DEMOGRAPHIC DYNAMICS AND SPATIO-TEMPORAL DIMENSIONS OF EARLY MARRIAGES IN HOMA BAY COUNTY, KENYA

BY

HEZRON OUMA AGILI

A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Doctor of Philosophy in Geography

Department of Social Studies

SCHOOL OF EDUCATION, HUMANITIES AND SOCIAL SCIENCES

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

DECLARATION

This thesis is my original work and has not been presented for an award of a degree or diploma in any other university or institution of higher learning.

Signature…….. Date……

Hezron Ouma Agili

Z461/4022/2020

This thesis has been submitted for examination with our approval as University supervisors

Signature……. Date……

Dr. Otieno A. Charles (PhD)

Department of Social Studies

School of Education, Humanities & Social Sciences

Jaramogi Oginga Odinga University of Science & Technology

Signature……. Date……

Prof. Angawa P. Francis (PhD)

Department of Social Studies

School of Education, Humanities & Social Sciences

Jaramogi Oginga Odinga University of Science & Technology

Signature……. Date……

Dr. Jared L. Magego (PhD)

Department of Social Studies

School of Education, Humanities & Social Sciences

Jaramogi Oginga Odinga University of Science & Technology

ACKNOWLEDGEMENTS

From the source of the omniscient and infinite God came the plan, passion and courage to start the Ph.D. You are all to me loving LORD and I shall always be grateful to you for the breath of life, robust health and all the means that saw me throughout my PhD journey. I owe my utmost gratitude with great indebtedness to my supervisors, Dr. Charles Otieno, Prof. Francis Angawa and Dr. Jared Magego, for their careful guidance, immense knowledge and encouragement required for the completion of this doctoral program. They went beyond the call of duty to provide professional guidance and insisted on work thoroughly done that contributed invaluably to the success of this dissertation. I cannot thank them enough for building my capacity as a researcher for all the four years of my postgraduate studies at JOOUST. They have incredibly showed me the right direction, mentored me to work harder and to uphold values of determination, self-discipline and perseverance. This turned my thesis into an encouraging and capitulating pursuit.

In the same breath, I express my deepest gratitude to the committee members, particularly Dr. Fred Odede, Dr. Isaya Onjala, Dr. Nebert Kevogo, Dr. Warkach Tonui and Dr. George Odhiambo, who read this work at various stages and made very constructive and useful feedback and suggestions. My appreciation also goes to all my generous friends and colleagues who were part of this study team for collecting data, translating, as well as, to the respondents who agreed to take part in this significant study. You are too many to list here, but special mention goes to Sam, Meryline, Judith, Allan, Wycliffe, Susan, Vitalis, Matete, Ogeya, James and Kiplagat. Moreover, and most importantly, am sincerely indebted to my family, especially my wife, Winnie Aoko and our precious children, Joy, Gloria and Annabelle, who bore the brunt of the opportunity cost while doing this thesis. Finally, I would like to extend my deepest gratitude to JOOUST for playing an important role in creating conducive academic environment to pursue my postgraduate degree. To all those not mentioned here – family, friends, and teachers, I am truly blessed to have you in life and share this accomplishment.

DEDICATION

I dedicate this thesis to my late parents, John Thomas Agili and Wilfrida Awino who believed in me and would have been proud of my achievements.

ABSTRACT

Early marriage is increasingly recognized both as a violation of human rights and as an impediment to the development, wellbeing and life options of affected individuals and their children. Despite intervention programs in Kenya by the state, national and international communities, and presently the county government, early marriage prevalence rates in Homa Bay County have persistently remained high over the years. This has led to early childbearing, with significantly higher maternal mortality and morbidity rates, as well as, higher infant mortality rates. It also virtually puts an end to young people's education in addition to being constrained in their ability to overcome poverty. Hence, the study was set to assess the demographic dynamics and spatiotemporal dimensions of first nuptial age among men and women in Homa Bay County, Kenya. The specific objectives included; 1) to investigate the spatiotemporal dimensions of marriage formation and their relationship with early marriages; 2) to determine the forms of demographic dynamics and their relationship with early marriages and; 3) to assess the roles of key stakeholders in curbing early marriages and the extent to which their level of activities influences delayed marriages. The research was guided by the two theories of family change. The study employed a cross sectional survey research design to collect data. Primary data was directly collected using structured questionnaires, Focus Group Discussion guides and in-depth interview guides. A multistage sampling procedure was applied to select 420 respondents out of 371,891 for the study at 0.05 confidence interval. The quantitative data was analyzed using logit regressions, cross tabulation, Kaplan Meier Survival Analysis, geospatial mapping, Quantum GIS and path analysis while qualitative data was analyzed using thematic technique. Of all the 420 household heads, 106(48.6%) of women and 17(8.3%) of men had married early. Results show that geographical region had no substantial influence on age of first marriage, because all the sub-counties are culturally homogeneous in the marriage patterns. The Coefficient of Determination (R^2) for the equation level goodness of fit shows that the spatiotemporal dimensions explain 49% of the variation in first nuptial age. The most important factors (in order of importance) were age at first sexual debut (-2.5), premarital contraceptive use (-1.8), ex-nuptial birth (-1.3) and childhood place of residence (0.8). Furthermore, 34% of the total variance (R^2) in the dependent variable was accounted for by the indirect and direct combination of the family background characteristics. Key variables in order of largest contribution to first nuptial age were, number of media exposure (-2.6), family wealth (-2.4), household structure (1.7) and natal parity size (1.4). The indirect and direct combination of the individual socio-economic factors accounted for 43% of the variation (R^2) in first nuptial age. The most important factors (in order of importance) were household wealth (-2.4), form of marriage (-1.4), followed by children ever born (-1.3) and religion (-0.9). While majority (73.5%) of the respondents knew the legal age of marriage and that there is a legal law prohibiting early marriage, the details of how it is implemented were not widely comprehended. There was a general less awareness (34.4%) around the provisions, the prescribed penalties and punishment of the legal instruments. The study recommended that the proposed integrated delaying nuptial age policy model be adopted by the county and the national government with coordinated strategies, action and resources to end early marriages and enable every adolescent to thrive. They should adopt and use the policy model to engage communities, families and policymakers, while imparting life and social skills, opportunities, sensitization, sexual and health education, and economic empowerment to adolescents to prevent the risk of early marriages.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

ACHPR	African Charter on Human and People's Rights
ACRWC	African Charter on the Rights and Welfare of the Child
AIDS	Acquired Immune Deficiency Syndrome
AMOS	Analysis of Moment Structure
ARSH	Adolescent Reproductive and Sexual Health
CEDAW	Convention on the Elimination of all forms of Discrimination against Women
CEE	Central and Eastern Europe
EU	European Union
FBOS	Faith Based Organizations
FGD	Focus Group Discussion
GBV	Gender Based Violence
GPS	Global Positioning System
ICPD	International Conference on Population and Development
IDI	In-Depth Interview
KCT-OVC	Kenya Cash Transfer for Orphans and Vulnerable Children
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
SDGs	Sustainable Development Goals
NGOs	Non-Governmental Organizations
STI	Sexually Transmitted Infection
SPSS	Statistical Package for Social Sciences
UNs	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
VIF	Variance Inflation Factor
WHO	World Health Organization

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The standard trio of key events in most people's lives are birth, marriage and death. However, only marriage is a matter of choice. The right to exercise that choice was recognized as a principle of law even in Roman times and has long been established in international human rights instruments (Brewer, 2005; Idris, 2019). Yet many girls, and a smaller proportion of boys, enter marriage without any chance of exercising their right to choose (UNICEF, 2019). Marriage is defined as a legally recognized social union between a man and a woman in which they are united sexually; cooperate economically, and may have children through birth or adoption (Idris, 2019). For this reason, marriage is regarded as a moment of celebration and a milestone in adult life.

Sadly, the practice of early marriage gives no such reason for celebration when it is not done properly. According to UNFPA (2006), early marriage refers to a union between people, of whom one or both spouses is below the age of 18. The Kenya's marriage act (No. 4 of 2014) Sec. 4 requires that both parties getting married be 18 years and above. Sec. 14 and Sec 11(1)(a), (b) and (c) expressly forbids early marriage and states that no person shall get engaged or betrothed to a person under the age of 18 years. Based on these considerations, in this study, early marriage is defined as a marriage carried out by a man or woman under 18 years old.

Even though there is a paucity of literature on the worldwide history of early marriage, a study by Brewer (2005) postulate that, in the 14thC, the practice was common in medieval Europe. The first nuptial age at the time was either for the family to decide or a matter of traditional customs (Garenne, 2004). In some cases, however, family alliances or properties were at stake in medieval early marriages (Power, 1975). Beginning 16thC, marriages have historically taken place later in life in Western Europe and North America (Stone, 1977). At that time, family was the unit of economic production, as it is in many agrarian societies today (Stone, 1977). Prior to 1950, early marriage became more common in traditional societies of Africa, South Asia, many parts of Latin America and in pockets of Eastern Europe (McLaughlin, 1997). Using Demographic Health Survey (DHS) data from 60

countries, Koski *et al.* (2017) estimated that the average prevalence of early marriage in developing countries decreased from 51% between 1955-1959 to 39% between 1985-2015. While the trend towards later marriage is evident for the African continent as a whole, there are some countries, such as Nigeria where the trend has been in the opposite direction (UNICEF, 2019). In Cote d'Ivoire and Kenya, the pace of early marriage initially declined but stalled through time (Koski *et al.,* 2017).

In developed countries, few women marry before age 18; less than 4% do so in USA and less than 1% in Germany for example (UNICEF, 2019). The highest prevalence of early marriage is in Sub Saharan Africa at 37%, followed by South Asia at 30%, Latin America at 25%, the Middle East at 17%, Eastern Europe and Central Asia at 11% and East Asia and Pacific at 7% (UNICEF, 2019). The same international agency further reveals that, early marriage is continuously increasing in Sub-Saharan African countries. For example, 1 (one) out of 3 girls marry before attaining the age of 18 years in Sub-Saharan African countries. In contrast, two and a half decades ago the rate of early marriage was one only (1) in 7 girls (UNICEF, 2019). This region has contributed less to global declines in early marriage rates in the past twenty years from 31% in 2000 to 21% in 2020 (UNICEF, 2019). This implies that the prevalence of early marriage in Africa is far from the Sustainable Development Goal (SDG) number 5 (target 5.3) of eliminating early marriages, by the year 2030 in the broader goal of gender equality. It is projected that by 2050, unless intervention mechanisms are implemented effectively, almost 1.2 billion girls will get married before their 18th birthday (Tong & White, 2017).

At the turn of the 18thC, attitudes began to change, and early marriages started to decline in the developed countries (Lewis, 1992). This change of attitude was attributed to the acknowledgement of childhood as a distinct and essential phase of the life course, concerns about the protection of children from physical, sexual and emotional harm and a concern for the future of the nation, and children were seen as holding the key to the nation (Robertson, 2002). Prior studies observe that moral reformers called for legislations to raise the age of marriage in the 1930s in the United States, Europe and India (Nair, 1995; Robertson, 2002). Thereafter, the appeal for increasing marriage age which was developed

in the West was then incorporated into international standards and regulations (Robertson, 2002; Nour, 2006).

Given the importance of age at marriage in an individual's life history, fertility and mortality, it is surprising that only few analytical studies have been undertaken on first nuptial patterns and its determinants in Kenya in the recent past. Empirical studies have, nonetheless, identified a number of factors that seem to influence marital timing (Angawa, 1988; Singh & Samara, 1996; Rutto, 2015; Ochieng, 2016). These include marriage customs, expectations regarding the roles of spouses and parents, the high value placed upon female virginity, poverty, parental concern surrounding non-family sex and pregnancy, bride wealth pressures, and the desire to secure social or political alliances (Angawa, 1988; Ocholla-Ayayo, 2000; Bayisenge, 2011; Rutto, 2015). These factors are changing with pronounced sociocultural transformations, such as, an increase of education level, globalization, westernization, increasing exposure to mass media and an emergence of new roles for women that may alter nuptial behavior (Idris, 2019). Many aspects of these demographic dynamics have received relatively less scholarly attention in Sub-Saharan Africa, Kenya included (Othuon, MCOOnyango, Angawa & Ayieko, 2006; Idris, 2019).

The lack of sound evidence concerning how socio-demographic dynamics interact to shape young people's marital timing is particularly acute in Homa Bay county. A number of studies on age at first marriage in Kenya abound in the 1980s and are mostly linked to marital stability, first birth and total fertility (Ahawo, 1981; Ayiemba, 1983; Angawa, 1988; Ocholla-Ayayo, 2000). These studies may therefore only have a partial reflection of the reality of men and women living in Homa Bay County today. For example, applying the Coale-Tussel P/F ration method to the Kenya Fertility Survey (KFS) data, Angawa (1988) found that total fertility rate decreases with increase in age at first marriage among women. Moreover, Rutto (2015) criticized the one-sided focus on women's socioeconomic behavior and changes in scholarly research and directed attention to heretofore unrecognized contrasts between the marriage patterns of females and those of males especially in developing societies. The study examined gender gaps in marital timing in Homa Bay County in the context of cultural and socio-economic transformations (Collin

& Talbot, 2017; Kohno *et al.,* 2020). Such assessments were critically relevant to examine their potential implications both for individuals and for the larger society.

Early marriage negatively affects adolescents' long-run development plans through teenage pregnancy, social isolation, school drop-out, loss of opportunity to join the formal labor market or participate in productive sectors, and exposure to gender based violence (WHO 2008; Idris, 2019). The negative impacts also affect the macroeconomic growth and stability of the nation at large. After marriage, even if the child bride manages to continue her education or formal work, mostly she is very busy with domestic work, pregnancy, and pregnancy-related issues, and caring for poor health children (WHO, 2008). The consequences are further illustrated by the finding as reported in Ashley (2016) that girls who give birth before their 18^{th} birthday are 2 to 5 times more likely to die in childbirth in comparison to older women, as well as, being at risk of rectovaginal Fistula. Despite these pieces of evidence that are global, little research has examined why such a practice is still widespread across different cultures and regions in different countries and what might be the effective policies to reduce it.

Because of these major consequences for adolescents' lives, there is an increased international concern about the high prevalence of early marriage in developing countries (UNICEF, 2016). Measures to address early marriages in many parts of the world date back to 1929 in India through the passage of the Child Marriage Restraint Act that outlawed it (Mkherjee, 2006). Other legal reforms gained ground in 1970s and 1980s in South Asia by establishing legal minimum age of marriage to 18 years for girls (UN, 1994). Early marriage was disapproved since it meant that women commenced bearing children earlier, thereby increasing the length of their reproductive period, leading to high total fertility rates. In the 1980s and 1990s, human rights activists and the United Nations launched efforts to address early marriage globally (ICRW, 2011). Aligned with this was the concern for the major risk to the survival and future health of the mother and child that emanated from early pregnancies (UNICEF, 2010). Intervention measures to eradicate early marriage in Africa gained momentum since the 1990s after the Cairo International Conference on Population and Development in 1994, where signatories agreed to strictly enforce laws against early marriage (UN, 1994; Equality Now, 2014).

Programmatic interventions to prevent early marriage largely followed policy changes, increasing in frequency between 2000 and 2010 in Africa and South Asia (Lee-Rife *et al.,* 2012). Lee-Rife *et al.* (2012) observed that this increase followed, in part, due to recognition of the links between early marriage and development goals, including maternal and infant health, education and poverty eradication. One of the holistic programs in Africa to have the explicit objective to delay marriage age for girls was the Berhane Hewan in Ethiopia (Kalamar, Lee-Rife & Hindin, 2016). It addressed social norms, girls' lack of status and social capital, barriers to schooling and economic factors. Other approaches included Ishraq in Egypt that offered education sessions to groups and community on the consequences of and alternatives to early marriages (Idris, 2019); the Tostan program in Senegal which was a community empowerment program with a strong community education component (Erulkar *et al.,* 2010). The Zomba Cash Transfer Program in Malawi gave either Unconditional Cash Transfers (UCTs) or Conditional Cash Transfers (CCTs) to families tied to girls' education (Idris, 2019). UCTs and CCTs increased school enrolment and attendance, but had little impact on early marriage.

Some of the aforementioned programs, however, were temporary and faced many implementation challenges such as budget delays, long bureaucratic procedures, high program costs and infrastructural demands that made scale up and sustainability unlikely (Malhotra *et al.,* 2009). On the other hand, the program implementers had limited understanding of and commitment to delaying marriage (Malhotra *et al.,* 2009). Recently, attention and investment have focused increasingly on interlinked programs that aim to prevent and respond to early marriage (UNICEF, 2016). Most programs often incorporate efforts at the individual, family/community, and institutional levels.

Poverty, supported by social norms and traditions most common in rural areas of Kenya and in locations where economic opportunities were limited soon after independence was the precursor to early marriages in Kenya (Ocholla-Ayayo, 1986). The development of programs to prevent early marriage in Kenya took place over two decades ago (Koski *et al.,* 2017). The first program in 2000, known as School-based HIV/AIDS program focused on improving the school curriculum and training teachers to deliver content on topics such as life skills, sexual and reproductive health, HIV/AIDS, and gender sensitivity (ICRW,

2011). For many years, such interventions have yet to gain scale or be fully integrated into the educational system (ICRW, 2011).

The Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC) was started in 2007, implemented by the Ministry of Gender, Children and Social Development, and covered approximately 240,000 households nationwide as of 2014 (Handa, 2015). This provided a monthly unconditional cash transfer to eligible households. An evaluation of this program found that it reduced the likelihood of teenage pregnancy by 5.5%, but there was no significant impact on likelihood of early marriage (Handa, 2015). This highlighted the need for context-specific interventions, and for multiple component programs, which combine different approaches to prevent and reduce the effect of early marriages.

Before independence, at the turn of the 20th C, age at first marriage in Homa Bay County was certain, suggesting that a man did not normally marry until he was between the age of 30 and 40 years, while girls did not marry until they were 20 years or more (Ocholla-Ayayo, 1986). The traditional methods of child socialization, reinforced by extended family-relatives from the older generations undergirded delayed marriages (Ominde, 1987; Othuon *et al.,* 2006). However, cases of early marriages were noticed soon after independence in late 1960s when the traditional institutions that strengthened ideal marriages disappeared with the emergence of other new institutions such as schools, churches, and the print and electronic media (Ocholla-Ayayo, 2000). It has then been a major problem in the County over several decades (Angawa, 1986; Ochieng, 2016).

A number of state agencies, development partners such as the International Child Support, World Bank, Partnership for Child development, USAID, or NGOs and CBOs working in Homa Bay County have attempted to initiate intervention measures to curb early marriages but the problem has perpetuated over the years (KDHS, 2014; County Government of Homa Bay, 2017). These suggest a lack of better policies or that the policy interventions are not in sync with socio-demographic dynamics over time. These dynamics are based on family change theories that address questions on the causes of changes in family organization, the effects of such changes on family formation processes and the responses to such changes (Thornton, 2012). Early marriages resulting from socio-demographic dynamics can, therefore, be studied using theories of family change.

1.2 Statement of the Problem

Researchers in family demography have become increasingly concerned about the socio-demographic dynamics and cultural changes leading to a rise in first nuptial age as a model path towards union formation in developed countries (Budinski & Trovato, 2005). In recent decades, marrying early has apparently reduced in developing countries, Kenya included (Ajwang, 2019). Striking though, is the fact that, as these emerging socio-economic and cultural changes are spreading in Kenya, it is coinciding with the perpetual and relative problem of early marriages in Homa Bay County on a global and national level (KDHS, 2014; County Government of Homa Bay, 2017). The prevalence rate stands at 40.7% which is higher than the national prevalence of 22.9%, and typically far above a threshold of 25% used to define a high burden of early marriage (UNICEF, 2014). This has left policy makers, development partners and the scientific community thinking about their implication on first nuptial age (Othuon *et al.,* 2006; Ochieng, 2016; KDHS, 2022).

Considering the fact that early marriages remains to be a serious problem, a number of state agencies, development partners, or NGOs working in Homa Bay County have established intervention measures to it. Kenya, being one of the first SSA countries to adopt these intervention measures, ought to have achieved great success in eradicating early marriages. This, however, has not been the case in Homa Bay County. What then is lacking in the County's early marriage intervention programs? The large existing gap between these programs and marriage timing is a clear indication that socio-demographic dynamics and spatiotemporal dimensions have a major influence on marriage patterns. It is important that these dynamics are comprehensively addressed when designing and improving early marriage intervention programs rather than piecemeal approach with only certain targeted measures (Ahonsi *et al.,* 2019). Empirical studies also reveal that for a long time, the focus of marriage patterns in developing countries has been limited to women and young girls. Rutto (2015) and Ajwang (2019) took note of this shortcoming and stressed the need to consider gender socio-demographic dichotomy. The study then places these dynamics in the context of the intervention programs where they can be adequately addressed.

1.3 Research Objectives

The general objective of this study is to assess the dynamics affecting early marriages among men and women of reproductive age with the goal to guide policy on sustainable socio-economic development of Kenya. The specific objectives include to:

i. investigate the spatiotemporal dimensions of marriage formation and their relationship with early marriages.
ii. determine the forms of demographic dynamics and their relationship with early marriages.
iii. assess the roles of key stakeholders in curbing early marriages and the extent to which their levels of activities influence delayed marriages.

1.4 Research Questions

The research provided answers to the following questions;

i. What spatiotemporal dimensions of marriage formation are evident and how are they related to early marriages?
ii. How are the forms of demographic dynamics related to early marriages?
iii. What are the roles of key stakeholders in curbing early marriages and to what extent are their levels of activities influence delayed marriages?

1.5 Justification of the Study

This research was driven by the fact that the prevalence rates of early marriage in Homa Bay County is far from the irreducible minimum due to diverse demographic and socio-economic drivers (KDHS, 2014). If context-specific interventions and multiple component programs are not identified and implemented, the target of eliminating early marriages by 2030 now in the SDGs would not be achieved. This would then lead to poorer maternal and child health outcomes, lower level of education, gender inequality, higher risk of intimate partner violence, together with socio-economic underdevelopment both at individual and aggregate level (UNICEF, 2019). This study, therefore, could hardly be overemphasized given the adverse consequences of early marriage.

Although union formation is a process involving both women and men, comprehensive research examining levels and trends in the ages of first marriage in Sub-Saharan African countries has been mainly limited to women (Rutto, 2015; Ajwang, 2019). There is remarkably little comparable information, and still less historical information, about the marriage patterns of men. Union formation is not only an important life course transition for men, but, as is the case for women's first nuptial age, it is a fundamental reflection of family structure, gender relations, and social change (Ghimire, 2014; UNICEF, 2019). Marriage patterns among men is likely to define their sexual activity, fertility behavior, in addition to their family obligations, conjugal roles, bases of financial and social support, and future options, although it may do this in a manner different from women (Thorntorn, 2015). Focusing on gender gaps in the timing of marriage is therefore important to give an insight into family and gender relations (Mensch, Singh & Casterline, 2005). This attention is essential in the light of the emphasis placed on by theories of family change as an important route through which processes of socio-economic and cultural development make gender relations more egalitarian (Becker, 1973; Haralambos & Holborn, 2008). Empirical study of the gender difference is requisite for population policy planning and implementation with regard to fertility.

1.6 Significance of the Study

Early marriage prevalence is considered to be a sensitive reflection of the portrait of the health problems and socio-economic development of a country and a very useful indicator for setting target groups in health planning and policy making (Amin *et al.,* 2017). For example, early marriage needs to be accorded serious attention in order to attain key SDGs; SDG1: no poverty; SDG2: zero hunger; SDG3: good health and wellbeing; SDG4: inclusive and quality education; SDG5: gender equality; SDG8: economic growth; and SDG10: reduce inequalities according to UN (2015). This is also in line with Vision 2030 of eliminating early marriages to zero percent and to raise the age at first marriage to 23. If Africa is to fulfil its vision for emergence and development, outlined in Agenda 2063, it is also time to match this commitment with the coordinated strategies, action and resources to end early marriages and enable every child to thrive. Therefore, a broad aim of the study, beyond presenting new information on early marriage prevalence in Homa Bay County,

would contribute to the improvement of health, development, wellbeing and longevity of the County population.

The output of the study has generated a more precise knowledge that is useful to the adolescents, households, community leaders, policy and decision makers, the academia, the government, and other agencies in the County for proper planning, empowerment, as well as formulation and implementation of policy and real-time evidence-based interventions to prevent and delay marriage. This type of study would also add to the stock of knowledge on determinants of first nuptial age among men and women. Therefore, it can be extrapolated beyond the areas under investigation with similar socio-economic and institutional systems. Findings of the study would also be beneficial to scholars, academics and researchers as it can provide a basis for and provide literature materials for further research in this area.

1.7 Scope of the Study

Age at first marriage was classified into age at first marriage under 18 years old, called early marriage and age at first marriage 18 years and above, called marriage at maturity. This study chose to pursue the path of early age at first marriage because it is associated with a number of issues and problems. Demographic dynamics included family background characteristics, socio-economic variables and socio-cultural dynamics. Aspects of spatiotemporal dimensions studied included childhood place of residence, geo-political zone, place of residence, premarital cohabitation, age cohort, age at first sexual debut, ex-nuptial birth & use of modern contraceptives. Key stakeholders found to be involved in curbing early marriages and hence considered for rating of their support were differentiated into individual, household, community and societal structures.

Demographic dynamics and spatiotemporal dimensions were used to test the theories of family change which emphasizes changes in the socio-economic and political structure of society. The study was conducted in eight delineated sub-counties in the County of Homa Bay, Kenya. This approach helped in establishing spatial heterogeneity of high / low prevalence areas of early marriage. Exploring the patterns of marriage in all the Counties in Kenya was seen as too broad a perspective for this study as each place has different

traditions, customs and beliefs that influence family formation. The study was delimited only to eligible household heads of reproductive age 20-49 who lived in both urban and rural areas. Respondents younger than 20 years were excluded as their cohort was believed to be currently transitioning into marriage (Kenny *et al.,* 2019). Field visits for data collection were conducted from 21st June 2022 to 31st December 2022.

1.8 Limitations of the Study

The first limitation was small sample size of 440 household heads, in relation to the size required for accurate results of universal events such as marriage, particularly by age and sex. Nonetheless, a scientific technique of sample size determination using Yamane's equation was used to overcome this problem. This was done to ensure close exact representativeness of the entire study population. Language related challenges in the process of translating and transcribing from the local dialects, and to English, may have lost some information and nuances. The research assistants addressed this challenge by using voice recordings of every interview, which was useful later in expanding the team's field notes.

The second major limitation concerns age heaping of age at first marriage that could have resulted into measurement error. A possible reason for age heaping could be that the young women who were married could prefer to appear older than they actually were. A third limitation could be a problem with recall bias whereby older respondents could not remember their retrospective accounts of marriage due to memory lapses and lack of a vital registration system. To address this limitation, the data was consolidated into five-year age groups as well as the distribution of such measurements randomly across the analytical groups of interest within the fairly homogeneous population and hence did not affect the estimation of early marriage prevalence rate. Further limitation was that, since the study included only ever-married household heads, this would have bias downward age at first marriage because respondents in the older cohort who had not married were not included.

Finally, findings of this study are based on event history data that are generalizable to the eight-sub-counties covered and definitely one-county. The findings may therefore not be

extrapolated beyond the areas under investigation. Nonetheless, due to certain similarities of social and institutional systems, the qualitative findings could be applicable elsewhere.

1.9 Operational Definition of Key Terms and Study Concepts

The following key terms are defined the way they were used in the study to remove ambiguity and vagueness:

Early Marriage: It is defined as both formal or informal union whereby at least one of the parties is or was under the legal age of marriage (here being18) in which girls and boys are morally and physically not ready to manage their lives (UNICEF, 2005; USAID, 2015). The term early marriage is often used interchangeably with the terms forced marriage and child marriage.

Forced Marriage: It refers to a marriage in which either or both of the parties have not personally expressed their full and free consent (USAID, 2015). Although many early marriages are also forced marriages, forced marriages include marriages that are not early marriages, such as where a widow is forced to marry a relative of her deceased husband.

Free and Full Consent: It entails non-coercive agreement to the marriage with full understanding of the consequences of giving consent. A child's inability to give full and free consent cannot be supplemented or cured with the addition of parental consent, as full consent requires the complete consent by the person consenting (Ajwang, 2019).

Early Marriage Prevalence: It is defined as the percentage of men and women aged 20 – 24 years who were married or in an informal union before they attained the age 18 years old in consonant with national Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), United Nations, and other nationally representative surveys recommended standard age group (UNICEF, 2019)

Reproductive Health Behavior: This means activities and decisions taken by couples on family size, timing and spacing of children and use of contraceptives to prevent unwanted/unplanned pregnancies and safe sex relations.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter gives an overview of related literature and theories to which the study was anchored. Empirical literature was reviewed in this chapter together with theories of marriage to explicate their casual mechanism on age at first marriage and develop the expectations to be tested later. In doing so, the chapter points out the existing research gaps from literature review, providing the development for the study conceptual framework. The review is presented thematically according to the objectives of the study.

2.2 Spatiotemporal Dimensions of Early Marriages

2.2.1 Premarital Cohabitation and Age at First Marriage

Recently, a considerable bulk of demographic research has reported increased cohabitation in Western and first world countries, with notable prevalence in developing countries (Jose, O'Leary & Moyer, 2010). Cohabitation before marriage is associated with lower risks of early marriage and a higher risk of marital instability as well (Aryal, 2007; Reinhold, 2010). The main explanation for this paradox is that, those who cohabit are less conventional in their attitudes towards relationships and marriage and have lower levels of commitment to marriage than those who do not cohabit. Studies have found that, cohabitation effect on divorce may be lessening in recent generation, for whom cohabitation has become widely practiced (Kennedy & Bumpass, 2008). An equivalent study in Norway reported that a large proportion of cohabiters indicated economic reasons for their hesitation to marry and in particular the costs of wedding (Aryal, 2007). However, past research that only focused on the factors for cohabitation was only limited to the experiences of women (Cohen & Manning, 2010).

In a study on youth attitudes towards cohabitation, Bandalovic (2017) established that most young people believe it is better to live together before marriage to determine the compatibility of the partners before settling down. The findings further reported that this reduced the timing of marriage among many young people. Although many young people

view cohabitation as a freer form of life than marriage, they consider it the closer option to marriage that allows them to test their relationship. Spencer (2014) conducted a longitudinal study of patterns of women's marital quality: The case of divorce, cohabitation, and race-ethnicity and observed that young people who cohabited with their partners have poor quality marriages. This was attributed to the fact that most of them tend to engage in extra-marital relationships outside marriage. A study by Lundberg *et al.* (2016) brings up the same point on cohabitation by reporting that the number of youths engaged in cohabitation has nearly tripled in the past 30 years. As suggested in a range of studies (Guzzo, 2014; Vespa, 2014; Gravningen *et al.,* 2017; Thorsen, 2017), young people have lost the desire to marry due to cohabitation. A point of convergence among most of these research is that fewer young cohabiters compared to the past decade report marriage plans to their parents.

In a study on the relationship between employment uncertainty and union formation in Italy, Vignoli, Tocchioni and Salvini (2016) established that uncertainties within the labor market favors cohabitation while employment stability enhances union formation. According to Amador (2016), cohabitation as an option of union formation is more common among the less educated than the more educated. A study conducted by Manning and Cohen (2012) on the effects of premarital cohabitation on marital stability in the mid-1990s found an insignificant association between premarital cohabitation and marital stability. On the contrast, Lichter and Qian (2008); Reinhold, (2010) and Jose, O'Leary and Moyer (2010) established a positive correlation between premarital cohabitation and risk of divorce. Teachman (2002) concurred that no relationship existed between premarital cohabitation and risk of divorce.

