yes or No questions presented to determine the aim. The outcomes are shown in table 4.4 below:

Table 4.4 Effects of Knowledge and Awareness of Hygiene on Menstrual Management

Questions	**Yes**	**No**	**Total Respondents**
Received Education about Menstrual Hygiene	395 (79.6%)	101 (20.4%)	496
Learned about Taking Care During Period at School	317 (63.9%)	179 (36.1%)	496
Awareness of the Importance of Menstrual Hygiene	431 (86.9%)	65 (13.1%)	496
Taught about Safe Use and Disposal of Menstrual Products	388 (78.2%)	108 (21.8%)	496
Awareness of Various Menstrual Products	413 (83.3%)	83 (16.7%)	496
Effects of Knowledge on Confidence and Comfort	369 (74.4%)	127 (25.6%)	496

Source: Field Data (2023)

The results in Table 4.4 provide an overview of the effects of knowledge and awareness of hygiene on menstrual management among primary school girls in rural schools. The majority of the respondents (79.6%) have received education about menstrual hygiene. Approximately two-thirds of the respondents (63.9%) learned how to take care of themselves during their period

at school. A significant majority (86.9%) of the respondents were aware of the importance of maintaining good menstrual hygiene. The majority of respondents (78.2%) had been taught how to use and dispose of menstrual products safely. Most respondents (83.3%) were aware of the various menstrual products available. A significant majority (74.4%) of the respondents believed that knowledge about menstrual hygiene improved their overall confidence and comfort during menstruation.

There is a positive effect of knowledge and awareness of hygiene on menstrual management among primary school girls. Knowledge and awareness is promoting effective menstrual management among primary school girls in rural schools, just as most of the girls have stated. Most of the girls said they knew which menstrual product were essential and can now follow the proper hygienic channels. The have also overcome the fear of talking to their fathers about menstruation.

The above findings are supplemented by interviews with head teachers and teachers, as well as focus group sessions with female heads of households. It became apparent from these that it has a positive impact on girls' knowledge, awareness, and confidence in managing their menstrual periods.

From the interviews with the head teachers, it was evident that the awareness and understanding of menstrual hygiene among the girls in their schools is very important. When girls are well-informed about proper menstrual hygiene practices and have access to menstrual products, they can manage their periods more effectively, feel confident, and maintain their educational activities without interruptions.

Head teacher from the interview for instance noted that:

> *"…… Knowledge and awareness are important, 100%..... with the knowledge there is awareness and when awareness is there, they will first of all refrain from maybe catching the diseases or illnesses or even the discomfort that may come from the use of traditional methods……."* (Head Teacher, aged 56 years)

Another head teacher explained that:

> *"……. there is a very big different between girls who have access to information and those who do not……. The girls who have access to information know how to handle*

themselves; they can manage their periods with confidence and without disruptions. They even come in to help the others who don't understand what is going in a very polite and humble way……. those lacking access to information face challenges in managing their menstruation effectively……" (Head Teacher, aged 47 years)

Similar responses were recorded in the interviews held with the teachers, where interviewees were asked to comment on the effects of knowledge and awareness of hygiene on menstrual management.

One of the interviewees stated that:

"……. knowledge and awareness play a crucial role in positively impacting menstrual management practices…... with the knowledge they become okay, comfortable, clean and it is not easy to find them messing…." (Teacher, aged 28 years)

Another one added that:

"….. girls who are well-informed tend to adopt healthier and more hygienic practices during menstruation. They are more likely to use proper menstrual products and follow hygienic routines, leading to improved overall well-being…." (Teacher, aged 34 years)

The study also investigated whether knowledge and awareness had an influence on menstruation management among primary school girls through focus group discussions with female heads of households. From the focus group discussions, it is very clear that knowledge and awareness plays a very major role in menstrual management. The participants shared that they initiate conversations about menstrual hygiene with their girls when they are around 7 years old, just before they are likely to experience their first period. To them early education on menstrual hygiene aims to prepare the girls and equip them with the necessary knowledge required for effective mensuration management.

A member stated that:

"…… I stated talking to my lastborn daughter when she was around 7 years, this was because what happened to her elder sister. The sister stated experiencing her periods when she was 9 years and by then I was not free with her and she had no knowledge on how she could handle herself. This really affected her…… talking to my little girl really helped and she did not struggle like her sister……" (Head of household, aged 47 years)

From the findings, it can be deduced that there is a positive effect of knowledge and awareness of hygiene on menstrual management among primary school girls in Nyatike Sub-County. Knowledge and awareness are promoting effective menstrual management among primary school girls in rural schools. When girls are well-informed about proper menstrual hygiene practices and have access to menstrual products, they can manage their periods more effectively, feel confident, and maintain their educational activities without interruptions. The finding echoes that of Belayneh, and Mekuriaw (2019) who observed that knowledge towards menstruation has significant associations with menstrual hygienic practices of girls. Girls with poor knowledge regarding menstrual flow were 1.48 more likely to practice their menstrual hygiene incorrectly. This means that knowledge and awareness significantly correlate with effective menstrual management.

