EFFECTS OF MIRAA FARMING ON RETENTION OF THE BOY-CHILD IN PUBLIC SECONDARY SCHOOLS IN MBEERE SOUTH-SUB COUNTY, KENYA

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DECLARATION

Declaration by the candidate

This thesis is my original work and has not been presented for a conferment of a degree in any other University or for any other award.

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Declaration by the supervisors

We confirm that the work reported in this thesis report was carried out by the candidate under our supervision and has been submitted with our approval as university supervisors.

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DEDICATION

I wish to dedicate this thesis to my dear husband Job Ireri, my dear daughters Makena and Wambui and my parents Richard and Grace Nderi.

ACKNOWLEDGEMENT

First, I give thanks to the Almighty God for giving me the opportunity to pursue my education and for providing me with the resources and good health. Additionally, I would like to thank my supervisors Dr. Maurice Kimosop and Dr. Joyce Kinyua, for investing their valuable time and energy in my work. They provided me with the motivation and support I needed to work hard on developing this thesis, which has really aided in the completion of this work.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

AIME	Australian Indigenous Mentoring Experiences
ALAS	Achievement for Latinos through Academic Success
CREATE	Consortium for Educational Access, Transitions & Equity
EFA	Education for All
EU	European Union
ILO	International Labour Organization
MDGs	Millennium Development Goals
NACADA	National Campaign Against Drug Abuse Authority
OECD	Organization for Economic Cooperation and Development
PLPs	Personalized Learning Plans
PTA	Parents Teachers' Association
SCDE	Sub County Director of Education
SEEK	Spirited Education for Energetic Kids
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
STEPP	Seamless Transition Education Pathways Programme
UNICEF	United Nations Children Fund
UPE	Universal Primary Education
WHO	World Health Organization

ABSTRACT

The Government of Kenya, in its efforts to achieve vision 2030, aims at improving retention rates in secondary schools. This effort however is frustrated by increasing dropout rates particularly in public secondary schools, which is attributed to a number of factors among them cultural, environmental, school, based and socio economic. The purpose of this study was to investigate the effects of miraa farming on the retention of the boy-child in public secondary schools particularly in Mbeere South Sub-County, Kenya. The objectives of the study were: to establish the socio-economic factors, to evaluate the effects of socio-cultural factors and to assess the effects of family factors related to miraa farming affecting school retention of boy child in public secondary schools in Mbeere-South Sub-County. The study was guided by the Social Systems Theory. The study employed a descriptive research design. The location of the study was specifically the miraa growing areas of Mbeere South Sub County. The study population included 56 principals, 140 class teachers, and 24 local administrators. The sample included 12 principals, 140 teachers and eight local administrators. Twelve schools from the miraa growing areas of Mbeere South Sub-Couny were purposively sampled for the study. Purposive sampling was also employed to select the 12 principals and eight local administrators while stratified random sampling was used to select 36 teachers from specific schools. Questionnaires were used to collect data. Cronbach's alpha coefficient was used to measure the reliability of the questionnaire. Qualitative data was analyzed through content analysis. Quantitative data was analyzed using descriptive statistics such as percentages, means and standard deviations and was presented by use of frequency distribution tables. The study found that students drop out to seek employment in miraa farms/ businesses. Reasons for dropping out of school were cited as inability to raise school fees and other levies due to the United Kingdom ban of miraa exportation. Further, the study found that the society regards miraa farming/ business higher than school attendance. Finally, the findings of the study demonstrated that families in the area rely heavily on labor from their children to tend their miraa farms. Based on the findings of the study, the Ministry of Education may develop policies that may streamline the retention of the boy-child in public secondary schools.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Education has been and will always be the most powerful tool that can be used to bring about individual and national development. This explains why since independence, the government, through various policy documents has reiterated the importance of education in eliminating poverty, disease and ignorance. UNESCO (2011) stipulates that by 2030, all learners should acquire the knowledge and skills needed to pro-mote sustainable development and this is supposed to be achieved through, among others, education for sustainable development, sustainable lifestyles, human rights and gender equality. Other means are promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity. Through Sustainable Development Goal 4 (SDG 4), education for sustainable development provides a cross-cutting mechanism for the achievement of all the SDGs in Kenya (Ministry of Education, 2017).

Children involvement in child labor has been identified as a major problem facing all societies in the world. It has continued to deny many children access to education and retention in school. International Labour Organization (ILO) estimates that 218 million children are engaged in worst forms of Child Labour (ILO, 2010). According to United Nations Children Fund (UNICEF, 2011), there were an estimated 158 million children aged between five to 14 years in Child Labour in the world. Child labour accounts for 22% of the workforce in Asia, 32% in Africa, 17% in Latin America and 1% in U.S.A, Canada, Europe and other wealthy nations. ILO/IPEC reports indicated that Africa has

the largest incidents with estimated (40%) forty percent of all children between 5 and 14 years of age regularly engaged in work.

Student retention can be considered as a basic and key performance indicator for all educational systems. The aim should be for as many students as possible to progress and successfully graduate. In the context of widening participation, if governments encourage a broader range of students into higher education, there is also a social responsibility to help reduce the psychological, financial and/or emotional risks of non-completion (Lamb & Rumberger, 2012). Internationally, a variety of strategies has been instituted to address and improve retention statistics. These include issues such as reviewing admissions policies, providing career planning and counseling as well as learning assistance programmes, instituting financial aid and orientation programmes, improving academic advising and learning assistance programmes and catering for residence halls and student activities. While these efforts appear to work to some extent, most of the efforts have not borne fruits (Lourens, Vissers & Jessurun, 1999).

Globally, despite knowing the importance of basic education and the efforts made by different governments and educational stakeholders, there are still pupils dropping out of school resulting to low retention rates. As noted by the World Bank (2009), managing school dropout rates globally, especially in rural primary school set-up has been and it is still a challenge to many administrators. On average, nearly 37% of Latin American adolescents drop out of school and almost half of them drop out before completing their primary education. To reduce the drop out rates, the government has come up with some

programmes aimed at promoting cost-effective and innovative interventions that encourage young people to remain in school (Adelman & Szekely, 2016). The 2017 Annual Poverty Indicators Survey (APIS), conducted by Philippine Statistics Authority, revealed that 3.6 million or 9% of Filipinos aged 6 to 24 years old are out of school youth. The survey further revealed that the main reasons for not attending school were marriage or family matters, lack of personal interest, and high cost of education or financial concern (Bersales, 2018).

According to Aturupane (2009), OECD countries have a number of strategies that have shown to be effective in improving retention in both primary and secondary schools. For example support of school culture, broad curriculum, mentoring and professional counseling play a very vital role. Bray (2010) notes that although each student's performance is influenced by both school and non-school factors, comparisons of educational outcomes bring to light particular factors that can impede students from performing to the best of their ability. Most schools in Africa are commonly found in impoverished rural communities, where they are often characterised by the need for multi-grade classroom management as a result of low enrolment and/or too few teachers, and usually face significant shortages in terms of teaching and learning resources and basic infrastructure. This frequently leads to poor educational quality, student disillusionment, high rates of drop-out and low rates of retention (Lynn, 2010).

International Labour Organization estimates that there are more than 23 million child workers in Africa. Studies from sub-Saharan Africa, show that things are not rosy as

there is a strong tendency for school-age children to drop out of school at a tender age and enter into full-time employment (Orodho, 2009). Mali has the highest percentage of working children with 54.4%, Burkina Faso with 51.1%, Burundi 49%, Uganda 45.3% and Niger 45.2% while Kenya ranks sixth with 41.3%. In Kenya, child labour continues to be a problem especially in agriculture, domestic service, quarries and fisheries.

Many governments particularly in Sub-Saharan Africa (SSA) have considered abolishing school fees for secondary education. This is partly due to the domestic and international demand to achieve Education For All and the Millennium Development Goals. Fees charged at secondary school are indeed one of the major obstacles for some children to access secondary education, resulting in low transition rates from primary to secondary education. Thus, many governments in Sub-Saharan Africa (SSA) have planned to abolish secondary school fees. Biswal (2011) confirms that most governments in Africa are under severe budget constraints, especially after the global recession has taken hold. Thus, while the governments are intending to extend free education, they often allow public schools to levy fees for limited items such as school buildings and for non-tuition costs such as sports fees, school meals, uniforms, or textbooks.

Senegal's government allocates almost a quarter of its budget toward education. Despite the government's commitment to education, cultural norms and widespread poverty still prevent many Senegalese girls from completing their education and less than 50 percent of Senegalese women are literate. Girls are often singled out to help support their families

instead of attending school. The government is however making efforts to reduce gender parity in education through community sensitization (Momo & Cabus, 2019).

Malawian schools have been charged with the responsibility of providing education for all but it is hampered by an escalating school dropout in rural day public day secondary schools due to various factors such as socio-economic status, lack of parental support, students' behaviour, poor achievement, the school learning environment, and pregnancy just to name a few. The government and other stakeholders in education sector are making efforts to increase the funding for secondary education to cater for all the school monitory needs in order to cushion pupils from poor economic background from dropping out of school (Momo & Cabus, 2019).

MacArthur Foundation (2015) notes that 50% of children dropping out of school in Uganda is due to economic and financial constraints while pregnancies among girls featured as the most prominent factor explaining both non-enrolment and high drop-out rates. Approximately, 81% of the households do not take their children to secondary schools due to financial issues. Other factors impeding education access and retention is the child's participation in domestic work, early marriages, long distances to school and child's duties to the family's commercial activity.

In Kenya, Sifuna (2005) emphasizes that expanding provision for all in secondary sub-sector is a major challenge because of limited facilities. In additional, opportunity and other costs, the payment of levies and other fees by schools, the perceived lack of

relevance of curriculum and the mismatch between what is taught and the needs of the world of work. In support Gravenir (2009), notes that the situation does not motivate parents to keep their children in school and students to remain in school. An unfriendly environment in some schools, together with absenteeism and lateness, especially in rural areas, poverty at the household level, negative effects of HIV and AIDS pandemic all drive learners away from secondary schooling.

In his survey Njoku (2012) says that ironically, many of these schools, especially in rural areas, were established in direct response to domestic and international pressure to achieve EFA and the MDGs. As such, they represent an important part of efforts to improve retention to primary and secondary education for the most marginalized groups. Oketch (2010) observes that most schools in Sub-Saharan Africa are characterized by low enrolment, too few teachers to cover the required grade levels (resulting in multi-grade teaching and learning) and a scarcity of resources and support. This often leads to poor educational quality, student disillusionment, and attendant high rates of drop-out and low rates of retention..

According to KIPRA (2015), the high cost of education and household poverty level are critical factors that often push the pupils to do manual jobs to supplement meager family income. The cost of education determines whether they have the capacity to meet their obligations in terms of financing primary school education of learners. The subsidized secondary education was introduced to cater for some school costs. However, schools

have continued to charge parents' high levies beyond the governments set fee guidelines (Adwar, 2018).

Culture refers to those habits which bind a group of people together into a single group for a common end and this marks the specific difference. Early marriage denies a child access to education as she/he gets too much involved in family life. Male circumcision sometimes occurs during school time and this may lead to wastage of school time and hence drop out. Miraa chewing often plays a dominant role in celebrations, meetings, marriages, and other gatherings (Drajea & O'Sullivan, 2017).

Children participation in academics is affected to a greater extent by the family size and birth order in a family such that moderate families of four children and birth orders of one to four generally have higher academic achievement. Some students are from very big families. If the parent is not well up, it means that the child cannot get the basic education needs. This will lead to poor performance or dropping out. The educational level of parents has an impact on pupil's retention in schools. Higher household education level increase students' access to education and attendance and ultimately decreases drop out. They understand better on the school needs and works towards it. They are role model to their children who emulates them and hence retained in school. Some parents neither provide enough educational support nor recognize the value of education. In such a case, it will affect the pupil in one way or another and may eventually lose hope and drop out causing wastage (Nkoma, 2014).

For many poor households in Mbeere South Sub-County, there is an immediate and urgent requirement for all members of the household to work in order to earn enough for family sustenance. In such families, there is a trade-off between long-term benefits that are realizable through education and short-term benefits of children providing labour to meet presenting household needs. Consequently, such parents have no problem with their children dropping out of school, being absent or even repeating class due to poor performance. Child labour is common in the Mbeere South sub-county in the form of Miraa farming, harvesting and trading. School completion rates in public secondary schools in Mbeere South Sub-County have been on a steady decrease in the last five years. Table 1.1 displays the statistics.