In African countries, studies have acknowledged a high prevalence of unmarried cohabitation among the youths. In Ouagadougou, Burkina Faso, Calvès (2016) assessed the competing relationship transitions to marriage or cohabitation and observed that cohabitation among the youth is driven by ideational changes and not economic status. In South Africa, most young people have adopted cohabitation as a form of union rather than marriage (Posel & Casale, 2013). However, most white women in South Africa are known to cohabit compared to the black women. In Kenya, 70% of those born between 1975 and

1985 opted for cohabitation, which is slightly higher than other East African countries (Rutto, 2015). Given the place of cohabitation in contemporary union formation, it is important not to assume that the influence of premarital cohabitation is the same in all societies. In regions where premarital cohabitation is less accepted or has not become normative, contemporary cohabitation may be associated with enhanced risk of early union formations (Cohen & Manning, 2010; Pelletier, 2016). Thus this study aimed at establishing the gender associations between premarital cohabitation, marital timing and other associated factors since those who cohabit have other socio-demographic, spatial-temporal and economic characteristics which might put them at a higher risk of early marriage. These factors may be partly responsible for the different patterns. The current study also looked into the factors influencing premarital cohabitation.

2.2.2 Debut of Sexual Behavior, Ex-nuptial Birth, and Age at First Marriage

A prior study reported that premarital sex is considered as a religious taboo among Christian and Muslim communities (Montazeri *et al.,* 2016). Because of the religious beliefs, in Islamic countries, the parents favor the decision of early marriage for their daughters when they find out that their daughters are engaging in non-marital sexual relationships. Due to the fear of ex-nuptial pregnancy and birth, the parents quickly marry off their daughters at the first opportunity (Montazeri *et al.,* 2016). In line with Montazeri *et al.* (2016), the findings by Okigbo *et al.* (2015) opined that adolescents who engaged in early sexual debut at an early age also got married at an early age. The study further reported that the youths who communicated closely with their parents on sexual topics got married at a later age. Marston *et al.* (2009) also concur that the age of first sexual debut has a significant relationship with the age of first marriage especially among girls. In some African Countries, the percentage of births which are premarital varies from 13% in Malawi to 32% in Kenya. In Namibia, more than half (56%) of first births are premarital and in Tanzania the percentage of births which are premarital has remained stable (Harwood, 2001). Studies have found that, non-marital births increase risk of early marriages. However, this depends on the gender of the child (Morgan *et al.,* 1988). A study by Devine and Forehand (1996) found that, those with girls are more likely to marry early

than those who gave birth to boys. This finding reflect the existing traditional preference for biological sons in a marriage than non-biological sons which was also tested in this study.

According to Sandoy *et al.* (2016) adolescent child bearing has drove some of them into marriage unions. This is likely because the individual feels the need to get a shoulder to lean on economically so as to reduce the burden that comes with getting a child. In addition, due to the existing religious beliefs that premarital pregnancy and childbearing is a religious taboo, the adolescent mothers prior to marriage perceive having a child as the reason for receiving God's blessing for their early marriage (Montazeri *et al.,* 2016). By getting married as soon as they found out that a girl was expecting, the family believe that they could avoid committing a sin (Montazeri *et al.,* 2016). Contrary to other research findings, premarital birth reduces the likelihood of getting married. This has been evident in United States (Dyer & Fairlie, 2004); Belgium (Curtis & Waldfogel, 2009) and Australia (Kondo, 2012). This is attributed to the increasing trend of premarital sex and birth which is being tolerated by society as a result of secularization. This trend tends to delay women's exit from the marriage market.

Most countries have carried out family planning campaigns to prevent teenage pregnancies. However, some few countries have identified women empowerment as a means of preventing teenage pregnancies (Jago *et al.,* 2013). The time period between sexual debut and age at marriage is normally a high risk period for child bearing because of sexual experimentation among the young adults. Further, most researchers associate early childbearing with disadvantaged background (James & Beattie, 2012; Cohen & Manning, 2012). In Homa Bay County, Ochieng' (2016) established that the likelihood of young girls who had sex for the first time aged 10 to 14 years to get married early was 16 times higher than those who engaged in sex at older ages of 18 to 24 years. Moreover, the likelihood of girls who had sex for the first time aged 15 to 17 years to get married early was seven times higher than for those who had first sex at 18 to 24 years. This study only focused on young girls in Homa Bay County. The study assessed the relationship between age at first sexual debut and timing of first marriage across all sexes.

The above studies found inconsistent results about premarital birth by fact that, women in developed countries with non-marital fertility are less likely than women in developing countries to marry early. This study thus did significance test to establish gender differences in the odds of entering into first union in Homa Bay County. The current study also looked into the factors influencing teenage non-marital fertility.

2.2.3 Peer Pressure and Age at First Marriage

A peer is a person who is of equal standing with another; one belonging to the same societal group, especially based on age, grade or status (Population Council, 2003). According to Reproductive Health Outlook (2005), peer influence is defined as emotional or mental force from people belonging to the same social group (such as same age, class, or status) to act or behave on a level of equality. Having a positive peer group is important for adolescents since they rely on this peer group to share their feelings. A study by Clasen *et al.* (2018) reveals that 60% of adolescents share their feelings with friends of the same age, and 20% with their parents. Support and response from friends of the same cohort is very important for them. Nonetheless, the support and response can actually bring either positive or negative influence (Clasen *et al.,* 2018).

Past studies have examined the impact of peer influence on alcohol and smoking behavior, alcohol consumption, sexual behavior, delinquency and criminal activities, and educational achievements (Pollard *et al.,* 2010; Ali & Dwyer, 2010; Patacchini & Zenou, 2011; Fletcher, 2011). Only a handful of studies examined peer influence on union formation. Hernes (1972) developed a macro-level diffusion model of age at marriage, showing that the greater the share of married peers within a cohort, the higher the propensity to marry for individuals in such a cohort. In a similar way, Nazio and Blossfeld (2003) used diffusion models to examine the spread of premarital cohabitation in Germany and Italy. They found that the adoption of cohabitation across different generations is driven by the social modeling of peers.

A study by Asiimwe *et al.* (2023) on peer pressure and early marriages among school going children in Uganda found out that there is a close correlation between peer pressure and early marriages as many teenagers are driven into unwanted marriages by the influence

exerted on them by their peers in their communities. This was further supported by Zito (2013) in Lwanga (2015) who found that the influence of positive peers increases the odds of postponing marriage beyond the early reproductive ages. In general, although the results findings to these studies are consistent, they commonly looked at peer influence on its own as a determining factor to marital timing. In this study, peer influence tends to serve as a link to other demographic and spatiotemporal variables which are hypothesized to lead to early marriage. Moreover, no multivariate analysis was conducted to see the association of peer influence and marital timing.

2.2.4 Premarital Contraceptive Use, and Age at First Marriage

Brown *et al.* (2015) analyzed the impact of family planning programs in reducing high-risk births due to younger and older maternal age, short birth intervals, and high parity while Darroch *et al.* (2016) examined the costs and benefits of meeting the contraceptive needs of adolescents in USA. Both studies found that the use of modern family planning methods among teenagers is effective at helping to prevent adolescent pregnancy which in turn leads to averting abortions, miscarriage and maternal and newborn deaths. Bencha (1981) carried out a research in Bangkok Thailand on contraceptive use and their contraceptive preferences among adolescent girls. The study showed that use of contraceptives is considered to be the domain of married people while unmarried women were not supposed to use contraceptives since it would point out that they are having a premarital sex. This belief serves as a cultural barrier to a possible basis for using contraceptives to postpone marriage.

Prior research based on nationally representative surveys confirmed a strong relationship between exposure to contraceptive methods in the mass media and contraceptive use. Studies indicate increased utilization of contraceptives and other behavioral changes following particular communication interventions to the general public or specific group using one or more media channels (Agili, 2014). Mass media campaign on health promotion strengthened contraceptive use as a social norm among spouses, family, and peers by promoting discussion about the benefits of contraceptives, birth spacing, smaller family size, and people's right to make choices in life. Also mass media programs can

assist to dispel myths about contraceptive methods, correct misconceptions related to their use and side effects.

A study by Biney (2011) among Ghanaian adolescent girls, established that failure of using family planning which in turn led to unintended pregnancies, early marriages and induced abortions was lack of knowledge about family planning. Lack of knowledge of contraceptive sources and methods is often cited as a key variable in determining contraceptive use (Korra, 2002). Similarly, Lindstrom and Hernandez (2006) found that limited knowledge of family planning methods among recent rural-urban migrants in Guatemala was associated with unmet need and limited choice of contraceptives. Other factors inhibiting the use of modern contraceptives among young people in Ghana that have been highlighted in prior studies are fear of side effects, objection from adult members of the society, conflict with religious beliefs, objections from family members, not thinking about using family planning and unplanned early sexual debut (Abiodun & Balogun, 2009; Monjok, Smesny, Ekabua & Essien, 2010).

A study by Chintsanya (2013) found that use of family planning remains higher among women with higher level of education, in more affluent households, and with more access to mass media. The influence of social factors in terms of woman's level of education on reproductive behavior in Morocco was investigated by (Courbage, 1999). He established that each year of female schooling had a greater impact on the rate of using family planning which rose dramatically with increasing education. However, a study by Agili (2014) in Ndhiwa Sub-County, Kenya and Zafar, Ford and Ankomah (1995) in Pakistan note the significance of cultural factors in influencing family planning behavior among women. They emphasize the importance of social forces, such as spousal communication, education of both spouses, age at marriage, family size, sex preference, beliefs and values regarding family life in predicting the use of family. However, a scoping review identified substantial knowledge gaps in understanding the influence of premarital contraceptive use on age at first marriage. Most studies have majorly investigated the barriers to utilization of contraceptives among women. In this study, ascertaining the effect of using contraceptives before marriage was considered important as the use of contraceptives is likely to help

young people avoid unintended pregnancies which often drive them into earlier marriages (UN, 2009).

2.2.5 Childhood Place of Residence, and Age at First Marriage

Childhood place residence refers to a place in which an individual or individuals live especially when an individual is growing up from birth to 15 years (Jain & Kurz, 2007). In this study, childhood place of residence refers to rural and urban residence an individual grew up in from birth to 15 years. Previous work by Liefbroer and Dourleijn (2006), in a study in developed countries observed that, individuals raised in urban centers were more likely to delay marriage compared to those raised in the rural centers. Additionally, one study established that the average age at first marriage of females who live in urban settings is 1.5 years greater than that of females who live in rural areas (Westoff, 2003). A number of worldwide rural and urban differences in first nuptial age have been shown in a number of developing countries. For instance, in the developing world, 44% of women in rural areas, have been discovered to have a higher probability of entering marriage at an early age compared to 22% of their urban counterparts (Loaiza & Wong, 2012).

The above implies that, a combination of adverse financial conditions and increased accommodation charges in several urban areas have perpetuated the postponement of marriage, which has resulted in the development of a fertility transition in sub-Saharan Africa (Garenne, 2004; Shapiro, 2015). Reasons for the postponement in marriage according to literature is that the urban environment expose a growing individual to unusual cultural setting that propagate entering marriage later on life (Singh & Samara, 1996). They are also less likely to be influenced by their families or community who decide the time of marriage and choice of spouse (Mensch *et al.,* 2005). In contrast, early marriage is predominant in rural locales due to family structures that foster marriage at an early age and pregnancy (United Nations, 1990). Moreover, early marriage is prevalent in rural settings because people residing in those settings tend to have traditional beliefs and attitudes, are less affected by events occurring outside of their societies and have limited means for securing the necessities of the young females (International Planned Parenthood Federation, 2006).

In Asia, a general survey indicated that women in urban centers got married at a higher average age compared to the women in rural areas (Frejka, Jones & Sardon, 2010). However, these studies only focused on women in Asia. Most studies in Asian countries have equated the delay in timing of first marriage in urban areas to the expensive child bearing costs in most urban areas in Asia (Anderson & Kohler, 2013; Yeung & Hu, 2016).

In contrast to the findings mentioned above, a distinctive feature that emerged from the study conducted by the UNICEF and Goode showed that women who reside in the urban areas of Rwanda and Turkmenistan had an increased probability of entering marriage at an early age, in relation to their rural counterparts (Goode, 1995; UNICEF, 2005; Wooldridge, 2015). From the above mentioned, the conclusion that the UNFPA reached relating to the association between childhood place of residence and first nuptial is that there is thus a remarkable correlation between lower levels of early marriage and advanced stages of expansion such as urban residence, secondary or tertiary education and wealth (Loaiza & Wong, 2012).

In general, although most of the findings to these studies are consistent, they commonly looked at childhood place of residence on its own as a determining factor to marital timing. Their analysis was not multivariate, in the sense of statistically articulating the roles of direct and indirect determinants, and identifying precise pathways that connect them. In this study, childhood place of residence tends to serve as a link to other socio-demographic, socio-economic and family background variables which are hypothesized to lead to early marriage. Childhood place of residence was therefore tested on the basis of whether the respondent was living in an urban center, or in the rural communities and how the stated place of residence affected their marital timing.

2.2.6 Migration, and Age at First Marriage

Migration (say after age 15) is an occurrence that is expected to have a major bearing in the decision making of an individual (Palós & Garcia, 2012). Migration is a key component of family life often overlooked in many developing countries. Many authors agree that apart from displacing individuals from the local marriage market, Migration also provide several opportunities to see new behaviors and learn new ideas. In particular travelling to

a major city may be a particularly powerful experience (Sultana, Hossain & Hoq, 2015). Sub-Saharan Africa has seen an increase in rural to urban migration among men and women including adolescents (Bello-Bravo, 2015). A study by Temin *et al.* (2013) and Lesclingand and Hertrich (2017) in Mali found that migrant adolescent boys and girls are moving in ever larger numbers in search of education and livelihood opportunities or to avoid hardship at home. Adolescent rural to urban labor migration in sub-Saharan Africa is thus driven in part by limited economic opportunities in rural areas and expansion of opportunities in urban areas through rapid growth of cities. Despite migration becoming a part of life for rural adolescent boys and girls in sub-Saharan Africa (Bello-Bravo, 2015), there is a dearth of evidence on the practice and its influences on marital timing.

A study conducted by Lesclingand and Hertrich (2017) in sub-Saharan Africa found that as in many parts of the world, there is conclusive evidence that independent labor migration by women, motivated largely by employment opportunities instead of marriage or other reasons, is common in sub-Saharan Africa. It has been posited by Bello-Bravo (2015) that female migration is associated with increases in women's financial and social empowerment and reductions in familial poverty. Prior study suggests that migration is a significant experience for adolescents in parts of sub-Saharan African countries (Hertrich & Lesclingand, 2013). However, this study did not focus on the relationship between migration and union formation in particular. In a study conducted in Urban Kenya with Kisumu as a case study, Clark and Cotton (2013) established that young adult migrants are likely to enter into early unions. The study further reported that the young adults entered into these unions because they became socially and economically independent from their parents when they moved into the urban centers.

A qualitative study in Mali explicitly examined perceptions about migration among girls and their parents including how it influences marital timing, marriage preparations, marriage practices, and marital relations (Engebretsen *et al.,* 2020). Qualitative data were collected from 140 adolescent girls and 115 parents of adolescent girls in rural areas in FGDs and In-Depth Interviews (IDIs) to inform how girls' migration patterns might influence program recruitment strategies and content for an intervention aimed at addressing early marriage in Mali. The study found that migration had direct effects on

marital timing since it allowed girls to both avoid early union formation and prepare for marriage through the accumulation of goods and wares to bring to their conjugal homes. The indirect effects of migration included allowing adolescent girls to understand diverse types of marriage practices and nuptial relationships between spouses and possibly allowing migrant girls to exert more influence over the first nuptial process compared to non-migrants. However, lack of quantitative data analysis in this study renders the conclusions non-generalizable.

A study by Ochieng' (2016) in Kenya and Lesclingand and Hertrich (2017) in Mali examined the role of migration in Kenya's and Mali's nuptiality transition. Both studies established that migration not only delayed union formation, but also influenced the marriage formalization process by shifting preferences away from traditional and religious marriage arrangements in favor of civil ceremonies. However, these studies focused on adolescent girls only. There was no multi-level modelling so that one cannot distinguish whether the direct determinants have a bearing on intervening variables derived from the other spatiotemporal dimensions. Given the salience of migration, the current study conducted a multivariate analysis to determine the extent to which individuals perceive their migration to impact age at first marriage.

2.3 Forms and Characteristics of Demographic Dynamics of Early Marriages

Weeks (2008) defined demographic characteristics as those demographic traits or qualities that differentiate one individual or group from another, including age, gender, marital status, income, and so forth. Some are ascribed characteristics, such as sex, age, over which an individual has essentially no control and that a person is born with. Others are achieved characteristics such as marital status, and so forth, over which an individual do exercise some degree of control (Chojnacka, 2000). All of these aspects and their influence on life chances converge to affect an individual's age at first marriage, the kind of family one chooses to create and type of household formed (Gupta, 1998).

2.3.1 Family Background Characteristics Associated with Early Marriages

2.3.1.1 Parents' Socio-Economic Status and Age at First Marriage

Findings of previous research linking family socio-economic background and marital timing are mixed. For instance, according to Janson (2006), children whose mothers were not educated were more likely to delay marriage. Similar studies by Wolfinger (1999) found that respondents whose parents had not completed high school were less likely to marry. In Europe, the results more consistently show an increased risk of early marriage among respondents whose parents have higher socio-economic status (Dubow, Boxer & Huesmann, 2009). A family study in Netherlands found a strong positive association between parent's socio-economic status, encompassing mothers and fathers' education and fathers and mothers' occupation and early marriage (De Graaf & Kalmijn, 2006). In Britain, the socio-economic status of parents was found to be significant in determining marital timing (Lyngstad, 2006). The study found that young people with highly educated parents normally have higher career and education aspirations which tend to delay their timing of first marriage. Alternatively, parents with higher levels of education are more likely to impart social and cultural capital to their children, which delay children union formation (Wolfinger, 2000). It is expected that children with more economically stable family backgrounds will have had better childhood experiences and better modeling and therefore are better positioned to postpone marriages (Wolfinger, 1999).

In Nepal, Aryal (2007) established that the risk of getting married early decreased gradually with increasing year of birth cohort, and was higher among females from high socio-economic status families compared with those of low economic status. This could be explained by the fact that high socio-economic status families were motivated, for religious and prestige, to get their daughters married at an early age, preferably before menarche. Another study conducted in Netherlands using representative surveys data, established that parents' education had little impact on timing of first union among young adults (Mooyaart & Liefbroer, 2016). On the other hand, studies by Lyngstad (2006) in Norway found that, individuals whose parents were well educated were more likely to delay marriage than their counterparts with parents with low or no formal education. Literature exists on the

influence of parents' education on timing of marriage. Most studies have only focused on the influence of one's own education on timing of first marriage. The study filled this gap by establishing the effects of parental education on timing of first union.

Belpatra (2017) conducted a cross-sectional end-line study among 155 married respondents on factors associated with early marriage in Rural Mid-Western Nepal. The study established that the major source of respondents' family economic status could not show association with early marriage though the respondents parents with foreign employment, agriculture and daily wage as major income sources had a higher prevalence of early marriage than public service, industry, business and self-employment. Studies by Wijayati *et al.* (2017) that analyzed the socioeconomic and cultural determinants of early marriage in Ngawi, East Java however found that family economic factors were responsible to cause most of the early marriages. Similar findings are also found by Agtikasari *et al.* (2019) in their contextual study on the effect of social norm on early marriage among young women in Indonesian province of Lampung. These studies concur that high family income reduced the incidence of early marriage which was statistically associated too (Wijayati *et al.,* 2017; Agtikasari *et al.,* 2019).

The aforementioned studies indicate that parents' socio-economic factors, though hypothesized to lead to early marital timing, there is less evidence for any direct relationship. Therefore, it is not possible to apply these findings across the world. Beside given that much of the evidence is based on data from previous marriage cohorts especially in the developed world, there is need to find out how such factors impact individuals in developing countries with different socio-economic backgrounds setups, totally different from those found in the developed countries. This study therefore assumed that, parental socio-economic factors are likely to influence their children's marital timing both directly and/or indirectly and thus the need to test their association with the demographic and spatial-temporal variables believed to influence the persistent early marriage prevalence rates in Homa Bay County.

2.3.1.2 Disrupted Family Structure and Age at First Marriage

Some studies posit that divorce and death of parents encourages women to marry early as a means of getting away from the parental home (McLanahan & Bumpass, 1988). However, other studies established that childhood disrupted family structure such as orphanhood in childhood to have little impact on early marriage (Thornton, 1991; Trent & South, 1992). On the contrast, Mangeli *et al.* (2017) explored the perspectives of adolescent mothers in Kerman, Iran, with regards to factors that encouraged them to get married at an early age. Disruption within the family, in particular, family breakdown and divorce or death of parents, were cited as causes of early marriage. Participants viewed that marrying and getting away from family would lead to a better situation. For example, one participant in the FGD stated that she was unable to get along with the new husband of her mother, and early marriage was perceived as the best solution. Furthermore, some adolescents got married early due to the desire and encouragement of parents, which in turn, may have been largely influenced by financial problems, social norms, and cultural and religious issues. However, lack of quantitative data analysis renders the conclusions for this study non-generalizable.

Several other studies have also underscored the effects of family structure, especially parental separation, to have negative impacts on a child's future development (Axinn & Thornton, 1996; Ali, Ibrahim, Abdelgbar & Elgessim, 2014; Wodon, Male & Nayihouba, 2017; Haq, 2018; Saleheen *et al.,* 2021). It is also argued that, children whose parents have divorced are more likely to marry early than children from intact families (Ali *et al.,* 2014). Evidence from the United States and Britain suggest that the risk of early marriage is higher among those who experienced the instabilities of their parent's marriage (Amato, 1996; Kiernan, 1997; Beck-Gernsheim, 2002).

Studies in United States by Amato (1996), based on longitudinal data found that, early marriages were due to lack of appropriate marital role models and lack of or less parental supervision of those whose parents separate (Bumpass *et al.,* 1991; Kiernan, 1997; Berrington & Diamond, 2000). Similar studies in Australian by Burns and Dunlop (2000), examined effects of personal qualities of individuals of divorced parents reported by parents and the children themselves to the timing of their union formation. The results

suggested that children from broken families had more behavioral problems than children of intact families, which in turn lead them into early entry into marriage or intimate relationships that may result in a premarital conception. These has also been attributed to lack of successful marital role models and lack of or less parental supervision of those whose parents separate (McLanahan & Bumpass, 1988; Amato, 1996).

Generally, experience of parental divorce, death and conflicts may instigate a feeling of uncertainty and fear about marriage in never married women that may result in prolong waiting for a suitable marriage mate or spinsterhood (Axinn & Thornton, 1996). Females reared in a one parent family, whether it is the father or the mother; tend to delay marriage probably due to greater family responsibilities and recognition of the advantages of singlehood (Lyngstad & Jalovaara, 2010). Although there may be some relationship between experience of disrupted family structure and their children marital timing, this study went deeper and examined whether individuals have a higher risk of early marriage or whether there are other intervening factors because parental divorce is a very different experience even for children in the same family. Other factors such as parental influence on choice of marriage partner, birth order and family demands on one's wage labor affect children's desire and opportunity to marry (Ferguson, 2000).

2.3.1.3 Exposure to Mass Media and Age at First Marriage

McQuail (2000) define mass media as a channel of communication in a modern society, that operates on a large scale, reaching and involving virtually everyone in a society to a greater or lesser degree. It primarily encompasses the print and the electronic media. Two opposite arguments, however, prevail on how exposure to mass media influences age at first marriage. One line of argument is by a study by some scholars in Philippines that established that mass media programming typically produces a dose-response effect, in which higher exposure to messaging results in increased positive behavioral change (Savitridina, 2014; Yount, Crandall & Cheong, 2018). Mass media campaign particularly on informative programs, news broadcasts or advertisements aimed at discouraging young marriages can influence postponed marriages among young people and their right to make right choices in life. Another good example is a Nepalese study by Ahearn (2001) on the exposure of the young Nepalese to Hindi soap opera. The study revealed that majority of

young people had shifted from arranged marriages to love marriages which led to an increase in the average age of marriage. The other argument suggests that exposure to media messages facilitate early union formation for one major reason (South, Trent, & Bose, 2016). According to the scholars, the use of modern technology like mobile phone and the internet have made the young adults feel closer to their partners therefore making them form unions at a younger age.

A national representative 2003 survey of young people ages 14 - 22 in Nepal indicate that 47.3 percent of unmarried girls watched television, listened to the radio, or read newspaper daily compared to only 28.3 percent of married girls. A similar analysis of data from Nyeri and Nyandarua, Kenya, Erulkar and Onoka (2003) found that 38.5 percent of girls married during adolescence read a newspaper, as compared to 44.2 percent of girls married after age 20 and 59.0 percent of unmarried girls ($P<0.001$). The same pattern holds for exposure to television and radio. A study by Savitridina (1997) in Indonesia revealed that among the mass media, radio is the most popular among rural residents. However, she added that it is possible that the radio may have no influence on the listeners. Although radio is so far the most common type of media in rural areas, the understanding and motivation to make decision and action would depend on the programs they tuned in. For instance, the listeners may not have tuned into informative programs, news broadcasts, or advertisements aimed at delaying marriage. Urban-rural differentials access to different media forms are noticeable for those who read newspapers and watched television but not for radio listeners.

However, these studies show only the association but do not show the causal effect and direct evidence about the effect of childhood exposure to mass media on the risk of early marriage. Moreover, while some of the findings to these studies are inconsistent, they commonly looked at exposure to mass media on its own as a determining factor to marital timing. In this study, childhood exposure to mass media tends to serve as a link to other demographic variables and spatiotemporal dimensions which are hypothesized to lead to early marriages.

2.3.2 Individual Socio-Economic Variables Associated with Early Marriages

Most of the studies in the United States have suggested that the risk of early marriage is significantly higher among those with lower levels of education (Teachman & Polonko, 1990; Greenstein, 1995; South, 1995). Studies in China by Hymowitz (2006) found education to be positively related to marital timing with high education related to likelihood of delayed marriages. Similarly, Tian (2013) posited that a negative association exists between age of first time marriage and education. In line with Tian (2013), Palos, Lopez-Ruiz and Spijker, (2013) observes that the postponement effect of education leads to delay in formation of first union among women in Latin America. This negative association is normally explained by the micro-economic independence theory that stipulates that economically independent women feel more comfortable without men because they have other engagements in their life.

In another study on women's education and timing of marriage in Bangladesh, Bates, Maselko and Schuler (2007) also established that educated women married late in life. Adebowale, Fagbamigbe, Okareh and Lawal (2012) takes a close look at the age of marriage among women in Nigeria. Their study established that religion and education significantly determined age of marriage among women in Nigeria with women in the North marrying early than the women in the South. On the contrast, a scoping review also identified that in some societies, less educated people marry rather later than the more educated people (Schoen & Weinick, 1993; Marini, 2003; Bayisenge, 2010). For that reason, the association between education and marital timing is not consistent, hence the need for a continuous research across generations.

Jain and Kurz (2007) analyzed the global factors and programs on preventing child marriage and found that the choices of poorer families on education of children preferred males. The costs of investing in boys' education by parents are seen as valuable for producing good returns to the family ultimately (Jain & Kurz, 2007; Fant, 2008). Poor families favored to use their limited resources to further their sons' education because of the prevailing societal beliefs and gender norms (Fant, 2008; Svanemyr *et al.,* 2012). Many cultures have the belief and fear that the education of girls is not helpful to men (Ras-Work,

2006; Svanemyr *et al.,* 2012). The belief is that education will disrupt the traditional role that society expects of women in the household.

In a study conducted in Homa Bay County, Ochieng' (2016) observes that there is a high risk of adolescent girls with lower or primary education to marry early than those with secondary or higher education. However, there is a huge gap in regard to young men's / adolescent grooms, which essentially means that many young men are almost non-existent or invisible from past and ongoing research, advocacy, policy and preventive programs addressing early marriage. Keeping this persistent issue of early marriage of young men in general, this current study aimed at understanding the drivers of early marriages across gender. Moreover, most studies have only focused on the influence of one's own education on timing of first marriage. The study established the effects of parental education on timing of first union in Homa Bay County. Moreover, the analysis of the above studies is not multivariate, in the sense of statistically articulating the roles of direct and indirect determinants, and identifying precise pathways that connect them. In this study, education tends to serve as a link to other socio-demographic, spatiotemporal, socio-economic and family background variables which are hypothesized to lead to early marriage.

Studies in Britain suggest that, the household economic status may have more implications for early marriage risk. Findings in this area have been mixed. Some have shown that the risk of early marriage is highest when individuals have poor household economic status (Heckert *et al.,* 1998), while others have shown that similar household economic status bring the lowest risk of early marriage (Ono, 1998). Studies in the United States found the risk of early marriage to be higher among households with higher economic status (South, 1995). Research in other American regions found no relationship between the households' economic status and risk of early marriage (Greenstein, 1995; Amato, 1996). Individuals from different socio-economic groups tend to cite different causes for early marriage (Amato & Priviti, 2003). Individuals of higher status are more likely to state prestige, emotional or relationship issues, whereas those of lower status, particularly women, tend to cite more basic causes, such as financial problems. This study tested both of the above perspectives and gender differentials.

In USA, differences in income among genders determined the timing for the first marriage (Díaz-Giménez & Giolito, 2013), with women with higher income delaying the timing of first marriage while men with higher income marrying early. A similar study by (Kim, 2017) used the data from the employment history in South Korea to assess the changing role of employment status in marriage formation among young Korean adults. The findings established that marriage timing varied among various groups of individuals depending on economic resources. The findings further report that over the past three decades there was a reversal on the marital implications of being employed among women, while employment reduced the chances of being married among women born in the 1950s. On the other hand, it increased the probability of being married for the women born in the 1970s. For men, their employment status increased the chances of being married among men of all groups. In a similar study in Japan (Nagata, 2017), also established that chances of first marriage timing among men increased with employment.

Prior studies in Britain found an increased risk of early marriage among women in unskilled manual occupation (Thornes & Collard, 1979; Haskey, 1987). Presser (2000) found that, among women, working as a peasant farmer increased the risk of early marriage. Adedokun (1999) also found in Nigeria that very few women employed in the public sectors and self-employed married earlier while majority of the peasant farmers, unemployed women and housewives were married between the ages of 15 and 19. However, discordant results in United States were reported by McLaughlin *et al.* (1993) who found that women who were self-employed, employed in public or private sectors were more likely to marry than those unemployed. A shortcoming of existing studies examining determinants of age at marriage is that relatively few of these studies examine males directly, focusing instead on women (Johnson, 2012).