4.6 Role of Family Income on Menstrual Hygiene

The section's intent was to evaluate how family income affected how primary school girls in rural schools in Nyatike Sub County managed their menstruation. It focused on comprehending how girls' menstrual management behaviors, as well as their general confidence and comfort during menstruation, are influenced by the amount of family income. In order to ascertain the goal, respondents were asked to respond to pertinent Yes or No questions. Table 4.5 below shows the results:

Table 4.5 Role of Family Income on Menstrual Management

Questions	Yes	No	Total Respondents
Family Provides Enough Resources for Menstrual Management	253 (51.0%)	243 (49.0%)	496
Always Have Access to Menstrual Hygiene Products	264 (53.2%)	232 (46.8%)	496
Family Affordability of Menstrual Hygiene Products	142 (28.6%)	354 (71.4%)	496
Ability to Change Menstrual Hygiene Products in School	416 (83.9%)	80 (16.1%)	496
Use of Alternative Materials Due to Lack of Money	151 (30.4%)	345 (69.6%)	496
Missed School or Activities Due to Menstruation	215 (43.3%)	281 (56.7%)	496

Source: Field Data (2023)

Looking at Table 4.5, only 51.0% of the respondents reported that their family always provides enough resources for menstrual management. Approximately 53.2% of the girls always have access to the menstrual hygiene products they need. However, 46.8% still face issues in obtaining the necessary products, indicating potential financial constraints. A considerable number of girls (28.6%) reported that there have been times when their families couldn't afford to buy menstrual hygiene products for them. Most respondents (83.9%) reported being able to change their menstrual hygiene products frequently during school hours. Approximately 30.4% of the girls have resorted to using alternative materials as menstrual hygiene products due to financial constraints. A significant portion (43.3%) of the respondents reported missing school or activities due to their period.

Family income plays a significant role in menstrual management among primary school girls in rural schools. While some girls have sufficient resources and support to manage their menstruation effectively, others face challenges due to financial constraints, leading to inadequate access to menstrual hygiene products and potential impacts wellbeing. Among the girls who agreed that their parents always provide them with resources to manage their menstruation, approximately half of them stated that they always have enough sanitary pads for

the entire month. The half stated that as much as their parents provide them with sanitary pads, this ranges from one pack to two packs in a month. This is not enough for them and they are affected since it acts as a barrier to their regular activities.

. The results highlight the significant role of family income in menstrual management among primary school girls in rural schools. From the interviews, the head teachers noted a correlation between family income and effective menstrual management among the girls in the school. Girls from economically disadvantaged backgrounds may face challenges in accessing menstrual products and proper facilities, impacting their ability to manage their periods hygienically and comfortably. Families with lower incomes may struggle to afford proper menstrual products, leading to the use of unhygienic alternatives. Additionally, limited financial resources can hinder access to facilities like clean toilets and private spaces for changing during menstruation.

An interviewee, head teacher explained that;

> *"…….. fishing is the main economic activity here and the season when 'omena' is not there, the families don't have enough money to buy sanitary pads for their girls which means they will resort to using things like clothes pieces…… so the income affect the situation a lot, low income is a major problem…… families with low income don't even have toilets for proper disposal……"* (Head Teacher, aged 42 years)

The next interviewee, head teacher explained the correlation between family income and effective menstrual management;

> *"…… there is a correlation between family income and effective menstrual management. Girls from higher-income families generally have better access to menstrual products, sanitation facilities, and information. Actually, we experience most absenteeism from the girls during the period when fish is not there. This is because the families can't afford sanitary towels for the girls…."* (Head Teacher, aged 38 years)

The teachers from the interview also supported that higher-income families could afford proper menstrual products and provide better access to hygiene facilities. In contrast lower-income families faced challenges in affording menstrual products, leading to less hygienic practices.

For instance, one of the teachers explained that:

> *"..... if family income is low, parents are not able to buy sanitary pads for their girls and due to this, they cannot manage their menstrual hygiene....."* (Teacher, aged 37 years)

Another teacher also explained that:

> *"..... family income can significantly impact a girl's menstrual hygiene. Families with high income can afford required sanitary pads for their girls and can also provide hygiene facilities that they need. But low income families usually struggle buy pads for the girls, sometimes they end up giving them cloth pieces to use and you know this is not hygienic....."* (Teacher, aged 25 years)

The study also probed in a focus group discussion to evaluate how family income affected how primary school girls in rural schools managed their menstruation. The focus group participants pointed out that financial challenges are prevalent in providing menstrual products and managing menstruation. Some families find it difficult to afford menstrual products regularly, leading to potential use of less hygienic alternatives.

A member stated that:

> *"..... level of income is not the same, personally, there are times when my girl comes to me that she is on her period and at that time I have nothing, I tell her I don't have money and you know that period won't wait.... Sometimes I would give her mine to use but if I also don't have, I just take a piece of blanket and give to her...."* (Head of household, aged 43 years)

As a result of the findings, it can be deduced that family income generally has significant effects on how primary school girls in rural schools manage their periods. While some girls have the tools and assistance they need to manage their periods appropriately, others struggle financially, making it difficult for them to get menstrual hygiene supplies and risking harming their wellness. The capacity of girls from economically disadvantaged homes to manage their periods hygienically and comfortably may be impacted by access issues with menstruation products and appropriate facilities. Families with lower earnings could find it difficult to buy appropriate menstruation products, which could force them to choose less sanitary substitutes.