Table 1.1: Comparative Enrolment and Completion rates across gender

	2012		**2013**		**2014**		**2015**		**2016**		**AVERAGE**	
	B	G	B	G	B	G	B	G	B	G	B	G
Form 1 Enrolment	825	860	846	936	859	944	901	1073	912	1207	867	1004
Form 4 Completion	748	818	764	880	775	886	792	1012	798	1134	776	946
Disparity	77	42	82	56	84	58	109	61	114	73	91	58
% Drop Out Rate	9.3	4.9	9.7	5.9	9.8	6.1	12.1	5.7	12.5	6.1	**10.5**	5.8

Source: SCDE's Office (Mbeere South Sub-County).

1.2 Statement of the Problem

Despite the concerted efforts being made by the Kenya government to create access to Education For All (EFA) by the year 2015 as provided for in the Dakar Framework of April 2000, through execution of policies such as Free Primary Education (2000) and

Free Secondary Education of (2008), internal efficiency challenges in form of low access and retention of boys in day public schools continue to be experienced. National statistics on enrolment in Form 1 and completion rates at form 4 show a big disparity. The information presented in Table 1.1 reveals that the enrolment of boys is lower than that of girls and the gap has been increasing over the years from 2012 to 2016. The dropout rates for boys are also higher than that of girls and the margin has been increasing every year since 2012 indicating that the retention rate of boys is lower than that of girls and that it is declining steadily over the years. This is more pronounced in the case of boys. In Mbeere South Sub-County, the case is not any different despite the area being a high economic potential area characterized by miraa farming and marketing. The statistics at the sub county level indicate that on average 14.6% of the boys who are enrolled at form 1 drop out before completing in Form 4. There is however study limitation on effects of Miraa farming on retention of boys since the existing studies mainly focus generally on students retention and none of existing studies focus on boys retention in Miraa growing zones in Kenya. The present study sought to determine the effects of Miraa farming on retention of the boy-child in public secondary schools in Mbeere South-Sub County, Kenya.

1.3 Purpose of the Study

The purpose of the study was to determine the effects of Miraa farming on retention of the boy-child in public secondary schools in Mbeere South-Sub County, Kenya.

1.4 Research Objectives

The study was guided by the following research objectives:

i. To establish the socio economic factors relating to miraa farming that affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County.

ii. To evaluate the effect of socio cultural factors related to miraa farming on the school retention of boy-child in public secondary schools in Mbeere-South Sub-County.

iii. To assess the impact of family factors related to miraa farming affecting school retention of boy child in secondary school in Mbeere-South Sub-County.

1.5 Research Questions

The study sought to address the following research questions:

i. To what extent does socio economic factors related to miraa farming affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County?

ii. How does socio-cultural factors related to miraa farming effect retention of boy-child in public secondary schools in Mbeere-South Sub-County?

iii. To what extent does family factors related to miraa farming affect retention of boy child in public secondary schools in Mbeere South Sub County?

1.6 Significance of the Study

The findings of the study may be useful to various stakeholders in education. Based on the findings of the study, the Ministry of Education may develop policies that may streamline the retention of the boy-child in public secondary schools. The findings from this study may provide information to teachers and principals on the extent of students involvement in miraa farming and trade. This may compel them to sensitize parents

during parent meetings and other forums in the school on the dangers of child labour so that they may embrace schooling of their children. The teachers might also find ways of accommodating students involved in miraa farming and trade in their teaching, for example, by giving them remedial classes, so that such students are not left behind in any way in syllabi coverage. The teachers would also find ways of making their lessons more attractive to the students so as to capture their attention and encourage them to remain in school.

The study may also help in exposing strengths and weaknesses associated with the retention of boy-child in public secondary schools in other counties. The parents and the society in general may benefit from the findings of the study in that they may understand the impact of engaging boys in miraa farming and business at the expense of school. Based on this sensitization, they may limit the amount of time boys spend in miraa business and thus boost retention rates in schools. In addition, the study may contribute to knowledge and may act as a reference to scholars who wish to conduct further study on the subject of child labour in general and its effect on students' retention.

1.7 Scope and Limitations

1.7.1 Scope of the Study

The study was carried out in Mbeere South Sub County which is only one of the Sub Counties that make up Embu County. As such, the study was not be able to capture all the factors that affect school retention of boys in the entire country and thus generalization of the findings can only be applicable within the sub county. The Study however used a representative sample in an attempt to capture as wide variety of

responses as is practically possible. The study focused mainly on the impact of miraa farming of school retention of boys.

1.7.2 Limitations of the Study

Mbeere South Sub County is remote and big with a poor road network. The schools are also scattered miles apart which limited accessibility. To overcome the challenge of accessibility the researcher sought for reliable private means of transport to be able to reach as many schools as possible to achieve a high response rate. The researcher allocated more time for data collection to have adequate time for covering all the sampled schools. The respondents at first concealed crucial data fearing that they would be probed. All respondents were assured that the data collected would be used for research only and their status would not be revealed to any other party. They were also not asked to write their names on the questionnaire. Getting the principals and the local administrators was also difficult due to their busy schedules. The researcher booked early appointments with the principals and the local administrators and adjustment of time for data collection where necessary.

1.8 Assumptions of the Study.

The study was based on the assumptions that: all the principals and teachers have proper mechanisms of tackling the issues on retention, all the boy-child students have potentials on retention in school, the Ministry of Education has put in place deliberate efforts to enhance access of all children across gender, and the respondents would be cooperative and available for data collection.

1.9 Theoretical Framework

The study was guided by the Social System Theory as advanced by Theodore Shultz (1987). The theory postulates that **s**ystems are divided into two main classes: "open" systems which interact with their environment, and "closed" systems, which do not interact with their environment. Social systems theory generally deals with so called open systems. A school is an example of an open system because it constantly interacts with its environment. All organizations can be viewed as open-systems which take input from other systems and through a series of activities transform or convert the significance inputs into outputs (inputs of other systems) to achieve some objectives.

In terms of this social system model the school, for example takes its resources such as people, finance, material and information, and students transforms and converts these and return them to the environment (society) in the form of changed individuals. In this sense it is impossible for a school to be a closed system. Using this system model the same form of analysis can be applied to all types of organizations. Viewing organizations as systems provides a common point of reference and enables us to take a general approach to the study of organizations, to analyze them and to decide general principles and prescriptions. The increasing rate of change in major environment factors (technical, economic, social and governmental) has highlighted the need to study the total organization and to adopt a system approach. In order to understand the operations of organizational (schools) performance, it is necessary to consider how they achieve an internal (students learning) and external (form four graduates) balance and how they are able to adapt to changes in their environments and the demands placed upon them.

Among the strengths of the social system theory is that it is useful in providing a framework in which to study complex variables influencing one another. Systems theory is suitable for describing situations as they are. The system elements is integral to understanding how a complex open-systems functions. The theory has the ability to show the complex web of relationship in operations as a system moves toward its goal or goals. Systems theory is not limited historically. It can be used to help make meaningful predictions about what can be reasonable expected in the future. Predictability is important in a theory's usefulness. The theory remains a viable theory used by a cross section of academicians. If the theory lacked credibility, it would ultimately die out but the theory remains viable (Owen, 2011). The system theory increases organization's adaptability to environmental changes. The organization is studied as a whole and not through its parts. This enables it to adapt to the needs of the environment. Decisions are made keeping in mind the macro as well as micro environment. It focuses on uniformity in decision making such that no specific domain gets preferential treatment as well as multiple dimensions of management (Lunenburg, 2010).

The key weakness of the system theory is that its framework is generalized and its explanatory value is decreased. The framework is not adequate in that it emphasizes too much on the relationship component of the various subsystem and other element of the larger system. Also, the theory does not cater to contingencies or particular style of functioning in the organization. The theory may not be always be practical and might lead to delay in decision making. This did not affect the current study since it was in a

secondary school where many decisions are made by the principal who is the key school administrator (Lezotte, 2001).

While general principles and prescriptions apply to all organizations, differences in their aims and objectives influences in the input – conversions – output process and is the series of activities involved in this process. The nature of inputs, the conversion process, and the forms of outputs will emphasize characteristic features of a particular organization. These features highlight alternative forms of structure, management methods of operations, and behavior of people employed by or working in different types of organizations. This theory was relevant in this study in such in that it supports an efficient system in an organization as schools, where inputs and outputs must balance and objectives realized. The input systems theory was suitable to this study since all organizations (schools) need clear aims and objectives which will determine the nature of inputs (student's retention), the series of activities to achieve outputs (graduates) and the realizations of organizational (schools) goals. Feedback about the performance of the system and the effects of its operations on the environment are measured in terms of achieving the aims and objectives. Basic principles of organization and management apply in any series of activities in any organization. The common elements of management planning, organizing, directing, coordinating and controlling apply in all cases. These essential administrative functions must be carried out in all types of organizations

1.10 Conceptual Framework

According to Kothari (2014), a conceptual framework represents a hypothetical model which identifies a model under study and the relationship between dependent and independent variables. . Figure 2.1 shows the relationships between dependent variables, independent variables and the intervening variables as conceptualized in the present study.

Independent Variables

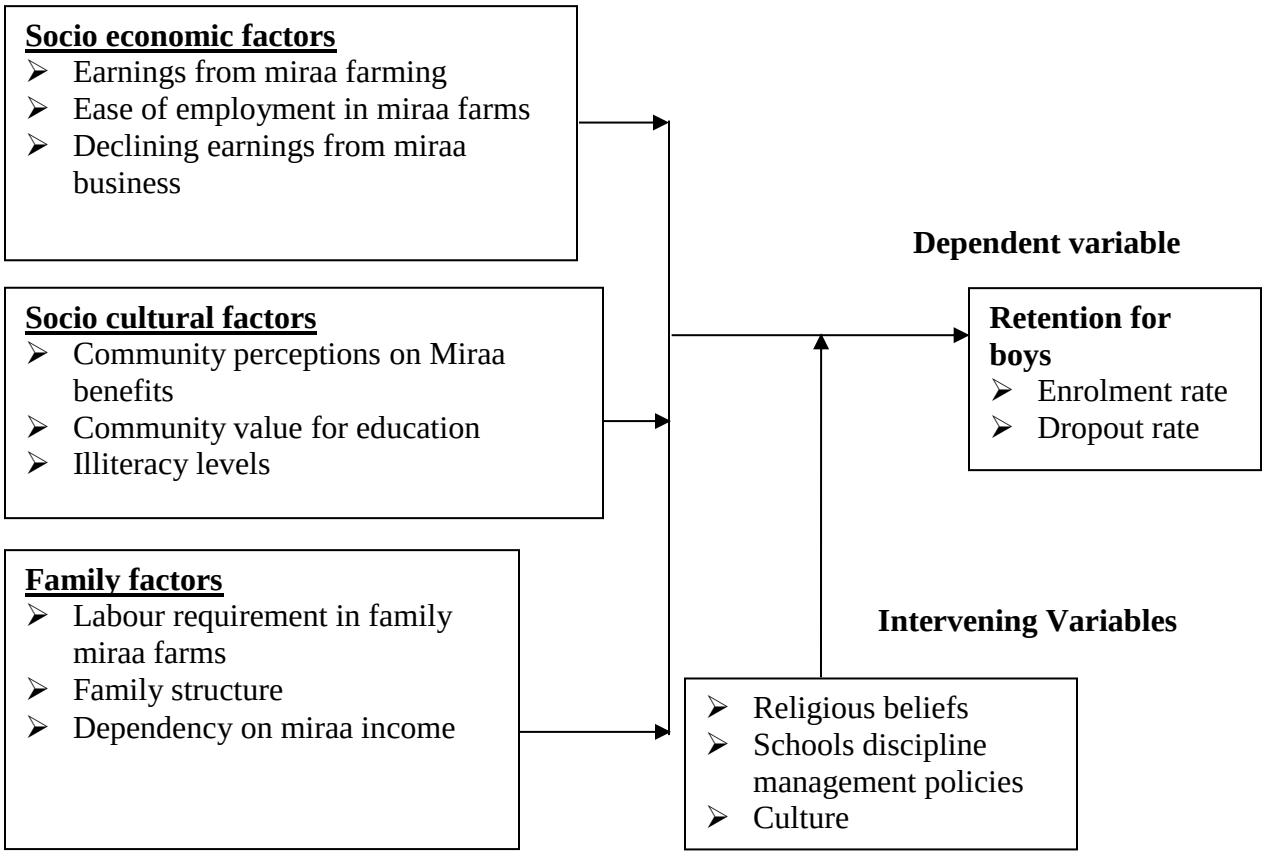

Figure 2.1: Conceptual Framework for the Study

The conceptual framework shows that the independent variables may have a relationship on the dependent variable. This relationship may however be affected by the intervening

variables. In this study, it was conceptualized that socio economic factors, social cultural factors, and family factors may result to low enrollment rates of boys in secondary school and high dropout rates. This relationship was intervened by the religious beliefs whereby religious boys tend not to be affected by the Miraa boys and schools that have strengthened discipline policies may record lower dropout rates than schools with weak discipline policies.