In terms of premarital employment, rates of early marriage are elevated among women who are unemployed before marriage (Bumpass *et al.,* 1991; Tzeng, 1992), while studies in Australia suggest that, men's premarital unemployment influences delayed union formation (Bracher *et al.,* 1993). In the urban areas of Britain, delayed marriage was more likely among women who had experienced unemployment prior to marriage. Microeconomic theorists argue that women's financial and residential independence

reduces their advantages of early marriage (De Silva, 1997; Oppenheimer, 2003). Likewise, Arktar *et al.* (2017) established that premarital labor tends to delay the process of searching for a suitable mate, resulting in substantial delay in marital timing. In contrast to an empirical study by South (1993), women with no premarital work expedited premature marriages given that they are more economically dependent of their families, men and kin as providers and marriage as the only sure guarantee from want. However, the above studies show only the association but do not show the causal effect and direct evidence about the effect of premarital female employment on the risk of early marriage.

2.3.3 Socio-Cultural Dynamics Associated with Early Marriages

2.3.3.1 Cultural Community Values Determining Age at First Marriage

McDermott and O‟Dell (2001) refer to culture as the beliefs, values and practices of the people in a society. Similarly, Arowomole (2000) defines culture as people's beliefs, practices, attitudes and values, while Mohd (2005) view it as consisting of peoples' beliefs and values. Culture could thus be seen as the practices, beliefs, attitude and values of the people within a given society. Culture is simply the totality of peoples' way of life.

In the old days, before the Europeans took over the government of the Kenyan country, the Luo community was influenced by a culture of gendered roles. This is distinct in the pattern of marriage practices and gender relations at the time. The age at first marriage during this era was certain, (Ocholla-Ayayo, 1986) suggest that a man did not normally marry until he was nearer forty than thirty, and girls did not marry until they were nineteen or twenty. This postponement of marriage among men to a comparatively late age was apparently connected with the defense of the tribe as a warrior, raiding for fresh land or cattle, or an instance of the reluctance of the older men to surrender even a part of their wealth and power to their sons (Ocholla-Ayayo, 1986). A man could not marry without his father's permission, for it was only from his father that he could obtain the cattle with which to acquire a bride (Ocholla-Ayayo,1976; Ominde, 1987). Traditionally, marriage followed the order of seniority at birth (Ocholla-Ayayo, 1986). This custom made it possible for parents and kin to delay marriage since every girl had to wait for her turn, which comes only after older sister had been married (Osiemo, 1986). Similarly, younger boys had to

wait for their elder brothers to marry before they're allowed to do so. Since wealth, especially cattle, was largely in the hands of elders, they could delay marriage until the right age was reached (Ocholla-Ayayo, 1980).

Before marriage, the choice of a bride that often delayed a man's marriage was limited by the fear of incest expressed in the exogamous rule that did not permit unions between relatives, either on his father's or on his mother's side of the family or close neighbors (Ocholla-Ayayo, 1976). A young man travelled long distances, or took time investigating a possible distant relationship before finding a mate not closely related to him. He had to get permission from his father to take her as his wife, and the usual negotiations would be put in hand. However, mostly, a man left the choice of his wife to his father, who would select a suitable maiden with regard only to the mutual advantage of the two families concerned (Ominde, 1987). The rebel against this choice was unusual to avoid his father's deep displeasure and the girl was in the same way at the mercy of her parents.

In the contemporary society, in the face of modern rapid social changes, the traditional values and strict taboos that once regulated sexual behaviors of young people may find little practicability and utilization in the present-day society (Ocholla-Ayayo, 2000). These changes could contribute to a rapid drop in low age at marriage and a rise in unsystematized marriage. Although an association between first nuptial age and the cultural changes seems reasonable, this has not been systematically tested using empirical data. This study contributed to the scholarly investigations to advance understanding of cultural changes in intergenerational relations, marriage process and its timing in contemporary society. Primary dimensions of socio-cultural changes considered in this study included the decline in arranged marriages, the changing nature of bride wealth with cash payments, the role of religion and attitude towards marriage (Lesthaeghe & Surkyn, 2008; Gemignani & Wodon, 2015).

2.3.3.2 Religion and Age at First Marriage

Religion is another important variable that affects ages at marriage and at first birth. Nonetheless, there are divergent views. For example, in Tanzania, it has been found that Muslims and traditional belief populations married earlier than members of other religious

groups (Grenier *et al.,* 1985; Ngalinda, 1998; Adedokun, 1999; Pande, 2003). In Nigeria, Adedokun (1999) found differences in the mean age at marriage for various religious groups. For instance, he reported that Muslims have a mean age at marriage of 21.5 years compared with an average of 22 years for Christians (non-Catholic), and 22.5 years for Catholics. On the other hand, Rendon, Xu, Denton and Bartkowski (2014) found a higher propensity to marriage among couples in strong Catholic countries like Italy. They attributed this to the Catholic Church's resistance towards unmarried cohabiters thus forcing those who could not wed, out of the cohabiting enter marriage. Contrary findings by Uecker (2014) and McClendon (2016) established that couples who were not affiliated to any religious affiliation had a decreased likelihood of early entry into marriage compared to other religious affiliations. This implies that individuals who take religion to be central in their lives are likely to marry early. However, one of the challenges of religion as a factor is the failure to adequately measure religiosity. It is possible for someone to belong to a certain religion, when in fact, he is not religious.

In a comprehensive study to answer the question whether faith or religion actually plays a role in promoting early marriage in Africa, Gemignani and Wodon, (2015) provided an account of trends in early marriage in Africa, and the statistical association between child marriage and faith affiliation. The findings revealed that early marriage was found to be higher among people without a faith affiliation, as compared to Catholics and Protestants (Gemignani & Wodon, 2015). The Muslim communities in some parts of Burkina Faso in Africa have strong belief that school or education makes a woman rebellious and may delay her marriage (Gemignani & Wodon, 2015). They also believe that early marriage helps girls to imbibe values that will make them good wives and obey their men or spouses.

The linkage between religion and timing of first marriage is a matter that has not received serious social investigation. Therefore, to curb early marriage, it was necessary to consider focusing more attention on cultural values and religious beliefs in Africa. The current study explored the relationship between religion and timing of first time marriage in Homa Bay county. There exists a close relationship between institutionalized arrangements and timing of first marriage (Cooney & Hogan, 1991).

2.3.3.3 Mate Selection and Age at First Marriage

Actual matching of marriage partners takes place within the marriage circles in conformity with rules of exogamy, endogamy, and assortative mating. Matching of marriage partners can be either by arranged marriages, free choice of partners or both. Extended traditional families are associated with early entry into first marriage norms and assistance from relatives, intermediaries or matchmakers (United Nations, 1988). Free choice matching is assumed to take more time than arranged marriages, leading to delayed marriages (United Nations, 1988). Moreover, in more modernized families, where free choice prevails, candidates enter de-facto circles such as place of residence, college of study, social strata and dance halls (Johnson, 1981, Casterline *et al.,* 1986).

Prior studies by Ocholla-Ayayo (1986) and Otiso (2006) found that parents in traditional Africa society played a major role by guiding or selecting a suitable mate for their children. However, recent data reveals that the parents' role is changing from guiding and selection, to parental approval. Therefore, since traditions are dynamic and change with time, it is currently a common custom for young individuals intending to marry to make their own selection and choose their wives. The cultural norms are not followed as they should be. Otiso (2006) notes that this could be attributed to the influence of social change that has negatively affected the kinship system therefore leading to the increase in cohabitation and pre-marital birth.

For centuries, early marriage has been caused by culture that is still very permissive arranging marriage early especially for women in many parts of the world. In the provinces of Indonesia (Jones & Gubhaju, 2008) assessed the trends in age at marriage and revealed that early marriage reflects a marriage that has been arranged or because of pregnancy outside marriage. In South Asia, it was considered morally necessary by many for a girl to be married before her first menstruation, and many were so married. Some brides were even chosen before they were born. A Micro-Demographic study from Nepal by Shretsha (1997) found that women who live outside before marriage enjoy greater autonomy in mate selection process and timing of marriage. This autonomy could lead to early involvement and quicker intimacy increasing the probability of having early marriages. This is due to widened contact with potential mates. The other argument suggests that nonfamily living

tend to delay the age at marriage of women (Fricke *et al.,* 2005). Living unsupervised by senior's leads to more autonomous behavior in mate selection (Fricke *et al.,* 2005). The researcher used the survey data in this study to test these two alternative hypotheses.

In a qualitative study in Senegal, a married adolescence recalls, "Me, I was given in marriage without anyone asking my opinion. I always must submit to the wish of my father" (Diop & N'Dione, 2001). Some data indicate that the younger the age at marriage, the lower the proportion of women who had a say in selecting their spouse (El-Zanaty *et al.,* 1996) or the lower the proportion of women who were asked for their consent (Amin, 2004). There are limited data sets in Homa Bay County that include variables on spousal selection. There is need to contract marriages at mature ages by the bride and groom themselves. The current study investigated these practices and filled this knowledge gap.

2.3.3.4 Early Marriages and Bride Wealth Payment

Payment of bride wealth is a crucial element in the marriage culture in many parts of sub-Saharan Africa. Anderson (2007) defined bride wealth as monetary and / or in-kind transfers from the groom's family to the bride's family as part of the marriage process. Bride wealth serves as a tangible representation of the transfer of sexual and reproductive rights, including children produced in the union, from the wife's to the husband's family. Unfortunately, it has been argued that its payment increases the incentive for parents to marry their daughters early. Anecdotal evidence suggests that the younger the bride is, the higher is the bride wealth, because youth ensures chastity (Makoye, 2013). A high bride price also serves as a commitment device aimed at minimizing the risk of separation or divorce (Makoye, 2013).

The historical record indicates that in many societies where marriage payments were once prevalent, for example, in Europe and Latin America, such payments declined and then eventually disappeared (Metcalfe, 1993; Anderson, 2007). There is some evidence to suggest that this trend is also occurring in parts of sub-Saharan Africa, as bride wealth are extended over long periods of time or even forgone altogether (Casale & Posel, 2010; Bishai & Grossbard, 2010). There is some discussion in the literature, although for the most part not systematic analysis, that marriage has become more burdensome financially

in the last several decades. In the case of African societies, the changing nature of bride wealth, with cash payments replacing payments in kind, is believed to be a contributing factor in delaying marriage of men because more time is needed to acquire the necessary sums and because the responsibility for payments is said to be shifting from the future husband's extended family to the bridegroom himself (National Research Council, 1993; Enel, Pison & Lefebvre, 1994; Isiugo-Abanihe, 1994). Nonetheless, systematic analyses of contemporary bride wealth systems and their transformation overtime are rare due to data limitations. Moreover, there is little knowledge of the changing social meaning of bride wealth and the implications of these changes for marriage patterns, especially given the increasing individuation of family relationships. The current study examined the prevalence of bride wealth and its association with age at first marriage of both sexes.

2.4 The Role of Stakeholders and Intervention Strategies to Address Early Marriages

This section begins by providing an overview of global trends in the prevalence of early marriage. This is followed by the global evolution of international and national domestic policies and programs outlawing early marriages. The section provides examples of these programs that have the potential to change marriage-related attitudes, beliefs, practices and behaviors with greater focus on and measurement of early marriage. These programmatic approaches span from those that primarily focus on working with individual adolescents to those that operate at the institutional and policy levels. Over the entire action spectrum of reducing early marriage and its impact, these programs typically work on engaging multiple stakeholders, including adolescents themselves, adult women and men, community leaders, politicians, policy-makers, academics, researchers, lawyers, the media, and the national and international non-governmental and intergovernmental bodies. They are engaged in community mobilization efforts to change gender norms and acceptance of early marriage (Idris, 2019).

2.4.1 Overview of Global Trends in the Prevalence of Early Marriage

Early marriage is a widespread challenge, with the prevalence varying considerably across and within regions and countries (USAID, 2015). It is common in developing countries.

Figure 2.1 presents the global indicator of marriage timing, proportion of all women aged 20-24 who had married below the age of 18 years. In developed countries, few women marry before age 18; less than 1% do so in USA, Western Europe, China and Japan for example (UNICEF, 2019).

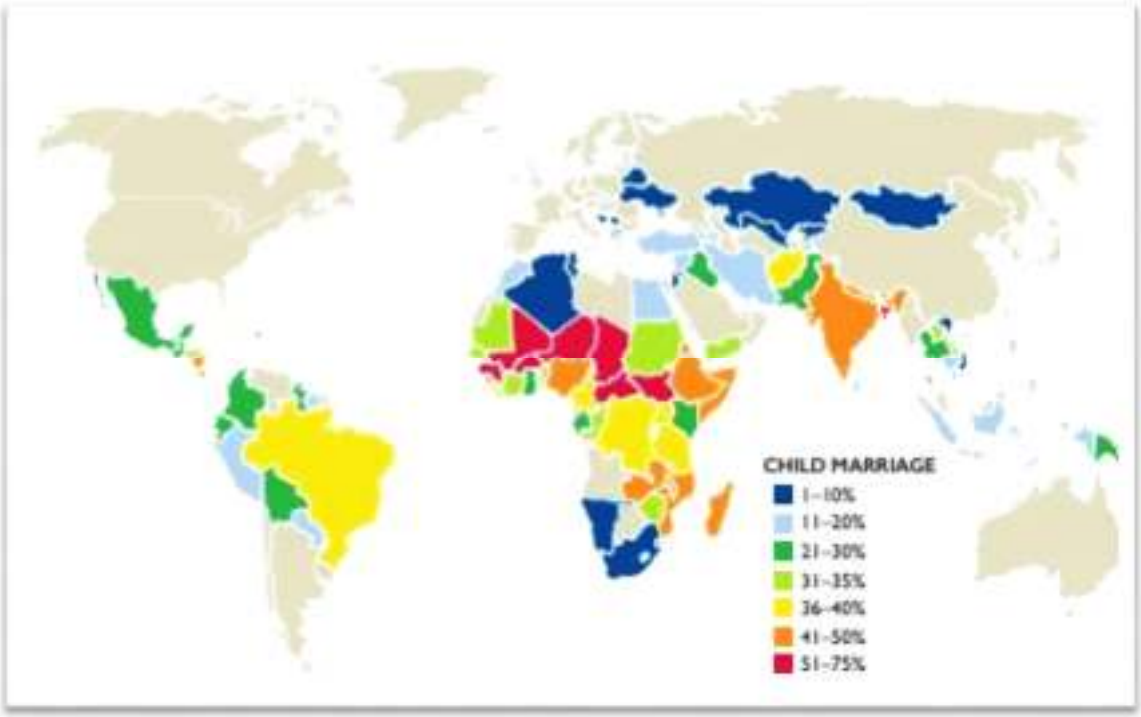

Figure 2.1: Global Prevalence of Early Marriage
Source: UNICEF 2015

There has been a global decline over the past ten years in the prevalence of early marriage from 25% to approximately 21% in 2019 (UNICEF, 2019). However, it is most widespread in Sub-Saharan Africa and South Asia which represent 54 percent and 45 percent, respectively, of the worldwide burden; followed by East Asia and Pacific, 12 percent; Latin America and Carribean, 29 percent; the Middle East and North Africa, 18 percent; Central and Eastern Europe 10 percent (UNICEF, 2019). Fifty-one percent countries have an early marriage prevalence of 25 percent or more. This threshold typically is used to define a high burden of early marriage (Chao & Ngo, 2017). Of the 20 countries with the highest rates of early marriage, 16 are in Africa, with prevalence ranging from 41 percent in Eritrea, Ethiopia, and Madagascar to 74.5 percent in Niger (UNICEF, 2019). Many of these young brides are second or third wives in polygamous households (Nguyen & Wodon, 2012).

Different researchers (Koski *et al.,* 2017) categorized the practice of 'early marriage' in Africa into four parts: little sign of change, first decline and then reversed, recent decline and decreasing at a decreasing rate. In countries like Chad, Malawi, Tanzania, Zimbabwe, and Namibia, the pace of child marriage has shown insignificant changes in the past two decades. In countries such as Cote d'Ivoire, Niger, Senegal, and Kenya, the pace of early marriage initially declined but stalled through time. In Nigeria, the situation of early marriage is rising again while in Mozambique, Zambia, and Uganda, researchers have revealed a recent decline. Finally, in Burkina Faso, Ghana, and Togo the situation of Child Marriage is decreasing at decreasing rate (Koski *et al.,* 2017). Statistics for 2019 put the number of child brides in South Asia at 285 million (44% of the global total) followed by Sub-Saharan Africa with 115 million (18%) (UNICEF, 2018). There are significant gender differences in early marriage, with females being disproportionately affected: as of 2018, there were 720 million females alive who were married as children compared to 156 million men (USAID, 2015).

Throughout South Asia, approximately 1 in 2 girls is married off before the age of 18 (UNICEF, 2014). South Asia is home to some of the countries with the highest prevalence of child marriage in the world - Bangladesh has the highest prevalence of girls married before 18 in the region (65 percent), followed by India (47 percent), Nepal (41 percent), and Afghanistan (40 percent) (UNFPA, 2013). In addition, due to the fact that many countries in South Asia are highly populated, the highest absolute number of girls at risk is concentrated in South Asia with over 25 million girls at risk of early marriage more than twice as many as in any other region (UNFPA, 2013).

In East and Southern Africa, over one in three girls is married before the age of 18 (UNICEF, 2014). While there have been slight declines in the prevalence of child marriage in East and Southern Africa in the last three decades, due to rapid population growth, if trends do not shift, the number of girls at risk of child marriage will increase over the next few decades (UNICEF, 2014). Over 40 percent of girls in West and Central Africa marry before age 18 (UNICEF, 2014). While there have been some declines in the prevalence of girls married before 18 over the past three decades, the prevalence still remains stubbornly high (UNICEF, 2014b). Countries throughout West and Central Africa have some of the

most extreme rates of child marriage- the prevalence of marriage before 18 is 76 percent in Niger and 68 percent in Chad and the Central African Republic (UNICEF, 2014b). Girls in this region are more likely to marry at very young ages (9 to 12) than those in other parts of the world (Walker, 2013). They are more likely to be illiterate, to be younger when giving birth to their first child, and to have more children over their lifetime than those in other regions. Many girls throughout West and Central Africa marry into polygynous marriages, further limiting their power and agency in their relationship (Walker, 2013).

Nearly 1 in 3 girls is married before age 18 in Latin America and the Caribbean (LAC) (UNICEF, 2014). However, due to lack of data and research in many countries, the full scope of the problem in the region is not well understood. There are several countries in the region with high rates of early marriage - the Dominican Republic and Nicaragua (41 percent), Brazil (36 percent) and Guatemala (30 percent) (UNICEF, 2014). Despite continued high levels of early marriage, prevalence rate is decreasing slowly globally (UNICEF, 2014b).

Kenya has experienced a slow decline in the practice of early marriage. Data from KDHS, (2014) reveal that the prevalence of early marriage in Kenya decreased from 48% in 2008 to 23% in 2014. Prevalence of early marriage varies within the counties, and it is important to note where there are regional hotspots of early marriage. For example, while the national prevalence of child marriage is 23 percent, the prevalence is 10 and 7 percent in Makueni and Elgeyo Marakwet Counties respectively (KDHS, 2014). On the other hand, Homa Bay, Migori, Tana River and Samburu are among the Counties with the highest prevalence of early marriage (KDHS, 2014). However, the demographic health survey never did a follow up research to establish the factors contributing to the persistent early marriage practices.

2.4.2 Global Trends in Policies and Intervention Programs to Address Early Marriage

Measurers to address early marriages date back at the turn of the 18th century in developed parts of the world through the change of attitude (Lewis, 1992; Mkherjee, 2006). This change of attitude was attributed to the concerns about the protection of children from physical, sexual and emotional harm and a concern for the future of the nation, and children

were seen as holding the key to the nation (Robertson, 2002). Thereafter, moral reformers called for legislations to raise the age of marriage in the 1930s in the United States, Europe and India (Nair 1995; Robertson 2002). This appeal for increasing marriage age which was developed in the West was then incorporated into international standards and regulations (Robertson, 2002; Nour, 2006). By 1929, the greater India passed the Child Marriage Restraint Act of 1929 that outlawed early marriage (Mkherjee, 2006). This Act defined children as girls younger than 18 and boys younger than 21, although the Special Marriage Act allowed girls aged 14 and older to be married with parental consent (Amin *et al.,* 2014). The violation of this Act was a fine or up to one-month imprisonment, which applied to any adults who promote or fail to prevent early marriage, including parents or caregivers. Early marriage was disapproved since it meant that women commenced bearing children earlier, thereby increasing the length of their reproductive period, leading to high total fertility rates.

Starting in 1980s, international human rights law established firm opposition to early marriage. Universal Declaration of Human Rights recognizes the right to full consent to marriage, a right that is reinforced in the context of early marriage in the 1981 Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the 1990 Convention on the Rights of the Child (CRC) (Amin *et al.,* 2006; ICRW, 2011). Progress in Africa was further reinforced and accelerated by the Program of Action adopted at the 1994 Cairo International Conference on Population and Development (ICPD) in 1994). Regional treaties, such as the 1981 African Charter on Human and Peoples' Rights, also commit states to the prevention of early marriage (Loaiza & Wong, 2012; Equality Now 2014). Many governments acceded to the CEDAW and ratified the conventions. Aligned with this was the concern for the major risk to the survival and future health of the mother and child that emanated from early pregnancies (UNICEF, 2010). Despite the long-standing presence of laws and policies to prevent early marriage and discourage practices such as dowry, there is little evidence of the direct impact of these policies on early marriage (Amin *et al.,* 2014; Ajwang 2019).

Programmatic interventions to prevent early marriage largely followed policy changes, having a notable increase between 2000 and 2010 as illustrated in Figure 2.2 (Lee-Rife *et*

al., 2012). Lee-Rife *et al.* (2012) found that this increase followed, in part, due to recognition of the links between early marriage and development goals, including maternal and infant health, education and poverty eradication. Several of these programs were implemented and /or funded by national or local governments; bilateral or multilateral donors such as the World Bank, USAID; or international agencies or NGOs like the Population Council, Pathfinder, ICRW, UNICEF, and Save the Children (Lee-Rife *et al.,* 2012). However, the geographic distribution of intervention measures did not coincide fully with countries with the highest rates of early marriage especially in Africa (Jain & Kurz, 2007). Moreover, many efforts lacked scale and were not integrated into larger government initiatives or non-state sector drivers of economic and social change to be sustainable in the long run (Mukherjee *et al.,* 2008). There is serious dearth of research on the implementation and the effectiveness of interventions. Past studies on early marriages has primarily examined the prevalence, consequences and reported reasons of early marriage.

There is lack of rigorous studies examining the relationship between laws on age of marriage and mean age of marriage (Ajwang, 2019). Law enforcement training and early marriage education for police and other law enforcement officials, judiciary personnel and community leaders is highly needed. Moreover, legal reform and enactment of laws will only be effective if implemented in coordination with strategies to address the socio-demographic and spatiotemporal factors that are the main drivers of early marriage. Interventions that target and sensitize traditional opinion leaders such as community and religious leaders should be encouraged. Legislation must be part of an integrated approach including community based programs that target girls, parents, and community leaders, media campaigns and active parliamentary leadership and engagement.

Over the past twenty years, the types of interventions that have been implemented has shifted from single to multiple components (Figure 2.2). While single interventions (with or without multiple components) were common through the early 2000s, multiple interventions increased in popularity starting in the mid-2000s being (Chae & Ngo, 2017). Multiple component interventions in Africa have been implemented since 2005 to tackle early marriages (Malhotra *et al.,* 2011). They consist of 5 interventions each having

multiple components. The five core approaches include empowerment of girls with information, skills, and support networks (Chae & Ngo, 2017); sensitizing family and community members (Malhotra *et al.,* 2011); offering economic support and incentives for girls and their families (Chao & Ngo, 2017); enhancing accessibility and quality of formal schooling; and fostering an enabling legal and policy framework (Malhotra *et al.,* 2011).

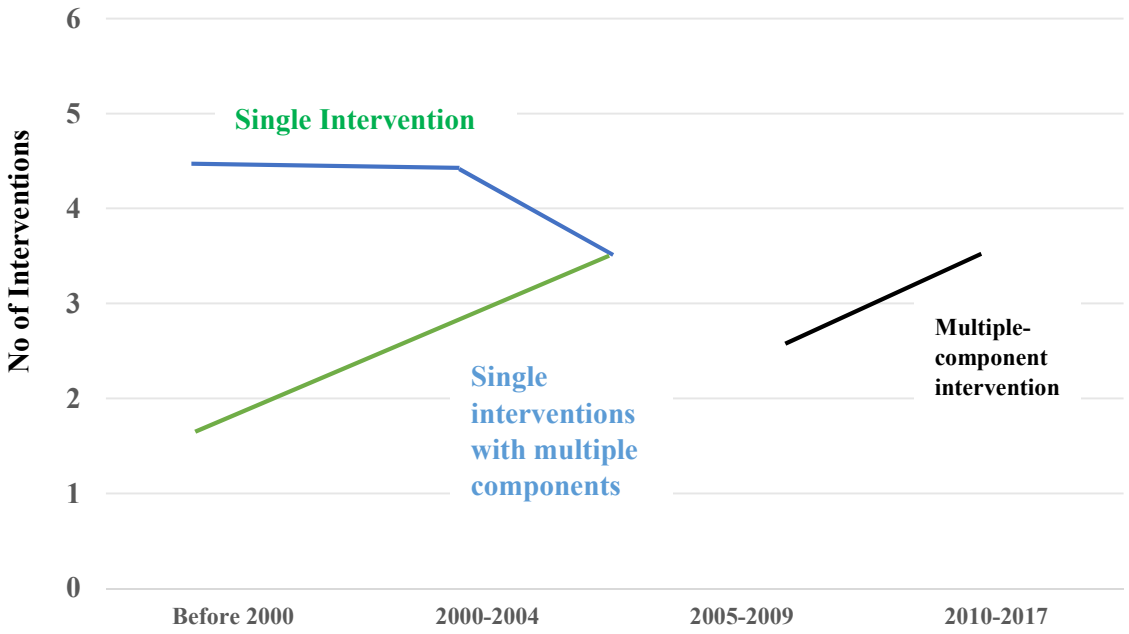

Figure 2.2: Types of Early Marriage Interventions by Year of Implementation
Source: UNICEF, 2019

Single interventions consist of interventions with a single component (e.g., conditional cash transfer). Single intervention with multiple components comprises interventions each having multiple components. Berhane Hewan, implemented in Ethiopia, is an example of a single intervention comprised of multiple components. It is one of the holistic programs in Africa to have the explicit objective to delay marriage age for girls (Erulkar *et al.,* 2010; Kalamar, Lee-Rife & Hindin, 2016). It addressed social norms (through community meetings), girls' lack of status and social capital (through mentoring, skills building, non-formal education), barriers to schooling (provision of uniforms and supplies) and economic factors (through cash transfers).

Other approaches to prevent early marriage in Africa included Ishraq in Egypt that offer education sessions to groups and community on the consequences of and alternatives to early marriages (Idris, 2019); the Tostan program in Senegal which was a community empowerment program with a strong community education component, leading to public declarations by community leaders to end early marriage (Erulkar *et al.,* 2010). The Zomba Cash Transfer Program in Malawi gave either unconditional cash transfers (UCTs) or conditional cash transfers (CCTs) to families tied to girls' education (Idris, 2019). UCTs proved more effective in postponing the age of marriage because they allowed those dropping out of school to support themselves without resort to marriage; CCTs increased school enrolment and attendance, but had little impact on early marriage.

Some of the aforementioned programs, however, were temporary and faced many implementation challenges such as budget delays, long bureaucratic procedures, high program costs and infrastructural demands that made scale up and sustainability unlikely (Malhotra *et al.,* 2009). On the other hand, the program implementers had limited understanding of and commitment to delaying marriage (Malhotra *et al.,* 2009). The current study recommended context-specific interventions to tackle early marriages based on the significant diverse factors established. It therefore recommended a multi-pronged approach combining empowerment, sensitization, economic incentives, schooling and legislative enforcement.

2.4.3 Contemporary Intervention Approaches Outlawing Early Marriages in Kenya

The development of programs to prevent early marriage in Kenya took place over two decades ago (Loaiza & Wong, 2012). The first program in 2000, known as School-based HIV/AIDS program focussed on improving the school curriculum and training teachers to deliver content on topics such as life skills, sexual and reproductive health, HIV/AIDS, and gender sensitivity (ICRW, 2011). Another important approach was the education subsidy and HIV Education program between 2003-2005, which provided school uniforms to girls and teacher HIV training (Duflo *et al.,* 2015). Reviews of the implementation of these programs, unfortunately, found no significant impact on the likelihood of early marriage.

For many years, such interventions have yet to go scale or be fully integrated into the educational system (ICRW, 2011).

The Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC) was started in 2004, implemented by the Ministry of Gender, Children and Social Development, and covered approximately 240,000 households nationwide as of 2014 (Handa *et al.,* 2015). The programme began with a small pre-pilot in 2004 followed by an initial expansion in 2006. The CT-OVC programme provides a monthly cash sum to eligible households of 1,500 Kenyan Shillings (Ksh, USD 21), comprising nearly 20% of monthly total household expenditure; the level of the transfer was increased to Ksh 2,000 per household in the 2011/2012 fiscal year to adjust for inflation (Handa *et al.,* 2015). Nairobi, Homa Bay, Kisumu, and Kilifi Counties represented the highest proportion of the program children of 14.7%, 10.8%, 9.5% and 6.4% respectively.

An evaluation of the programme looked at its impact on pregnancy and early marriage among females aged 12 to 24, four years after programme initiation. The evaluation was designed as a clustered randomized controlled trial and ran from 2007 to 2011, capitalizing on the existence of a control group, which was delayed entry to the programme due to budget constraints. Findings indicate that, among 1,549 females included in the study, while the programme reduced the likelihood of pregnancy by 5.5 percentage points, there was no significant impact on likelihood of early marriage (Handa *et al.,* 2015). This highlights the need for context-specific interventions, and for multiple component programs, which combine different approaches. Just as early marriage is driven by a range of factors, this study generated knowledge on intervention measures to prevent and reduce its effect by incorporating all the significant drivers.

Kenya signed and ratified several international declarations that condemn discrimination against women and adolescents and the practice of early marriage, such as the Universal Declaration of Human Rights (UDHR, 1948; article 16), the Convention on the Elimination of Discrimination Against Women (CEDAW, 1979; article 16) and the United Nations Convention on the Rights of the Child (UNCRC, 1989; article 24, 34 & 35). The principles provided in these declarations function as a foundation for the Kenyan constitution and national legal framework on early marriage (Ajwang, 2019). The Kenya's Marriage Bill

from 2010 outlaws' marriage below the age of 18 and states that no person shall get betrothed to a person under the age of 18 years.

However, there seems to be a gap between progressive legislation at national level and the reality at local level. The large majority of the population living in Homa Bay County (92.8%) live in rural areas with poor communication infrastructure and high illiteracy rates. According to Ochieng (2016), some people in these areas are not aware of the legislation and the legislation is often not strictly enforced. With regard to early marriage in particular, Rutto (2015) and Wako (2017) states that knowledge of the legal minimum age for marriage varies greatly per community, depending on exposure to mass media and interpersonal communication on the topic of legislation. They argue that because many people are not aware of the international standards and national legislation, early prevalence continues to be high in many communities in Kenya. To address this gap, the study systematically analyzed the roles of key stakeholders in the goal of preventing early marriages and the extent to which their levels of activities influences delayed marriages. This analysis provides guidance not only on what has worked, but what can be done to strengthen current and future efforts to prevent child marriage.