Furthermore, inadequate financial resources might limit access to services such as clean bathrooms and private changing areas during menstruation. This finding is in agreement with Rossouw, and Ross (2021), who also found that women and girls with limited access to money are less likely to have access to sanitary pads. This conclusion is consistent with their findings. Unsurprisingly, the main cause of the overall income-related discrepancy in access to sanitary pads in the majority of nations is wealth itself.

4.7 The Measures to Enhance Menstrual Management among Girls

In this section, the focus is to assess the current measures for menstrual health management among primary school girls in rural schools in Nyatike Sub County. It looks into the menstrual health conditions and efforts by the school to educate students about menstrual health and hygiene. To identify the intent, respondents were asked to answer pertinent Yes or No questions. Table 4.6 summarizes the findings:

Table 4.6 Assessment of Current Measures for Menstrual Health Management

Questions	Yes	No	Total Respondents
Separate Toilet Facilities for Girls in School	359 (72.4%)	137 (27.6%)	496
Provisions for Proper Waste Management of Menstrual Hygiene Products	315 (63.5%)	181 (36.5%)	496
Provisions for Menstrual Hygiene Products in School	102 (20.6%)	394 (79.4%)	496
Menstrual Hygiene Products Readily Available and Accessible	34 (33.3%)	68 (66.7%)	102
Access to Clean Water and Soap for Maintaining Menstrual Hygiene	95 (19.2%)	401 (80.8%)	496
Comfortable Talking to Teachers or Staff Members	376 (75.8%)	120 (24.2%)	496
School Efforts to Educate or Sensitize Students	381 (76.8%)	115 (23.2%)	496

Source: Field Data (2023)

The results from table 4.6 show that approximately 72.4% of the respondents reported having separate toilet facilities for girls in their school. About 63.5% of the girls reported that there are provisions for proper waste management of menstrual hygiene products in their school. The available waste management of menstrual hygiene products is the pit latrine that is available

in most of the schools. The majority (79.4%) of the respondents reported they don't have provisions for menstrual hygiene products in their school. Of the 20.6% (102) that agreed to have provision of menstrual hygiene products only 33.33% stated that these products are readily available and accessible to them. This means that the majority don't have the products readily available to them. The majority of the girls (80.8%) reported that they don't have access to clean water and soap for maintaining menstrual hygiene. A significant proportion of the respondents (75.8%) feel comfortable talking to teachers or staff members about menstrual health issues. Approximately 76.8% of the respondents reported that their school makes efforts to educate or sensitize students about menstrual health and hygiene. These efforts play a crucial role in increasing awareness, reducing stigma, and empowering girls to manage their periods effectively.

The results provide valuable insights into the current measures for menstrual health management among primary school girls in rural schools. The results indicate that there are at least some measures in place for menstrual health management in primary schools. The majority of schools have separate toilet facilities for girls, and efforts to educate and sensitize students about menstrual health. However, majority of the schools don't provide menstrual hygiene products for the girls at school. The girls also don't have access to water and soap that is a major requirement during menstruation. The results stated above are supported by head teacher and teacher interviews, as well as focus group discussions with female heads of families.

From the interviews, the head teachers noted that the schools have taken proactive measures to address menstrual health education by implementing awareness sessions, provision of sanitary towels and having separate toilets for the girls that act like safe places and places for waste management of menstrual hygiene products. Additionally, collaborations with NGOs and community organizations have allowed the free menstrual products to girls in need. However, the menstrual products are not sufficient for the girls. The efforts taken by the school and external partners have likely contributed to enhancing girls' menstrual health management, however, much need to be done to ensure that the girls get enough menstrual products while at school. The menstrual products available in the school are only for emergencies and they are not enough. Mostly of the head teachers stated that they can only give a piece of pad per girl child.

An interviewee, head teacher noted that;

> *"……..We have also improved the sanitation facilities in the school to ensure proper hygiene during menstruation. The sanitary pads we get from NGOs and community organizations are not sufficient for the girls as we can only give a piece per girl child…. We can't fully support them ……"* (Head Teacher, aged 45 years)

The next interviewee, head teacher explained that;

> *"…… measures in place have shown positive outcomes in improving menstrual health management among girls in our school. We have observed an increase in awareness, a reduction in stigma, and a greater willingness among girls to participate in school activities during their periods. Though we still have a long way to go in providing them with the sanitary pads as I believe with enough pads, they will be fully equipped…."* (Head Teacher, aged 44 years)

In the interviews conducted with the teachers, similar thoughts were expressed. To improve menstrual hygiene, the teachers emphasized the need for continuous comprehensive menstrual hygiene education. They also added that the initiative on access to menstrual products is crucial to support girls in managing their periods hygienically and with dignity.

A teacher argued that:

> *"….. the measures that these girls need are more education on menstrual management and they also need support for the sanitary pads, mostly those that come from low income families…… with these measures I am very certain they will able to maintain high level of period hygiene…."* (Teacher, aged 24 years)

Focus group discussions were also used to assess the current measures for menstrual health management among primary school girls. The participants shared various measures and interventions to enhance menstrual health management for the girls. Most of them stated that the main measure in place is providing them with guidance early enough before the onset of their periods and creating a supportive environment for the girls to discuss menstrual health with the males more so their fathers.