1.12 Operational Definition of Key Terms

Enrolment: the number of students admitted in a school

Family Factors: the family size and structure of a family that a student belongs to

Retention the number of students enrolled and remain in school until they complete their studies in Form four.

Socio Economic Factors: the social standing or class of a family group often measured as a combination of education, income, and occupation

Socio Cultural Factors: the distinctive habits of a people in that it performs common traditions, habits, patterns and beliefs.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter contains a review of related literature on the concept of miraa farming and miraa business on school retention of boys in secondary schools. The chapter also the empirical literature, summary of reviewed literature, and research Gap.

2.2 Concept of Miraa Consumption and Farming

Miraa is just one of the many names used to refer to *Catha edulis*, which is the scientific name for this small evergreen tree (Belew, 2013). Miraa is the name most commonly used in Kenya, while elsewhere; it is more commonly known as khat (Somalia), chat (Ethiopia) and Qat (Arabic). Miraa is widely grown in the highlands of Ethiopia and Yemen amongst settlements of Muslim cultivators (Odeyo & Lynn, 2013). In appearance, Miraa is not grossly unlike the tea shrub. Miraa is tended for its small leaves and buds which are pleasantly stimulating and mildly euphoric when chewed and ingested in small amounts. It is intoxicating when consumed in large quantities (Balint, 2012).

Miraa is 'Arab tea' or '*Abyssinian tea' from* the obsolete practice of some users who drunk a bitter infusion of dry powdered leaves (Odeyo & Lynn, 2013). Miraa grows on well drained soils under broad climatic conditions and tolerates drought for several months. Although Miraa has been cultivated for many centuries in Africa and Arabia, it's only recently that small quantities of the leaf entered international trade. Its place in the economy of the region was obscure. However, currently Miraa occupies a position of commercial importance chiefly due to the greatly increased demand of the leaf in

Somaliland (Ataley, 2012). Mbeere South Sub County is one of the key arrears where miraa is grown targeting the increased demand for the produce.

2.2.1 Miraa Consumption

Unlike in the past where miraa consumption was restricted to the elderly, many women and children chew it regularly as do majority of young men who face no risk of undergoing the fierce lashings that their earlier counterparts might have faced if caught (Mwenda, 2012). It is said that young men reckon that circumcision, rather than marriage, is the rite that gives them full permission to chew, though even some boys chew publicly. This purported change occurred in the course of the 20th Century, and although it appears dramatic, it's hardly a unique phenomenon (Ngeno, 2013).

Many young men and women from all ethnic groups throughout Kenya have taken to Miraa chewing, and Miraa itself can be seen to fit together with other elements of youth ethos. In Mbeere most shopping centers along the 35kilometers Embu-Kiritiri road are a beehive of activity every early morning as the trade goes on. Traders have built kiosks devoted to the sale of the stimulant plant Miraa (Siringi, 2007). Miraa in this region is a commodity considered so lucrative that it has earned the name green-gold. Most of the shanty kiosks use many kinds of slogans as such as '*network ya green'* (meaning green network); others write *Miraa ni poa* (meaning miraa is cool). Miraa consumption is both fashionable and functional for operators of matatus and other transport modes (Kariuki, 2013). In Mbeere region the youth who are meant to pursue valuable education are sacrificed and involved in this Miraa cultivation and trade (Kiambuthi, 2013).

2.2.2 Miraa Farming

Wild Miraa can grow as high as eighty feet, though the farmed variety is kept around 20feet with constant pruning (Acuda, 2012). Miraa is cultivated on small holder plots, and offers farmers a very good return per acre in comparison with crops like cotton and tobacco (Kariuki, 2013). However, Kamonjo (2013) contrasts well the success of Miraa; He argues that every shilling invested in Miraa brings back around five shillings while in cotton it brings back one shilling only. Farmers also appreciate the frequent harvests that Miraa provides every few weeks or so depending on the season, pointing out that income from crops like cotton and tobacco is not only depressingly small, but also comes in just one yearly payment if at all (Asuni, 2012).

In Kenya, Miraa is largely grown in Mount Kenya regions namely Meru (Maua and Tigania) and parts of Embu and Mbeere. Since miraa growing is not illegal it is grown, transported sold and consumed openly. In Meru and Mbeere it is a major cash crop and a major source of income for the people (Kerechio, 2012). Traditionally Miraa was consumed by the elders amongst the Meru. It was believed to bring people together communally as they sat in groups to chew the leaf. In dispute solving Miraa functioned as the elders' fee for hearing cases (Kebedo, 2012). The linkage of Miraa with elders is further emphasized in the discourse in the past use of Miraa by Tigania and Igembe people. Amongst them, any youth found chewing Miraa would be stripped naked, smeared with white ash and paraded for all to see. The father would have to produce a bull to expiate fully his son (Mutura, 2013). The young men were not allowed to eat it, the reason being that if they were allowed freely to indulge in this plant they would be apt

to remain awake at night and be tempted under the cover of darkness to gratify the desires which the light of the day forces them to curb (Kiambuthi, 2013).

Kebedo (2012) observes that in a traditional society setting, like the Meru and Somali of Kenya, Miraa chewing was the preserve of elderly men, who used it to enhance social interaction. Young men and women could only chew it in privacy. Urbanisation, modern education and breakdown of the extended family system have broken all taboos and Miraa chewing has become a past time, free for all. Many young people (majority being unemployed, including students) chew Miraa and also use other drugs like Mandrax and bhang. Kinyanjui (2011) confirms that this leads to antisocial behaviour.

Miraa is mostly a recreational drug, but its use is not limited to this alone. It has social and cultural aspects, particularly in areas of origin like Ethiopia, Meru and within Marsabit. The chewing is closely intertwined with social and religious aspects. Miraa has been identified with Islam for many centuries. There is no consensus among Islamic scholars on the acceptability or otherwise of Miraa chewing in the Quran. Miraa has also been used in a limited way in traditional herbal medicine. Its medicinal use has been over taken by its use as a social drug. The Maasai and the Kipsigis used Miraa for general body illness, while the Bushmen of South Africa use it for chest diseases (Kariuki, 2013). In Mbeere, Miraa chewing was a preserve for the elderly men who socially chewed it as they worked.

2.2.4 Economical Implications of Miraa

Miraa is one of the Kenya's horticultural exports although in the 2013 most of the European countries issued a ban on Miraa and rated it to be a dangerous drug unfit for human consumption (Kebedo, 2012). According to the past data it showed that the value of Miraa (khat) exports was growing at an average of 9.7% annually. Before 2013, Kiambuthi (2013) noted that Miraa earned the country shillings 16.5 billion in the last five years, most of it from Somalia according to a report by USAID. However, Randell (2013) acknowledges that Somalia was Kenya's main trading partner, accounting for 90% of the exports. Other markets included Djibuoti, Britain, USA, Canada, Saudi Arabia, Mozambique and Malawi. Currently, Middlemen and owners of chattered flights operating from Wilson Airport in Nairobi to Somalia have emerged as the biggest beneficiaries of trade in Kenyan Miraa industry. Apart from the 20 tonnes of the crop that heads to Somalia from Nairobi every week, Amsterdam used to consume 5 tonnes, London 7 tonnes and the local community 40 tonnes before the ban (Rassool, 2013).

According to Mwenda (2012), both socio-economic and agro-ecological reasons have contributed to Miraa expansion in Mbeere South District. The driving forces have probably increased market opportunities and favourable prices. Miraa production is mainly located close to the road network and on farms with limited irrigation facilities. Ngeno (2013) notes that the profitability of Miraa production is considered by 78% of the farmers as the primary reason for the expansion of Miraa growing in the area. Miraa is intercropped with maize and sorghum to a given extent. On average, the income from the intercropping system is 2.7 times higher than the mono-cropping system where maize

was grown separately. The high profitability of Miraa has also motivated farmers to hire labour for its production. Other factors contributing to expansion is low risk and low labour inputs compared with cereal crops, such as maize, green grams and beans. Decrease in the productivity of the land makes farmers prefer Miraa production to cereal crops. Miraa is also less vulnerable to drought (Kerechio, 2012).

Farmers also lack the financial resources to purchase fertilizers necessary for growing cereals. Miraa producers can also more readily gain access to labour because they can offer Miraa to the workers in return for their labour. Credit is also more available for Miraa growers (Mutura, 2013). Miraa production has become a major source of income in Mbeere Sub-County. It is estimated that 70% of the farmers' income in the Sub-County is gotten from Miraa. A consequence of Miraa expansion is that farmers need to buy cereals to meet their food requirements (Kariuki, 2013). According to Kebedo (2012) the general impression is that Miraa growers have better houses, wear better clothes, have better household equipment and are in a better position to send and sustain their children in schools. However, he notes that Miraa production has created employment of the drop-out youths, boosted the buying of the trendy "probox" vehicles, "boda-bodas" and the general transport industry and Miraa trade in the region.

2.2.5 Psychological, Social and Physiological Effects of Miraa.

Miraa or *Catha edulis* has been described as a "*stimulant narcotic*" or "*inebriant in arcotic*". The specific clinical effects of miraa chewing may be discussed under physiological, psychological and behavioral headings (Jager & Sireling, 2013).The signs

and symptoms in general are rather similar to those from amphetamine. The physiological effects are varied and depend very much on the amount of drug taken. Dry mouth and thirst is usually the first effect to be noticed, presumably because of astringent local action. There is increased wakefulness with relief from fatigue and hunger (Jesso, 2012).

In large doses, the wakefulness passes on to drowsiness and deep sleep. The partaker of the drug is hypersensitive to outside stimuli and startle is enhanced (Kalix & Olay, 2012). While sex interest is heightened first, depressed libido leading to sexual impotence may occur. Large doses may induce nausea and vomiting. Excessive doses may lead to loss of articulation, neuro-muscular inco-ordination and collapse, hyperthesia, spasticity convulsions and death (WHO, 2012). An individual with the above symptoms can hardly learn nor be productive in the society. The psychological effects in general may be summarized as increased rate and amount of intellectual and emotional activity. The user thinks more clearly though his concentration is impaired and also thinks more quickly and is more alert (Patel, 2012).

Mays (2012) emphasizes that chewing Miraa constricts the vessels supplying blood to the reproductive tract thereby causing inhibited urine flow, and in men, the inability to attain and sustain an erection. The chemicals in Miraa make one to produce excessive amounts of sperm without being sexually aroused. The sperms ooze out uncontrollably, a condition known as spermatorrhoea. In extreme cases, men are forced to wear nappies or

several underpants. This is very detrimental to the boy-child students in secondary schools.

Increased incentive and speed of association may lead to flight of ideas in extreme cases. The consumers shows impaired judgment, may be argumentative, easily provoked to anger and is quarrelsome (Randell, 2013). Anxiety and tension are increased and emotional reaction may be quite unstable, with quick change from humour to tearfulness. Mood is inclined to be one of elation, exhilaration or euphoria which may culminate into depression (NACADA, 2012). If an individual is dependent on Miraa, they are likely to become disoriented, have impaired judgment, delusions, illusions and hallucinations. The behavioral effects include restlessness, over activity and general hypomania, even in a non-addict (Stevenson & Fitzgerald, 2012).

In most cases, the user may be described as '*high*' or '*hyper*'. In large doses the addict may be pushed to actual violet mania. Occasionally, crimes of violence may be triggered by Miraa, but in these cases there may be alcohol and or other drugs to be considered as additional factors. Organic brain deterioration may be seen to occur especially if Miraa is used for a long time (WHO, 2012). Whether or not addiction to Miraa exists is not clearly stated in the available literature since addiction depends on semantics, what one understands by the word "*addiction*". However, most early writers termed Miraa '*addicting'* and hospital and field workers today agree with them. It is certainly 'habituating' and users apparently become tolerant of it (Yigzaw, 2013).

There is a slight withdrawal effect but it is hard to define how much of it is reactive on a psychological level and how much is physiological (WHO, 2012). Cases of Miraa psychosis have been reported from Mathari hospital and in the countryside of Mbeere and other parts of the world. However, early researchers do not seem to agree conclusively on the degree to which Miraa affects a person's psychology. Psychic dependence on the drug affects an individual's concentration and intelligence (Kerechio, 2012). Mwenda (2012) notes that options about the harmful economic and health consequences of Miraa use abound throughout many magazines and newspapers. These occur primarily in the short speeches of government officials from various countries and other opinion leaders.

2.2.6 Prevalence of Effects of Miraa in Kenya

In 2013, the Kenyan Government Drug Watchdog, the National Campaign against Drug Abuse (NACADA) reported alarming rise of drug abuse in Nairobi and throughout the rural villages and towns of Northern Kenya. Their research pointed to many harmful social effects of the drug as well as the impact on the individuals who become addicted to Miraa. The Kenyan government was challenged to address the problem. Yet the consumption of miraa has continued to rise with over 3000 kgs of the plant being delivered to Somalia each day and a booming domestic demand for the drug (Patel, 2012).