2.5 Conceptual Framework

The WHO (2012) recognized that early marriage is a complex phenomenon in which the drivers are not simply explained by individual socio-economic factors and that often there are many root causes that may contribute to early or deferred marriage in a family or society. Theories of family change have been used to explain changing marriage patterns in both developed and developing nations of the world. This research adopted theories of family change conceptualized using two sets of explanation for more productive interpretation of empirical data for this study. First are aspects of microeconomic explanations, which emphasize the influence of changes in the cost and benefits of marriage, specifically Gary Becker's microeconomic theories of marriage (Becker, 1973). Second are ideational theories, which emphasize the influence of changes in the spread of new ideas, particularly Western family ideals related to marriage. These explanations are adopted to investigate timing of first marriage in the context of particular features of modernity that affect individual choice and life experience. In general, modernization

refers to the development of social, cultural, economic and political practices and institutions which are thought to be typical of modern societies (Haralambos & Holborn, 2008).

The economic theory of marriage was first proposed by Becker (1973) who described marriage as a function of economic benefits where individuals wish to maximize their own well-being and production. Becker avers that people marry because they benefit from each other's specialized role and expertise. In traditional societies, married women usually specialize in non-market activities, for example, childbearing and long-term contracts with their husbands whose investment skills are often in the market. These description demonstrates how the gender-based division of labor and the relative advantage of men in the market and domestically, for women constitute key gains from marriage.

Becker's analysis is a utility approach paying specific attention to the variances in behavior between men and women, geographical differences and rural and urban residents. An individual can decide on two modes of production: To stay unmarried and improve ones' socio-economic status or maximize their skills elsewhere in the market (Z-good in Becker's terminology) under self-sufficiency and independent economy; or to enter marriage with a spouse due to perceived gains they expect from other (Becker, 1973, 1977, 1981, 1991, 1998). The theory has addressed the hypothesized relationship between direct spatial and socio-economic differentials of individuals and how they affect timing of marriage (Buchmann & Kriesi, 2011; Saleheen *et al.,* 2021).

However, men's and women's specialized role and expertise have changed in the modern economy, where both men and women get involved in domestic and economic activities. This implies a reduction in the traditional benefits of marriage. Buchmann and Kriesi (2011) and Saleheen *et al.* (2021) criticized the theory on the grounds that due to the modernization effect (as represented by industrialization, urbanization, female education and labor force participation, and individual freedom), women take on less customary marital roles; which emphasize marriage leading to the fall in marriage rate and an increase in non-marital cohabitation. In Kenya this may appear to be one of the factors leading to the increasing prevalence of pre-marital cohabitation among the educated and in urban areas (Ochieng', 2016). Women's exposure to the above factors, according to economic

theory, increases their access to economic resources and as a result increases incentives for women to stay single, or delay marriage.

The theory has also been criticized by many other contemporary scholars on several grounds. Part of the criticism can be traced back to the concepts of choice and decision-maker that underlie micro-economic theories: strongly individualistic, static, relying on a narrow, substantive notion of rationality, and without a sufficient degree of (psychological) realism (de Bruijin, 1999). In addition, the theory's conceptualization of socialization is rather plain: the influence of personal experience operates from a distant and rather fixed past and neglects the influences of changing social, cultural and political environment of decision making (Frank & McEneaney, 1999; Sayer, Paula, Paul & Nicole, 2011). For these reasons, the theory is relatively inadequate for the analysis of marital timing. Nonetheless, the study aimed to use a similar framework to examine the dynamics of early marriages and compare the results of this study with what is theorized.

The philosophy of ideational theory as argued by Lesthaegthe and Surkyn (1988) expresses that demographic decision-making has become more and more the jurisdiction of individual choice, less controlled by institutional arrangements, customs, and dictates (Lesthaegthe & Surkyn, 1988). Increases in premarital cohabitation and ex-nuptial birth, for instance, predominantly insofar as it involves a growing rejection of traditional attitudes toward marriage, is taken by some as evidence for the ideational thesis (Lesthaeghe, 1983; Axinn & Thornton, 1996). Moreover, in traditional Africa, parents played a major role by guiding or selecting a suitable mate for their children (Otiso, 2006). Nevertheless, current trend shows that their role is changing from guiding and selection, to parental approval or children making their own selection. The above, however, suggests that marriage is increasingly becoming an individual agreement other than between two families. This is perhaps due to the influence of socioeconomic modernization that has negatively affected the kinship system thus leading to the increase in cohabitation and pre-marital birth.

Among advanced countries, the prevalence of cohabitation became common in the 1960s. This is the time when western Europe experienced the ideational changes which led to changes in norms, attitudes and family formation (van de Kaa, 2002). The ideational changes are believed to have been caused by a number of factors some of which are

secularization, privatization, individualization and urbanization. As a result, these factors partly contributed to changes among individuals from being a collective to individual behavior, female economic independence and detraditionalisation of society thus leading to cohabitation and late entry into first union (Covre-Sussai, 2013). The theory also allows for the inclusion of the stakeholder and institutional roles that are found to affect these outcomes as indirect factors. In this study, ideational theory was used to investigate the influence of spatiotemporal dimensions, family background characteristics and socio-cultural dynamics on marital timing.

Some of the pertinent empirical literature reviewed and the theory of family change have been integrated to guide the main proposition of this study and develop the conceptual model in Figure 2.3. The variables are placed into six categories, that is: demographic variables, inter-personal relationship variables, respondent's socio-economic variables, family background characteristics, spatial variables and temporal variables. Demographic variables and spatiotemporal factors are likely to influence the likelihood of early marriage both directly and indirectly through their effect on intervening variables. Spatiotemporal factors (geo-political zone, place of residence, age cohort, cohabitation, ex-nuptial birth, debut of sexual behavior, contraceptive use and migration) represent unchanging and time-varying characteristics of the respondent and are assumed to influence the marriage timing either directly or indirectly. For instance, if an experience of migration influences the timing of first marriage, then depending on the risk associated with the timing of first marriage, a person may enter into first marriage early or may opt to cohabit and postpone first marriage. On the other hand, family background characteristics and respondents' socio-economic variables can affect the likelihood of early marriage through their effects on interpersonal behavior and the marriage market mechanisms.

Family background characteristics are outside an individuals' control; whereas the demographic, spatial-temporal factors are as a result of an individual's own behavior and choice. However, they may be constrained by convections operating through family of origin and their own socio-economic and inter-personal experiences / circumstances. All these factors may lead to early or delayed marriages. Timing of first marriage (a dichotomous dependent variable) was conceptualized as early marriage or delayed

marriage. This study chose to pursue the path of early marriage because it is associated with a number of challenges.

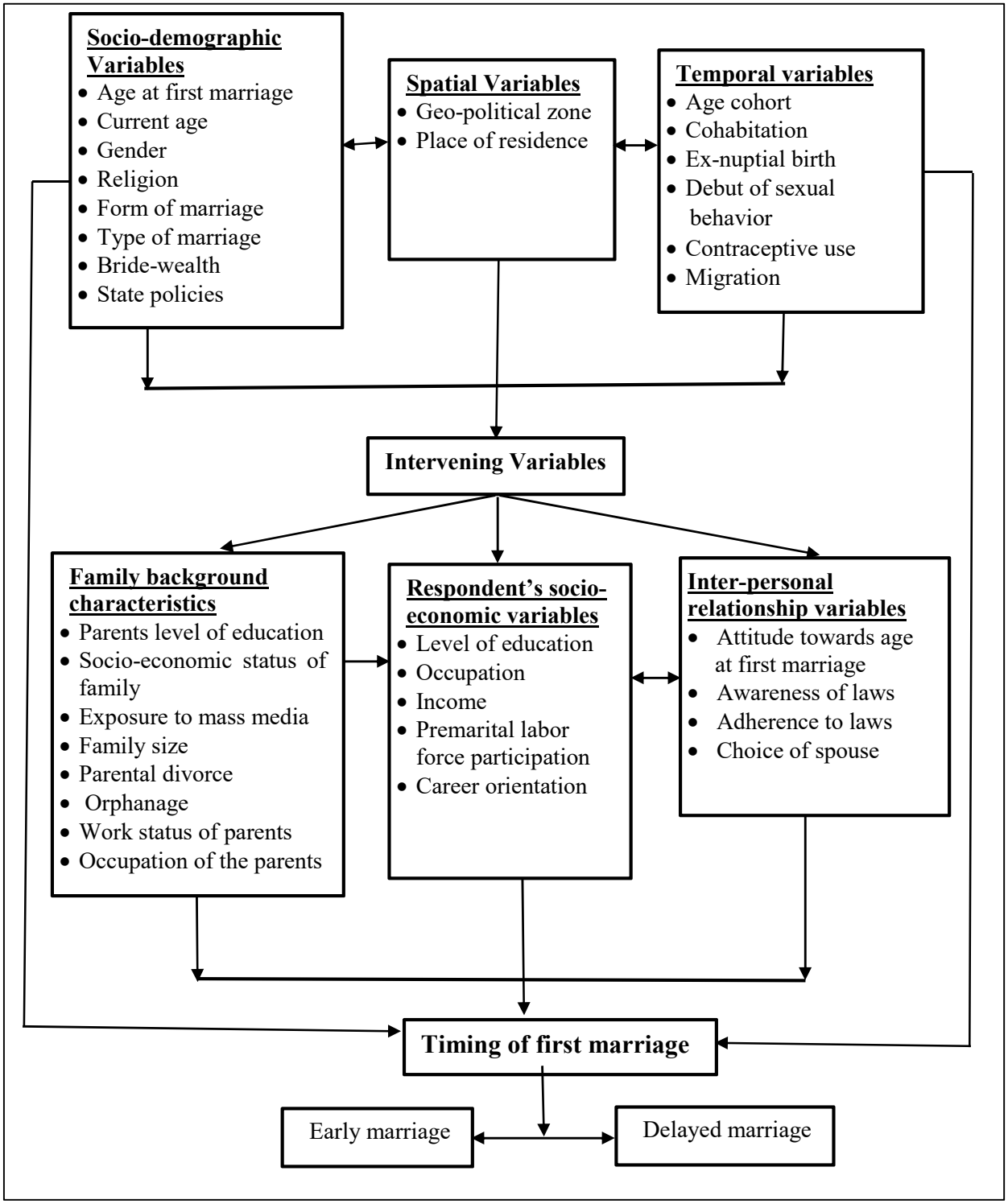

Figure 2.3. Conceptual Framework Showing the Relationship Between the Variables

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodological aspects of the study in terms of research design, study population, sample size and sampling technique, data collection methods and instruments, method of data analysis and measurement of the instruments, as well as important ethical considerations.

3.2 Research Design

This study employed a cross-sectional research design which took into consideration the analysis of marital history and current state data collected using in-depth interviews, FGDs and by a sample of individuals to administer retrospective questionnaire (Orodgo, 2003; Tashakkori & Teddlie, 2008). One of the objectives of cross-sectional surveys was to determine prevalence levels of early marriages, its correlates and effect on reproduction (KNBS, 2007). Nevertheless, one of the disadvantages of cross-sectional surveys is the failure to measure marriage patterns and their predictors on a continuous basis. To overcome this limitation, Kaplan Meier survival analysis and path analysis was applied. The methods had several advantages; 1), it was used to relate marriage event to the socio-demographic variables (Tekle & Vermunt, 2012); 2), it collected continuous data which enabled the researcher to reconstruct marriage event on a continuous basis and changes over time; and, 3), it gave information about past events and related them to the present and future outcomes as well as predict future changes (Biossfeld, Golsch & Rohwer, 2012), therefore offering causal understanding of marriage patterns. In view of the above, the design was used since because it could collect retrospective data on marriage and several socio-demographic variables across time for female and male household heads aged between 20 to 49 years.

3.3 The Rationale for the Study Area

The study location was in Homa Bay County, Kenya, located in the southwest part of Kenya within the Lake Victoria Basin (Figure 3.1). The County extends approximately

from latitude 0º15′ South to 0º52′ South, and from longitudes 34º East to 35º East. According to figures from Kenya Population and Housing Census (2019) the largest population (90%) live in rural communities, whereas 9.98 percent represent the total county population living in urban centers. Its total area is 4,267.1 Km^2 inclusive of the water surface, about which on its own covers an area of 1,227 km^2. The county boarders Kisumu and Siaya Counties to the North, Kisii and Nyamira Counties to the East, Migori County to the South and Lake Victoria to the West. The study was conducted in the whole Homa Bay County which comprises of eight (8) Sub-Counties (Figure 3.1).

The County headquarters – Homa Bay town is located some 105km south of Kisumu and about 420km south-west of Nairobi. The County has 262,036 households with an average of 4.3 people per household, above the national size of 3.9. The County has a population density of 359 people per square kilometer and an area of 3,152.5km^2 (KPHC, 2019). The study collected data on both urban and rural household population and related it to marriage patterns.

The choice of Homa Bay County was based on the fact it is ravaged by perpetual and persistent high prevalence rates of early marriages among Counties in Kenya. According to the KDHS, (2014) the prevalence of early marriage was about 40.7% in Homa Bay County, about 28.8% in Kisumu County, approximately 15% in Nairobi County and 7.1% in Elgeyo Marakwet County. Corresponding rates of early marriage prevalence rate according to Plan International Kenya (2015) were about 47% in Kilifi County, the leading, then Homa Bay County at 38%, Kwale County 37.9%, Kisumu 29.5% and Tharaka Nithi 25.3%. Moreover, as of 2020, Homa Bay County had the highest percentage of women (76%), of childbearing age (20 – 49 years) who were married when they were below the age of 18 years and had begun motherhood (State of Kenya Population Report, 2020). Migori had 72%, Meru 71%, Siaya 70%, Nairobi 65%, Wajir 64%, Makueni 54%, and West Pokot 53%. The foregoing analysis shows that Homa Bay County represents an unusual pattern and runs counter to worldwide trends of marriage postponement. In view of this, to study demographic dynamics and spatiotemporal dimensions of early marriages is therefore worthwhile, particularly in a County with high rates. This justifies the selection of the Homa Bay County.

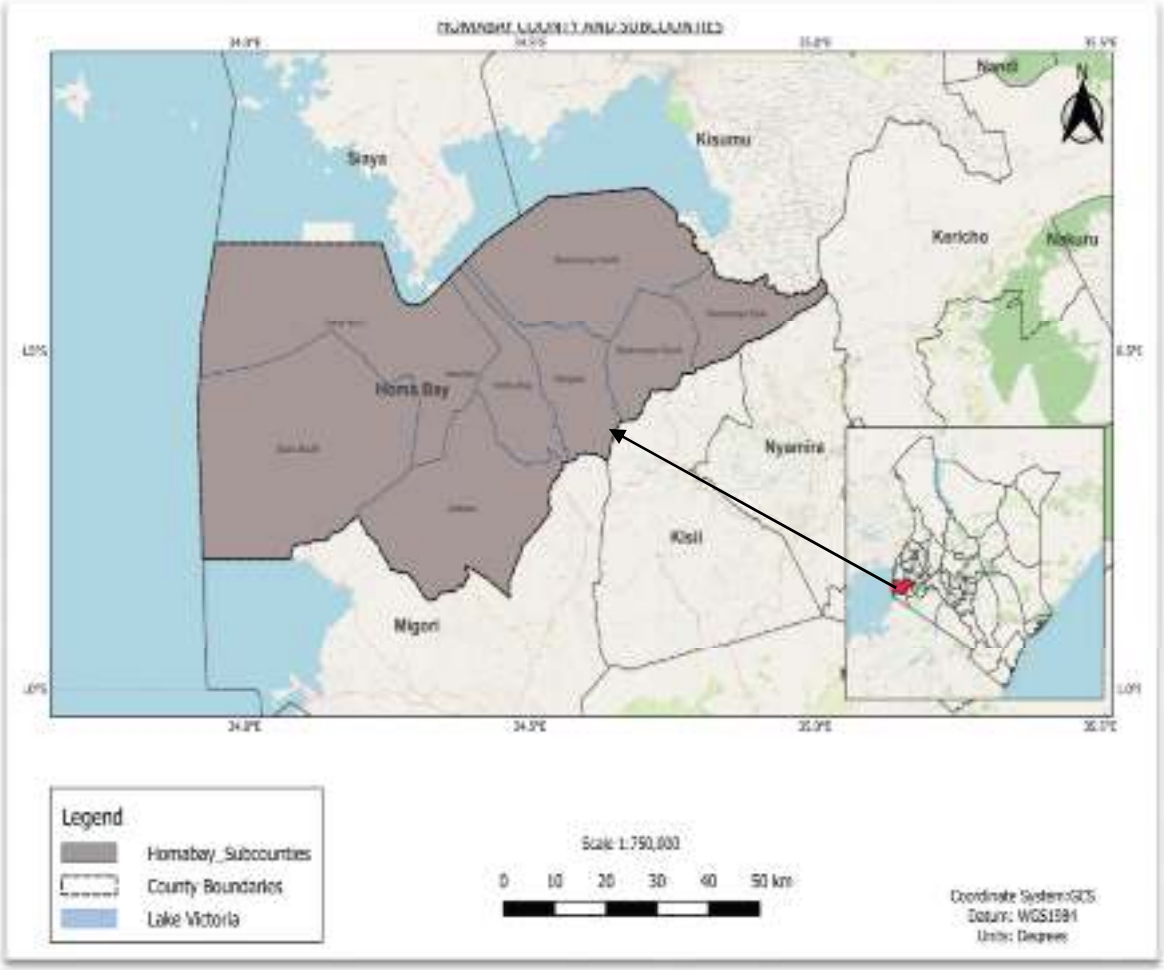

Figure 3.1: Location of Homa Bay County in the Kenyan Context

Source: Homa Bay County Integrated Development Plan (2018-2022)

3.4 Target Population

The total of population size of 371,891 in the age group 20-49 according to KPHC (2019) in Homa Bay County constituted the target population. Both male and female household heads were the respondents to the prepared questionnaire. The 20-49 cohort of household heads was preferred as it avoided a censoring bias, caused by the fact that young married couples in age group of 15-19 years could be over-represented, and so the levels of age at first marriage might be subjected to a downward bias which would affect validity of the mean age of marriage of the study population (UNPFA, 2014; Kenny *et al.,* 2019). With regard to FGDs, the respondents targeted were, married youths aged 18-35 years, married

men above the age of 35 years, married women above the age of 35 years, while in-depth interviews targeted local administrators and child protection officers as the key informants.

3.5 Sample Size Determination and Sampling Procedures

3.5.1 Sample Size Determination

Optimum sample size of 440 was estimated using Taro Yamane sample size equation (Yamane, 1995; Salganik, 2006). Yamane's equation took into account the level of precision, sampling error, confidence level and the degree of variability. This is expressed in the form described in equation 3.1.

$$n = \frac{N}{1+Ne^2} \qquad \text{…….……..} \quad (3.1)$$

Where: N= Population size of men and women in age range 20-49 years, 371,891 (KPHC, 2019); n = Sample size =? e = The error of sample (0.5); 1 = Constant

The confidence level was at 95%, whereas the sample size precision of 5% i.e. (100%-95%). Therefore n = $\frac{371{,}891}{1+371{,}891 \times 0.5^2}$ = 4 x 100

The sample size was further multiplied by 10% to account for contingencies including non-response or recording error (Salganik, 2006). This gave a total sample size of 440 which is divisible male and female household heads. However, only 420 respondents were successfully interviewed due to withdrawal of a few respondents from participating in the study for personal reasons (214 or 97% for females and 206 or 94% for males). Thus an overall return rate of 95.4% was achieved, implying the problem of bias was precluded and therefore the results of the study are reliable (Salganik, 2006).

3.5.2 Sampling Procedures

Cluster sampling technique was used to divide the study area into clusters using all the 24 zones that represented all the administrative sub-Counties (Table 3.1). After selecting the zones, a random sample of 2-4 neighborhoods, consisting of 5-25 households from the zones was carried out (Asrese & Abebe, 2014). To ensure an adequate spread in the sample, proportionate sampling technique was used to get the actual proportions of households from each zone. Once a neighborhood was selected, the selection of respondents was done

in their de jure place of residence using systematic sampling. The systematic method involved the construction of sampling frame which comprised the list of all the households in each of the selected neighborhood. A simple random sampling method was applied to select the first household among the first n^{th} in the lists. This household was used as a random start and as a basis of the selection interval by the interviewers. The remaining households were then selected into the study at the end of every fifth household (that is, fifth, tenth and so forth) until the desired sample was achieved in each zone (Asrese & Abebe, 2014). This technique was ordinarily easier to implement and provided an equal chance for those within the area to participate in the study.

In each eligible home, a female and a male household head from a different household was interviewed. In cases where no eligible respondent in a household or non-availability during the survey, the research assistants omitted that household and replaced it with the next household as suggested by De Vos, Strydom, Fouche and Delport (2005). The study used stratified sampling to select 5 urban centers where the research was carried out. Then the households were selected from the sampled urban centers with a probability of selection inversely proportional to the population size to maintain a fixed overall sampling fraction within each urban center (Table 3.2). Pre-testing was done to establish the clarity of meaning and comprehensibility of each item in the research instruments. Since the household sample was selected from the household heads from 8 sub-counties in Homa Bay County, the researcher pre-tested the research instrument in two zones which were not to be used for the study, Kendu Bay and Nyandiwa Beach. This is because these centers shared the same characteristics with the zones under study.

The research respondents for the FGDs were selected using snowball sampling. This was obtained by asking the initial contacts who had been involved in the questionnaire survey to highlight and point out their names and locations. The researcher sought the assistance of a few local administrators in reaching out to potential participants at the initial stages. Purposive sampling technique was used for selection of the local administrators and child protection officers that were believed to be knowledgeable about the subject. The main advantage of employing purposive sampling is the capability of obtaining adequate data for the study.

Table 3.1: Selected Zones, Population and Sample Size According to Cluster in Rural Areas

SUB-COUNTY	CLUSTER	SELECTED ZONE	TOTAL NUMBER OF HOUSEHOLD	SAMPLE FRACTION IN EACH ZONE	SAMPLE SIZE PER ZONE
COUNTY		**22**	**251,103**	**100**	**90.02*440/ 100 =396**
SUBA SOUTH	1	CENTRAL	10,488	4.2	17
	2	GWASSI	17,126	6.8	27
SUBA NORTH	3	LAMBWE	5,638	2.2	9
	4	MBITA	10,729	4.3	17
	5	MFANGANO	6,085	2.4	10
	6	RUSINGA	7,210	2.9	12
HOMA BAY	7	ASEGO	28,471	11.3	45
NDHIWA	8	KOBODO	6,350	2.5	10
	9	KOBAMA	7,857	3.1	12
	10	RIANA	9,981	4.0	16
	11	NDHIWA	9,547	3.8	15
	12	NYARONGI	6,831	2.7	11
	13	PALA	7,390	3.0	12
RANGWE	14	NORTH NYOKAL	14,791	5.9	23
	15	RANGWE	12,192	4.9	19
RACHUONYO SOUTH	16	CENTRAL KASIPUL	6,686	2.7	11
	17	OYUGIS	12,045	4.8	18
	18	WEST KASIPUL	11,962	4.8	18
RACHUONYO EAST	19	KABONDO	15,595	6.2	25
	20	KASIPUL EAST	11,634	4.6	18
RACHUONYO NORTH	21	EAST KARACHUONYO	16,161	6.4	25
	22	WEST KARACHUONYO	16,334	6.5	26

Source: KPHC, (2019)

Table 3.2 Selected Urban Centers, Population and Sample Size According to Strata

Urban (Strata)	Population Census 2019-08-24	Sample Proportion	Sample size per urban area
Homa Bay County		**100**	**9.98*440/100 =44**
Homa Bay	44,949	47	21
Mbita (Mbita) Point	14,916	16	7
Oyugis	19,947	21	9
Ndhiwa	4,762	5	2
Sindo	10,286	11	5
Total	**94,860**	**100**	**44**

Source: KPHC, (2019)

3.6 Research Instruments and Methods of Data Collection

The data collection tools were prepared and self-structured by the researcher. In total, a set of three data collection tools were developed. These were: the respondent's survey questionnaires which were complemented by the focus group discussion guides and the in-depth interview guides. Each tool was employed to address themes and issues aimed at the collection of rich data. Secondary sources of information were obtained from written sources such as text books, articles, publications and internet. Explanations behind, and the way in which these methods were employed is explained.

3.6.1 The Questionnaire Method

This technique of data collection was used as the main instrument of data for the study. The questionnaire (Appendix iii) was self-administered to enable the enumerators and the researcher make clarifications where necessary without interpreting questions. This method yielded a high return rate of 95.4%. Whereas most questions were of the nature of cross-sectional, the questionnaire also contained several questions linked to life history, such as the age a person got married, fertility history, family background and schooling attainment. The questionnaire consisted of both open-ended and close-ended questions.

This approach was chosen because of its simplicity to formulate, easy to administer, easier to analyze, friendly to complete and permitted greater depth of response, and was therefore cost-effective in terms of time and money (Mugenda & Mugenda, 1999). The questionnaire was mostly administered in local dialect especially Dholuo where applicable and translated in English language by the research assistants. This was technically and expertly done to ensure conformity with the context and objectives of the study. However, a major weakness with this approach is item non-response due to withdrawal of respondents from participating in the study for personal reasons, inconsistent or incomplete information to one or more of the survey items. This problem was however overcome by training research assistants to prove any inconsistent or incomplete answer in the survey questionnaire.

The timing of the interview session for each respondent lasted between 30 minutes to one hour. The venue for the interview was in the living room of the respondent. It was an agreed and accepted place and the respondents indicated that they felt comfortable in this space as other potential places, such as outside the house. Knoddel *et al.* (1988) suggest a space free

from disruptions and involvement of non-participants as ideal. This was, however, not the case, as disruptions from children of the respondent, as well as the occasional visitor to the interviewee's house, marked a level of interruption. This was however, handled as quietly as possible as the respondents would tend to their children or their visitor.

3.6.2 Focus Group Discussions (FGDs)

FGD data was used to construct additional or supplementary information for a better understanding of respondent's feelings and attitudes towards marriage, non-marital fertility, intervention measures and barriers the stakeholders face in curbing early marriages. In total, three FGDs were conducted separately with youths married during adolescent aged 18-35 years, married men aged above 35 years and married women aged above 35 years, with participants totaling eight in number for each session. Timing of the FGDs was also decided by the participants, with one of these occurring in the morning and two in the afternoon. The venue for the FGDs technique was in a local day primary school during term break as agreed by all the participants. It was a central location and the participants indicated that they felt comfortable in this location compared to other potential locations. As suggested by Knoddel *et al.* (1988), an environment free from distractions and involvement of non-participants is an ideal for data collection and discussion.

The FGD sessions lasted from 90 to 120 minutes, depending on the themes that were discussed and how much the participants wanted to talk about these various issues raised. A topic discussion guide was used (Appendix v) where the researcher explored various thematic areas of marriage pattern, age at marriage, what it meant to be married as an adolescent. The researcher served as the moderator for all the 3 sessions, while two research assistants took the role of note taking and recording. FGDs were mostly conducted in Dholuo to improve data quality and recorded in audio media versions upon the consent of the study participants. After each session, both the research assistants and the researcher listened to the recordings, which were translated from Dholuo to English and then transcribed on paper.

3.6.3 In-Depth Interviews

This technique of qualitative data collection was chosen to enrich statistical findings in addition to exploring new issues in depth (Lwanga, 2015). In this regard, the researcher collected detailed and reliable information from the key informants. The researcher furthermore chose this method due to its flexibility, leaving both researcher and respondent free to deviate, pursue or respond to an emerging idea (Robson, 2002).

A total of sixteen (16) in-depth interviews were conducted; eight with local administrators and another eight with child protection officers from each Sub-County. A similar interview guide (see Appendix iv) was followed, nonetheless not strictly adhered to, as relevant topics were pursued as they emerged. Oral consent was given by the respondents. They were interviewed at a time and place of their choice, such as their offices away from their children, spouses and family visitors that could cause interruptions. Each session lasted between 50 to 120 minutes, depending on the time the respondents could give for the interviews. All discussions were recorded in audio media versions upon the consent of the participant, after which it was transcribed accordingly. The researcher also took notes. In total, the researcher spent 6 months, between 21st June 2022 to 31st December 2022, interviewing and conducting FGD in the field.

3.7 Validity of Data Collection Instruments

The scale content validity index of the questionnaire, as described in equation 3.2, was computed and quantified using Davis Method (Davis, 1992). This facilitated the necessary revision of the research tool. Items in the questionnaire were rated into one of four categories: "1 - not relevant," "2 - somewhat relevant," "3 - relevant," and "4 - very relevant." Items deemed "relevant" and "very relevant" were included within the final questionnaire, whereas items failing to achieve this critical level discarded. The Average scale validity index was then computed by dividing the ratings by the total number of items. According to Polit and Beck (2004), an index of 0.74 or higher is acceptable.

Thus, Average scale content validity index, $S - CVI = \frac{n\,{}^{3}/_{4}}{N}$ …….. (3.2)

Where; $\boldsymbol{n\,{}^{3}/_{4}}$ is the number of items rated 3 or 4; and, **N** is the total number of items assessed. Thus; S-CVI/Ave = Eq. 54/67= 0.81

Multi-method strategies using source triangulation was used to validate the qualitative research instrument by making local administrators, child protection officers and discussants of the different FGDs respond to some similar questions (Mcmillan & Schumacher, 2006). Different methodological approaches were also employed using questionnaires and interview guides to collect similar information.

3.8 Reliability of Data Collection Instruments

The reliability of the instrument was determined through the split-half technique where it required only one testing session. The split-half procedure involved scoring two halves (odd items and even items) of the instruments for each respondent and the correlation coefficient was tabulated using Cronbach's Alpha reliability formula (Everitt & Skrondal, 2010). Based on the results of total-item correlation reliability test, it was established that on the measurement of sub-scales, spatiotemporal dimensions, socio-economic prospects, family background characteristics and socio-cultural dynamics, calculated r ≥0.20 and Cronbach's coefficient Alpha (α) values ≥0.700, so the instrument was adopted and all the questions were declared adequate and reliable (Table 3.3). According to Gay *et al.* (2009), a reliability coefficient of over 0.7 is reliable as it eliminates the errors.

Table 3.3: Reliability Statistics

Variable	Item Total Correlation (r)	Cronbach's Alpha
Spatiotemporal dimensions	≥0.21	0.800
Socio-economic prospects	≥0.24	0.745
Family background characteristics	≥0.29	0.823
Socio-cultural dynamics	≥0.26	0.885

According to Creswell (2005), the reliability of research instruments in qualitative data focuses on the researcher being the instrument itself. The researcher posits that the trustworthiness of the investigator, therefore, involved credibility, transferability, dependability and conformability. The researcher ensured credibility by allowing the respondents to consent to participate in the study, the right to withdraw and encouraged them to be honest. To ensure transferability, the researcher followed the research design and methodology, and collected in-depth data. Consistency/dependability was ensured by using mixed methods of data collection while neutrality/conformity was achieved by

avoiding leading questions during engagements and interviews. In addition, respondents were given sufficient time to respond to the research questions.

A total of six research assistants with experience in both quantitative and qualitative data collections were recruited and trained over a period of one week in June 2022. Interviewer training consisted of instructions on the objectives of the study, a review of the study instruments, interviewing techniques and consistency, clarity and review of the questions including accurate translation and transcription of data. Also included were the processes for obtaining informed consent from study respondents, field editing and overcoming logistical challenges in the field. The research instruments were written in English but conducted with each respondent and group in Dholuo. In the few cases where respondents did not speak Dholuo, a translator was used. Prior to embarking on data gathering, a pre-test was conducted by administering questionnaires using 10% of the sampled population from a non-sample zone in the final study. The pre-test was intended to ensure clarity of meaning and comprehensibility of each item in the research instruments.