A member noted that:

> *"……I stated educating my girls at a very early age…… I have also ensured that they don't fear telling their father about menstruation…... I also always make sure that my*

girls have what they require during their periods even though I am struggling……"
(Head of household, aged 33 years)

The findings lead to an assertion that most primary schools have at least implemented some menstrual health management strategies. Most schools offer girls-only toilets and make an attempt to inform and sensitize pupils about period health. The actions taken have improved how females in schools manage their periods, with beneficial results. Collaborations with non-governmental organizations and community groups have enabled the distribution of free menstruation products to girls in need, however, the materials are not enough. The effort to access menstruation products is critical for assisting girls in managing their periods in a healthy and dignified manner. The key measures that need to be in place are giving them sanitary towels, counseling them before the start of their periods, and establishing a supportive atmosphere for the girls to talk to the males, especially their fathers, about menstrual health. The results are consistent with those of Anambra (2015), who demonstrated that access to and the quality of WASH facilities, the availability and flow of information on MHM, and the availability of supplies for the sanitary management of menstruation all had an influence on girls' experiences with menstruation.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the research findings. The findings' ramifications and areas for further research are also discussed.

5.2 Summary of Findings

The study sought to establish the effects of traditional practices on menstrual management among primary school girls in the study area. Approximately 59.3% of the girls reported encountering traditional practices or restrictions during their menstruation. The results indicate that 27% of the girls have experienced shame or stigmatization during menstruation due to traditional practices or beliefs. These practices included adhering to cultural taboos (it is taboo to engage the males on matters of menstruation) and restrictions during menstruation, and using traditional or unhygienic methods for menstrual hygiene.

The study also aimed to investigate the impact of hygiene knowledge and awareness on menstruation management among primary school girls in rural schools in the Nyatike area. The majority of the respondents (79.6%) have received education about menstrual hygiene. Approximately two-thirds of the respondents (63.9%) learned how to take care of themselves during their menstruation period at school. A significant majority (86.9%) of the respondents are aware of the importance of maintaining good menstrual hygiene. The majority of respondents (78.2%) have been taught how to use and dispose of menstrual products safely. Most respondents (83.3%) are aware of the various menstrual products available. A significant majority (74.4%) of the respondents believe that knowledge about menstrual hygiene has improved their overall confidence and comfort during menstruation.

The study evaluates how family income affected how primary school girls in rural schools in Nyatike Sub County managed their menstruation. Approximately 53.2% of the girls always have access to the menstrual hygiene products they need. However, 46.8% still face issues in obtaining the necessary products, indicating potential financial constraints. A considerable number of girls (28.6%) reported that there have been times when their families couldn't afford to buy menstrual hygiene products for them. Most respondents (83.9%) reported being able to change their menstrual hygiene products frequently during school hours.

Approximately 30.4% of the girls have resorted to using alternative materials as menstrual hygiene products due to financial constraints. A significant portion (43.3%) of the respondents reported missing school or activities due to their period.

Lastly, the study assessed the current measures for menstrual health management among primary school girls in rural schools in Nyatike Sub County. Approximately 72.4% of the respondents reported having separate toilet facilities for girls in their school. About 63.5% of the girls reported that there are provisions for proper waste management of menstrual hygiene products in their schools. The available waste management of menstrual hygiene products is the pit latrine that is available in most schools. The majority (79.4%) of the respondents reported they don't have provisions for menstrual hygiene products in their school. Of the 20.6% (102) that agreed to have provision of menstrual hygiene products only 33.33% stated that these products are readily available and accessible to them. This means that the majority don't have the products readily available to them. The majority of the girls (80.8%) reported that they don't have access to clean water and soap for maintaining menstrual hygiene. A significant proportion of the respondents (75.8%) feel comfortable talking to teachers or staff members about menstrual health issues. Approximately 76.8% of the respondents reported that their school makes efforts to educate or sensitize students about menstrual health and hygiene.

5.3 Conclusion

The study concludes that menstrual management among primary school girls in rural primary schools of Nyatike Sub County is affected by existing traditional practices, income levels and level of awareness of menstrual hygiene among primary school girls in rural primary schools of Nyatike Sub County. Therefore, girls are not able to openly discuss their menstruation experiences because of the existing norms. Most girls struggle financially, making it difficult for them to get menstrual hygiene supplies and risking harm to their wellness. Fortunately, most schools have menstrual health management strategies. Other strategies include girls-only toilets, and sensitizing pupils about period health.

5.4 Recommendations

Based on the findings and discussions from the research on socioeconomic determinants of effective menstrual management among primary school girls in rural schools in Nyatike Sub County, the following recommendations were made:

- Incorporation of age-appropriate and culturally sensitive materials to ensure girls receive accurate information.
- Regular awareness and sensitization programs for students, teachers, parents, and the community to eliminate stigma, myths, and misconceptions around menstruation. This can be done through workshops, seminars, and interactive sessions to foster open conversations about menstrual health.
- There is for continuous research to assess the impact of implemented measures, identify areas for improvement, monitor the effectiveness of education initiatives and access to menstrual hygiene products. By implementing these recommendations, stakeholders can work together to create a nurturing and supportive environment for primary school girls in rural areas.

5.5 Suggestions for Future Studies

While the current research provides valuable insights into the socioeconomic determinants of effective menstrual management among primary school girls in rural schools, there are several avenues for future studies that can further enhance the understanding of this important topic. First, it is recommended that future studies explore the attitudes, beliefs, and perceptions of parents, guardians, and community members towards menstrual health education and management. Understand their role in supporting or hindering girls' menstrual health. Conduct studies focusing on the affordability, availability, and accessibility of menstrual hygiene products in rural areas. Explore innovative solutions for ensuring consistent access to products. Study the effectiveness of training teachers to be more approachable and knowledgeable about menstrual health and how this impacts girls' comfort in discussing menstrual issues.