According to World Drugs Report(2008), heroin is consumed by 0.3 – 0.5 % of the Kenyan population, cannabis 4%, Miraa 11%. These statistics clearly indicate that Miraa is the most abused drug. The study by NACADA (2007), 40% of Kenyan aged between

15-65 years are involved with various forms of drugs abuse. For the majority of who chew Miraa for leisure, they only desire that special "high" locally called "adas" (Siringi, 2007). Zein (2012) notes that it is difficult to describe the feeling but overall one is very much relaxed, very imaginative and at peace with nature, normally not wanting any disturbance. Others chew it for its quality of suppressing hunger, fatigue and even sleep. Miraa has also a religious or magic significance. According to Yousef and Huq (2009), consumers of Miraa enjoys divine blessing. In the Moslems of Harar it induced a strong religious exaltation, which they regard as a gift from heaven.

Zareikat (2009) confirms that there is again the use of Miraa for pleasure. Since Miraa is regarded as an excitant and a stimulant, it is generally not considered prohibited by Koranic law and consequently there is no moral objection in the Muslim countries affected against its abuse. In addition Yigzaw (2012) notes that Miraa is used in relatively poor regions, where the frequent lack of food encourages nutrient deficiency diseases. Consequently, it is often not unnaturally regarded as a divine blessing. For population with relatively few sources of distraction it constitutes a simple and convenient form of escapism. The observation, however superficial, that have been made show that Miraa may produce a definite intellectual and moral deterioration and that its social consequences may be serious.

School going children use Miraa for various reasons; one of them is the perception that Miraa chewing increase the level of conceptualizing the ideas when reading. The main factor contributing to the habit is the availability of Miraa particularly in Marsabit, Meru

and Embu, Mbeere regions. School children are used in the harvesting and selling of the drug this has given them an opportunity to use the drug without restriction (Kerechio, 2012). According to Kebedo (2012) Miraa is not covered by the law actions related to drugs. The Alcoholic Drinks Control Act 2010 does not include Miraa as one of the drugs commonly abused. As such this gives way to pupils and students to use Miraa. At the school level though Miraa is not allowed to some points the hands of the school administrators and teachers are tied. This is because most pupils and students chew Miraa while at home at night or during their free time.

2.3 Effects of Socio Economic Factors on Retention

According Gebissa (2008), Khat growing in Kenya around Mount Kenya region and its environs prompts child labor. Children who fall within the school going age bracket form part of the labour in Khat industry, more so in harvesting. Some children do it voluntarily while others are compelled to do so by their parents. Glick and Sahn (2016) study focused on the effects of economic factors on dropout rates. Findings showed that there is a strong significant correlation between a family's financial strength and the likelihood of the daughter's dropout of school. Felter, Daston, Euling, Piersma, and Tassinari (2015) conducted a study on influence of economic status of parents on their children' Education in China. The study found that students whose parents have higher economic status have an enhanced regard for learning and they use effective learning strategies than students of parents with lower economic status.

Kattan and Székely (2017) examined factors of school drop out in secondary schools in Latin America. The study sampled 18 Latin American countries. Study findings revealed that drop out rates were increasing as a result of increasing number of students from poor economic background. Adwar (2018 conducted a study in South America to establish causes of school withdrawal. Stratified random sampling was used to sample 350 learners. Data was collected using questionnaires. Findings established that low parental income leads to seasonal and permanent withdrawal from school. Poor parents are unable to meet schools costs which increases dropout rates.

Waswa (2018) studied the effect of family income on school dropout rates in Uganda. The study adopted a descriptive survey research design. The sample size was selected from the teachers, students, and parents. Data was collected using questionnaires and focus group discussions guides. The findings showed that the level of family income is a key determinant of whether children from poor families will remain in school or not. Findings also showed that majority of the parents in the sampled schools earned little income which could not cater for family needs and children education hence dropping out of school. The parents were engaged in small businesses and were struggling to get alternative means to support the family demands.

Mitaru (2021) investigated determinants of dropout rates of boy child in public secondary schools in Kirinyaga County, Kenya. The study adopted a descriptive survey design. The study target was the principals, teachers, and form three boys in public day secondary schools. Simple and stratified random sampling techniques were used in sampling 270

respondents. The sample included 10 principals, 60 teachers, and 200 form three boys. Data was collected using questionnaires and interview guides. Findings showed that poverty was the key challenge facing retention of boys in the public day schools. The parents took time to pay school fees and their children were sent back home. Due to financial constraints, the boys stay at home for long. Some gave up on waiting for their parents and were therefore involved in child labor which disrupted the schooling of many boys in the county eventually dropping entirely out of school

Kiruma (2010) in a study on factors contributing to school dropout in public primary schools in Mukurueini Division, Nyeri District revealed that most pupils who were involved in coffee harvesting activities eventually dropped out of school. Wambugu's (2012) study on influence of socio-economic factors on participation in secondary schools reported that about 80% of male students and 10% of female students get involved in miraa business and involvement of boy the child in the miraa business lured by ease of earning and the lucrative employment of the boys in the industry pulls them away from school.

Mitaru (2021) sought to explore the socio-economic impacts of Khat production and revealed that school-going pupils were absorbed by khat farms to provide cheap labour for cheap money thus dropping out of school. Njeru and Mwangi (2013) studied influence of Miraa on primary school dropout among boys in Meru County, Kenya. Findings showed that 81% of the boys who dropped out of school were seen working in Miraa farms and engaging in Miraa trade. Peer pressure, Miraa chewing and easy money

from Miraa trade forced boys to leave school. Maingi (2013) study on effects of Miraa trade on attendance of primary school pupils in Meru County- Kenya found out that harvesting, selling and consumption of Miraa negatively influenced regular school attendance where pupils are involved in several Miraa trade activities which negatively influences school drop outs. Thiruane (2016) study on causes of pupils' dropout in public primary schools of Imenti North Sub-County established that low socio-economic status, Miraa abuse and peer pressure contribute to pupil dropout. Poverty leading to financial problems was also cited as a cause of primary school dropout.

Kithao (2015) study on influence of Miraa business on pupils' Igembe East division Meru County found that primary school pupils in the region are involved in buying and selling Miraa. More boys than girls are involved in buying and selling Miraa which earns them quick money. This results to truancy, failure to do homework, failure to revise for examinations and lack of concentration in class. Since pupils cannot focus on their studies, the results are absenteeism and dropouts.

2.4 Effects of Socio Cultural Factors on Retention

According to Goodman (2009), culture comprises of the distinctive habits of a people in that it performs both a unifying and, more importantly, a directive role and that it involves the cultivation of a people towards a common end. Festo (2019) examined influence of culture on the education of the girl-child in primary schools in South Sudan. The study sampled 399 respondents including the teachers, pupils, community leaders, parents, and school administrators. Data was collected using questionnaires, interview guides, and focus group discussions. Findings showed that the main cultural factors

contributing to drop out among girls were marriages, domestic chores, and societal attitude towards women.

Drajea and O'Sullivan (2017) investigated the effect of parents' literacy levels on their children's primary education in Uganda. The study employed ethnographic and phenomenology research designs. The study sampled 21 participants. The methods for data collection included observation of family routines and practices and semi-structured interviews. Findings revealed that parental illiteracy had negative relationship with children's literacy competence and subsequent success in primary schools.

Odhiambo, Consolata and Kipeen (2016) investigated the social-cultural factors influencing the transition rate of pupils from primary to secondary schools in Narok North District. The study adopted a descriptive survey design. The study sample was 24 primary schools' heads, four secondary schools principals, 68 class eight teachers, and 44 form one students. Questionnaires and interview guides were used for data collection. Findings showed that traditional rites contributes to low retention of boys in both primary and secondary schools. This is because respect is accorded to those who drop out of school than those in schools.

Namasake (2020) examined socio-cultural factors affecting effective implementation of subsidized day secondary Education in West Pokot Sub-County, Kenya. The study target was 10 principals, 108 teachers, and 5 education officers. The sample size comprised of 6 principals, 54 teachers, and 2 education officers. Questionnaires were used to collect

data. The study findings indicated that the key socio-cultural factors hindering the utilization of subsidized day secondary education as nomadic life, family structure, early marriages, and initiations.

A survey carried by World Vision (2010) in East Pokot and Baringo East districts in Rift valley shows that challenges against retention in the area are mainly circumcision, early marriages as well as conflict between neighboring communities. All these activities are culturally oriented and they negatively affect retention in primary schools. Tiyo (2013) sought to determine the effect of child labour on participation of primary school education in Samburu County. This study revealed that main factors leading to the problem of child labor were found to be high poverty levels in the region, harmful cultural beliefs and practices, lack of appropriate government policies, ignorance and illiteracy among parents as well as loss of parents. The study findings revealed that child labour in Samburu County was prevalent and has led to drop out from schools, decreased levels of literacy in the County, and increase in gender disparity in education within the region. Child labour was associated with poor concentration in class, engagement in drug abuse and involvement in armed conflicts.

Kamonjo (2013) notes that Miraa consumption is widespread among both males and females and majority are youth especially students and school dropouts. Miraa consumers show up late for work/school, take frequent rests, spend time chewing Miraa and are generally more careless. Mutura (2013) describes the Malindi beach boys as having a sharp appetite for Miraa as they go about their unofficial services of guiding the tourists.

The consumption of Miraa has serious social consequences as consumers spend a high portion of their income to purchase Miraa.

Asuni (2012) observes that Miraa consumption is known to induce mild euphoria and excitement. Individuals become very talkative under the influence of the drug and may appear to be unrealistic and emotionally unstable and this translates to brain drain in the society. Miraa is a stimulant and enables one to do work even without food or fatigue. According to Kihumba (2007), the dropout rate of boys in Igembe district is alarming which is attributed to lucrative miraa business whereby boys are used to harvest miraa from the trees. At the young age, they are light-bodied and cannot break the fragile miraa tree branches when they climb. As they gain weight and height, the study continues, they graduate from climbing up trees in the harvesting process to wrapping the miraa leaves and twigs and packing in gunny bags before loading into vehicles.

2.4 Effect of Family Factors on Retention

Parents play a major role in determining participation of pupils in education. High academic attainment of mother and father significantly reduces chances of school drop in both rural and urban areas (Nkoma, 2014). A UNESCO report (2011) on the impact of the family size on schooling of siblings in Asian countries revealed that parents with large families and are expected to pay school fees, provide other inputs like textbooks, uniforms and contribute towards putting up the physical structures in school find it hard to take their children to school. Mutura (2013) point out that the presence of a role model in a family is the main factor leading to pupil's retention in school. Parents are likely to let their children to drop out of school if they had dropped out. Others drop out due to

negative attitude towards schooling. As a result of lack of motivation, most students cannot continue to secondary school. Most students who do not complete school do so because of family problems, especially those whose parents are not interested in education and do not support their children in studying. Aggarwal (2012) in a study on child labour and household characteristics in selected states in India found that, among other things, poverty and parents' illiteracy have a bearing on child labour.

Symeou, Martinez and Alvarez (2015) opined that many children especially boys from big sized families dropout of school to work for income to support their families. This comes as a result of parents being unable to provide basic needs to their children and hence force the older sons to drop, search for casual jobs and help them (parents) bring up their children in the big family. Shen (2017) conducted a study on effect of family size on Children's Education in South East Delhi, India. This study adopted qualitative research design. Data was collected from 19 public primary school heads and 60 parents using interview schedules. Findings established that compared to an only child, children from a family with many siblings have high likelihood of dropping out of middle school.

Ganzeboom (2010) study in Netherlands established that pupils with highly educated parents proceed to higher secondary education which is higher number compared to pupils with middle or low-educated parents. This is so because less educated parents do not know the private and social benefits of investing in education. Such parents may not encourage their children to proceed with their education.

Ella, Odok and Ella (2015) investigated the influence of family size and family type on school retention in Nigeria. A qualitative research approach was used. The research consisted of two principals, 10 students and 6 parents. Data were gathered using semi-structured interviews. The result revealed a significant influence of family size and family type on retention in schools. Azumah, Adjei, and Nachinaab (2017) conducted a study to examine effect of family size on child's education in Atonsu-Bokro, Ghana. Data was collected using focus group discussions with 108 parents from 10 primary schools. Findings from the study indicated that children from large families mostly enroll late in school, perform poorly and leave school early as compared to those from small familes.