3.9 Data Analysis Methods and Presentation

The survey data collected was first processed through office editing to check for omissions, errors, inconsistencies and legibility. This was followed by data coding where some non-numerical data was transformed into numerical values using codes. The data entry team consisted of two data entry clerks and the researcher and the process lasted for four weeks. A descriptive summary of background characteristics was done using frequency distributions, simple percentage, mean and charts.

Qualitative data analysis was grounded on framework analysis and involved 5 main steps specifically identifying a thematic framework, indexing, charting, mapping and interpretation. This was achieved through examining, categorizing or combining the evidence and deleting of redundant, extra and irrelevant data, by carefully filtering through the large and complex path of information (Rabiee, 2004). Initially, the researcher familiarized himself with the data, reading all the scripts critically several times. Initial themes were then generated (Rabiee, 2004). The themes were repeatedly reviewed and audited, and thematically analyzed narration, direct quotation and explanation. All the qualitative data was transcribed, audited and word processed.

Using the Pearson's Chi-square statistic ($\chi 2$), given by equation 3.3, association between both early marriage and explanatory variables was tested. Nevertheless, at the final models, only independent variables that were statistically significant with age at first marriage (p = p≤0.05) at the Chi-square level of analysis were included in the multivariate levels (Lumley, 2010). When the p-value obtained was less than the set value of 0.05, then there was a statistically significant differences between the outcome variable and explanatory variables. But when the p-value was greater than the set value, there was no statistically significant differences.

$$\boldsymbol{\chi^2 = \sum_{i=1}^{k} \sum_{j=1}^{n} \frac{(O_{ij} - E_{ij})^2}{E_{ij}}} \quad \text{..... (3.3)}$$

Where $\boldsymbol{O_{ij}}$ is the number of individuals observed in the ith row and jth column cell;

$\boldsymbol{E_{ij}}$ is the number of individuals expected in the ith row and jth column cell.

Multivariate analysis using binary logistic regression, an analysis effective with dichotomous dependent variable was used to test all predictor variables to assess their predictive ability (Cox, 1970). Dummy variables was created for dependent variable, a dichotomous outcome categorized as ("Yes (1)" = marriage in childhood ≤18 years, to capture the potential vulnerability that may exist for marrying early, "No (0)" = marriage as an adult ≥18 years). Despite the fact that the minimum legal age of marriage is 18 years for both gender in Kenya, this is not the case (KDHS, 2014). The independent variables were of any type (Hosmer & Lameshow, 2000). Multiple classification was likewise used since some of the explanatory variables were categorical in nature. According to Hosmer and Lameshow (2000), the logit model takes the form described in equation 3.4.

$$\boldsymbol{log\left[\frac{p_i}{1-p_i}\right] = \alpha_o + \alpha_1 X_{1i} + \alpha_2 X_{2i} + \alpha_3 X_{3i} + \cdots + \alpha_k X_{ki} + \in_{ij}} \quad \text{..... (3.4)}$$

Where $\boldsymbol{p_i}$ is the probability of early marriage;

$\boldsymbol{1 - p_i}$ is the probability of not marrying early, $\boldsymbol{\alpha_o}$ ... $\boldsymbol{\alpha_k}$ are partial intercept and slope coefficients,

$\boldsymbol{X_{1i}}$ ... $\boldsymbol{X_{ki}}$ are explanatory variables and $\in_{ij}$ is the error term (Boyd *et al.,* 1987). Results were presented as the exponential of the Beta coefficient (Exp β) which is the odds ratio (OR). To confirm that the Logit regression assumption was not violated, a particular covariate should not be significantly different from zero (p>0.05). Significance of any

covariate implies that the correlation between scaled Schoenfeld residuals for that covariate and the odds ratio for the covariate is significantly different from zero ($p<0.05$), which confirms violation of the logit regression assumption.

In addition, Quantum GIS was used to establish spatial relationships and visualize key estimations using prevalence data. The cluster levels of early marriage prevalence rates were used to develop prevalence maps at sub-county and cluster levels in Quantum GIS software. Spatial heterogeneity of high / low prevalence areas of early marriage was examined using the Q-statistic in Quantum GIS using the Spatial Statistics tool. A high or low value of the G-statistic indicates that high/low values prevalence were clustered within the study area.

The use of conventional method such as logistic regression analysis to estimate the effect of time varying covariates does not account the censoring observations i.e., does not hold for time-to event data such as death, occurrence of a disease, marriage and divorce (Crowther *et al.,* 2014). Therefore, a life table-analysis using Kaplan-Meier (KM) method was used to compute the cumulative likelihood of marrying before legal age 18 years. Applying this method, the respondents are tracked retrospectively until an event happens or survive (censored observations). The difference by the categories of the socio-demographic covariates were assessed at 95% Confidence Interval and the Log Rank Statistics. Median age at marriage was considered to be significantly different if the $p<0.05$ because of its reliability in assessing the statistical significance of the results. The Kaplan Meier equation estimator is given by equation 3.5.

$$\hat{S}(t) = \prod_{t(i)\leq t} \frac{n_i - d_i}{n_i} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(3.5)}$$

Where:

n_i = number of people at risk for the event (early marriage) at time $t_{(i)}$;

d_i = number of events (early marriages) observed at time $t_{(i)}$;

$\frac{n_i - d_i}{n_i}$ = conditional likelihood of surviving past a given time $t_{(i)}$ given survival to that time.

Further, the Kaplan-Meier survival curve, a non-parametric statistic used to estimate the survival function from lifetime data, was used to assess how the survival rate varies across

an individual's age for each observed risk indicators. It graphically represents a step-function with a step occurring at each observed event. The censoring was done at 18 years. The log rank Chi-square test was utilized to assess whether the Kaplan Meier survival curves from the different subpopulations are significantly different from each other. The study covariates are demographic dynamics and spatiotemporal dimensions (multiple or singleton). The log rank test (Q) equation takes the form described in equation 3.6.

$$Q = \frac{\left(\sum_{i=1}^{m} d_{1i} - \sum_{i=1}^{m} \hat{e}_{1i}\right)^2}{\sum_{i=1}^{m} \hat{V}(\hat{e}_{1i})} \quad \text{..... (3.6)}$$

where:

d_{1i} = total number of women who experienced the event in both groups;

$\hat{e_{1i}}$ = the expected number of women who married at time (t); $\hat{V}$ = variance of $\hat{e_{1i}}$.

Finally, path analysis, an analytical tool that uses correlational data to identify causal inferences and to disentangle direct and indirect causal processes underlying early marriages, was conducted using IBMS SPSS AMOS (Lleras 2005). The benefit of path analysis was that it allowed the researcher to create a causal modelling hypothesizing causal relationships and calculate the relative strength of each of the different effects towards the outcome using path coefficients (Chi & Harris, 1979; Lleras, 2005; Islam, 2009). Moreover, path analysis enabled the researcher draw a path diagram model which conceptually visualize the hypothesized direct and indirect paths and relationships between different variables (Lleras, 2005). The indirect effects are estimated by multiplying the path coefficients of each of the connecting paths (Chi & Harris, 1979), whilst the arrow heads show the direction in which the hypothesized relationship is working (Islam, 2009). Compared to using logit regression models and Kaplan-Meir survival analysis, the researcher could see and measure the effect of the direct and indirect pathways that lead to increased early marriage prevalence, something which the formerly stated methodologies are not able to accomplish.

The fit of the path model was evaluated using two model-fit indices, that is the chi-square fit index ($\chi 2/df$) and the goodness-of-fit index (GFI), to provide an accurate evaluation of a model-fit (Byrne, 2010). Recommended range of $\chi 2/df$ for a good model-fit is from 5.0

to 2.0 (Tabachnick & Fidell, 2007). GFI values of ≥0.90 indicate satisfactory fitting model (Hooper, Coughlan & Mullen, 2008). The whole data analysis was done using the Statistical Package of Social Sciences (SPSS) software version 21.

3.9.1 Diagnostic Tests

Since the study used binary logistic regression analysis, the assumptions and suitability of the data for the analysis were investigated. Since logistic regression does not assume linearity between dependent and independent variables nor does it assume homoscedasticity, variables were examined for problems with normality and multicollinearity. Failure to meet the assumptions could have compromised reliability of analysis results leading to type 1 and type 2 errors.

3.9.1.1 Normality Test of the Data

In the logistic regression analyses, variables were examined to establish whether the assumptions and suitability of the data for the analysis followed a normal distribution curve to give valid results (Field, 2017). First, just to ensure that the scales of measurement for the data were suitable for logit regression analysis, the measurements were converted into continuous scales, which was done for some variables. Normality of data was determined through the use of skewness and kurtosis formal test. The skew and kurtosis absolute value of a normal distribution should be about zero (0), and less than three (3) respectively (Field, 2017). Initial tests on the variable indicated no violation of normality, hence, there was no need for transformation of independent variables. Table 3.4 shows the results for normality test for the study variables.

Results in Table 3.4 show that the absolute values of skewness and kurtosis for all the study variables are about zero (0) and less than three (3) respectively indicating normal distribution of data to be subjected to logit regression analysis. Spatiotemporal dimensions had skewness and kurtosis values of -0.540 and -0.343 respectively. Individual socio-economic prospects have skewness and kurtosis values of -2.016 and -0.056 respectively while family background characteristics obtained skewness and kurtosis values of -0.614 and 0.453 respectively. A skewness value of -0.855 and a kurtosis value of -1.335 were obtained for socio-cultural dynamics.

Table 3.4: Normality Test by Skewness and Kurtosis of Study Variables

Variable	Skewness	Kurtosis
Spatiotemporal dimensions	-0.540	-0.343
Individual socio-economic prospects	-2.016	-0.056
Family background characteristics	-0.614	0.453
Socio-cultural dynamics	-0.855	-1.335

3.9.1.2 Test of Assumptions for Multicollinearity

Multicollinearity was determined to see whether two or more of the explanatory variables in a logistic regression had a linear relationship (Prawoto, 2006). If the variables have a close linear relationship, then the estimated regression coefficients may not be able to properly isolate the unique effect of independent variables and the confidence with which it can presume these effects to be true. Multicollinearity was assessed by examining tolerance values and the Variance Inflation Factor (VIF). Tolerance Value is defined as the amount of percentage of variance in the predictor that cannot be accounted for by other predictors (Prawoto, 2016). Significant collinearity is present if the Variance Inflation Factor (VIF) is >10 (Prawoto, 2016), whereas Tolerance values > 0.1 are considered suitable in test of multicollinearity. A summary result showing tolerance values and VIF for the study variables were obtained as presented in Table 3.5.

Table 3.5: Tolerance Values and Variance Inflation Factor Statistics

Variable	Tolerance Values	Variance Inflation Factor (VIF)
Spatiotemporal dimensions	0.731	2.354
Individual socio-economic prospects	0.423	3.521
Family background characteristics	0.642	2.415
Socio-cultural dynamics	0.354	4.281

Table 3.5 reveal that the VIF values with respect to all the four variables ranged from 1.315 to 3.830, way below the threshold, with tolerance recording values above 0.1 in all cases. Spatiotemporal dimensions obtained a VIF value of 2.354 and a tolerance value of 0.731, individual socio-economic prospects obtained a VIF of 3.521 with a tolerance value of 0.423. Family background characteristics recorded a VIF and tolerance values of 2.415 and

0.642 respectively. Socio-cultural dynamics recorded a VIF value of 4.281 and a tolerance value of 0.354. Furthermore, no variables exceeded the limit thresholds hence there was no violation of multicollinearity assumption which must be met for acceptance for bivariate logistic regression analysis.

3.10 Ethical Considerations

This study adhered to the 4 ethical tenets in social science of informed consent, deception, privacy and confidentiality and accuracy (Clifford, 2000). The researcher obtained research authorization from the Research Ethics Review Committee, JOOUST as the first issue. The protocol was also approved by the Ministry of Higher Education, Science and Technology through the National Commission for Science, Technology and Innovation (NACOSTI), (Appendix x). As Legard *et al.* (2003) posited, when using in-depth interviews and FGDs on sensitive topics, it is of much significance to create a rapport with the participant. To establish a climate of trust, the participant was essentially put at ease by incessantly keeping an open and unbiased attitude, and to express genuine interest (Legard *et al.,* 2003).

The respondents were made to give informed consent voluntarily through self and study introduction, including option to decline or to participate in the study. Consent forms were prepared to protect and ensure the dignity and positions of all participants (Appendix iii). To eschew deception, all the participants were informed on what they could expect from the interview. Before the discussion or each interview, time was taken to explain the aim of the research, the proposed use of research outcomes and the role of the researcher and research assistants. Building on Bryman (2008), an effort was made to inform the participants sufficiently about their role and involvement in the research. In addition, participants were requested for their approval to record the interview on the voice recorder.

At the commencement of the discussion or interview, each participant was informed that the interviews would be processed anonymously and that their responses would not be shared with other participants or groups. Also, to ensure accuracy of data, all the interviews were audio-recorded and consequently verbatim transcribed. Finally, some of the research results and recommendations from the study would be communicated to the participants through different proper publications in a peer-reviewed journal, feedback workshops, colloquium and conferences.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the most important empirical findings of this study under various headings in harmony with the stated objectives of the study. The chapter has been sub-divided into broad sections and subsections. Section one presents the introduction of the chapter. Section two presents the questionnaire return rate as well as response rate on interview data. Section three has a univariate examination of the socio-demographic characteristics of the respondents shown in tables and figures. Subsequent section focuses on the three research questions raised and tested at $\alpha = 0.5$ level of confidence using the SPSS version 21 and IBM SPSS AMOS version 23. For each of these sections, interpretation and detailed discussions are given.

4.2 Questionnaire Return Rate

A summary of the return rate of questionnaire from the respondents are shown in Table 4.1. Out of the 440 administered questionnaires to the respondents, 420 of them were returned with complete data for analysis, yielding a high return rate of 95.4%. A response return rate greater than 80% in social research is normally deemed acceptable for analysis (Creswell, 2014). For this reason, the study response return rate was adequate and meaningful to allow analysis. This was achieved since the interviewees were given adequate time to refer or further inquire from other family members of vital records in case of memory lapse. The non-response rate of 4.6 per cent were as a result of shyness by some respondents hence a deprecating attitude towards responding on some chosen subjects, particularly on age at first sexual debut and age at first marriage.

Table 4.1: Questionnaire Return Rate

Respondents	Questionnaires administered	Questionnaires returned	Return rate (%)
Household heads	440	420	95.4

The response return rate from the respondents who married during adolescent, local administrators and child protection officers was 100% as shown in Table 4.2. The 100% response return rate was attained since the researcher didn't experience any participation denial. Moreover, adequate preparations were made with the participants through jointly decided appointment dates and time, then the researcher together with the research assistants conducted the interviews and moderated all the focus group sessions. The participants embraced their interaction with the researcher and with the research assistants. Moreover, the focus group discussants were all present, each group consisting of 8 members. This was above the minimum of 6 respondents required for an effective interactive discussion (Ritchie *et al.,* 2013).

Table 4.2: Response Rate of FGDs and Interview Data

Respondents	Number anticipated	Number interviewed	Return rate (%)
Household heads married during adolescent	24	24	100
Administrative chiefs	8	8	100
Child Protection Officers	8	8	100

4.3 Socio-Demographic Characteristics of Respondents

This section shows descriptive analyses of the socio-demographic characteristics that were utilized in the study. The variables are shown using a series of frequency tables, pie charts, percentages and mean distributions of the variables and discussions. The background characteristics considered were age, gender, parental union status, peer influence, form of marriage, level of education, childhood place of residence, age at first sexual debut, main occupation, religious affiliations, monthly income in Ksh or US$ and age at first marriage (Table 4.3). The study, therefore, incorporated these same variables that many authors have considered in micro-demographic surveys (Shrestha, 1998; Ochieng, 2016; Migiro, 2017 & Ajwang, 2019).

Sex, defined as the biological and physiological characteristics of females and males was considered relevant in this study because family formation involves both gender who determines their first nuptial age. Entry into marriage is not only an important life course for transition for men, but, as is the case for women's first nuptial age, it is an important

reflection of family structure, gender relations and social change (Ajwang, 2019). Considering the 420 men and women interviewed in the survey, 51% were females and 49% were males depending on the willingness to take part in the study (Table 4.3). Each sex exhibited different socio-demographic characteristics and early marriage prevalence levels that were confirmed empirically through multivariate analysis using logistic regression, path analysis and spatial analysis.

Age is considered the most crucial variable in demographic enquiry since crucial events such as fertility, mortality, divorce and marriage are reliant on it (Palamuleni, 2011). In this study, age has been categorized into six 5-year age groups and presented in Table 4.3. The table shows that the distribution of the respondents increased from 13.3% in the 20-24-year age group to nearly 26.9% in the 25-29 age group. Nearly a third of the married men and women (23.8%) were aged 35-39. This was followed by approximately a fifth of the respondents (20.7%) in the age cohort 30-34. The least proportion of the sample of respondents (4.0%), was found within the age bracket 45-49. The mean age of the respondents was 32.13 years. This implies that the present age of the respondents falls within the reproductive age group which, according to WHO (2008), has implications for their nuptial and reproductive health behavior.

Studies by van Roode *et al.* (2012) and Montazeri *et al.* (2016) have identified age at first sexual debut as an important correlate of marriage. These studies noted that early sexual initiation reduces protracted periods of singlehood, and in some cases cause relationship stability at younger age. This may ultimately lead to early marriages. Table 4.3 shows that overall the majority of the respondents (53.6%) initiated sexual intercourse during the secondary school going age (16-19 years). Only 30.5% of the respondents initiated sexual activity above 19 years of age. Overall, the median age at first sexual debut was 17.5 years. This finding is reflected and comparable with the KDHS (2022) which reported that the median age at first sexual debut was 17.0 years.

Table 4.3: Socio-Demographic Characteristics of Respondents, Homa Bay County 2023

Categories	Number	%	Categories	Number	%
Gender			**Parental union status**		
Female	214	51	Divorced	13	3.1
Male	206	49	Separated	25	6.0
Age			Intact	382	90.9
20-24	56	13.3	**Premarital employment status**		
25-29	113	26.9	Employed / salaried	143	34.1
30-34	87	20.7	Unemployed	277	65.9
35-39	100	23.8	**Childhood Place of Residence**		
40-44	47	11.2	Rural	275	65.5
45-49	17	4	Urban	145	34.5
Mean		32.13	**Main Occupation**		
Sexual debut					
Below 16 Years	67	16	Peasant Farmer	76	18.1
16-19 Years	225	53.6	Trading	89	21.2
Above 19 Years	128	30.5	Public Servant	126	30.0
Religious Affiliations			Housewife	24	5.7
None	12	2.9	Politician	2	0.5
Roman Catholic	84	20	Unemployed	14	3.3
SDA	137	32.6	Self-employment	71	16.9
Pentecostal	117	27.9	Fishing	18	4.3
Muslim	22	5.2			
African Tradition	48	11.4	**Monthly Income in Ksh**		
Level of Education			< 10,000	137	32.6
No Formal	16	3.8	10,000-49,999	100	23.8
Primary	118	28.1	50,000-89,999	159	37.9
Secondary	148	35.2	>90,000	24	5.7
Tertiary	138	32.9	Mean	Ksh.12,464.31	
Early Marriage Prevalence			**Paternal level of education**		
Men	17	8.3	Less than High school	187	44.5
Women	104	48.6	High School	168	40.0
Maternal level of education			More than High school	65	15.5
Less than High school	281	66.9			
High School	118	28.1			
More than High school	21	5.0			

An individual's level of education has significant impact on their empowerment and access to information. This could mean that education influenced their lifetime events such as union formation and reproductive health behavior. Theoretically, it's argued that education provides individuals with skills for career growth and expectation essential to compete favorably in the labor market (Tian, 2013; Ochieng', 2016). Additionally, education may influence young people's in the choice of marriage partners, type and time of family formation and marriage practices, and the level of economic interdependence (Becker, 1998; Ikamari, 2005; UNICEF, 2014). Considering the respondents interviewed in the

survey, over half of the respondents (68.1 %) had at least a secondary level of education and of these, 32.9% had tertiary level of education, nearly 29% had primary level education and the lowest proportion (3.8%) had no formal education (Table 4.3). The success of the educational sector improvement programme which was adopted, as part of the economic recovery program in the 2000s is evident.

Religion is, conceivably, one of the social attributes of relative significance in Kenya as there are various faiths like Islam, Christianity and African traditional belief system. Religion is one of the most important social institutions that acts as a powerful system of social control with pervasive effects on various aspects of people's lives, attitudes and behavior (Haloi & Limbu, 2013). Religion can be conceptualized within socio-cognitive models of health behavior because religious beliefs and practices often influence cost/benefit analyses, value perception, perceived behavioral control, and social influence. There is a growing body of literature that has found religious involvement to have a salutary effect on family formation and reproductive health behavior and outcomes (Giyan, 2009). The respondents in this study, belonged to different religious affiliations. The majority (91.8%) were Christians and of these 32.6% were followers of Seventh Day Adventist, 27.9% Pentecostal, 20.0% were Roman Catholic and 11.4% belonged to African Traditional Religion. Muslims constituted only 5.2%. The remaining 2.9% were not followers of any religious faith.

Questions were asked on the total monthly income of the households sampled. Table 4.3 shows that majority of the respondents (37.9%) earned between Kshs 50,000-89,999 (US$500- US$899.99); 32.6% earned less than Kshs 10,000 (US$100) while only 5.7% earned Kshs 90,000 (US$900) and more, respectively. Remarkably, slightly more than a third (32.6%) of the households fall below the poverty line (US$1.90 or Kshs. 195 daily). This poverty rate is not a surprising result bearing in mind the fact that more than 33.4% of the population in Kenya survive on less than US$1.95 daily (World Bank, 2022). Income levels are disproportionate and does not favor respondents working in the informal sector of the economy. This gives them little chance to earn more money and make better choices which have a lot of implications for their sexual and reproductive health behavior and the lives of their children ever born and not yet born. This reveals that lower income of

respondents could lower their level of social status which hinders them in exercising their sexual and reproductive health rights. Income and occupation constitute a determining factor in the sexual and reproductive health behavior of individuals.

Childhood place of residence is known to determine the amount and type of social experiences people are exposed to, which may subsequently affect the timing of first union, the risk of dissolution and timing of first birth. It serves as a proxy for local or community and is assumed to influence marriage trends and patterns. This is because it may positively or negatively influence cultural settings in a number of ways thus weakening shared community values. Respondents were asked to state their childhood place of residence. The results summarized in Table 4.3 show that over half (65.5%) of the respondents resided in rural areas whereas slightly more than a third (34.5%) grew up in urban locale. The observed differentials have implications on the type of education and the skills one acquires which may in turn influence the decision to form a union and the type of union to be formed. Some scholars have posited that those raised in urban areas are more likely to delay first union as opposed to their counterparts with a rural background (Singh & Samara, 1996; Smith, 2003).

According to Saleheen *et al.* (2021), children model the behavior of their parents in the course of growing-up. This implies that those who grow up with parents whose marriages were intact would be unlikely to enter their first union early. Nonetheless, while the relationship between parental union status and their children's sexual union has been debated in the recent past, it has had divergent views. A study by Saleheen *et al.* (2021) found potential links while no association was found by Ali *et al.* (2014). Based on this differing evidence, respondents were asked to state their parents' union status as a time varying variable. The results in Table 4.3 show that majority of the respondents (90.9%) said their parents were in an intact married state at the time they themselves went into their first union. Respondents whose parents had separated accounted for 6.0%, whereas only 3.1% had divorced.

Premarital labor force status of a person may reduce the extent of economic interdependence of women on men. On the one hand, employment may positively influence union formation and a person’s attractiveness in the marriage market. On the

other hand, it may make young employed people economically independent, as well as, provide an economic incentive for parents to inspire their daughters to stay single during this economically productive period of young adulthood (Adebusoye, 1995; Mason, 1997). Respondents were asked to state whether they participated in premarital labor force. The results in Table 4.3 show that over half (65.9%) of the respondents said they were not in labor force while 34.1% were in labor force. With regards to the main occupation, a third (30%) said they were public servants, 21.2% were traders, 18.1% were peasant farmers, 16.9% were self-employed, 5.7% were housewives, 4.3% were fishermen, 3.3% unemployed and the lowest percentage (0.5%) were politicians (Table 4.3).

Parental socio-economic status is important in improving the quality of children while growing up. It is assumed to have a casual effect on an individual's choice of a partner, marital timing, marriage type and practice, and the extent of economic interdependence (Janson, 2006; Lyngstad, 2006; Dubow *et al.,* 2009). Based on this supposition, low parental level of education may lead to a less liberal lifestyle consequently raising the risk of the children's entering into first union at young age. Data on parental level of education in Table 4.3 show that nearly 45% of the fathers to the respondents had less than high school, 40% had a high school education, while about 16% had more than high school education. About 67% and 28% of the respondents reported that their mothers had less than high school education and high school education respectively, and only 3% reported that their mothers had more than high school level of education.

The data as shown in Figure 4.1 reveal that variation exists in early marriage prevalence level across sexes in Homa Bay County. Females have the highest prevalence of early marriage (48.6%) whereas men have the least (8.3%). These variations reveal the extent in which men have powerful influence on family formation decision-making and behavior in the society. The early marriage prevalence rates found in this study is considerably higher than the rates among females of the same age in the general population (6 % first married before age 15, 26.4 % (one in four) first married before age 18) (KDHS, 2014). The early marriage prevalence level of 42% obtained by KDHS (2014) also lends support to the early marriage prevalence rates found by this study. Such a slow progress in reducing early marriage prevalence in a decade demonstrates how the county is lagging in achieving

the integrated global action plan for eliminating early marriages by 2030 (UNICEF & WHO, 2019).

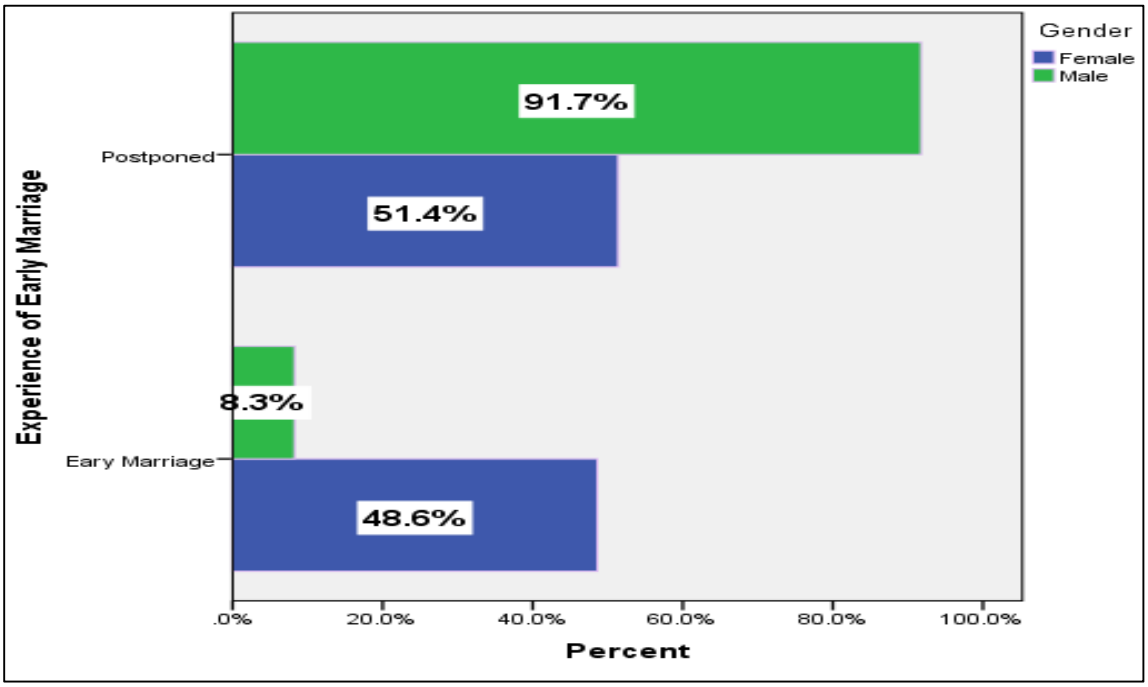

Figure 4.1: Percentage distribution of early marriage prevalence level among males and females aged 20-49 in Homa Bay County.

In the survey, data on age at first marriage were collected by asking the respondents to state their date of birth and date at which they started living together with a partner for the first time in the same household as if married. It was from these two variables that the age at first marriage was computed. Figure 4.2 shows the clear contrast between the number of women who marry at the median age at marriage (age 19) and the tipping point age (age 17). The tipping point refers to the first nuptial age at which the frequency of early marriages first increases significantly in a given community. On the other hand, the median age in the study referred to the age at which approximately half of the respondents are expected to have been married. The median and the tipping point age for men were both at 24 years. Prior nuptial studies have found out that women are more likely to enter into marriage early compared to their male counterparts (Koski *et al.,* 2017). For most marriages, women are usually younger as men usually prefer to marry women who are younger than themselves (Chae & Ngo, 2017). The findings for this study supports this

argument. The median age at marriage for men is 24.5 while that for women is 19.5 years (KNBS, 2015).

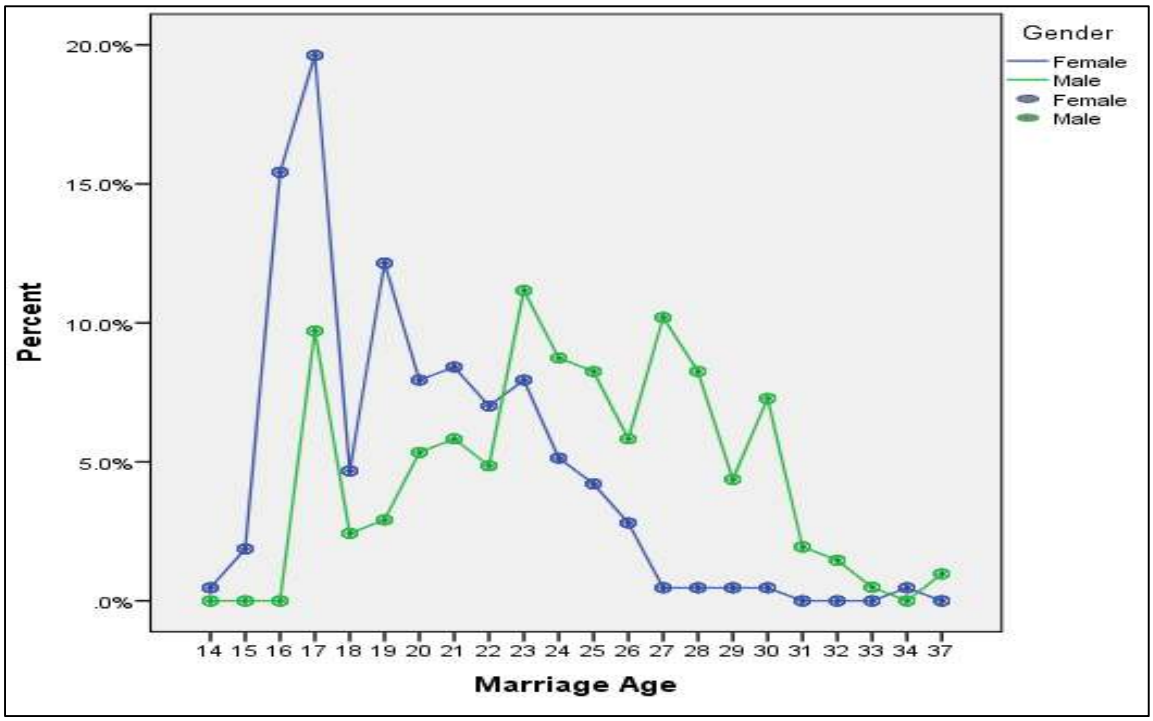

Figure 4.2: Percentage gender age distribution of marriage

4.4 Differentials in Median Survival Time-to-Age at First Marriage by Socio-Demographic Background Characteristics

This section shows differentials in the median survival time to age at first marriage (Kaplan-Meier estimates) and survival curves of men and women by background characteristics in Homa Bay County. The median age at marriage in the study is taken to refer to the age at which approximately half of the respondents are expected to have been married. Descriptive analyses, using the Kaplan-Meier median estimate, Log Rank chi-square ($\chi 2$) and survival curves, were used to measure significant differences between median survival time and key background characteristics. Median age at first marriage was considered to be significantly different in the survival distributions if the $p < 0.05$. The key variables analyzed include age cohort, premarital cohabitation, childhood place of residence, sexual debut, premarital employment status, main occupation and level of education (Table 4.4).