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APPENDICES

Appendix I: Participant Consent Form

Title of the Study: Socio-Economic Determinants of Effective Menstrual Management among Primary School Girls in Rural Schools in Nyatike Sub County

Principal Investigator: Ruth Adhiambo Sure

Affiliation: St. Paul's University

Contact Information: ruth@fgck.or.ke or +254 723 436 084

Dear Participant,

We kindly request your participation in our research study on the socio-economic determinants of effective menstrual management among primary school girls in rural schools in Nyatike Sub County. Your participation will contribute valuable insights to improve menstrual hygiene practices and support the well-being of girls in similar contexts.

Please take the time to read the following information carefully. If you have any questions or concerns, do not hesitate to contact us using the contact information provided above. Your participation is entirely voluntary, and you have the right to withdraw from the study at any time without facing any consequences.

Study Purpose:

This research study aims to investigate the socio-economic factors that influence effective menstrual management among primary school girls in rural schools. By understanding these determinants, we aim to develop interventions and policies that can improve menstrual hygiene practices, education, and overall well-being for girls in Nyatike Sub County.

Study Procedures:

If you agree, you will be asked to participate in Focus Group Discussions, Interview, or complete a Questionnaire. The estimated time commitment for your participation will be approximately 15 minutes to 30 minutes. Your responses and information will be treated with strict confidentiality and will only be used for research purposes.

Benefits of Participation:

Your participation in this study will contribute to the advancement of knowledge about menstrual hygiene management. The findings inform the development of interventions, policies, and programs that can improve menstrual hygiene practices among primary school girls in rural schools. Although direct benefits to you as a participant may be limited, your involvement will help empower and support girls in similar contexts.

Risks and Discomforts:

Participating in this study does not involve any physical risks. However, discussing topics related to menstrual hygiene may be sensitive or uncomfortable for some participants. If at any point you feel distress or discomfort, please inform the research team, and appropriate support will be provided. You have the right to withdraw from the study at any time without any consequences.

Confidentiality:

Your participation in this study will be kept strictly confidential. Any information collected during the research process will be stored securely and anonymized. Your responses will be coded and reported in aggregate form, ensuring that no individual can be identified. Only the research team will have access to the data, and it will be used solely for research purposes.

Voluntary Participation:

Participation in this study is entirely voluntary. Your decision to participate or decline will not affect your relationship with the research team, your school, or any other organization associated

with you. If you choose to participate, you are free to withdraw from the study at any time without providing a reason.

Data Protection:

To protect your privacy, we will store all data in secure locations using password-protected electronic systems or locked cabinets. Your personal information will only be accessed by authorized research team members, and it will be kept confidential throughout the study and subsequent publications.

Contact Information:

If you have any questions, concerns, or wish to withdraw from the study, please feel free to contact **Ruth Adhiambo Sure at ruth@fgck.or.ke or +254 723 436 084.** If you have any concerns about the ethical conduct of this study, please contact St. Paul's University.

Consent:

I have read and understood the information provided in this consent form. I have had the opportunity to ask questions and have received satisfactory answers. I voluntarily agree to participate in the research study on the socio-economic determinants of effective menstrual management among primary school girls in rural schools in Nyatike Sub County.

Participant's Signature: _____

Date: _____

Principal Investigator's Signature: _____

Date: _____

Thank you for considering participating in our research study. Your contribution is highly valued and appreciated.

Appendix II: Questionnaire for Primary School Girls

The questionnaire is for research only. Kindly tick [✓] in the appropriate bracket/box or write your response to all the questions. Do not write your name anywhere.

Section A: Demographic Information

Kindly indicate your gender:

1. **Age:** _____ years old
2. **Class Level:** Class 6 [ ] Class 7 [ ] Class 8 [ ]
3. **Parent's Occupation:** Formal Job [ ] Non-Formal Job [ ]

Section B: Objectives

Objective 1: Effects of Traditional Practices on Menstrual Management

1. Are you aware of any traditional practices or beliefs related to menstruation in your community? Yes [ ] No [ ]
   If Yes, please specify:
   _____
   _____
   _____
   _____
2. Have you personally encountered any traditional practices or restrictions during your menstruation? Yes [ ] No [ ]
   If Yes, please describe your experience:
   _____
   _____
   _____
   _____
3. Do you feel comfortable discussing menstruation openly with family members, friends, or teachers? Yes [ ] No [ ]
   If No, please explain why:
   _____
   _____

_____

_____

4. Do you feel comfortable discussing menstruation openly with your father, brothers, or male teachers? Yes [ ] No [ ]
   If No, please explain why:

   _____

   _____

   _____

   _____

5. Have you ever felt ashamed or stigmatized during your menstruation due to traditional practices or beliefs? Yes [ ] No [ ]
   If Yes, please describe your
   experience._____

   _____

   _____

   _____

6. How do these traditional practices or restrictions affect your ability to manage your menstruation effectively?

   _____

   _____

   _____

   _____

   _____

Objective 2: Effects of Knowledge and Awareness of Hygiene on Menstrual Management

1. Have you received any education about menstrual hygiene? Yes [ ] No [ ]
2. Have you learned about how to take care of yourself during your period at school?
   Yes [ ] No [ ]
   If Yes, How?