Koskei, Itegi and Muchanje (2020) sought to establish the influence of parental support on the retention of boys in public primary schools in West Pokot County. The study employed a mixed design methodology. The target population was 663 public schools. The researcher targeted 663 head teachers, 790 class teachers, and 6861 class teachers. Purposive sampling was used to sample the study respondents. Findings revealed that lack of parental support in terms of parental involvement in boys' schooling, engagement in child labour, negative parental attitude, parental illiteracy and inadequate provision of learning materials was a major impediment to boys' retention.

A study by Oketch and Ngware (2012) on education in East Africa indicated that educated parents set expectations of academic performance that propel pupils forward in their achievement level and they also use their educational attainments to teach their children. Further, the study revealed that education attainments act as a model in the

family level and that parents with little or no formal education are unlikely to appreciate fully the advantages of their children getting an education. Education can be provided informally at home or it can be provided formally in school.

Atambo, Mwebi and Onderi (2016) studied boys drop out in Nyamira County. The study was conduted in public boys' schools in the County. The target was the students, class teachers, and the school principals. Data was collected using questionnaires and interview guides. Results showed that boys whose parents monitored and regulated their activities, provided emotional support, encouraged independent decision making and were generally more involved in their schooling were less likely to drop out of school.

Bururia and Nyaga (2014) sought to address the impact of Miraa on the educational spheres of the society especially in the growing areas of Meru North. The study revealed that Miraa farming promotes activities like consumption of local brews, domestic quarrels and marital unfaithfulness. Poverty is created in families, which have leased their miraa plantations. Conflicts are also encountered due misappropriation of funds. There are family quarrels because the men have the say over the money gotten from miraa. Family breakage influence students dropout since they are left with no one to cater for them.

2.5 Summary of Literature Reviewed

The reviewed literature shows that Miraa farming and consumption affect retention of boys in secondary schools. In Mbeere region, secondary school boys who are meant to pursue valuable education are sacrificed and involved in Miraa cultivation and trade.

Miraa production has become a major source of income in Mbeere Sub-County. It is estimated that 70% of the farmers' income in the Sub-County is gotten from Miraa. School going children use Miraa for various reasons which include; perception that Miraa chewing increase the level of conceptualizing the ideas when reading, availability of Miraa particularly in the community and school children are used in the harvesting and selling of the drug which has given them an opportunity to use the drug without restriction.

There are various factors relating to Miraa farming that affect school retention of the boy-child. These are socio economic, sociocultural and family factors. Khat growing in Kenya around Mount Kenya region and its environs prompts child labor. School going children are involved in planting, harvesting, packaging and selling of miraa. Secondary schools boys are also used in Miraa transport using bicycles, motorcycles and vehicles. They easily get money from these activities and eventually disregard education which results to drop outs.

Culturally, miraa is acceptable way of life to community living around the areas where Miraa is grown. Miraa is consumed by people within all age groups including students who at times become addicted to consuming it. This results to lack of concentration in class, absenteeism, poor performance, class repetition and lack of interest in education. More boys than girls are involved in buying and selling Miraa which earns them quick money. Miraa consumers show up to school late, take frequent rests, spend time chewing Miraa and are generally more careless. Family factors also affect retention whereby men

who own big chunks of Miraa land tend to marry many wives and are les involved in their children academic affairs. Some family with too many children is also unable to meet education needs for every child and they eventually drop out of school. Most students who do not complete school do so because of family problems, especially those whose parents are not interested in education and do not support their children in studying.

2.6 Research Gaps

Studies reviewed have shown that economic, social and family factors affect retention rates in schools. Studies revealed have shown that economic, social and family factors affect retention rates in schools. Studies by Bururia and Nyaga (2014) showed that low parental income leads to seasonal and permanent withdrawal from school; Wambugu (2012) revealed that involvement of boy child in the miraa business lured by ease of earning and the lucrative employment of the boys in the industry pulls them away from school; Kithinji (2019) revealed that school-going pupils were absorbed by khat farms to provide cheap labour for cheap money thus dropping out of school; Maingi (2013) found out that harvesting, selling and consumption of Miraa negatively influenced regular school attendance where pupils are involved in several Miraa trade activities which negatively influences school drop outs; Kithao (2015) More boys than girls are involved in buying and selling Miraa which earns them quick money; Kamonjo (2013) notes that Miraa consumption is widespread among both males and females and majority are youth especially students and school dropouts; Bururia and Nyaga (2014) Revealed that Miraa farming promotes primitive activities like consumption of local brews, domestic quarrels and marital unfaithfulness.

From the literature reviewed, the researcher identifies three key research gaps. These include locale, scope, and methodology gaps. Locale gap refers to the locality in which the study was conducted. Some of the reviewed studies were conducted in other countries globally, in Africa, as well as other counties in Kenya. The scope gap refers to the study limitations whereby some of the reviewed studies were conducted in other institutions of learning; primary schools/universities / and not secondary schools in Miraa growing zones as in the current study. The methodology gap relates to the research designs, target, and data collection tools used by previous researchers which differ from the current study. None of the reviewed studies focused on factors relating to Miraa farming that affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County**.** The study hence sought to fill the afore mentioned research gaps by examining the factors relating to Miraa farming that affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County**.**

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines research methodology that was used in the study. It focused on research design, study locale, target population, sample and sampling techniques, data collection instruments, piloting, data collection techniques, methods of data analysis and logistical and ethical considerations.

3.2 Research Design

A descriptive research design was used in this study. A descriptive survey is a method for gathering information from people in a population in order to find out the status of the population with regard to one or more variables (Kombo & Tromp, 2006). Thus, these study designs are often inexpensive, quick and do not need too much effort. Furthermore, these studies often do not face serious ethics scrutiny, except if the information sought to be collected is of confidential nature (Aggarwal & Ranganathan, 2019).Ponto (2015) asserts that descriptive research portrays an accurate profile of persons, events, or situations. This design offers to the researchers a profile of described relevant aspects of the phenomena of interest from an individual or an institution.

The descriptive research design was used for this study because it enabled a researcher to use a small number of schools to demonstrate the concept of boy-child access and retention in secondary schools. This design was purposefully chosen for the study because it allows for speedy data gathering, which is important because any research project has significant financial repercussions. This study was determined to be a good fit

for a descriptive survey methodology because it enabled the researcher to use a small sample of public secondary schools to explain the concept retention of the boy-child.

3.3 Location of the Study

The study was conducted in public secondary schools in Mbeere South Sub-County, mainly in the Miraa growing regions within Kianjiru and Kiritiri zone. According to Lovel and Lawson (2003), any study should be conducted in an environment that is closely related to the researcher's area of interest. The schools are situated in a miraa growing zone.

3.4 Target Population

The study targeted public secondary schools in Mbeere South Sub-County. According to the ministry of education there are 56 public secondary schools in Mbeere South Sub-County. The study population included 56 principals, 140 class teachers, and 24 local administrators (chiefs, assistant chiefs, village elders, and nyumba kumi members).

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling of Schools

The researcher used purposive sampling technique to get the required number of the school principals. Purposeful sampling involves intentional selection of participants who have experience with the key study concepts (Creswell, 2014). Therefore, this study only sampled secondary schools in the Miraa growing areas on Mbeere South Sub County. There are 12 Miraa growing regions within Kianjiru and Kiritiri zone. The 12 principals were purposively selected for the study.

3.5.2 Sampling of Teachers

The study applied stratified random sampling which is obtained by dividing the population into groups of sample units (strata), then selecting a simple random sample from within each stratum. The teachers were according to the zones. Mugenda and Mugenda (2019) asserted that 10 to 30 % of population is enough thus the researcher sampled 26% of the teachers therefore 36 teachers were selected. In every sampled school, the researcher randomly selected 3 class teachers.

3.5.3 Sampling of Local elders

The researcher used purposive sampling technique to get the required number of the local elders. The locals elders from the two miraa growing zones were selected. The local administrators comprised of two chiefs, two assistant chiefs, two village elders, and two nyumba kumi members.

Table 3.1: Sampling Matrix

No.	Stratum	Target population	Sample Size	%
1.	Principals	56	12	21.4
2.	Teachers	140	36	26
3.	Local administrators	24	8	33.3
	TOTAL	160	56	-

3.6 Research Instruments

The study used questionnaires and interview guides as data collection instruments. The questionnaires enabled the researcher to obtain comparable responses. Questionnaires were both open-ended and closed-ended questions on the research tool that was used to collect data from teachers and principals. The advantage of using a questionnaire for data collection is that data collected is easy to analyse. Questionnaires are convenient to administer when the study involves a large group of respondents and the instrument is

economical in terms of time and money. The research used questionnaires because they would enable him to obtain a large quantity of data inexpensively from a wide range of participants spread extensively in geographic space. Questionnaires also give enough time to the respondents to think about the questions and to give well-thought answers (Kothari, 2014).

Interviewing is a technique that, according to Mwituria (2015), is primarily used to understand the underlying causes and motivations for people's attitudes, preferences, or behaviour. Interviews are a suitable method for obtaining private and sensitive information from respondents because they allow for open communication and human connection between the interviewer and the interviewee. Data from the local administrators were gathered using interview guides.

3.7 Pilot Testing of the Instruments

A pilot was conducted in two secondary schools in the Rwika Zone—Kabururi and Kangungi which were not included in the actual study. The results were then thoroughly examined by the researcher to check for accuracy, clarity, and completeness in terms of the objectives covered. The pilot test enabled the researcher to test the questionnaires' validity and reliability. The pilot study included 10% of the sample as recommended by Orodho (2014). The pilot respondents included 2 schools hence two principals, 14 teachers, and two village elders.

3.7.1 Validity of the Instruments

This study used content validity. Content validity is the process of evaluating a research instrument to ensure that it has all of the necessary components while excluding those that aren't relevant to a given construct area (Boudreau et al., 2001). In order to promote validation, the judgmental approach to content validity requires researchers to be present with experts. The validity was assessed twice. The supervisors were first given the produced tools to review. They were then appropriately updated in accordance with the supervisors' suggestions. The researcher also compared the questionnaire with related studies to improve their validity.

3.7.2 Reliability of the Instruments

Reliability is the degree to which measurements are reproducible when performed by various people on different circumstances, conditions, and ostensibly with different instruments (Drost, 2011). The researcher employed the Cronbach's Alpha Coefficient method which was only used on Likert scale items. This method was preferred because it saves time since the tools are administered only once. Cronbach's Alpha Coefficient was also preferred since it assesses the consistency of the variables of research instruments. The alpha coefficient is measured from the value of zero to one. The nearer the Cronbach's alpha coefficient is to 1 is relatively greater the internal consistency of the variables in the scale (Zikmund, Babin, Carr & Griffin, 2013). Cronbach's Alpha Coefficient value of 0.7 was used as the cut off and all items whose value was less than 0.7 was considered weak, therefore adjusted or left out of the final questionnaire. The reliability was checked using a statistical software (SPSS) that helps to test reliability of items presented in a likert scale. According to Smith (2003), an alpha (α) of 0.8 is

typically regarded as good. Since the tools yielded a value of =0.87, they were deemed to be adequately dependable.

3.8 Data Collection Techniques

A letter of introduction from Karatina University was obtained by the researcher, who then utilised it to submit an application for a research permit to the National Council of Science, Technology, and Innovations (NACOSTI). The researcher used the permit after receiving it to ask the local SCDE for permission. The researcher personally administered the interview guide to the administrators. The main objective of the study was explained, and clarification was made to the respondents. Questionnaires were distributed by the research assistants who were previously trained by the researcher. Questionnaires were collected immediately after they were filled

3.9 Logistical and Ethical Consideration

3.9.1 Logistical Considerations

The research spent a significant amount of money on travel to the selected secondary schools in Mbeere South Sub-County. Additionally, printing, typing binding, consultation, and photocopying costs were involved. In order to reduce costs without affecting the experiment, the researcher reduced the budget where possible. Due to the distances between the chosen schools in Mbeere South Sub-County, the consideration of time was crucial. Therefore, the researcher utilised simple random sampling to gather data.

3.9.2 Ethical considerations

The researcher made sure that participation in the study was voluntary and that respondents had the option of giving or withholding relevant personal information. The advantages and disadvantages of participating were explained to the participants, as well as any potential consequences. This made it easier for the responders to understand the benefits, nature, and aim of study. The researcher asked the appropriate authorities for authorization to carry out the research. Plagiarism was avoided and researcher ensured that all the findings were reported with absolute honesty and devoid of undue manipulations.

3.10 Data Analysis Techniques and Presentation

Data analysis employed both qualitative and quantitative techniques. Data from the completed questionnaires was coded, keyed into SPSS version 28 software, cleaned, and analyzed for data accuracy and manipulation. Data in SPSS was analysed using both descriptive and inferential statistics. Descriptive analysis involved statistical techniques that included frequencies, means, percentages, and standard deviation. Inferential statistics draws inference about a study population based on the sample results.