Table 4.4: Kaplan-Meier estimate of the median survival time to age at first marriage by Socio-demographic background characteristics

Variable / Category	Median survival time to first marriage (Kaplan-Meier estimate)					
	Females			Males		
	N	Median survival time	Log Rank χ2-value	N	Median survival time	Log Rank χ2-value
Age Cohort						
20-24	39	23	14.546; p=0.012	17	20	5.004 (p=0.145)
25-29	64	25		49	22	
30-34	36	21		51	25	
35-39	52	17		48	27	
40-44	17	17		30	27	
45-49	6	16		11	25	
Premarital Cohabitation						
Cohabited	146	25	18.133; p=0.000	132	25	5.999 (p=0.035)
Not cohabited	68	17		74	23	
Childhood Place of Residence						
Rural	143	20	7.272; p=0.007	132	23	5.231 (p=0.019)
Urban	71	25		74	27	
Sexual debut						
Below 16 Years	100	17	10.571; p=0.001	47	22	3.645 p=0.153
16-19 Years	71	21		112	25	
Above 19 Years	43	23		47	27	
Premarital employment status						
Employed / salaried	53	24	32.982 p=0.001	92	26	15.631 P=0.003
Unemployed	161	19		114	23	
Main Occupation						
Peasant Farmer	39	17	49.21; p=0.000	37	23	4.729 p=0.178
Trading	73	20		16	24	
Public Servant	44	23		82	27	
Housewife	24	17		-	-	
Unemployed	13	17		1	27	
Self-employment	21	24		50	23	
Politician	-	-		2	32	
Fishing	-	-		18	20	
Level of Education						
No Formal	16	17	170.27; p=0.000			
Primary	74	17		44	20	5.097 p=0.021
Secondary	77	23		71	23	
Tertiary	47	25		91	27	
Paternal level of education						
Less than High school	112	22	7.179; p=0.028	75	23	2.481 p=0.134
High School	83	22		85	24	
More than High school	19	25		46	27	
Maternal level of education						
Less than High school	150	19	23.887; p=0.000	131	24	3.442 p=0.168
High School	54	21		64	26	
More than High school	10	24		11	27	

4.4.1 Age Cohort and Median Age at First Marriage

In demographic analysis, the age cohort of a person is of particular interest because it usually influences their behavior with regard to fertility, union formation and marital dissolution in many societies (Musick, 2007; Saleheen *et al.,* 2021). In addition, age may be used as a control to investigate temporal changes. From the available evidence, it is a known fact that behavior change is cohort based whereby those who delay marriage are more likely to be young and more educated (Bumpass & Lu, 2000). The results showed that the median age was significantly different for women in the different age cohorts with a log rank $\chi 2=14.546$; $p=0.012$ (Table 4.4). However, there is no evidence to suggest that age cohort reduces the risk of early marriages among men: the median survival time to early marriage for men was not statistically different across the age cohorts ($\chi 2=2.381$, $p=0.123$). This analysis suggests that the alleged effects which accrue due to time differences have no effect on early marriages among men in Homa Bay County.

Table 4.4 shows that the median age at marriage for women increased from 23 years in the 20-24-year age group to 25 years in the 25-29-year age group before declining to 21 years in the 30-34 years and declined more to 16 in the 45-49 years respectively. Those in the age cohort of 35-39 and 40-44 years had identical median times to age at first marriage of 17 years, 6 years earlier than the 20-24 age cohort (Figure 4.3). The observed difference in median survival time to early marriage among women at different times could be attributed to an increase in the prevalence of cohabiting unions common among recent cohorts. This could have diminished the perceived benefits from early union; with a lower risk among the youngest age cohorts (20-29), followed by the 30-34 age bracket, and a higher risk for the 45-49 age cohort. Also, recent cohorts of young women practice less conservative behaviors than old women of previous cohorts.

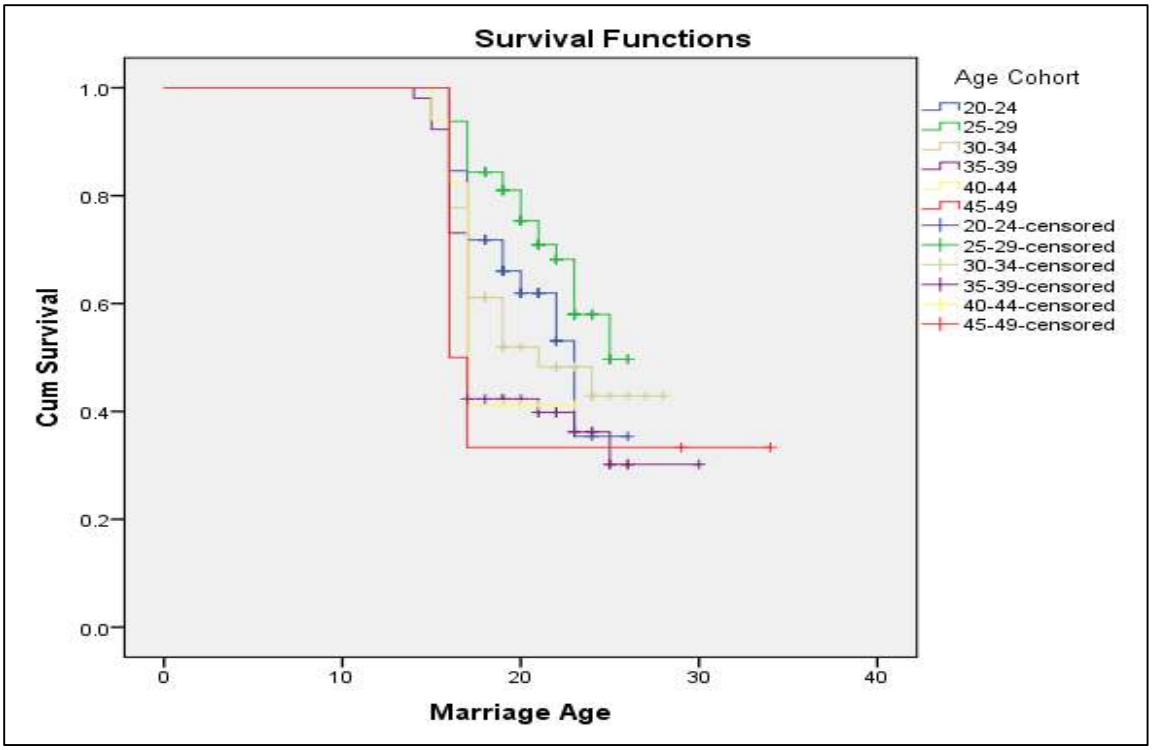

Figure 4.3: Kaplan-Meier plots displaying survivorship to age at first marriage by age cohort of women

4.4.2 Debut of Sexual Behavior and Median Age at First Marriage

Age at sexual debut is a key factor in influencing age at first marriage, with a decrease in the risk as age at first sexual debut increases (Ikamari, 2005; Montazeri *et al.,* 2016). The outcomes of this study support these findings. Table 4.4 and Figure 4.4 reveal that the effect of early debut of sexual behavior is more distinct among women compared to men. For example, the median age at first marriage increased from 17 years among women whose sexual debut was below 16 years old to 21 years among women whose sexual debut was between 16-19 years. The data shows that the median survival age was significantly difference only for women (long rank $\chi 2=10.571$; $p=0.001$). On the other hand, men who engage in sex under age 16 will marry 3 years earlier than one who initiates sex when 16-19 years old and 5 years earlier than a man whose sexual debut is above 19 years. However, there was significant difference in the median survival time to early marriage for men across the ages of sexual debut (long rank $\chi 2=3.645$; $p=0.153$).

In Figure 4.4, the Kaplan-Meier plots showing differentials in age at marriage by time at first sex is presented showing that women who had sex before first marriage are less likely to delay marriage than women who had sex at first marriage. The plots show that by 23 years of age, only 46.2% of the women who had sex before marriage had postponed marriage compared to nearly 72.1% of women who had sex at first marriage.

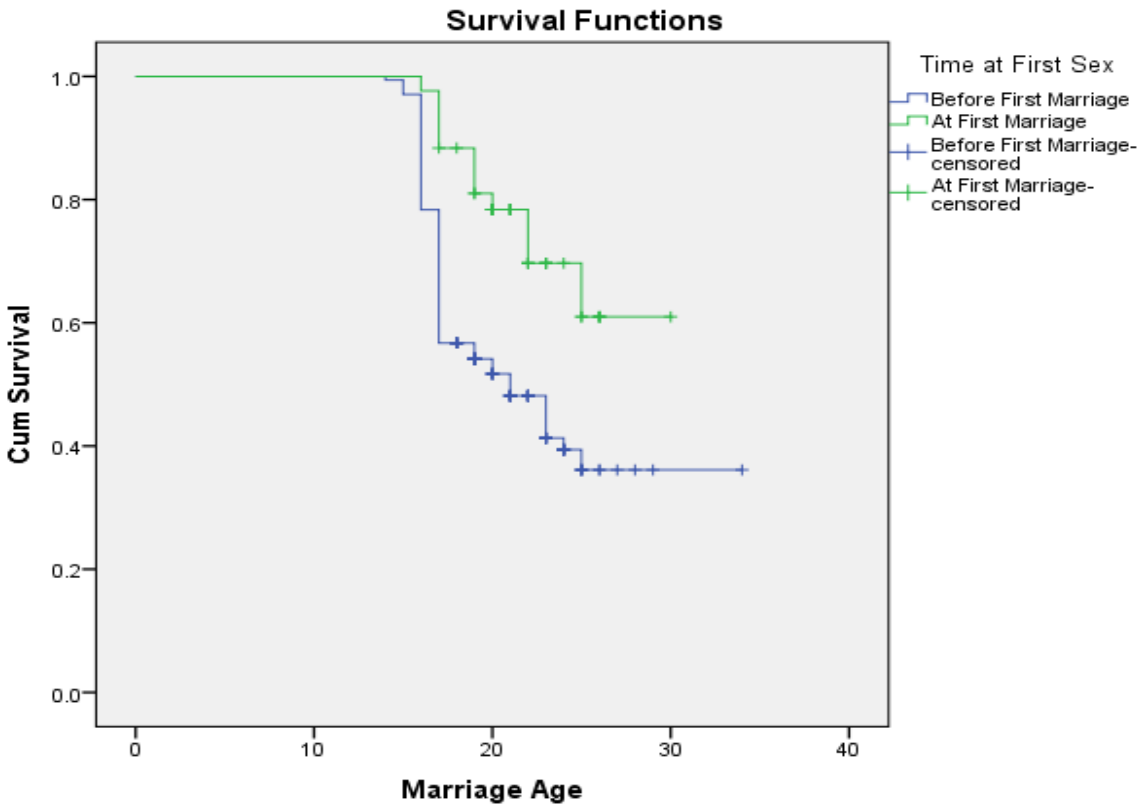

Figure 4.4: Kaplan-Meier plots displaying survivorship to age at first marriage by time at first sex among women in Homa Bay County

4.4.3 Level of Education and Median Age at First Marriage

Formal education exposes people to beliefs and values that place a high premium on individual advancement, creates awareness of alternative opportunities and life pursuits, and motivates them to develop and pursue interests other than marriage and childbearing (Tian, 2013). Becker (1981) avers that human capital in early marriage are lower for women with high level of education compared to their counterparts with no formal education or less educated. In the Kenyan education system, it is not common for a woman

to enter marriage while continuing with her basic education (KDHS, 2022). The survival estimates in Table 4.4 and Figure 4.5 reveal that, at every duration, median age at marriage decreases for both men and women with primary levels of education and increases among those with secondary levels or higher.

For men, the median age at marriage for those with primary education (20) is lower than for those with secondary education (23). Women with no formal education married at the same age as women with primary level of education at 17 years of age. Women with secondary level of education generally married later at 23 years of age, and those with tertiary level of education married 2 years later than those with secondary level of education. It is however, interesting to note that even with acquisition of tertiary education, women marry earlier than men in Kenya. For example, median age at marriage for men and women with tertiary level of education is 27 and 25 years respectively. A possible reason could be that women with higher educational attainment have more difficulty finding potential husbands therefore they prefer marrying.

Furthermore, it may be assumed that in Homa Bay County, education has had a significant ideological influence on changing people's traditional beliefs to individual oriented values thus having more influence on the timing of a first union (Malhotra, 1997; Caldwell, 2005). Differentials in the median age at marriage for both men and women by level of education shows a statistically significant variation with log rank $\chi2=5.097$; $p=0.021$ and $\chi2=170.270$; $p=0.000$ respectively (Table 4.23). The Kaplan-Meier curves presented in Figure 4.5 demonstrates that indeed those with tertiary level of education delayed marriage than those with secondary, primary and no formal education. The study found that by age 23, nearly 98% of the women in the study sample with tertiary level of education delayed marriage compared to only 3% and nearly 13% among women with primary and no formal education respectively.

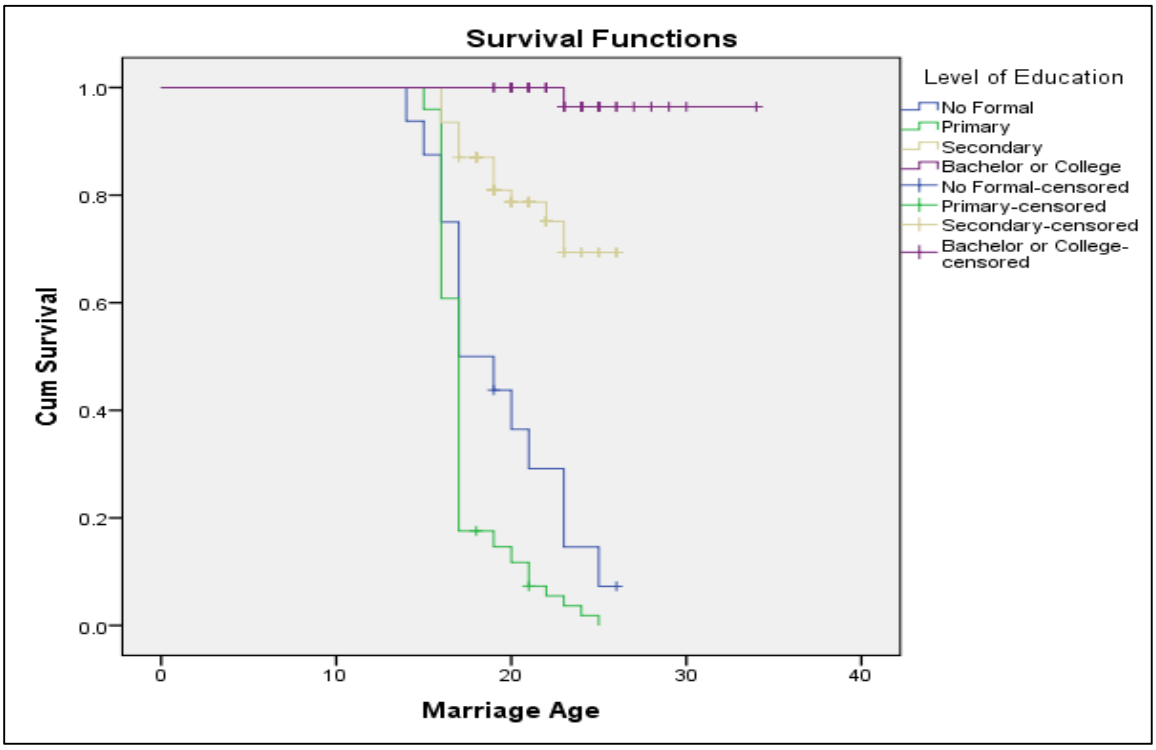

Figure 4.5: Kaplan-Meier plots displaying survivorship to age at first marriage by level of education of women in Homa Bay County

4.4.4 Parents Level of Education and Median Age at First Marriage

Some studies have suggested that parental level of education may influence their children's choice of a partner, marital timing, marriage type and practice, fertility preferences, and the extent of economic interdependence (Janson, 2006; Lyngstad, 2006; Dubow *et al.,* 2009). The results illustrate that both men and women born to parents with more than high school education tend to delay first marriage if compared to those with high school or less than high school education. This is evidenced by their median ages at first marriage (maternal education females- 24, males- 27, Paternal education females - 25, males - 27) (Table 4.4). However, differences in maternal and paternal educational attainment on the variation on the median survival age to early marriage were only a significant life course experience for their daughter ($\chi2=23.887$; $p=0.000$ and log rank $\chi2=7.179$; $p=0.028$ respectively). The observed differences were however not significant for their sons ($\chi2=3.442$; $p=0.168$ for maternal and $\chi2=2.481$; $p=0.134$ for paternal level of education).

These findings are indicative of the variation in median time to survival to early marriage at different maternal and paternal levels of education (Figure 4.6 and Figure 4.7). The Kaplan-Meier plot on Figure 4.6 shows that by 23 years of age, nearly 53% of women whose fathers level of education was less than high school and 49% of women whose fathers level of education was high school are married compared to only 21% of women whose fathers level of education was more than high school in this population. Figure 4.7 also demonstrates that by 23 years of age, nearly 60% of the women whose mothers had less than high school level of education was ever married compared to only 10% and about 26% among women whose mothers had more than high school and high school educational qualification respectively. These results, could however, be partially attributed to the ability of the parents to impose social control over the daughter. This is consistent with the social control perspective in which both, the parents and daughter's opportunities and constraints are shaped by similar social forces (Bengtson, 1975).

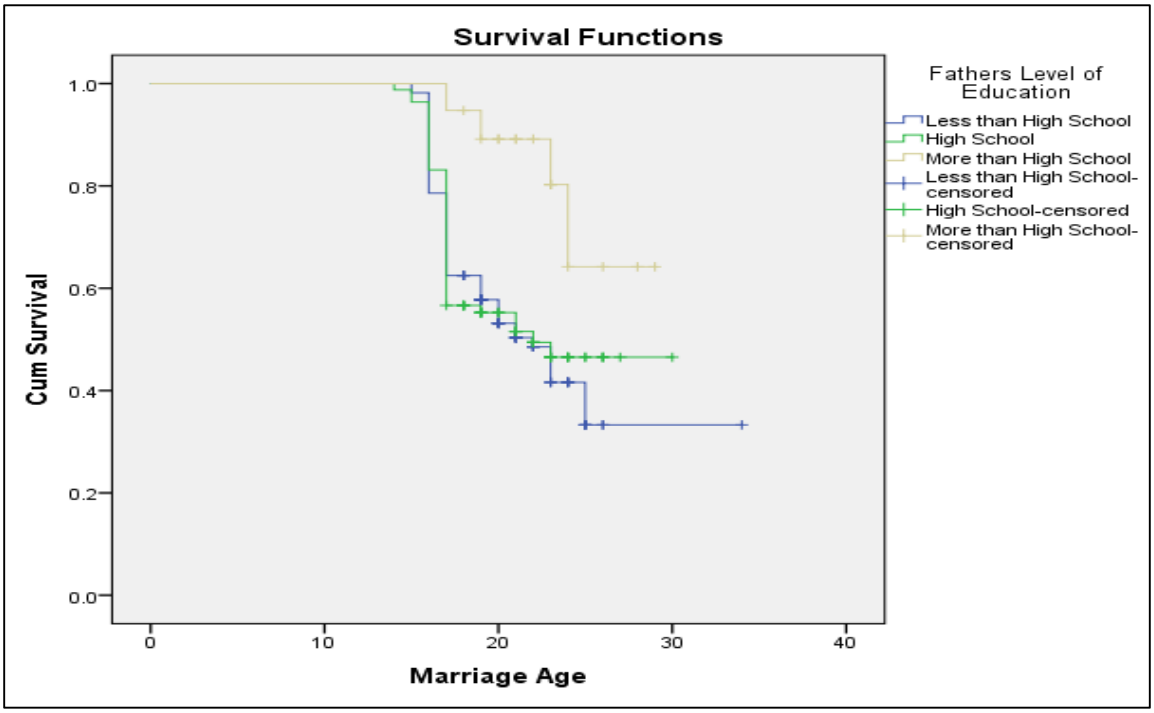

Figure 4.6: Kaplan-Meier plots displaying survivorship to age at first marriage by paternal level of education

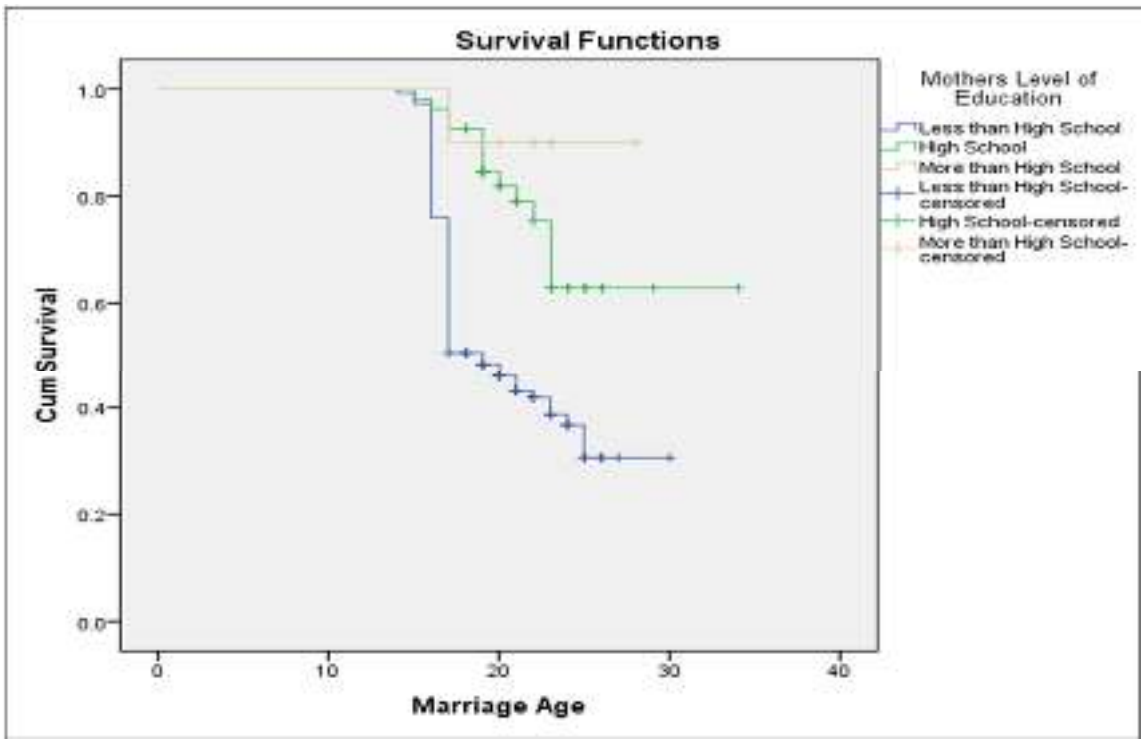

Figure 4.7: Kaplan-Meier plots displaying survivorship to age at first marriage by maternal level of education

4.4.5 Childhood Place of Residence and Median Age at First Marriage

Children raised in rural areas are more likely to enter marital union early compared to their urban counterparts because they are more controlled by the traditional patriarchal power and beliefs encouraging early marriage (Mensch *et al.,* 2005; Jain & Kurz, 2007). They are also more likely to be influenced by their families or community who decide the time of marriage and choice of spouse. The median survival time to age at first marriage among women who grew up in rural locale married earlier than women who grew up in urban locales (Table 4.4 and Figure 4.8). While women who lived in rural locales married at 20 years, those who grew up in urban locales married 5 years later at 25 years of age. Men in both areas considerably delay marriage than women, with a median age of 23 years in the rural areas and 27 years in the urban areas. It is also interesting to note that the difference in the average age at which men and women marry is not smaller in the rural sample. There is about a 3-year gap for the rural sample which is also not far from the urban sample gap

(2-year gap). The results show a statistically significant variation for both men and women (log rank $\chi 2=5.231$; $p=0.019$; $\chi 2=7.272$; $p=0.007$) respectively.

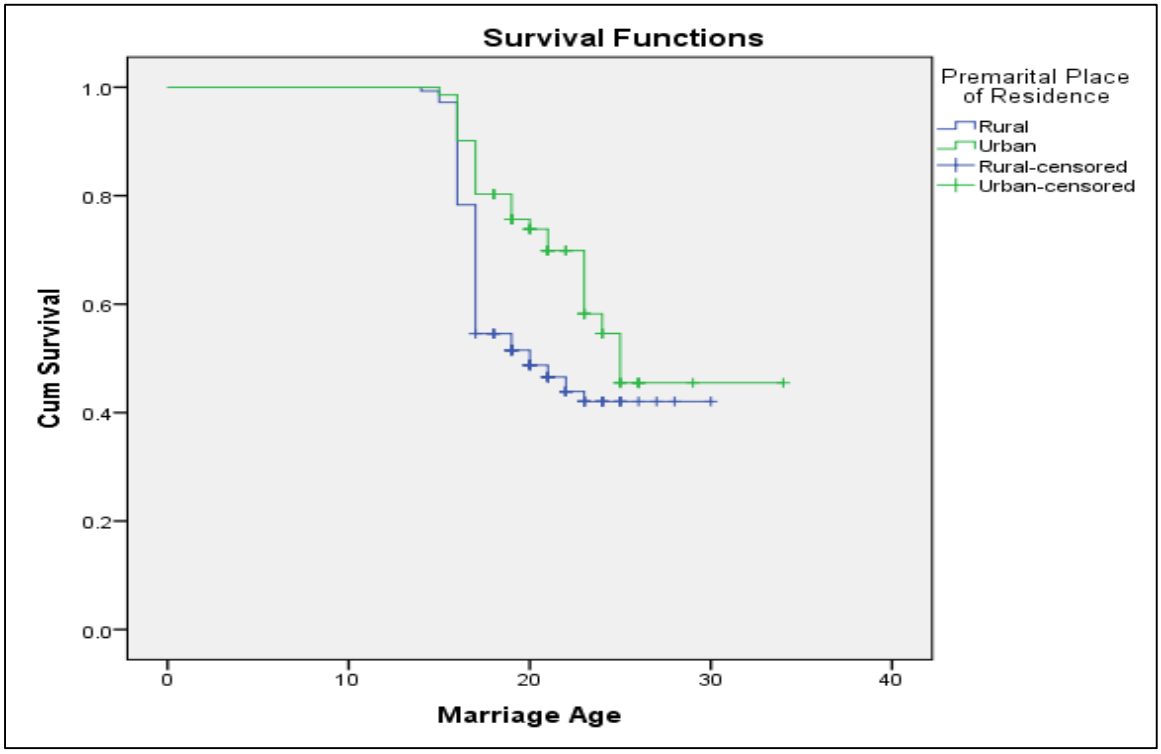

Figure 4.8: Kaplan-Meier plots displaying survivorship to age at first marriage by premarital place of residence among women in Homa Bay County

Figure 4.8 presents the Kaplan-Meier curves showing survivorship to age at first marriage for women in different ages by childhood place of residence. The figure shows that women whose childhood locale was rural married earlier than women raised in urban locales at all ages. By 23 year of age, nearly 54% of the women whose childhood place of residence was in in rural areas were ever married compared to about 38% in urban areas.

4.4.6 Premarital Employment Status and Median Age at First Marriage

Premarital employment has been hypothesized to impact event timing through exposure to new networks, the generation of new aspirations and changes related to family authority (Yabiku, 2005). Similar to education, premarital work can draw individuals outside of their home communities to encounter new experiences and alternative peer networks. As such, they can gain exposure to different norms, ideas and values that may challenge traditional customs and marriage timing patterns (Singh & Samara, 1996; Yabiku, 2005). Social

networks can be especially powerful facilitators of information dissemination and normative changes (Bongaarts & Watkins, 1996). The scholars further aver that premarital employment not only offer socially legitimate options to marriage for women, hence breaking the association between adolescence and entry into marital union, but it is also instrumental in encouraging young adults to emulate a Western conceptualization of marriage in terms of self-selection of spouses and more nuclear, conjugal and egalitarian marital relationships.

The survival median age estimates in Table 4.4 and Figure 4.9 show that, at every age, men and women who were employed before marriage postponed marriage than their counterparts who were unemployed prior to marriage. Whereas men and women who were employed prior to marriage married at 26 and 24 years respectively, those who had nonstandard job or unemployed married 3 years and 5 years earlier at 23 and 19 years of age respectively. Moreover, premarital employment status does show a highly significant effect on a man's and a woman's timing to first union (log rank $\chi 2=15.631$; $p=0.003$ and log rank $\chi 2=32.982$; $p=0.001$ respectively). Gutierrez (2003) reported a significant negative relationship between premarital labor force and the time to a first union for Belgium, Italy and Spain and a positive association in Sweden. Depending on the status of premarital employment, three possible reasons may be used to explain the direction and effect of the results: (i) women working in the formal sector spend more time in school acquiring skills necessary in the job market thus entering first union late, (ii) work is a competing risk which might probably explain the delay in marriage, and (iii) working women could have been using contraceptives thus postponing the prospect of giving non-marital birth which might lead to marriage (Edwards, 2002; Sullivan, 2005).

Figure 4.9 shows the Kaplan-Meier graphs showing survivorship to age at marriage for women in different ages at first marriage by participation in premarital labor force. The figure shows that women who participated in premarital labor delayed marriage than women who never participated in premarital labor. By 23 year of age, nearly 89% of the women who participated in premarital labor were never married compared to only 39% who never participated in premarital labor.