   _____

_____

_____

3. Do you know why it's essential to maintain good menstrual hygiene? Yes [ ] No [ ]
4. Have you been taught how to use and dispose of menstrual products safely? Yes [ ] No [ ]
5. Are you aware of the various menstrual products available? Yes [ ] No [ ]
   If Yes, Name them:

   _____

   _____

   _____

6. Do you believe knowing about menstrual hygiene has improved your overall confidence and comfort during menstruation? Yes [ ] No [ ]
   If Yes, please explain how:

   _____

   _____

   _____

Objective 3: Role of Family Income on Menstrual Management

1. Does your family always provide enough resources to manage your menstruation effectively? Yes [ ] No [ ] If Yes, how often:

   _____

   _____

   _____

2. Do you always have access to the menstrual hygiene products you need? Yes [ ] No [ ]
3. Has there been a time when your family couldn't afford to buy menstrual hygiene products for you? Yes [ ] No [ ]
4. Are you able to change your menstrual hygiene products every few hours during your period in school? Yes [ ] No [ ]
5. Have you ever had to use alternative materials (e.g., rags, tissue paper) as menstrual hygiene products due to a lack of money? Yes [ ] No [ ]

6. Have you ever missed school or activities because of your period? Yes [ ] No [ ] If Yes, how did this make you feel?

_____

_____

_____

Objective 4: Assessment of Current Measures for Menstrual Health Management among Girls

1. Are there separate toilet facilities for girls in your school? Yes [ ] No [ ]
2. Are there provisions for proper waste management of menstrual hygiene products in your school? Yes [ ] No [ ] If Yes, what do you use:

_____

_____

_____

3. Are there provisions for menstrual hygiene products in your school? Yes [ ] No [ ] If Yes, are these products readily available and accessible to you? Yes [ ] No [ ]
4. Do you have access to clean water and soap both at home and school for maintaining menstrual hygiene? Yes [ ] No [ ]
5. Are there teachers or staff members in your school whom you feel comfortable talking to about menstrual health issues? Yes [ ] No [ ]
6. Are there any efforts by your school to educate or sensitize students about menstrual health and hygiene? Yes [ ] No [ ]
   If Yes, please describe the initiatives or activities and how they have helped you

_____

_____

_____

Appendix III: Interview for Head Teachers

1. Can you please briefly introduce yourself; your age, period has been in the school and your role as the head teacher in the school?
2. How would you describe the overall awareness and understanding of menstrual hygiene among the girls in your school?
3. What traditional practices related to menstrual management have you observed among the girls in your school?
4. What are the effects of these traditional practices on menstrual management among the girls in your school?
5. How do these practices impact girls' well-being and their ability to fully engage in their education?
6. How important do you think knowledge and awareness of hygiene are for girls' menstrual management?
7. Are there any specific initiatives or programs in place to educate the girls about menstrual hygiene in the school?
8. Have you observed any differences in the menstrual management practices between girls who have access to information and those who do not?
9. From your perspective, how does the income level of a girl's family influence her access to menstrual hygiene products and facilities?
10. Have you noticed any correlation between family income and effective menstrual management among the girls in your school?
11. Could you please share any existing measures or interventions implemented by the school or other organizations to enhance menstrual health management among girls in your school?
12. How effective do you think these measures have been?
13. What support or resources do you believe would further enhance menstrual health management among girls in your schools?

Appendix IV: Interview for Teachers

1. Can you please briefly introduce yourself, your age, and the period you have been in the school and provide brief overview of your teaching experience in the school?
2. How would you describe the overall awareness and understanding of menstrual hygiene among the girls in your school?
3. Do you talk to the girls about their menstrual hygiene? Is it usually through open forums or private forums?
4. Are there times you feel reserved talking about menstrual hygiene?
5. Are the girls open to you about their menstrual hygiene?
6. What traditional practices related to menstrual management have you noticed among the girls in your school?
7. Do these traditional/cultural practices hinder them from talking openly about their menstrual hygiene?
8. How do you ensure that there is adequate knowledge transmitted to the girls regarding their menstrual hygiene?
9. How does knowledge and awareness of hygiene impact the menstrual management practices of these girls?
10. Do you think relaying messages on menstrual hygiene to the girls when they are young helps them make informed decisions about their hygiene?
11. Are there any initiatives or programs in place to educate the girls about menstrual hygiene in the school?
12. How does family income affect the girl's menstrual hygiene?
13. Are there times when the school has to stand in and provide menstruation materials for the girls?
14. Which measures do you think can be enhanced to ensure that the menstrual hygiene of girls is improved?

Appendix V: Focus Group Discussion for Female Heads of Households

Introduction Questions:

1. Could you please introduce yourself briefly; ,your age, education level, occupation, household income and period lived in the area? What is your role as a female head of the household?

   _____

   _____

   _____

   _____

2. How familiar are you with the menstrual management among girls in rural primary schools? Have you personally encountered any challenges or concerns related to this issue?