Qualitative data derived from open-ended questions was analysed using Content Analysis Technique. Content Analysis involves grouping topics into meaningful segments, coding and categorizing them. On the other hand, qualitative data derived from interview guides was presented in narratives in form of direct quotes. The findings were presented in tables, graphs and charts to enhance clarity.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents data analysis, interpretation, presentation and discussion of findings. The purpose of this study was to determine the impact of Miraa farming on the retention of the boy-child in public secondary schools in Mbeere-South Sub-County. The study was organized based on the study research objectives including socio economic factors relating to miraa farming that affect school retention of the boy-child, socio cultural factors related to miraa farming on the school retention of boy-child and family factors related to miraa farming affecting school retention of boy child in secondary school in Mbeere-South Sub-County. The responses were analyzed into descriptive statistics and presented in tables.

4.2 Response Rate

A total of 48 questionnaires were sent out and 44 were returned answered hence a 91.7% questionnaire return rate. In addition, five out of the eight local administrators consented to be interviewed therefore 62.5% instruments return rate. The response rate is shown in Table 4.1.

Table 4.1: Response Rate

No.	Stratum	Sample Size	Actual Respondents	% Response Rate
1.	Principals	12	11	91.7%
2.	Teachers	36	33	91.7%
3	Local administrators	8	5	62.5%
	TOTAL	**56**	**49**	**82%**

Table 4.1 shows that the average response rate was 82%. The response rate was considered adequate to give credible findings. Rowley (2014) noted that a high response rate results in highly credible findings Mugenda and Mugenda (2019) indicated that an instrument return rate of above 70% is acceptable for analysis. Fincham (2008) stated that a response rate of 60% should be the target of every social science researcher.

4.3 Demographic Characteristics of Respondents

The study focused on the background information of the principals and teachers. The demographics concentrated on designation and length of service in the current station. Results are illustrated in Tables 4.2, 4.3, 4.4 and 4.5 respectively.

Table 4.2: Length of Service in the Current School

Length of service in the current station	Frequency	Percentage
Less than 1 Year	7	15.9
1-5 Years	9	20.5
6-10 Years	17	38.6
Over 10 Years	11	25.0
Total	**44**	**100.0**

Table 4.2 shows that 17(38.6%) of the teachers and principals had served in their current stations for 6-10 years. Further, it was found out that 11(25%) had worked for over 10 years, 9(20.5%) for 1-5 years and 7(15.9%) below 1 year. This is a sign that the teachers and principals had a lot of expertise in the area and had been working at their current locations for a long time. A principal who has worked with students and teachers for a long time would have a greater grasp of both groups. Schools with long-serving and experienced principals ensure implementation of activities in school is effectively done

without any problems. The teachers are well knowledgeable on students' retention and the factors associated with retention. Experienced teachers also have the ability to select the most appropriate methods of handling learners with different abilities and needs. .

The respondents were requested to tick on their respective designation. Results are illustrated in Table 4.3

Table 4.3: Teachers and Principals Designation

Job Position	Frequency	Percent
Class Teachers	33	75.0
Principals	11	25.0
TOTAL	**44**	**100**

Findings in Table 4.3 shows that 33(75%), of the respondents were class room teachers and 11(25.0%) were principals. The findings implying that balanced and reliable responses were obtained from the sample since the sample was drawn from many areas of interest. The results suggest that balanced and trustworthy responses were obtained since the sample was recruited from a variety of interest areas.

4.4 Retention Rates of Boys in Secondary Schools

The research aimed at establishing the retention rates of boys in secondary schools in the locale of study. The current enrolment was compared with the enrolment at Form 1 term 1 for all the classes and the mean dropout rates and consequently the percentage retention rates worked out for each class. Of interest to the study was the trend of the retention rate

across the four cohorts. Table 4.4 displays the means of the enrolment of each Form at Form 1 Term 1 compared to the current enrolment.

Table 4.4: Retention Rates across the Classes

FORM	Mean Current Enrolment (A)	Mean Enrolment At Form 1 Term 1 (B)	Mean Drop Out Rate (B-A)	% Retention Rate $(^{A}/_{B} * 100)$
1	59.9091	64.5455	4.6364	92.82
2	61.9091	66.0909	4.1818	93.67
3	63.8182	68.0909	4.2727	93.73
4	65.6364	68.7273	3.0909	95.50
TOTAL	**62.8182**	**66.8636**	**4.04545**	**93.93**

As is evident in the information presented in Table 4.4, Form 1 records the biggest mean dropout rate (4.6364) thus the lowest retention rate of 92.82% followed by Form 2 with a mean dropout rate of 4.1818 and a retention rate of 93.67%, then Form 3 with a dropout rate of 4.2727 and retention rate of 93.73%. Form 4 records the lowest mean dropout rate of 3.0909 translating to 95.50% retention rate. In addition, the statistics show that enrolment of boys is declining with time; Form 4 class recorded the highest mean enrolment at form 1 of 65.6364, Form 3; 63.8182, Form 2; 61.9091 and form 1 class has a mean enrolment of only 59.9091 boys per school. Thus both retention rate and enrolment have been on a down ward trend for the years covered by the study.

The finding was supported by a local administrator who said that;

> There is a low retention rate in secondary schools in this area especially in day secondary schools. Boys often drop out in their second year in secondary schools. During weekends and school holidays they work in Miraa farms and when they get back to school, they are always involved in disciplinary cases as a means to get a suspension so that they can get a chance to go back home and take part in Miraa farming, harvesting and trade (Interview, 18th February 2020).

The implication of these statistics is that the retention rate of boys is decreasing with time. This is more so due to the fact that Form 1 class records the lowest retention rate despite them having been in secondary school for only one year compared to Form 4 class which records the highest retention rate despite having been in secondary school for 4 years. According to the students, most of the boys stop attending school to be engaged in miraa business. A similar trend is replicated in the enrolment rates which have been on a sustained down ward trend despite the many strategies established by the government to boost access to secondary education including increased capitation and other favorable policy initiatives.

4.5 Socio Economic Factors and School Retention

The first objective aimed at establishing the socio economic factors relating to miraa farming that affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County. A 5-point likert scale was used to quantify the opinion of teachers and principals on various aspects of socio economic factors related to miraa farming that may affect retention rates among boys in secondary schools. Table 4.5 presents findings.

Table 4.5: Social Economic Factors Related to Miraa Farming and Boys Retention

Statement	N	Mean($\bar{x}$)	Std. Deviation	Variance
Boys are enticed to seek employment in miraa farms/ businesses	44	2.363	1.079	1.164
Inability to raise school levies and other financial obligation due to declining earnings from miraa due to UK ban	44	2.456	1.044	1.091
AVERAGE	**44**	**2.410**	**1.218**	**1.483**

On the social economic factors related to miraa farming on the retention rate among boys in secondary schools, the principals and teachers gave ($\bar{x} = 2.410$) with a standard deviation of 1.218. The mean of 2.410 lies within the 'high impact' region implying that that socio economic factors related to miraa farming and miraa business greatly impact on the retention of boys in school. A low standard deviation of 1.218 implies that the response was generally unanimous. This suggests that Miraa had a significant impact on the boys' school dropout rate. The study's conclusions support those of other research' findings. For instance, Wachira (2012) found that 10% of female students and 80% of male students participate in Miraa business in his study on the impact of socioeconomic and cultural determinants on access to and participation in secondary school education in Igembe North District, Meru County.

Results further found that the involvement of the boy child in the miraa business lured by ease of earning and the lucrative employment of the boys in the industry pulls them away from school. As a result, the study asserts that there is low participation of boys in education. Njeru and Mwangi (2013) on the influence of Khat (Miraa) on primary school

dropout among boys in Meru County concurred that Khat contributes significantly to boys' school dropout in Kangeta Division. The study also found that primary school boys provided most labour in Khat producing farms and in marketing the crop.

In order to find out the social economic influences of Miraa farming on boys' retention, the researcher used a 5-point likert scale to assess the degree at which the respondents agree/disagree with listed statement on influence of socioeconomic factors on retention. Findings are presented in Table 4.6.

Table 4.6: Socio Economic Influences of Miraa Farming on School Retention

Key: *SA=Strongly Agree, A=Agree, NS=Not sure, D= Disagree, SD= Strongly Disagree*

Statements	**SA**		**A**		**NS**		**D**		**SD**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Quick and ready money in Miraa business lures boys out of school.	10	22.7	21	47.7	6	13.6	5	11.4	2	4.5
High poverty levels in the community cause boys to work in Miraa farms.	25	56.8	9	20.5	3	6.8	6	13.6	1	2.3
Declining earnings from Miraa due to UK ban has contributed to inability to pay fees.	8	18.2	19	43.2	6	13.6	7	15.9	4	9.1
Students often drop out of school to serve as laborers in Miraa farms in to earn more income for the family.	11	25.0	23	52.3	5	11.4	3	6.8	2	4.5
Students whose family have big Miraa firms don't concentrate in school and eventually leave school.	8	18.2	18	40.9	4	9.1	12	27.3	2	4.5
Parents who cannot meet the hidden costs of education are forced to withdraw their children	22	50.0	11	25.0	6	13.6	4	9.1	1	2.3

from school.

N=44

Table 4. 6 shows that 47.7% (21) of the teachers and principals agreed that easy to make and readily available money in Miraa entrepreneurship entices boys to leave school, 56.8% (25) strongly agreed that boys work in the Miraa farms to due poverty, high poverty levels in the community cause boys to work in Miraa farms, 43.2% (19) agreed that declining earnings from Miraa due to UK ban has contributed to inability to pay fees, 52.3% (23) agreed that students often leave school to work in Miraa farms to add to the family income, 40.9% (18) agreed that students whose family have big Miraa firms don't concentrate in class and end up leaving school and 50% (22) of the strongly agreed that parents who cannot meet the hidden costs of education are forced to withdraw their children from school. This implies that miraa farming and business contribute to low retention rates of the boy child through offering opportunities of employment to the students.

These findings were emphasized by an administrator who opined that;

> When secondary school students are engaged in Miraa business, chances of dropping out are very high because of the easy money they make from the business. The boys who drop out of school come from unsupportive families so they drop out of school to sell Miraa and get money for their daily needs. Children are paid Ksh.100 per bag and most of them manage to pluck about six bags making 600 per day. This is too much money for a student who ends up using the money to lure girls, engage in alcohol sprees and other ill practices like betting. This trend contributes to school dropout (Interview, 19th February 2020).

The sentiments were echoed by another local administrator who had this to say during the interview;

> A good number of the boys of school going age have been going to the miraa farms and miraa selling points to be employed to tend the miraa farms, harvest the produce as well as transporting and marketing. The field offer cheap employment opportunities for the boys. The growth of miraa farms has attracted 80 % of boys from the schools in the neighbourhood who find casual jobs there (Interview, 20th February 2020).

This implies that miraa farming and business contribute to low retention rates of the boy child through offering opportunities of employment to the students. Miraa farming and business also contribute to low retention rates of the boy child since it is no longer as economically rewarding as it used to be after UK and other overseas markets banned its exportation from Kenya. The findings concurs with; Wambugu (2012) that 80% of male students (80%) and 10% of female students were actively involved in sale of Miraa lured by ease of earning and the lucrative employment of the boys in the industry pulls them away from school. Consequently, there is low participation of boys in education;

Since boys provided the majority of the labour in the farms that produced the crop and in the crop's marketing, Agence (2010) found that Khat significantly contributes to boys' school dropout in Kangeta Division. Similarly, Kithao (2015) found that primary school students in Meru County engage in the buying and selling of Miraa, with more boys than girls engaging in this activity because it provides them with quick cash. Truancy, failing to complete assignments, failing to study for tests, and failing to pay attention in class are the repercussions of selling and chewing of Miraa.

4.6 Socio Cultural Factors Related to Miraa Business affecting School Retention

The second objective aimed at evaluating the effect of socio cultural factors related to miraa farming on the school retention of boy-child in public secondary schools in

Mbeere-South Sub-County. A 5-point likert scale was used to quantify opinion of teachers and principals on various aspects of socio cultural factors related to miraa farming that may affect dropout rates among boys in secondary schools. Table 4.7 illustrates descriptive statistics on the responses obtained.

Table 4.7: Social Cultural Factors Related to Miraa Farming and Boys Retention

Statement	**N**	**Mean($\bar{x}$)**	**Std. Deviation**	**Variance**
The society regards miraa farming/ business higher than school attendance	44	2.215	0.923	1.264
The society believes miraa farming/ business is more rewarding than education	44	2.352	1.163	1.372
High illiteracy levels in the area is responsible for high regard of miraa business vs. education	44	2.152	1.011	1.245
AVERAGE	**44**	**2.231**	**1.032**	**1.294**

On the impact of selected social cultural factors related to miraa farming on the dropout rate among boys in secondary schools, the respondents gave ($\bar{x} = 2.231$) with a standard deviation of 1.032. The mean of 2.231 lies within the 'high impact' region implying that that socio cultural factors related to miraa farming and miraa business highly influence boys' retention. Standard deviation of 1.032 was low, implying that the response was to a large extent unanimous.