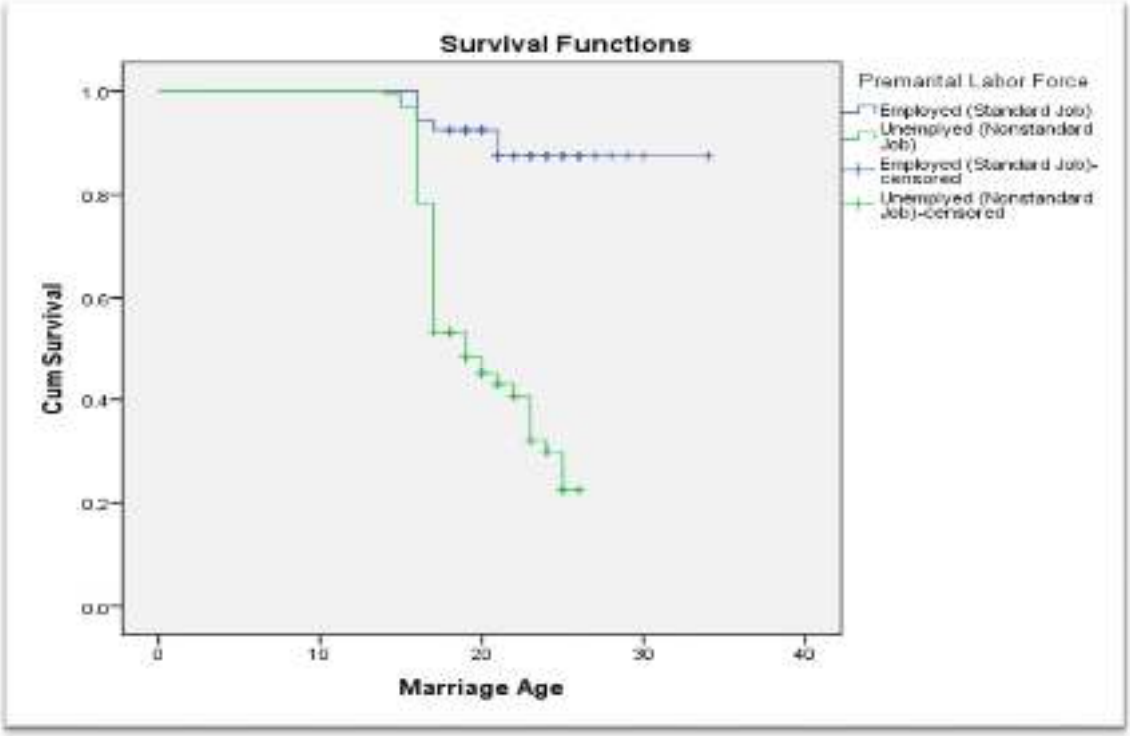

Figure 4.9: Kaplan-Meier plots displaying survivorship to age at first marriage by premarital labor force among women in Homa Bay County

4.4.7 Occupation and Median Age at First Marriage

Occupation is, perhaps, one of the most important socio-economic characteristics. Having a job enables women to make autonomous decisions regarding their marital timing, family size, timing and spacing of children in order to provide better health care, education and proper care for their children (Yohannes, 2013). Women who are employed for earnings may be exposed to information, knowledge and new attitudes about modern health care at their workplaces or through the media. The results presented in Table 4.4 indeed show that both men and women who are public servants or self-employed tend to delay first marriage than their counterparts. The median ages at first marriage among public servant and self-employed men are 27 and 25 respectively. Peasant farmer marry two years earlier than self-employed men (23). Women in the public service or self-employed also marry later compared to peasant farmers, housewives and unemployed (Public servant 23; Self-employed 24; trading 20; housewife and unemployed 17). Age at marriage was however found to be significantly different only for women in the five occupational categories with

log rank $\chi 2=49.210$; p=0.0001. These results are not consistent with a previous study by Lwanga (2015) in South Africa who found that women's career paths did not significantly influence age at first marriage. Furthermore, the results showing the Kaplan-Meier plots presented in Figure 4.26 below seem to support this finding as the difference in timing of first marriage of similar ages for the five occupational groups is large.

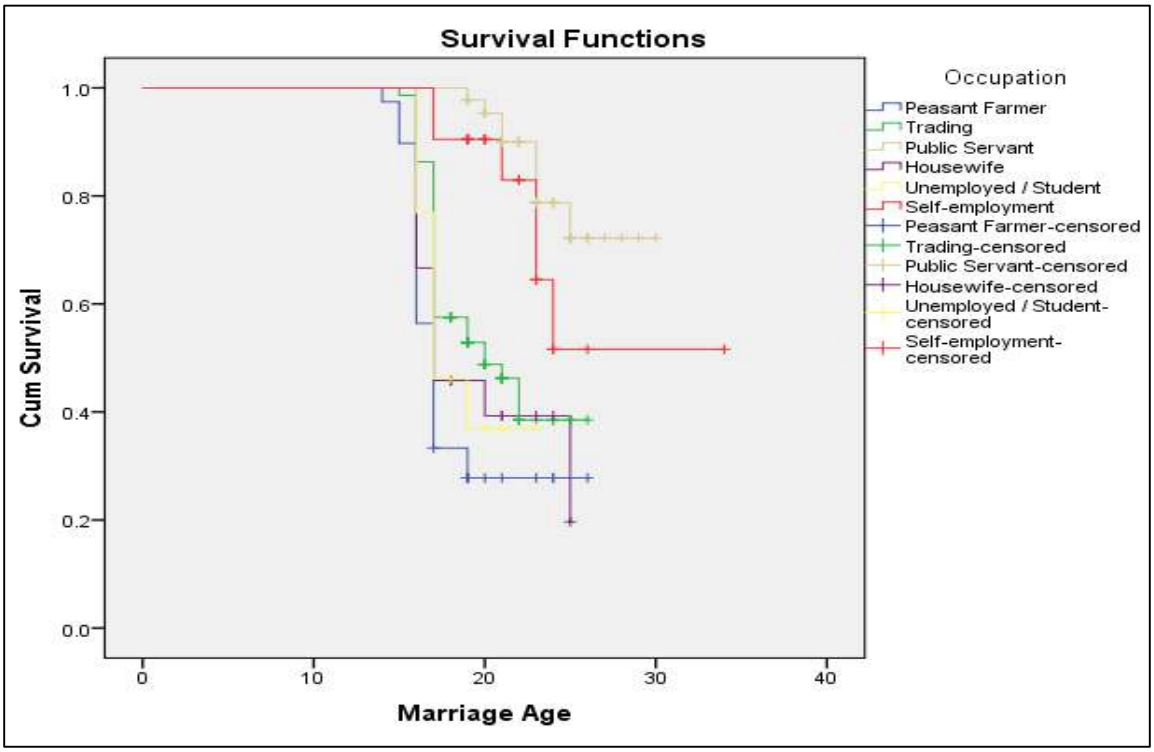

Figure 4.10: Kaplan-Meier plots displaying survivorship to age at first marriage by occupation

The figure above indicates that at each age, women whose occupation is self-employment and public servants married later than the other different categories. This is because just like in many societies, women were engaged in the pursuit of professional and higher level careers that impede early marriage. Moreover, educational and career goals of young women could increase use of family planning which could lead to higher likelihood of delayed marriage. For example, by age 23 years, 63% and 62% of the women whose occupation is housewives and being unemployed respectively were married compared to about 19% and 29% of the women whose occupation is public servants and self-employed

respectively (Figure 4.10). Those women whose occupation is peasant farmer are more likely to have young marriages than other occupational groups. Peasant farming is considered a non-professional career and most women involved in these sectors are low skilled or unskilled that would have otherwise impeded early union formation.

4.4.8 Premarital Cohabitation and Median Age at First Marriage

The growing body of literature indicates that premarital cohabitation has been rising in developed and developing countries; and is said to be influencing marriage trends and patterns in recent times (Posel & Rudwick, 2013). Recent demographic research on family demography indicates that 60% of women in the United States cohabitated with their partners before entering their first union (Copen *et al.,* 2013). In Kenya, the prevalence of cohabitation was found to be 27.4% (Muriithi *et al.,* 2011) while in Botswana, the prevalence was 30.1% (Mokomane, 2013). In this study, the eight point (8) difference between the median ages at first marriage for those who cohabited and not cohabited among women (cohabited-25, not cohabited-17) means that premarital cohabitation affect propensity to enter into first marriage among women (Table 4.4). Similarly, the 23 and 25 median age differences at first marriage (2-year difference) among men who cohabited and did not cohabit implies that premarital cohabitation increases first marriage chance for men in Homa Bay County. The result between the two sexes sampled in the study are statistically significantly different with log rank $\chi 2$= 18.133; p=0.000 and log rank $\chi 2$= 5.999; p=0.035 for women and men respectively (Table 4.4).

Figure 4.11 similarly emphasizes the differentials in survivorship to age at marriage for women at different ages by their premarital cohabitation. The plot shows that at each age, women who never cohabited before marriage had the worst survival time than those who reported to have cohabited. By age 23 years, nearly 67% of the women who reported to have never cohabited before marriage were married compared to about 41% of the women who stated that they cohabited before marriage.

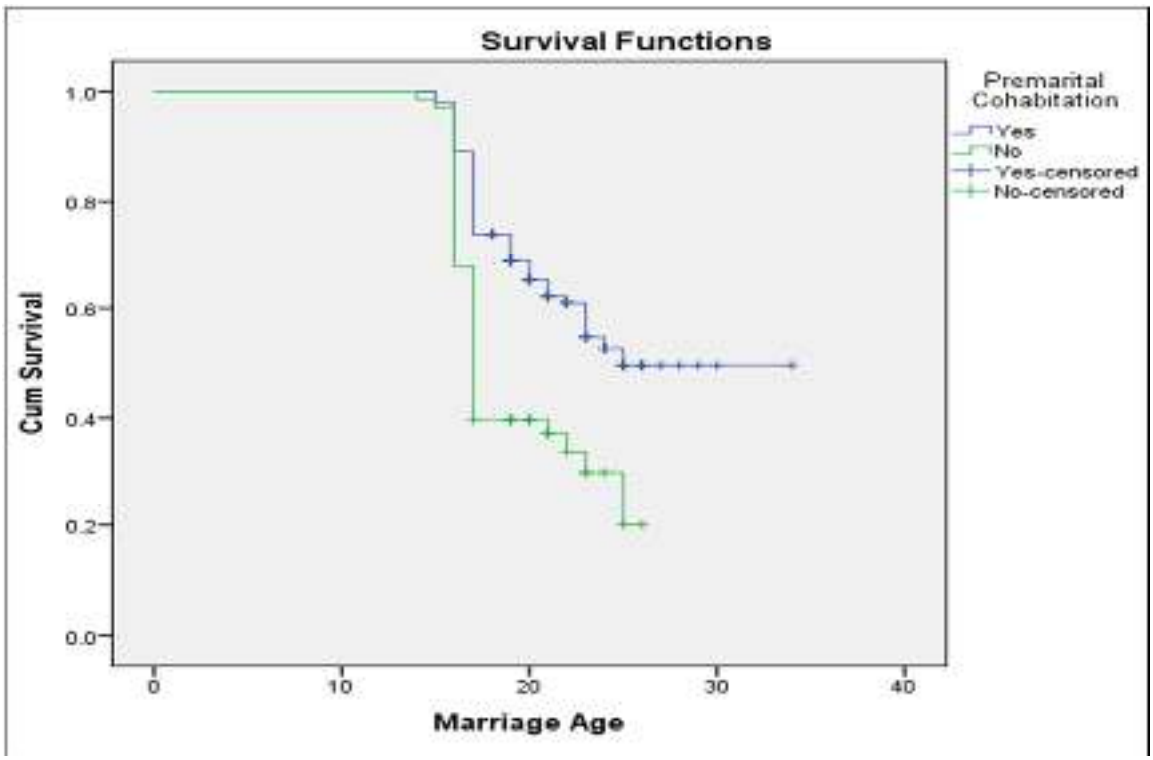

Figure 4.11: Kaplan-Meier plots displaying survivorship to age at first marriage by Premarital Cohabitation

4.5 Influence of Spatiotemporal Dimensions on Age at First Marriage

Following the univariate and bivariate analysis in the previous sections, this section presents the first objective in tabular form followed by detailed interpretation and discussion of findings. It looks at binary logistic regression to determine precisely the net effect of individual characteristics on the respondent's (men versus women) willingness to enter first union. In essence, all significant independent variables at bivariate analysis were included in the logistic regression model. These include age cohort among women, premarital cohabitation, time at first sexual debut, status of ex-nuptial birth, premarital contraceptive use and migration status. The results are shown in Table 4.5 which presents exponentials of regression coefficients (or odds ratios) and confidence intervals which are used to describe the influence of each predictor to the response variable.

Table 4.5: Odds ratios of binary regression showing effect of spatiotemporal dimensions on the likelihood of early marriage, by sex

SELECTED COVARIATES	Women			Men		
	Co-efficient (b)	Sig.	Odds Ratio	Co-efficient (b)	Sig.	Odds Ratio
Age Cohort						
20-24 (**RC**)	….		1.00			
25-29	1.056	.254	2.875			
30-34	1.340	.139	3.818			
35-39	.582	.531	1.789			
40-44	.141	.877	1.152			
45-49	.336	.736	1.400			
Cohabitation						
Cohabited (**RC**)	….		1.00			
Not Cohabited	-1.060	0.001	2.89	1.299	0.014	3.67
Time at first sexual debut						
Before First Marriage (**RC**)	….		1.00			
At First Marriage	-1.101	.003	.332			
Ex-nuptial birth						
Pregnant at Time of Marriage (**RC**)	….		1.00			
Did not have child	-1.910	.003	.148			
Had Child Before First Marriage	1.391	.001	4.017			
Premarital Contraceptive Use						
No method Used (**RC**)				….		1.00
Traditional / Modern Method				-2.591	.001	.075
Migration Status						
Migrated (**RC**)				….		1.00
Not migrated				1.553	.009	4.727

NOTE: RC: Reference Category

Table 4.5 gives the summary statistics of the samples and the variation of the likelihood of early marriage across spatiotemporal dimension variables. From the bivariate logistic results, a positive association was detected between age cohort, between men and women who did not cohabit (OR=3.67) and (OR=2.89) respectively, women having a child before first marriage (OR=4.017), men having no migration experience after the age of 15 years (OR=4.727) and early marriage (Table 4.5). A negative association was detected between women's time at first sexual debut (OR=0.332), women having no child before first marriage (OR=0.148), men who used either traditional or modern contraception method (OR=0.075) and early marriage. The multivariate logit model fit was evaluated by use of the Omnibus Test of Model Coefficients which displayed that the model Chi-square ($\chi 2$) = 9.107; p=0.003, indicating that the model is a good fit. A detailed interpretation and discussion of the extent to which each of the six independent variables predicted the dependent variable are given below.

4.5.1 Effect of Age Cohort On Early Marriages

Age is a fundamental variable in demographic investigation because vital population dynamics such as mortality, migration, fertility and marriage are dependent on it (Saleheen *et al.,* 2021). Since the effects of these events varies with one's age, the meaning and importance of such events might differ among age cohort. Musick (2007) opined that generational change is likely to be dependent upon successive cohorts being exposed to new influences and opportunities. In this study, the effect of age cohort on age at first marriage was examined and Table 4.6 shows the results.

Table 4.6: Trends in first nuptial age among women by age cohort in Homa Bay County

Age Cohort	Mean age at marriage	Early Marriage (%)	Ideal Marriage (%)
20-24	19.28	16(41.0%)	23(59.0%)
25-29	20.78	22(34.4%)	42(65.6%)
30-34	19.01	19(52.8%)	17(47.2%)
35-39	18.98	33(63.5%)	19(36.5%)
40-44	18.06	10(58.8%)	7(41.2%)
45-49	17.33	4(66.7%)	2(33.3%)

Survey data indicate that out of the all-female respondents sampled, 18.2%, 29.9%, 16.8%, 24.3%, 7.9% and 2.8% were in the age cohort 20-24, 25-29, 30-34, 35-39, 40-44 and 45-49 respectively (Table 4.6). The prevalence of child marriage varied by age cohort. Of the women in the age cohort 45-49 years, 66.7 per cent were married before 18 years of age. However, this proportion had declined to 41 per cent and 34.4 per cent among women in the age group 20-24 and 25-29 years of age respectively (Table 4.6). This clearly implies that the mean age at first marriage has been increasing in the area of study. On the other hand, slightly more than half (52.8%) of women aged 30-34 and slightly more than two-thirds (63.5%) in the age group of 35-39 years married before 18 years of age (Table 4.6). This provide proof of increasing age at marriage in Homa Bay County.

It is observed that first nuptial age in area of study is increasing and thus may be a result of changing attitudes towards marital timing. This was examined by asking respondents whether their first nuptial age was late, early, at the right time or do not know (Table 4.7). Of all the female respondents, 48.6 per cent said they were married early (below 18 years)

while 4.7 per cent and 44.2 per cent said that they married late and at the right age (above 18 years) respectively. This gives further indication that the current mean first nuptial age (19.02 years) in Homa Bay County is likely to increase in the future since these attitudes may affect their kids' first nuptial age.

Table 4.7: Percentage distribution and mean age at marriage of attitudes towards first nuptial age

Respondents' first nuptial age	**Percentage (%)**	**MAM**	**Frequency**
Early	48.6	17.2	104
Late	4.7	25.4	10
Right Age	44.2	23.2	95
Do not know	2.5	18.7	5
Total	100.0	19.01	214

MAM – Mean Age at Marriage

In the course of focus group discussions, respondents were asked to identify the ideal age at marriage for both sexes. The ideal ages mentioned ranged between 23 to 25 years. Age 23 emerged as key during the focus group discussions as the ideal age at marriage. Some of the respondent's thoughts about the ideal age at marriage can be found in the following statements:

> *"…after the age of 23 years, men and women are expected to be through with their studies and well developed to decide if, when and whom to marry".* FGD female male participant
>
> *"Between ages 23-25 years, young people shall have passed through the vital stages of courtship and enjoyed themselves before they finally get married"*. FGD male participant
>
> *"Between ages 23-25 years, the boys and girls are physically, mentally and emotionally fit therefore able to bear the responsibility of parenthood".* FGD female participant
>
> *"After the age of 23 years, men and women shall have gained some level of independence and this will in turn lower the level of dependency on others leading to delayed marriages".* FGD male participant

However, an elderly participant in the women FGD plainly pointed out to value early marriage positively. For instance, she indicated:

> *"The Bible is very clear about this [...quotes from the Bible...] It states very simply that Eve was united with Adam in Paradise at the age of 14 years. For that reason, we see 14 years as the appropriate and right age for marriage."* FGD female participant

The woman referred to the Bible in order to authenticate the right age for marriage. In doing so, she underscored the religious influences in support of early marriage. Moreover, this participant stressed the significance of keeping virginity and abstention for girls and also focused on the positive religious and social aspects of early marriages.

The general observation which came-up in the course of the discussion was that young men and women would love to get married after 23 years of age. At this age, they are expected to be through with their studies, fully developed, beyond the legal age of marriage and their mind is settled and can make sensible decisions. Also, they shall have passed through the vital stages of courtship and enjoyed themselves before they finally get married.

Table 4.5 shows logistic regression results on the relationship between age cohort and the likelihood of early marriage. The results indicate when compared to women in the reference category (20-24), the odds of early marriage were greater for all groups. This means that women in the age cohort 20-24 commenced first nuptial later than all the other older cohorts or 25-49. Those women in age cohort 25-29 (OR=2.875), 30-34 (OR=3.818), 35-39 (OR=1.789), 40-44 (OR=1.152) or 45-49 (OR=1.400) had higher probability of marrying before attaining 18 years compared to women in the age cohort 20-24 years. The findings affirm a prior study that was conducted in similar settings in Bangladesh where women whose age cohort from 45-49 had twice the likelihood of marrying earlier before their 18^{th} birthday in relation to females in the age cohorts 20-24 (Kamal, 2012).

Rates of early marital union may be different in the age cohorts due to modifications in females' socio-economic status, predominantly increased educational attainment, urbanization and employment opportunities (Kamal, 2012), as well as a population experiencing a general decline in marriage rates over the years due to increasing cohabitation and singlehood (Ayayo, 2002; Copen *et al.,* 2012; Kamal, 2012), women

empowerment that encourage women to exercise their rights including rights to decide when to get married, and the effect of greater individuality of women due to participation in the labor market as workers (Harding & Jencks, 2003; Gayaman & Adebayo, 2013). As a result, this thus makes them less susceptible to the discriminatory practice of early marriage in relation to older females.

This finding suggests socio-economic interventions that target married and non-married women, in addition to early marriage preventive interventions. Improved access to economic resources focusing on expanding employment and entrepreneurial opportunities as a recommended intervention for married adolescents (Manda & Meyer, 2005) has been indicated to lower the vulnerability, social isolation and marginalization of women who married during their teenage years (Manda & Meyer, 2005; Umar *et al.,* 2014), while micro-credit programs focusing on providing women and girls with the basic economic opportunities they often lack and a social support network that promotes changes in attitudes and behavior have been indicated as key interventions for granting them higher status and more control over their lives - including their options in marriage, quitting or terminating such early marriages (Kabeer, 2005; Umashankar, 2006).

4.5.2 Effect of Premarital Cohabitation on Age at First Marriage

In view of the trends in marriage and premarital fertility, it is believed that premarital cohabitation has grown dramatically in popularity. However, there is a dearth of macro-level data demonstrating this and only a limited evidence from survey based approximations in developed countries (Hoem *et al.,* 2009). In this study, pre-marital cohabitation with a partner before marriage was tested by asking whether the respondents cohabited with the spouse before marriage. The results revealed that while most respondents 64.7% (272), preferred cohabitation, only 35.3% (148) did not cohabit and consequently contributed to higher propensities of early marriages before age 18 (Figure 4.12). Nonetheless, cohabitation has gained popularity and have even evolved in the rural areas. Prior studies by Wegner and Welb (2006), given the increasing heterogeneity of marriage markets and growing individualization of societies, it is necessary to spend more time searching for a partner to make a deductive judgement on issues concerning marriage life in addition to being uncertain of the quality of the couple match.

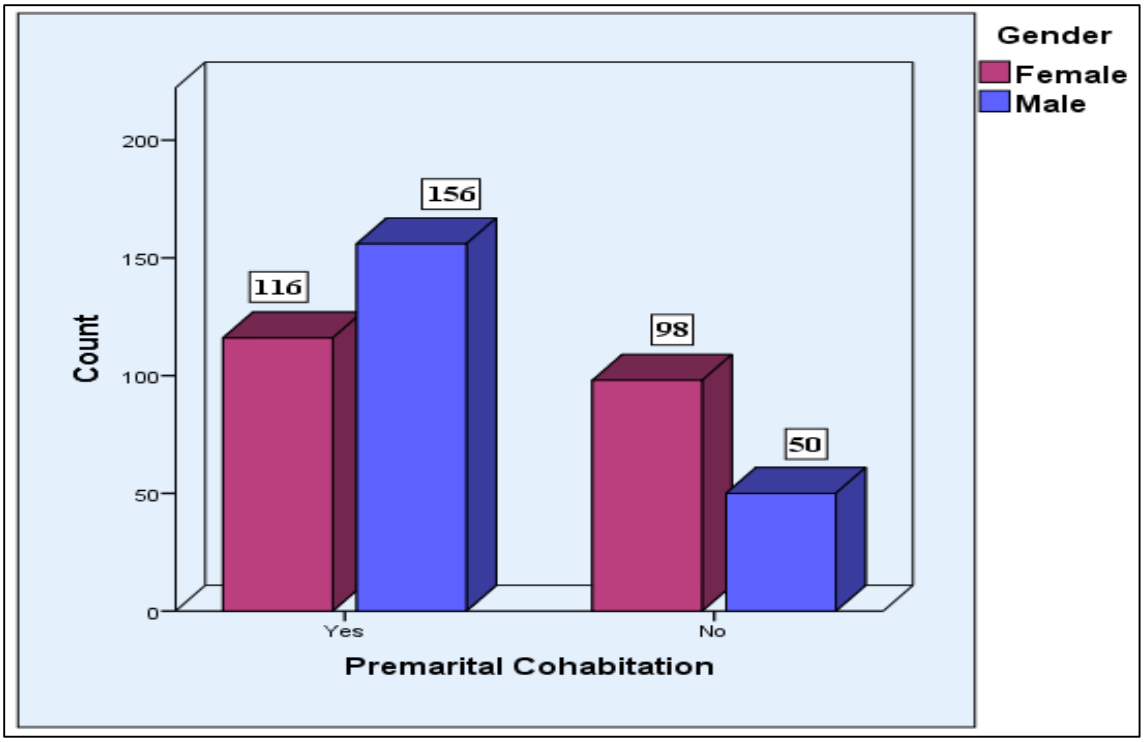

Figure 4.12: Distribution of respondents by premarital cohabitation

In this study, females who did not engage in cohabitation had significantly the greatest increased risk of likelihood marrying earlier (2.89 times more likely to experience marriage at an early age), compared to those who cohabited (Table 4.5). Compared to the cohabitation status of the men, those who never cohabited were significantly likely to marry earlier compared to their counterparts who cohabited before marriage (OR=3.667; p = 0.014) (Table 4.5). This means than in both gender, the high occurrence of early marriage was observed among people who never cohabited. The association of cohabitation with marital timing has been indicated in some other studies (Hall, 1997; Berrington & Diamond, 1997; Darroch *et al.,* 2016). The thinking could be due to heterogeneity of marriage markets and growing individualization of societies (Darroch *et al.,* 2016). This has led to cohabitation that provide potential couples with a good opportunity to establish their emotional bonds as well as allows each companion to have ample freedom to ascertain the compatibility and quality of the partner match.

In an effort to enhance the quantitative data, a qualitative study through focus group discussion was undertaken to contribute to further explanations on why different people

practice cohabitation in Homa Bay County. These factors were also based upon respondents' answers to unstructured open ended questions. Respondents were asked to identify the important factors why they cohabited before they entered into first marital union. The main factors mentioned were: expensive wedding ceremony and marriage costs, rising cost of housing and raising children, influence from the media and internet, need for freedom and independence, career advancement, premarital pregnancy, and trial marriage (which encompassed learning and understanding each other before long life commitment).

Expensive wedding ceremony and marriage costs, career advancement and trial marriage emerged as key factors influencing men and women to cohabit before marital union. Reflections about financial issues can be found in the following statements as obtained from one of the participants in the field:

> " *.. I cohabited with my partner because of financial constraints to do introduction, pay bride wealth and do a traditional wedding as the Luo culture demands. So, we cohabited and made preparations for the future by saving money to meet the bride and wedding costs".* FGD male participant

> *" .. I accepted to cohabit with my partner because I was still continuing with my college education. My studies were committing and I needed to have a professional career first before marriage".* FGD female participant

Considering cohabitation as a trial marriage, respondents who cohabited before a marital union stressed that they wanted to learn and understand each other. Here are some of the statements made by some respondents:

> *"It is worthy to cohabit before marriage since you get to know the person and personality of the would be spouse before committing yourself. This has the advantage of strengthening the relationship as you plan for marital union in future. This relationship is important because it is like a school. Because the purpose is to make a decent family in future once you happen to agree you automatically go on to marry. When you fail to agree, you try elsewhere".* FGD female participant

Non-marital fertility was another factor which came up as predisposing women to pre-marital cohabitation:

"I cohabited for a short time with my partner then married because I conceived. The pressure also came from parents when I got pregnant. According to the Luo culture, it is not common to stay in the same house with your parents when you are expectant. Consequently, by virtue of your pregnancy status, you are forced to enter marriage with the person responsible for the pregnancy". FGD female participant

From the qualitative data obtained from married men, a religious leader recommended a seven step criteria of cohabitation which youths ought to follow in order to avoid or minimize cases of early marriages and its associated problems:

"*…. the first fundamental step is to ask whether God is calling one to marriage, and not when should I marry or who should I marry. In addition, it also involves one taking time to commune with God so as to be shown whether it is time to commit into a serious relationship*….". FGD male participant (religious leader)

The religious leader further had this to say after an assurance that it was an appropriate time to enter a relationship:

"…. an individual should ask herself or himself whether he / she is prepared for marriage. The individual should then try to find the appropriate partner with whom to enter marriage based on their tastes and preferences which should be in line with God's directives on marriage….". FGD male participant

Another participant further explained the next step after identifying a potential spouse:

"…. the two should seek counsel and guidance from parents or men and women of experience. They then enter a duration of cohabitation, which is defined as a sincere and honest effort of two that are seeking to find out if it is God's will for the two to enter into marriage. It is in this stage where the two study and examine each other's character carefully, and watch every development in character. Importantly, the expression of love and affection is to be reserved until/after marriage until every question is settled….". FGD male participant

The next fundamental step should the cohabitation proceed successfully was:

"…. the two parties then enter an engagement period and marriage arrangement commences…". FGD men participants

Finally, after successful preparation:

"…. the two parties marry either traditionally or in a church wedding, promising to keep oneself from all others. These seven fundamental steps, ordered after the Word (Psalms 119:133, Proverbs 9:1 and Jeremiah 10:23) are aimed at ensuring that early pregnancies and early marriages are minimized and consequently the challenges that come with them….". FGD men participants

Figure 4.13 is the framework that summarizes the seven fundamental steps of cohabitation which young people ought to follow in order to avoid teenage marriages and its associated challenges.

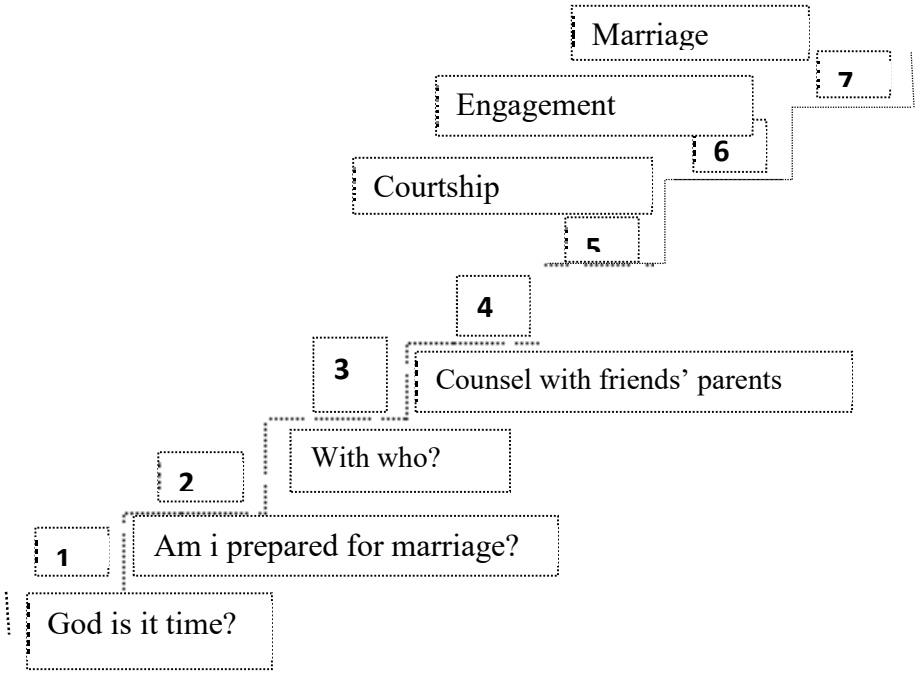

Figure 4.13: A general Christian belief on courtship and marriage

4.5.3 Effect of Time at First Sexual Debut on Early Marriages

The age at first sexual debut is considered a significant determinant of key demographic outcome. For example, girls who have first sexual debut earlier than average (10-14 years) have a higher possibility of having sexual relation with high risk men and a greater risk for STI/ HIV (Maswikwa *et al.,* 2015). They prematurely drop out of school and are victims of teenage pregnancy and childbearing. Three prior studies from SSA found that women whose time at sexual debut is before the age of 18 are at increased risk of larger number of children ever born (Harding & Jencks, 2003; Gayaman & Adebayo, 2013; Maswikwa *et*

al., 2015). This study, however, sought to find out how time at first sexual debut influenced age at first marriage. The results show that controlling for other explanatory variables, early sexual debut increases the propensity of first marriage among women. For instance, female respondents who had sex after 18 years were 66.8% less likely to marry earlier, compared to those who had sex before the age 18 or before marriage (OR = 0.332, p= 0.003).