   _____

   _____

   _____

   _____

Objective 1: Effects of Traditional Practices on Menstrual Management

1. Can you describe any traditional practices related to menstrual management that you are aware of in this community?

   _____

   _____

   _____

   _____

2. How do these traditional practices affect the menstrual management of your girls who are in primary school?

   _____

   _____

   _____

   _____

3. According to culture, do your primary school girls talk freely with the males about issues of menstrual management?

_____

_____

_____

_____

4. Are there any cultural factors hindering your primary school girls from talking freely with the males about issues of menstrual management?

_____

_____

_____

_____

Objective 2: Effects of Knowledge and Awareness of Hygiene on Menstrual Management

1. At what stage do you begin talking to your girls about menstrual hygiene?

_____

_____

2. How would you rate the level of knowledge and awareness of menstrual hygiene among your primary school girls?

_____

_____

3. Are there any barriers that hinder girls from accessing information and resources related to menstrual hygiene? If yes, what are they?

_____

_____

_____

4. How else do you ensure that your girls get proper knowledge on menstrual hygiene apart from the one you give them at home?

_____

_____

_____

Objective 3: Role of Family Income on Menstrual Management

1. Do you provide your primary school girls with enough resources to manage their menstruation effectively?

   _____

   _____

2. How frequently do you purchase menstrual products for your girls? Do you face challenges in buying them regularly for the girls?

   _____

   _____

3. Which menstrual materials do you provide for them?

   _____

   _____

4. Averagely how much do you spend per month on your girls in terms of purchasing menstruation materials? _____
5. Are there any financial challenges that families face when providing menstrual products or managing menstruation?

   _____

   _____

   _____

   _____

Objective 4: Assessment of Current Measures for Menstrual Health Management among Girls

1. What measures or interventions are currently in place to enhance menstrual health management for your girls in primary schools?

   _____

   _____

2. Are these measures effective? Why or why not?

   _____

   _____

3. As a parent, what obligation do you have to ensure that the girls are well informed about their menstrual hygiene?

   _____

   _____

4. What do you think schools and communities can do to support girls in managing their periods effectively?

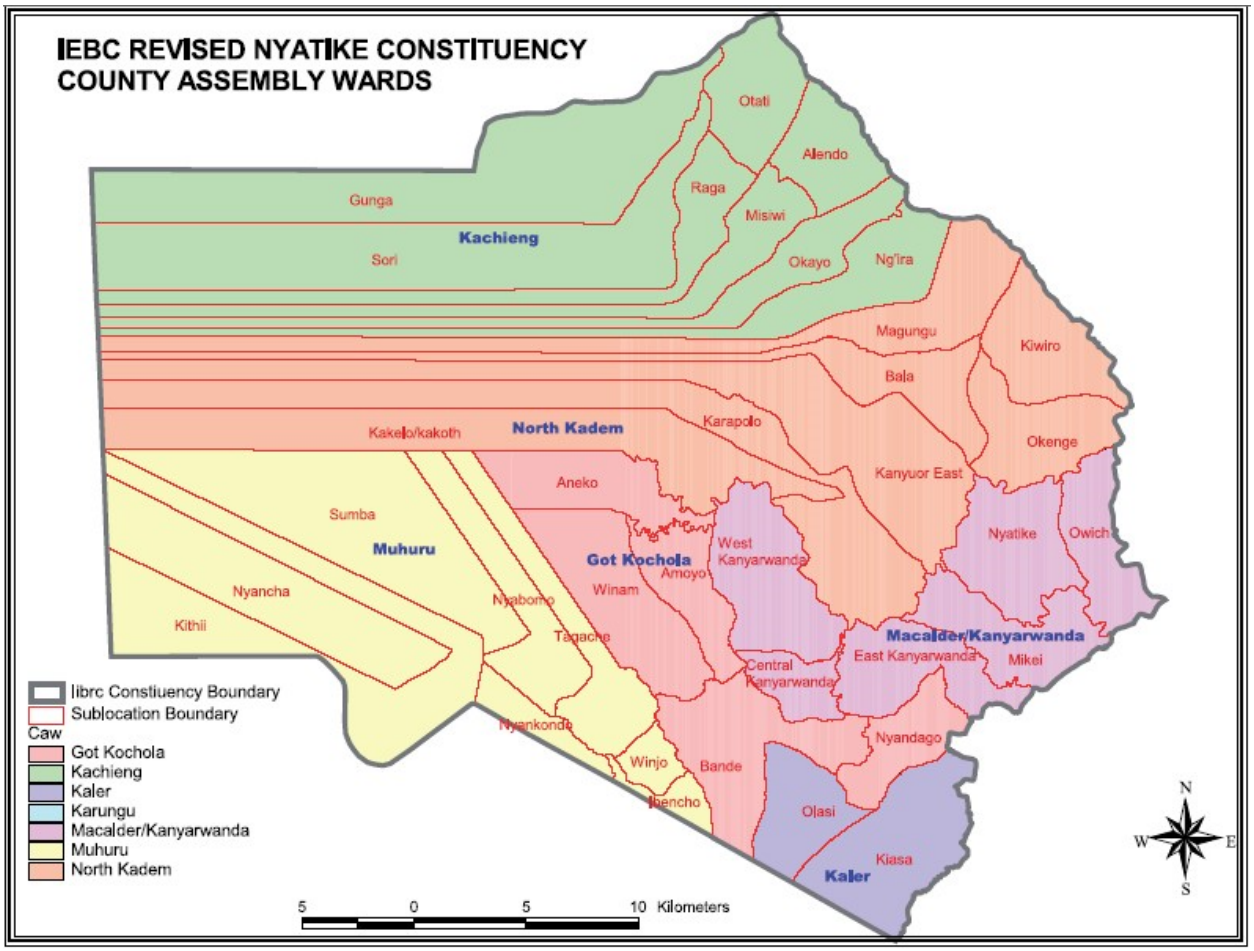
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Appendix VI: Map of Nyatike Sub-County and the wards



Location: Kenya, East Africa, Africa

Latitude: 0.9032° S

Longitude: 34.3642° E

Nyatike Sub County is located in the Migori County of Kenya.