In support of these findings, one local administrator said that;

> Students from day secondary schools can access Miraa every day. These students learn how to chew miraa either from parents or close family members. They start chewing Miraa from young age which becomes very hard to stop when they grow up in their teenage as they join peer groups. Chewing Miraa is regarded as a masculine right in the community. According to the Ameru, culture, a child belongs to the father and therefore a man must take care of every child he has sired and some get to know their other siblings while already in school resulting to conflicts (Interview, 20th February 2020).

The teachers' views were supported by another local administrator who had the following to say during an interview;

> Some parents are conservatives and they do not accord education the importance it deserves some end up neglecting their children education altogether. Quite a number of the parents (men) are polygamous. This leads to suffering of children and women. Among the casualties is secondary education. This occurs where the family cannot afford the basic needs leave alone money to finance educational needs in secondary school. The men who are not polygamous have concubines in shopping centers. This has contributed much to the spread of HIV/AIDS in the region. There are a number of children orphaned by AIDS. These children find it difficult to complete secondary education. The fact that men rarely meet their children after school makes it difficult for the children to express their educational needs. This leaves the entire burden to the mother who also gets money from the father. Men do not pay much importance to education. If the financial managers of the families do not pay attention to education, it implies that education will be affected negatively (Interview, 21st February 2020).

The results support a research by Kihumba (2007) that indicated the worrisome dropout rate for boys in the Igembe District. According to the report, the high dropout rate among boys is caused by what the neighborhood refers to as "lucrative miraa companies." Boys have been known to collect miraa from trees since they were very young; because of their light build, they are unable to climb up delicate miraa tree limbs. According to the study, as subjects gain weight and height, they progress from gathering miraa by climbing up

trees to wrapping the miraa leaves and twigs and placing them in gunny bags before loading into cars. This involvement completely occupies the boys and offers easy source of earnings and employment to them and as a result, they therefore drop out of school leading to low retention rates among the boys in the locale of study. The results corroborate Rajabu's (2007) research, which showed that polygamous parents often struggle to provide for their children's basic needs including uniforms, school supplies, and lunches, which results in many kids dropping out of school.

Teachers and principals were further requested to indicate the agreement level on listed statements regarding social cultural influences of Miraa farming on school retention. Results are illustrated in Table 4.8.

Table 4.8: Socio Cultural Influences of Miraa Farming on School Retention

Key: *SA=Strongly Agree, A=Agree, NS=Not sure, D= Disagree, SD= Strongly Disagree*

Statements	**SA**		**A**		**N**		**D**		**SD**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Chewing of Miraa is common in the community including secondary school students	24	54.5	8	18.2	6	13.6	4	9.1	2	4.5
Children who focus on inheriting their parents' Miraa farm do not finish secondary school	8	18.2	27	61.4	2	4.5	4	9.1	3	6.8
The traditional practice of children participating in Miraa farming and business interfere with their school retention	6	13.6	28	63.6	2	4.5	5	11.4	3	6.8
The society regards Miraa farming/ business higher than school attendance	12	27.3	22	50.0	5	11.4	3	6.8	2	4.5

The society believes Miraa farming/ business is more rewarding than education	8	18.2	21	47.7	9	20.5	2	4.5	4	9.1
High illiteracy levels in the area is responsible for high regard of Miraa business vs. education	10	22.7	19	43.2	6	13.6	5	11.4	4	9.1

N=44

Results reveal that 54.5% (24) of teachers and principals strongly agreed that chewing of Miraa is common in the community including secondary school students, 61.4% (27) agreed that children who focus on inheriting their parents' Miraa farm do not finish secondary school, 63.6% (28) agreed that the traditional practice of children participating in Miraa farming and business interfere with their school retention, 50% (22) agreed that the society regards Miraa farming/ business higher than school attendance, 47.7% (21) agreed that the society believes Miraa farming/ business is more rewarding than education and 43.2% (19) agreed that high illiteracy levels in the area is responsible for high regard of Miraa business vs. education.

Influence of socio cultural factors on school retention was elaborated through the following excerpt from one of the local administrators:

> In our culture, the man is responsible for managing home finances and thee woman has no right to decide on what to do with the household finances. Majority of the men are always under the influence of Miraa and they end up mismanaging the finances. This makes the women to suffer with their children. The women lack adequate resources to sustain their children in school and result to withdrawal (Interview, 21st February 2020).

This implies that miraa farming and business contribute to low retention rates of the boy child through being highly regarded in the community than school attendance. Miraa

farming and business is generally perceived to be more lucrative than education. This may explain why there is little value for education and thus boys are more engaged in miraa farming and miraa business as opposed to education. This makes them invest more in miraa than in the education especially of boys since they provide labour to run the miraa farms and miraa business. Findings concur with Kamonjo (2013) that the majority of Miraa users are young people, particularly students and school dropouts, and Miraa use is common among both sexes. Miraa users frequently arrive late for work or school, relax frequently, spend a lot of time chewing Miraa, and are generally less careful.

4.4.3 Family Factors Related to Miraa on Boy- Child School Retention

The third objective of the study was to investigate the effect of family factors related to miraa farming and miraa business on boy child school retention. A 5-point likert scale was used to quantify the opinion of teachers and principals on various aspects of family factors related to miraa farming that may affect dropout rates among boys in secondary schools. Findings are presented in Table 4.9.

Table 4.9: Family Factors Related to Miraa Farming and Boys Dropout Rates

Statement	N	Mean($\bar{x}$)	Std. Deviation	Variance
Families in the area rely heavily on labor from their children to tend their miraa farm	44	2.351	1.21	1.117
Miraa business has brought about changes in the family structures that promote boys dropping out of school e.g. single parenthood	44	2.221	0.926	1.263
Income from miraa farming provides families with a sustainable source of finances to enable them cater for the	44	2.319	1.237	1.185

education of their sons				
AVERAGE	**44**	**2.297**	**1.124**	**1.188**

On the effect of selected family factors related to miraa farming on the dropout rate among boys in secondary schools, the respondents gave ($\bar{x} = 2.297$) with a standard deviation of 1.124. The mean of 2.297 lies within the 'high impact' region implying that that family factors related to miraa farming and miraa business have highly influence boys' retention. Standard deviation of 1.124 was low, implying that the response was to a large extent unanimous.

The same views were confirmed by another local administrator who noted;

> The main family factors related to miraa farming in this area are family conflicts, single parenting, domestic chores and sibling rivalry. There are constant fights among families as children fight for Miraa farm when they attain 18 years. There is an increase of single parents of the community whereby mothers/fathers are left alone to bring up boys who become notorious and indiscipline due to peer pressure from Miraa vendors who incite them to run errands for them and pay them or offer gift as means of compensation (Interview, 21st February 2020).

Findings indicates that parents still have a provide learning materials and other needs even though secondary school is subsidised by the government. Other boys left school to serve as laborers or look after their younger ones due to inability of the parents to provide for them since income from miraa farming/ business does not empower them to make ends meet. These factors within the family occasioned by reliance in the miraa farming/ business have played a substantial role in lowering the school retention rates among secondary school boys. Family factors related to miraa farming/ business has had a profound impact on the school retention of boy child. This is so because this study

found out that at times, boys are used as a means to an end for the family to survive economically. The boys might be encouraged to stop school and seek for cheap employment from the miraa farms/ business. The findings concur with prior studies; (Kitetu & Chai, 2009) which reported that many boys perceive working in miraa farms and miraa business as an escape from family poverty. Boys sometimes offer to go and work in the miraa industry to sponsor their brothers/sisters education (Kimani, 2017).

The teachers and principals were requested to indicate their agreement level on factors influence boy child retention. Findings are presented in Table 4.10

Table 4.10: Family factors Influences of Miraa Farming on School Retention

Key: *SA=Strongly Agree, A=Agree, UD=Undecided, D= Disagree, SD= Strongly Disagree*

Statements	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
Parental separation (single parenting) influences boys' drop out.	25	56.8	10	22.7	2	4.5	4	9.1	3	6.8
Parents with low levels of education engage their kids in extracurricular activities at home, which frustrates the kids and leads to dropouts.	8	18.2	29	65.9	2	4.5	4	9.1	1	2.3
Parents failure to provide basic needs leads to drop out.	37	84.1	4	9.1	2	4.5	1	2.3	0	0
Lack of role model in the family influences drop out.	30	68.2	8	18.2	4	9.1	2	4.5	0	0
Lack of parental guidance contributes to low retention rates.	35	79.5	5	11.4	2	4.5	2	4.5	0	0
Drop out is high in families experiencing marital disagreement and where parents are lenient on school attendance.	6	13.6	28	63.6	3	6.8	4	9.1	3	6.8
Participation of parents in activities such as PTA and school academic day is related to retention	7	15.9	27	61.4	4	9.1	4	9.1	2	4.5

N=44

Table 4.10 show that 56.8% (25) of the teachers and principals strongly agreed that parental separation which results to single parenting influences boys' drop out, 65.9% (29) strongly agreed that parents with low levels of education engage their kids in

domestic chores which frustrates the students and leads to dropouts, 84.1% (37) strongly agreed that parents failure to provide basic needs leads to drop out, 68.2% (30) strongly agreed that unavailability of family role model influences drop out, 79.5% (35) strongly agreed that lack of parental guidance contributes to low retention rates, 63.6% (28) agreed that drop out is high in families experiencing marital disagreement and where parents are lenient on school attendance and 61.4% (27) of the teachers and principals agreed that participation of parents in activities such as PTA and school academic day is related to retention.

To emphasize this, a local administrator in one of the villages remarked;

> Students whose parents are professionals have higher academic goals and are more likely to finish secondary school and aspire to achieve higher education as compared to students whose parents are not educated and do not know the value of education. Educated parents are also very concerned with their children academic life and they show their children the importance of education. Such students are highly motivated to learn and stay in school till completion. Students whose parents are actively involved in academics are less likely to drop out of school because their parents always track their performance and encourage them to work hard. Parental support is very important in the academics the students feel loved and cared for and they work hard so as not to disappoint their parents if they fail to meet their expectations (Interview, 22nd February 2020).

Another administrator emphasized this through this statement;

> Majority of the parents in this area are not highly educated they have only attained primary and secondary education. There are only a few professionals who have achieved higher education. Professional parents are in a better position to encourage their children to choose a good career path as compared to unprofessional parents. Career parents also encourage their children to focus on their studies till completion. Majority of boys who drop out of school have families which are not very supportive, so they go out of the school so that they can sell the miraa and get their money while those with supportive family stay in school because they get

> everything they need. Some drop out of school to support their brothers or sisters (Interview, 22nd February 2020).

This implies that Miraa farming and business has brought about changes in the family structures that promote boys dropping out of school. This may explain why there is low retention of boys in schools. The parents are not able to provide for schooling needs and other requirements due to the big number of dysfunctional families precipitated by miraa faming and miraa business. Parent failure to provide basic needs contribute to dropouts. Boys who lack basic needs find it difficult to concentrate in class, which leads to frequent absences that cause students to skip classes and fall behind in their studies. They therefore record dismal performance, forced remedial classes and at times repetition leading to drop out. Unemployed parents who are the majority in the area rely on unskilled labor from the few who own big Miraa farms. These parents are unable to support the children leading to drop put.

Dropout rates are also high in households with divorced parents and families who do not place a high priority on a child's education. Students' chances of attaining higher education depends on parents' education level and extent to which they support their children in academics. In comparison to students whose parents did not finish high school, students whose parents are literate have higher chances of completing educational cycle. An informed parent is aware of the requirements for school and provides their child with the required support. A parent who dropped out of school is likely to discourage their child from continuing their education, which will result in dropout. The results support Pryor and Apiah's (2013) assertion that the primary factor influencing

student retention is the presence of a role model in the home. Families at the bottom of the social scale, those with working-poor parents, those experiencing marital strife like divorce or separation, and those whose parents don't insist that their kids go to school, are more likely to have dropouts, which leads to waste.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and study recommendations. This was based on the research findings that is presented and discussed in the previous chapters.

5.2 Summary of Findings

The following sections presents the summary of findings which are in line with the study objectives. The study sought to determine the effects of Miraa farming on retention of the boy-child in public secondary schools in Mbeere South-Sub County, Kenya. The specific objectives were to determine effect of; socio economic factors, socio cultural factors and family factors related to miraa farming/ business on school retention among boys in public schools.