Appendix VII: Research Recommendation Letter

ST. PAUL'S UNIVERSITY

Private Bag 00217 LIMURU, KENYA
Email: office@spu.ac.ke
Website: www.spu.ac.ke

Tel Office: +254 (0) 20-2020505/10
Mobile: +254 (0) 728 - 669000
(0) 736 - 424440

BOARD OF POSTGRADUATE STUDIES

21st July, 2023

National Commission for Science and Technology,
P.O. BOX 30623-00100,
Nairobi.

Dear Sir/Madam,

RE: RECOMMENDATION FOR RUTH ADHIAMBO SURE MDSNRB325822 –TO CONDUCT RESEARCH

This letter confirms the above-named person is a student in the Master of Development Studies Program at St. Paul's University.

The second year consists of a major research work leading to a Thesis. The student's selected topic is:

" Socio-Economic Determinants of Effective Menstrual Management Among Primary School Girls in Rural Schools in Nyatike Sub County."

Kindly grant this student the required permit.

Yours Faithfully,

DIRECTOR POSTGRADUATE STUDIES ST. PAUL'S UNIVERSITY 21 JUL 2023 TEL: 020-2020505/2020510 P.O. PRIVATE BAG 00217, LIMURU

Dr. John Nyaundi
Director, Board of Postgraduate Studies

Appendix VIII: Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 837520

Date of Issue: 02/August/2023

RESEARCH LICENSE



This is to Certify that Ms.. RUTH ADHIAMBO SURE of St. Paul's University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Migori on the topic: SOCIO ECONOMIC DETERMINANTS OF EFFECTIVE MENSTRUAL MANAGEMENT AMONG PRIMARY SCHOOL GIRLS IN RURAL SCHOOLS IN NYATIKE SUB COUNTY for the period ending : 02/August/2024.

License No: NACOSTI/P/23/28135

837520

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix IX: Research Authorization

REPUBLIC OF KENYA

MINISTRY OF LABOUR AND SOCIAL PROTECTION
STATE DEPARTMENT FOR SOCIAL SECURITY AND PROTECTION
DIRECTORATE FOR SOCIAL DEVELOPMENT
MIGORI COUNTY

Phone No. 0710400433
Email: eliud.ondara@socialprotection.go.ke

COUNTY COORDINATOR FOR SOCIAL DEVELOPMEN
MIGORI COUNT
P.O. Box 194-4040
SUNA, MIGO

Our Ref: MIG/CTY/SD/ADM. 11/VOL.1/214

DATE: 27th July, 2022

Ruth Adhiambo Sure
St. Paul's University

RE: RESEARCH AUTHORIZATION

Following your application for Authorization to carry out research on *"Socio-Economic Determinants of Effective Menstrual Management among Primary School Girl in Rural Schools in Nyatike Sub-County, Migori County, Kenya"* and subsequent approval by National Commission for Science, Technology and Innovation (NACOSTI), I am pleased to inform you that you have permission to carry out data collection from household heads in Nyatike South, Nyatike North and Nyatike West Sub-Counties in Migrori County.

We wish you all the best during the period of your data collection exercise.

Yours sincerely,

COUNTY COORDINATOR FOR SOCIAL DEVELOPMENT
27 JUL 2023
MIGORI COUNTY
P.O. Box 194-40400,SUNA

Eliud Bundi Ondara
COUNTY COORDINATOR FOR SOCIAL DEVELOPMENT – MIGORI

Appendix X: Research Authority

REPUBLIC OF KENYA

MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

Telephone: (059) 20420
Fax: 05920420
When replying please quote

COUNTY DIRECTOR OF EDUCATION
MIGORI COUNTY
P.O. Box 466-40400
SUNA – MIGORI

*REF: **MIG/CDE/ADMN/73/VOL.II/106***

DATE: 27th July, 2023

Ruth Adhiambo Sure
ST. PAUL'S UNIVERSITY

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **"Socio-Economic Determinants of Effective Menstrual Management among Primary School Girls in Rural Schools in Nyatike Sub County, Migori County, Kenya"** and subsequent approval by **NACOSTI.** I am pleased to inform you that you have been authorized to undertake research in **Nyatike South, Nyatike North and Nyatike West** Sub-Counties in **Migori County** for a period ending **3rd August, 2023.**

During the research, you are expected to exercise high levels of research integrity.

COUNTY DIRECTOR
MINISTRY OF EDUCATION
MIGORI COUNTY
P O Box 466-40400, MIGORI
Date..... Sign:.....

Mr. Jacob M. Onyiego
COUNTY DIRECTOR OF EDUCATION
MIGORI COUNTY