5.2.1 Socio Economic Factors Related to Miraa

The first objective sought to establish socio economic factors related to miraa farming that affect school retention of the boy-child in public secondary schools in Mbeere-South Sub-County.The study found that majority of the teachers and principals perceive the frequency of dropping out to seek employment in miraa farms/ businesses is high implying that miraa farming and business contribute to low retention rates of the boy child through offering opportunities of employment to the students. Findings further established that a high number of the teachers and principals perceive that dropping out is caused by parents' lack of financial strength to cater for school needs and other levies due to the UK ban of miraa exportation. The respondents cited the ways through which boys are engaged in the miraa farming and business to include, tending the miraa trees,

harvesting, packaging, transporting, hawking in towns and shopping centers and also preparing the produce to external markets.

5.2.2 Socio Cultural Factors Related to Miraa

The second objective aimed at evaluating the effect of socio cultural factors related to miraa farming on the school retention of boy-child in public secondary schools in Mbeere-South Sub-County. The study found out that majority of the teachers and principals perceive that the society regards miraa farming/ business higher than school attendance. Further, the respondents consented that the society believes miraa farming/ business is more rewarding than education. In addition, the high illiteracy levels in the area are responsible for high regard of miraa business vs. education. This makes them invest more in miraa than in the education especially of boys since they provide labour to run the miraa farms and miraa business. This attitude may explain the low retention rates of boys in secondary schools. It was also found that the high regard of miraa business and farming is driven by high illiteracy levels among the older generation and lack of exposure to the modern economy where education perceived as a key to personal and wellbeing of the society.

5.2.3 Effect of Family Factors Related to Miraa

The third objective investigated the effect of family factors related to miraa farming and miraa business on boy child school retention. Results demonstrated that respondents perceived that families in the area rely heavily on labor from their children to tend their miraa farms. This implies that miraa farming and business contribute to low retention rates of the boy child through heavy reliance of the families in the area on labor from their boy children to tend their miraa farms. Further, the majority of the respondents

concurred that miraa business has brought about changes in the family structures that promote boys dropping out of school. The large number of dysfunctional families precipitated by miraa farming and miraa business may explain why there is low retention of boys in schools. Parents in a large family are unable to cater for educational needs to every child . On the sustainability of the income from miraa farming and miraa business, it was found out that though miraa is the mainstay of the economic wellbeing of the society in the locale of study, it does not generate adequate returns to the families to enable them provide for the educational needs of their families. The lack of adequate financial ability to the families may explain the low retention rates of boys in secondary schools. In addition, the respondents concurred that miraa farming and miraa business is no longer as lucrative as it used to be and that many families are finding it difficult to raise enough money to pay for the educational needs of their families. Further, it was reported that many students who drop out of the school are from families which wholly rely on miraa farming and miraa business.

5.3 Conclusions

. The study concludes that Miraa farming, retailing and consumption are the key economic activities in Mbeere-South Sub-County. The crop is ranked very high in the society and accepted in the society as a way of promoting culture in the Sub-County. These trend negatively affect boys' retention in secondary schools in the area since they contribute to school drop outs.

On the socio economic factors related to miraa farming and miraa business affecting school retention, the study found that the frequency of dropping out to seek employment

in miraa farms/ businesses is high. Other justifications for dropping out of school were financial challenges hence parents could not pay tuition fees and other levies due to the UK ban of miraa exportation. The respondents cited the ways through which boys are engaged in the miraa farming and business to include, tending the miraa trees, harvesting, packaging, transporting, hawking in towns and shopping centers and also preparing the produce to external markets.

On the socio cultural factors related to miraa farming on the school retention of boy-child, the study found out that the society regards miraa farming/ business higher than school attendance. Further, it was found out that the society believes miraa farming/ business is more rewarding than education. In addition, the high illiteracy levels in the area were found to be responsible for high regard of miraa business vs. education. The results demonstrated that the families rely heavily on labor from their children to tend their miraa farms. Further, the majority of the respondents concurred that miraa business has brought about changes in the family structures that promote boys dropping out of school. The large number of dysfunctional families precipitated by miraa farming and miraa business may explain why there is low retention of boys in schools. On the sustainability of the income from miraa farming and miraa business, it was found out that though miraa is the mainstay of the economic wellbeing of the society in the locale of study, it does not generate adequate returns to the families to enable them provide for the educational needs of their families. In addition, the respondents concurred that miraa farming and miraa business is no longer as lucrative as it used to be and that many families are finding it difficult to raise enough money to pay for the educational needs of

their families. Further, it was reported that the school drop outs mostly come from families which wholly rely on miraa farming and miraa business.

5.4 Recommendations

Based on the findings of the study, the following recommendations are made;

5.4.1 School Administrators

School administrators should make efforts to follow up the students to who leave school to find out the main reason for dropping out to improve retention rates particularly in public day schools. They should collaborate with community and provincial administration to ensure that no student abandon school to participate in either cultural or socio-economic activities. This should also be emphasized at secondary school level to increase retention rate of boys. Secondary school principals in Mbeere South Sub-County should reinforce schools' guidance and counselling programmes to prevent curb Miraa consumption among students.

5.4.2 The Government

The government should make sure that children are not involved in miraa busy whether in harvesting or selling to save the boy child who has been greatly affected by the economic activity in the sub county. This will be through developing policies that prohibits boys from providing labour in Miraa farms and trading in Miraa business before they complete school. Over-reliance on miraa could be addressed through support for alternative livelihoods in farming (including inter-cropping miraa with food crops) and animal husbandry. Community elders (Njuri Ncheke) can be mobilized to support the growth of fruit trees and promising food crops within miraa farms. Farming might be less

attractive to the students who have dropped out of school and thus options of vocational training to enhance their skills for employment or initiation of own income generating activities could be explored.

5.4.3 Local Leaders

The local leaders should make efforts to sensitize parents through barazas on benefits of secondary education. The parent would them make efforts to support their children in academics until they successfully complete secondary education and proceed to tertiary education. They will also discourage them in taking part in Miraa business.

5.4.4 Department of Children's Services and Public Health department

Department of Children's Services and Public Health department should embark on sensitizing against children chewing miraa as this could negatively affect their health. This can be done through student's clubs and other student forums.

5.5 Recommendation for Further Study

Even though this study makes available precious information on the prevalent forms of factors related to miraa farming and trading that affect retention of boy child in schools, the researcher took into consideration that the small sample of only one sub county presents a limitation in that the findings may not be widely generalized; therefore further studies investigating larger samples and covering wider geographical area are recommended to explore further the factors influencing school retention among boys child. Further studies could also be extended to the factors related to miraa business that influence girl child school retention.

A related study focusing on another sub-county could be carried out to determine if the circumstances in Mbeere-South Sub-County apply to other Miraa growing counties in Kenya.

A study on the role of school administration in students' retention in public secondary schools in Mbeere-South Sub-County.

A similar study may be conducted in public primary schools in the sub-County for comparison.

Another study incorporating more variables that are likely to influence students' retention. These variables could include institutional factors.

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APPENDICES

Appendix I: Questionnaire for Principals and Teachers

Please fill in the questionnaire as honestly and truthfully as possible. It's strictly for academic purposes and any information given will be treated with utmost confidentiality. Please do not write your name.

SECTION A: PERSONAL DATA

1. The status of the school

   (i) Mixed Day ( ) (ii) Mixed Boarding ( )

   (iii) Single Sex ( ) (iii) Single sex boarding ( )

2. Your designation

   (i) Teacher (ii) Head of Department (iii) Principal

3. For how long have you been in this school

Duration in years	**Tick (√)**
(i) Less than 1 year	
(ii) Between 1 – 5 years	
(iii) Between 5 - 10 years	
(iv) Above 10 years	

SECTION B: RETENTION OF THE BOY-CHILD

5. What is the enrolment of boys in the following classes?

Class	Enrolment in Form 1 term 1	Current enrolment	Number that has dropped out
(i) Form 1			
(ii) Form 2			
(iii) Form 3			
(iv)Form 4			

SECTION C: SOCIO ECONOMIC INFLUENCES OF MIRAA FARMING ON RETENTION

6. How often do you experience boys dropping out of school as a result of the following economic factors associated with miraa farming and business?

Statement	**Very Frequently (1)**	**Frequently (2)**	**Moderate frequency (3)**	**Rarely (4)**	**Very Rarely (5)**
(i)Enticed to seek employment in miraa farms/ businesses					
(ii) Inability to raise school levies and other financial obligation due to declining earnings from miraa due to UK ban					

7. In a scale of 5, indicate the extent to on the extent to which you agree/disagree with listed statements related to influence of socio economic on boy's retentions. **Use Key:** *SA=Strongly Agree, A=Agree, NS=Not sure, D= Disagree, SD= Strongly Disagree***.** Use tick (√) to show the level of your of agreement.

Statement	1	2	3	4	5
Easy to get and available money in Miraa business lures boys out of school					
Paucity in the community causes boys to work in Miraa farms					
Declining earnings from Miraa due to UK ban has contributed to inability to pay fees.					
Students often leave of school to work in Miraa farms to increase family income.					
Students whose family have big Miraa firms don't concentrate in school and eventually leave school.					
Parents who cannot meet the hidden costs of education are forced to withdraw their children from school.					

SECTION D: SOCIO CULTURAL FACTORS RELATED TO MIRAA FARMING/ BUSINESS

8. In a scale of 5, show how each of the following determines the retention of boys in secondary schools in your school. **Use Key: 1= Very High, 2=High, 3= Moderate, 4= Low and 5=No influence.** Use tick (√) to show the level of your of influence.

Socio economic influence	1	2	3	4	5
(i) The society regards miraa farming/ business higher than school attendance					
(ii) The society believes miraa farming/ business is more rewarding than education					
(iii) High illiteracy levels in the area is responsible for high regard of miraa business vs. education					

9. In a scale of 5, show the extent which you agree/disagree with listed statements related to influence of socio cultural factors on boy's retentions. **Use Key:** *SA=Strongly Agree,*

*A=Agree, NS=Not sure, D= Disagree, SD= Strongly Disagree***.** Use tick (√) to show the level of your of agreement.

Statement	**1**	**2**	**3**	**4**	**5**
Chewing of Miraa is common in the community including secondary school students					
Children who focus on inheriting their parents' Miraa farm do not finish secondary school					
The traditional practice of children participating in Miraa farming and business interfere with their school retention					
The society regards Miraa farming/ business higher than school attendance					
The society believes Miraa farming/ business is more rewarding than education					
High illiteracy levels in the area is responsible for high regard of Miraa business vs. education					

SECTION D: FAMILY FACTORS RELATED TO MIRAA FARMING

10. In a scale of 5, show how each of the following influences the retention of boys in secondary schools in your school. **Use Key: 1= Very High, 2=High, 3= Moderate, 4= Low and 5=No influence.** Use tick (√) to show the level of your of influence.

Socio economic influence	**1**	**2**	**3**	**4**	**5**
(i) Families in the area rely heavily on labor from their children to tend their miraa farms					
(ii) miraa business has brought about changes in the family structures that promote boys dropping out of school e.g. single parenthood					
(iii) Income from miraa farming does not provide families with a sustainable source of finances to enable them cater for the education of their sons					

11. In a scale of 5, show extent which you agree/disagree with listed statements related to influence of family factors on boy's retentions. **Use Key:** *SA=Strongly Agree, A=Agree, NS=Not sure, D= Disagree, SD= Strongly Disagree***.** Use tick (√) to show the level of your of agreement.

Statement	**1**	**2**	**3**	**4**	**5**
Parental separation (single parenting) influences boys' drop out					
Parents with low levels of education engage their kids in extracurricular activities at home, which frustrates the kids and leads to dropouts					
Parents failure to provide basic needs leads to drop out					
Unavailability of family role models influences drop out					
Inadequate parental guidance contributes to low retention rates					
Drop out is high in families experiencing marital disagreement and where parents are lenient on school attendance					
Participation of parents in activities such as PTA and school academic day is related to retention					

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

Appendix II: Interview Guides for Local Administrators

1. For the time you have been an administrator in this community how can you describe boys' retention rates?

2. What are the main economic activities related to miraa farming that in this area?

3. How do these socio-economic activities affect boys' retention?

4. What are the sociocultural activities related to miraa farming that in this area?

5. How do the sociocultural activities affect boys' retention?

6. What are the main family factors related to miraa farming in this area?

7. How do family factors affect boys' retention?

Appendix III: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **472728**

Date of Issue: **25/July/2022**

RESEARCH LICENSE

This is to Certify that Ms.. RACHEL Kirigo NDERI of Karatina University, has been licensed to conduct research in Embu on the topic: EFFECTS OF MIRAA FARMING ON RETENTION OF THE BOY-CHILD IN PUBLIC SECONDARY SCHOOLS IN MBEERE SOUTH-SUB COUNTY, KENYA for the period ending : 25/July/2023.

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