The reported age at first sexual debut in the area of study is shown in Table 4.8. The age at first sexual debut was at least thirteen with 12.38%. This implies that sex education should start much earlier before age thirteen (13) for an effective management of adolescent pregnancy. This was also supported by prior research conducted by Athar (2017) which showed that at age thirteen (13) most of the adolescents tend to explore to find out more about their bodies with respect to their opposite sex. Only a fifth (20.00%) of the respondents had their age at first sexual debut above 18 years, indicating early sexual debut which is likely to lead to early marriages in the area of study. Adolescents' sexual desires and activeness could be aroused by the type of relations, print media, the film and even the social media they are exposed to. This showcases the need to morally monitor the level of adolescent relations and transform their interaction environment to help solve the problem of non-marital adolescent pregnancy as was also justified by the previous research (UNPFA, 2017).

Table 4.8: Age at First Sexual Debut

Age At First Sexual Debut	**Number**	**Percentage**
13 Years	52	12.38
14 Years	65	15.48
15 Years	89	21.19
16 Years	77	18.33
17 Years	53	12.62
18 Years & Above	84	20.00
TOTAL	**420**	**100.00**

With age-appropriate sex and relationship education, the curiosity will be reduced to a better understanding of their biological body functionality and variations that exist between opposite sexes. This can better help in reducing cases of teenage pregnancy (Othuon *et al.,* 2016). It is also at this tipping point that the adolescent girls begin to menstruate. At this

age their fertility rate is higher and they consequently need to be specially handled. They need to be assisted to increase their self-esteem so as not to compensate it from the compassion from the opposite sex who may opportunistically take advantage of them and lead them to teenage pregnancy.

The results (Figure 4.14) indicate that while more than half (53.8%) of the women whose sexual debut was before first marriage reported they had married early, only 46.2% of their counterparts within the same category married after attaining 18 years. The number of women having reported having married earlier but the sexual debut was at first marriage is less than a third (27,9%) compared to the majority (72.1%) in the same category who married after 18 years (Figure 4.14). Reasons for early sexual debut was based upon respondents' answers to unstructured open ended questions.

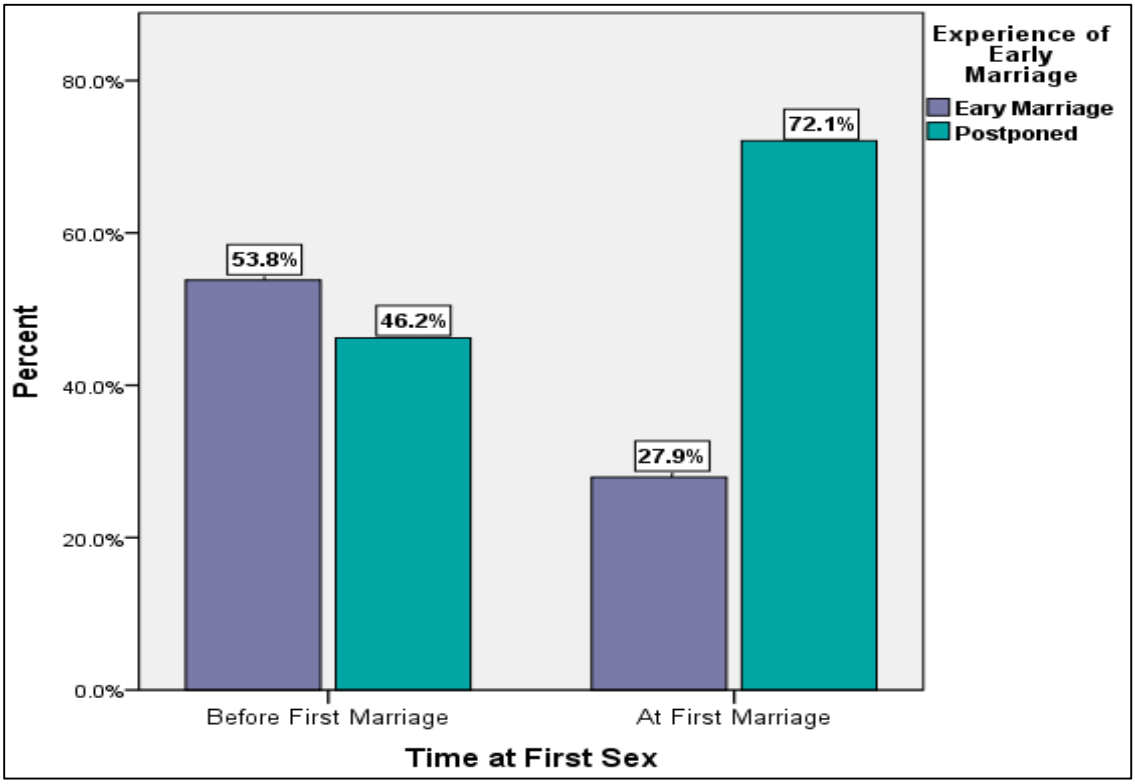

Figure 4.14: Differentials in time at first marriage by time at first sexual debut of women

The question asked was "In your opinion, what are the factors influencing early sexual debut and premarital sex?" The frequency distribution of these reasons mentioned are as summarized in Table 4.9 below. A total of one hundred and fifty-six respondents

mentioned that they did not know why they had sex for the first time. The group is ignorant and lack knowledge of sex education and some who are girls who are at risk to adolescent pregnancy. It can thus be assumed that sex education and family planning knowledge might have assisted them to make better informed choices about their sexual and social relationships on their own (UNICEF, 2016). Other reasons were found to form part of key reasons during the first sexual debut like less parental guidance and counselling on issues relating to sex and sexuality (109) and loved boyfriend or girlfriend (85). The love that the adolescents ascribe to was seen as virtually flirtation and infatuation. In certain instances, where parents are busy in their full time work and other personal chores, a leeway to unsafe teenage premarital sex is created when their teenage children learn about sex through the wrong sources (Juma *et al.,* 2018). This is opposed to situations where adolescents are chaperoned by their close relatives.

Table 4.9: Frequency distribution of mentioned reasons for respondents' sexual debut

Reason	**Frequency Mentioned (N)**
Did not know why they had sex / ignorance	156
Discontinuation from school	15
Poverty in the case of orphans and vulnerable children	26
Television and other media exposure to pornography	63
Negative peer pressure	54
Childhood sexual abuse by relatives and friends	20
Alcohol and drug abuse	8
Curiosity	45
Poor academic performance in school	17
Loved partner	85
Requested by partner	67
Less parental and religious guidance and counselling	109
No response	84

Teenagers watch programs some of which are sexually explicit. There are also print media in the market which are pornographic, such materials pollute their minds. In most cases, the teenagers copy wrong habits which are depicted in media. Some teenagers tend to admire western culture and pick up bits from watching explicit programs that promote early sexual debut. The effect is that there is a tendency to discredit and even abandon their own

culture, yet there is a lot that the societal culture teaches which helps to uphold morality and deep respect for sex (Othuon *et al.,* 2016). The internet is also a challenge since it gives access to some information which are not good for teenagers. Some respondents argued that there are several sites for pornographic materials and that the situation is complicated further by the mobile phones, which makes access easier and faster. In this regard, it is underscored that teenagers should be guided in differentiating positive and negative programs. They can also be discouraged from emulating what they watch and parents can limit the time for watching television and mobile phones as a way of reducing the effects of the media on behavior.

Those who mentioned to have gave in to teenage sex as a way of giving in to the request made by their friends were 67. This could for the reason that these young people had no capability to make an informed decision on their own and as a result lead them to adolescent pregnancy. A total of 54 mentioned negative peer pressure as a reason for engaging in sex for the first time. One aspect of this socialization is the sharing of information about sex. This in itself becomes a problem when the information is inaccurate, teenagers share and propagate misleading views about sex and sexuality. This can lead to teenagers engaging in risky or harmful sexual behavior when they act on misinformation, which usually leads to early marriage (Musan, Kisovi & Tonui, 2012; Maswikwa *et al.,* 2015). Childhood sexual abuse by undisciplined relatives and friends when they are baited by goodies like money, food, sanitary towels, mobile phones and free ride offered by the motor cyclist operators was also a reason mentioned by twenty respondents. All these findings agreed with prior studies by Oettinger (2017), which opined that social environment plays a role in adolescent pregnancy.

4.5.4 Effect of Ex-Nuptial Birth on Early Marriages

A study conducted by Musan *et al.* (2012) established that there is an increased social acceptance of pre-marital sex and pregnancy in Kenya which was historically looked down upon. However, most of the pregnancies (67.55%) were said to be accidental or unplanned. The authors emphasized the need for integrated policy or programs to ameliorate the negative consequences associated with pre-marital childbearing and especially to adolescents who did not desire to have a child. Findings by Zwang and Garenne (2008)

associated teenage pregnancy in South Africa with lack of family planning among young adolescent girls, and rejection of abortion for religious reasons. In this study, two-thirds (62.1%) did not have a child before first marriage while 15.0% had a child before marriage (Figure 4.15). Slightly more than a fifth (22.9%) got a child after first marriage. A survey by National Council for Population and Development (NCPD, 2018), placed Nyanza region with the highest incidence of teenage pregnancy, followed by Coastal region.

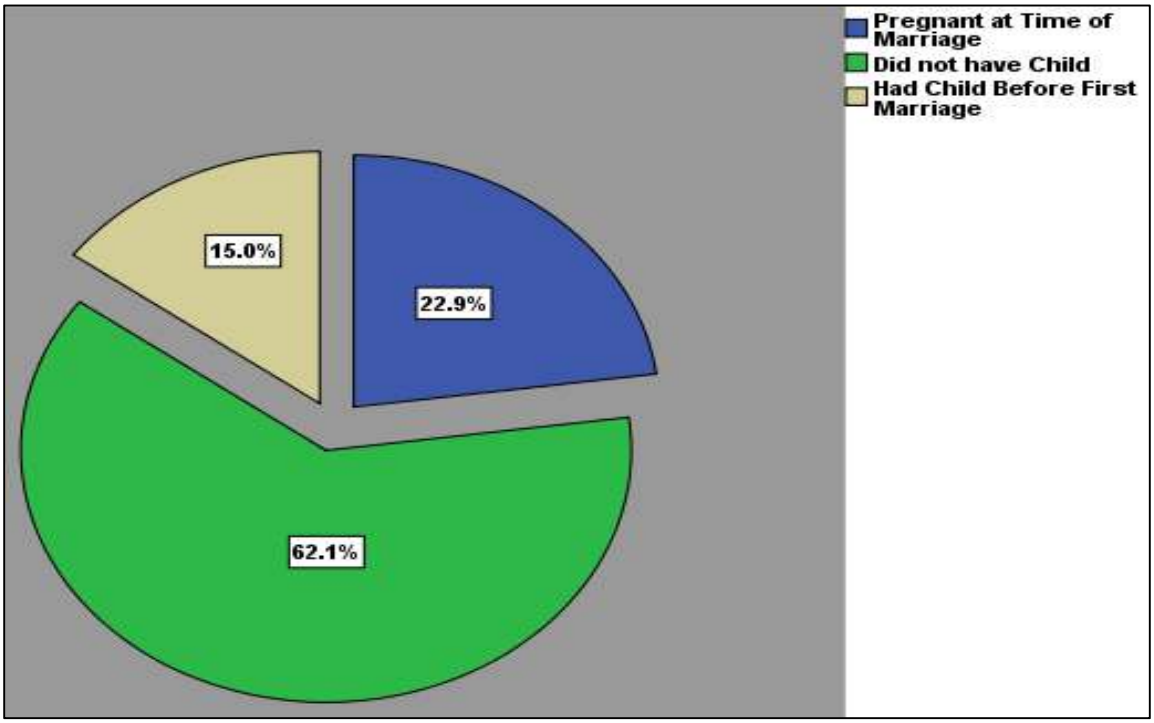

Figure 4.15: Distribution of Ex-nuptial birth among the Respondents

Teenage pregnancy is a problem in the society, because over a fifth (22.9%) of the female respondents have experienced it in the society, as indicated in Figure 4.15. The proportion of teenage pregnancy is relatively low because it is socially looked down upon and normally experienced by a minority in society (Ministry of Education, 2005). In addition, teenagers themselves don't intend to have a non-marital birth. This indicate that sex education and information about contraceptives should be given at earlier age. This could be of greater significance to these respondents in terms of unplanned pregnancy. These findings are confirmed by those of (Were, 2017). Were (2017), in her research conducted in Western Kenya found out that teenagers become sexually active at early ages as early as age eight. The study therefore underscores the need for the government to ensure that

teenagers have access to quality family planning products and services as teenage pregnancy is highly prevalent in Kenya and in the area of study.

Figure 4.16 shows the experience of ex-nuptial birth and the experience of early marriage. The findings indicate that most women (43.3%) who got pregnant at the time of marriage married earlier; another, more than a third (37.5%) did not have a child, while only19.2% reported to have had a child before marriage.

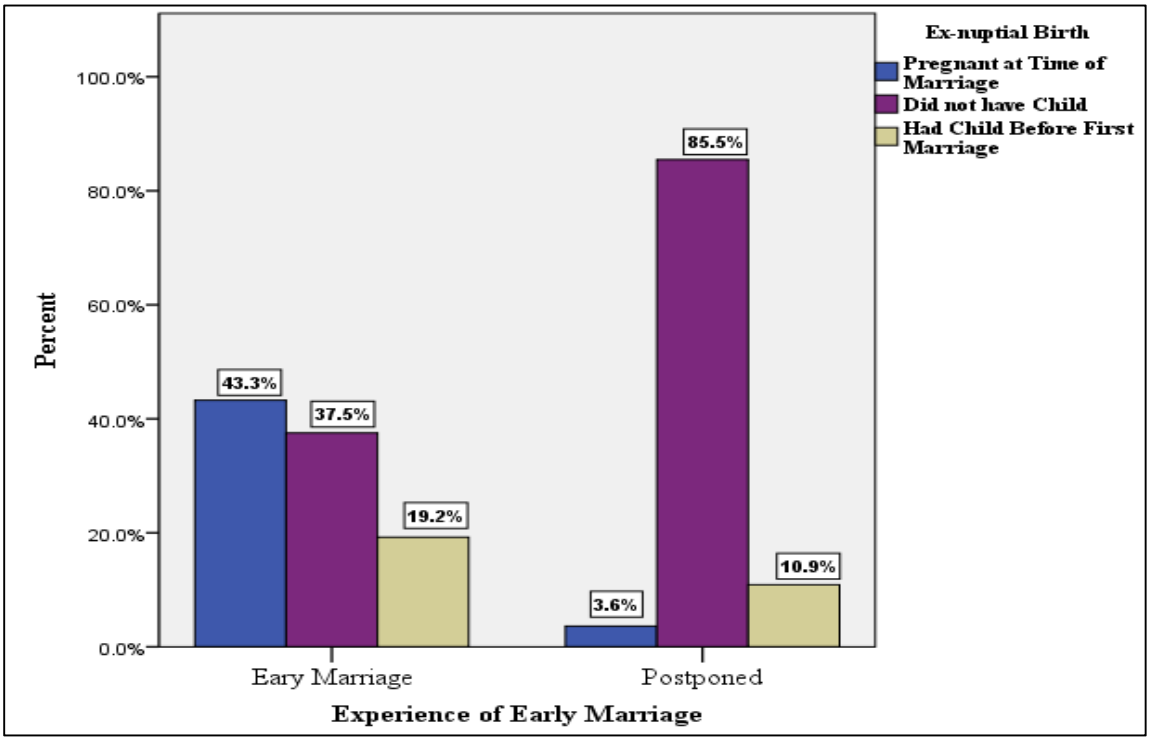

Figure 4.16: Percentage distribution of age at first marriage by ex-nuptial birth

For the perception of respondents in Homa Bay County regarding teenage fertility, frequency distribution was used to ascertain their perception. The result is presented in Table 4.10. A total of one hundred and seventy-one respondents mentioned poverty (as a way to get money to feed family), forty-five because of social acceptance of having children out of marriage, sixty-two due to lack of parental guidance, one hundred and fourteen because some needs were not met by one parent, ninety-two because of unprotected sexual relations and sixty-eight because of experimentation and inconsistency in contraceptive use.

Table 4.10: Distribution of respondents' perception on reasons for teenage non-marital fertility

Statement	Labels	Frequency mentioned
In your opinion, what could be the factors contributing to non-marital fertility?	Social acceptance of having children out of marriage	45
	Poverty (as a way to get money to feed family)	171
	Lack of parental guidance	62
	Lack of father figure (growing up without both parents to teach and instill a sense of obedience)	48
	Some needs are not met by one parent	114
	High levels of unprotected sexual relations	92
	Experimentation and inconsistency in contraceptive use	68

From the bivariate logistic regressions results, having a child before marriage had increased odds of marrying earlier. The likelihood women who had a child before first union were marrying earlier significantly increased by a factor of 4.017 when compared to females pregnant at the time of marriage (OR = 4.017; $p< 0.001$). However, the odds of marriage for women who did not have a child before marriage were 85.2% less likely to engage in early marriages, compared to females who were pregnant at the time of marriage (OR = 0.148; $p = 0.003$). The study findings are discordant with prior evidence in SSA (Haddad, 2009; Ikamari, 2015; Msuya, 2017) indicating that in most societies in SSA, it is not culturally and socially acceptable for a young man to marry, as first wife, a woman who already has a child from another relationship. As a result, prospective suitors generally avoid women with ex-nuptial births and this will delay their exit from the marriage market.

The association observed between under-age pregnancy or premarital child bearing and a greater probability of marrying earlier was however not surprising and well aligned with the bulk of other existing literature (Sandoy *et al.,* 2016; Ochieng, 2016; Ajwang, 2019). This finding can be explained in relation to the feeling of the need to legitimize the status of their children, for economic protection that children and women are expected to get within a marriage so as to reduce the burden that comes with getting a child. Available evidence from certain rural districts of Burkina Faso also points that certain customary laws allow for under-age pregnant girls to be married off with their parent's consent (Maswikwa *et al.,* 2015).

4.5.5 Effect of Premarital Contraceptive Use on Early Marriages

Prior research based on nationally representative surveys confirmed a strong relationship between exposure to contraceptive methods in the mass media and contraceptive use. Studies indicate increased utilization of contraceptives and other behavioral changes following particular communication interventions to the general public or specific group using one or more media channels (Agili, 2014). However, a scoping review identified substantial knowledge gaps in understanding the influence of premarital contraceptive use on age at first marriage. In this study, ascertaining the effect of using contraceptives before marriage was considered important as the use of contraceptives is likely to help women avoid unintended pregnancies which often drive them into earlier marriages (UN, 2009).

This study was also interested in ascertaining the perception of men in the study population on reproductive health behavior. When the respondents were asked if they had used contraceptives before marriage, it is notable that of the 214 men, nearly two thirds (59%) of the men had used either traditional or modern method of contraceptives (Figure 4.17). Nonetheless, contraceptive prevalence rate was still considered low given that 40% still had unmet need despite high awareness (Agili, 2014; Ochieng', 2016). The most commonly used methods mentioned by the male respondents to protect their partners from unwanted pregnancy were condom, withdrawal and abstinence, indicated by 61.6%, 17.4%, and 21.0%, respondents, respectively. It could be seen that condoms were the most widely used method by the male respondents. It could be the cheapest, effective to use, and perhaps most advertised form of contraceptives for men generally.

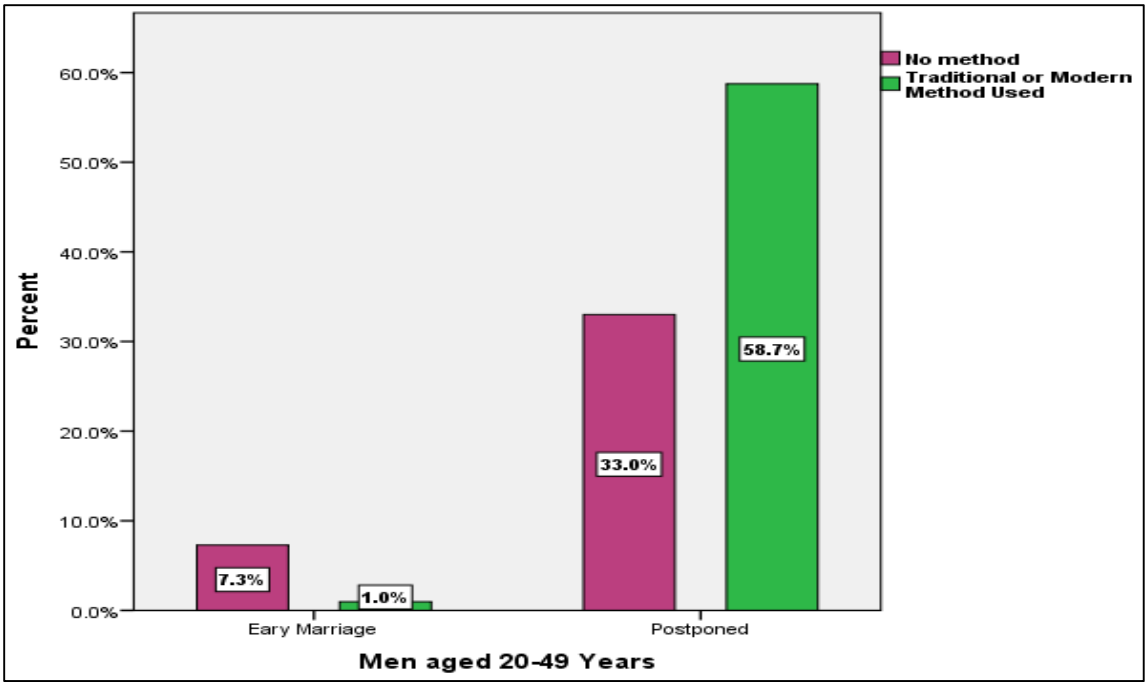

Figure 4.17: Percentage distribution of age at first marriage by premarital use of contraceptives among the male Respondents

To know the barriers to effective utilization of contraceptives before marital union, a table was used to ascertain the mentioned frequencies of the major barriers. The mentioned reason for non-use of contraceptives could be of value to the family planning programs (Agili, 2014). The respondents' views are captured in Table 4.11. The table shows that social factors / fear of side effects of using contraceptives / fear of victimization from parents and older siblings (frequency=142) ranked highest by the frequency mentioned, was followed by lack of physical and financial access (frequency=85), lack of knowledge on the importance and availability of contraceptive types (frequency=63), lack of knowledge on reproductive health right (frequency=56), religious beliefs such as all sexual acts are for procreation, sign of adultery / fornication, seen as murder, against God's will and fertility is a divine blessing (frequency=41), partner / friend disapproval (frequency=37), and lack of facilities / specialists on reproductive health in the institutions (frequency=28).

Table 4.11: Barriers to effective utilization of contraceptives before marital union

Reason	Frequency Mentioned (N)
Social factors / fear of side effects of using contraceptives / fear of victimization from parents and older siblings	142
Lack of physical and financial access	85
Lack of knowledge on the importance and availability of contraceptive types	63
Lack of knowledge on reproductive health right	56
Religious beliefs e.g. All sexual acts are for procreation, sign of adultery / fornication, seen as murder, against God's will and fertility is a divine blessing	41
Partner / friend disapproval	37
Lack of facilities / specialists on reproductive health in the institutions	28

This finding is in line with Agili (2014) who note that religious beliefs, such as all sexual acts are for procreation, sign of adultery / fornication, seen as murder, against God's will and fertility is a divine blessing. Women's perception that their partners / friends oppose contraception use has also been found to be a dominant barrier to utilization of contraceptives in a wide variety of settings in Africa as well in Asian countries (Casterline & Sinding, 2000; Mathe *et al.,* 2011). In poor sub-Saharan African countries, young people's lack of financial access affect their ability to purchase contraceptives or seek sexual and reproductive services (Sundby, 2006).

Also, results of binary logistic regression analysis show a strong significant relationship between premarital contraceptive use and first nuptial timing (*p value 0.001*) (Table 4.5), which has been reported in prior studies in SSA (Abejo, Cruz & Marquez, 2006; Adhikari, 2010; Yihunie, 2013). The odds of early marriage decreased by 92.5% among men who used either traditional or modern contraceptive methods before marriage compared to those who had never used any method of contraception before marriage (OR=0.075, p = 0.001). This study analysis indicates that men's contraceptive use is one of the strongest determinants of early marriages in Homa Bay County. Delayed marriage outcome could be a result of effective use of contraceptives which usually protect teenage adolescents from unwanted pregnancies (Abejo *et al.,* 2006; Yihunie, 2013). Contraceptive use in the

tipping point period (17 years) is crucial to ensure that young women are protected from under-age pregnancy, which usually leads to rushed marriage in an attempt to protect the family honor, their wellbeing and their children (Adhikari, 2010).

In one IDI interview, a child protection officer indicated how socio-economic barriers affected the use of contraceptives among young men and adolescents.

"…. access to contraceptives is not universal for teenagers in this community. Contraceptive use is low among youths due to the fear of side effects and the negative cultural attitudes of parents/ guardians to contraceptive use, the role of gatekeepers in assisting or deterring their access to reproductive health services, the judgmental attitude of providers when they attend the young people and the poor organization of services planned to meet young people's needs….". IDI Interview

In another IDI interview, the area chief from Suba South had this to say:

"…. the unmet need of universal access to family planning is rooted in discrimination against teenagers and the stigmatization of their sexuality under the excuse of protecting them from pre-marital sex or immorality. This leads to service providers failing to provide services such as the distribution of condoms in institutions, and the failure to provide all the necessary means to promote the use of family planning through comprehensive education and information….". IDI Interview

The two excerpts showcase an urgent need to put in place laws and policies that create 'adolescent-friendly' environment in ways that help them overcome social and personal barriers to contraceptive use, including access to condoms where they are freely distributed, irrespective of marital status. This is very much in line with the principles of non-discrimination and the well-being of young people. In the same breath, efforts to broaden contraceptive use should target both sexes rather than women alone, reaching out to young men to encourage a behavioral shift on their part as well in order to reduce teenage childbearing (Wulifan *et al.,* 2017). Available evidence suggests that teenagers under 18 should also have access to sexual and reproductive health and rights programmes and services (Chaundhuri, 2015). Therefore, efforts could be focused on promoting easy and confidential access to family planning services to men through health centers, school-

linked health centers and condom availability programs to reduce teenage pregnancy especially for the most vulnerable teenagers.

4.5.6 Effect of Migration Experience on Early Marriages

Migration (say after age 15), can provide several opportunities to see new behaviors and learn new ideas. In particular travelling to a major city may be a particularly powerful experience. Prior studies by Ghimire *et al.* (2006) found that those who migrate frequently in their premarital life had greater control over their spouse selection. In the study migration status was measured by asking whether the respondents had ever moved outside their sub-county of origin to a major urban center or city, say after attaining age 15 years. It is hypothesized that migration before first marriage introduce young people to new ideas and enlarge their social networks. This has an impact on individuals' behavior regarding marriage, as majority (54.4%) of the total men migrated after the age of 15 years and postponed marriage after age 18 years (Figure 4.18).

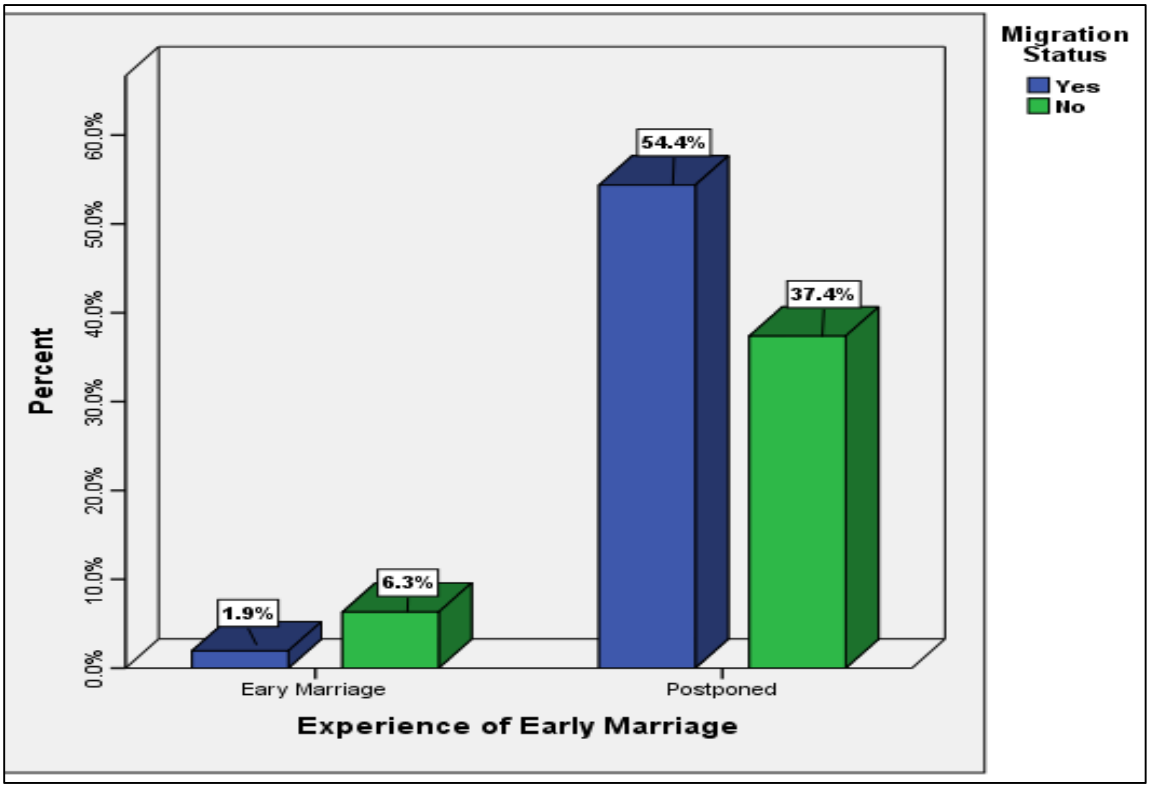

Figure 4.18: Percentage distribution of age at first marriage by migration status among the male Respondents

Table 4.5 show the predicted likelihood of marrying early by migration status. The results show that men who never migrated before marriage are 4.727 (df=1; p=.009) times significantly more likely to be married earlier than their counterparts who migrated. A plausible explanation for this finding, could be that, most men who are raised in rural areas and migrate to urban areas in adulthood are likely to have low education, but delay marriage (Hearton, 1996). For some of these men, postponing marriage and searching for employment opportunities and stable income becomes the only gateway for improving their own and their family's socioeconomic conditions. Additionally, it could be that migration displaces individuals from the local marriage market, as well as associated with a period of adjustment and greater freedom as geographical distance reduces the authority of family and community members thus delays timing of marriage (Hearton, 1996; Sultana, Hossain & Hoq, 2015).

The study findings are however discordant with the findings of a study conducted in Kisumu (Sassler, 1997; Clark & Cotton, 2013), that established young men and women entered into first unions early since they are socially and economically independent from their parents when they moved into the urban centers. In addition, other studies also suggested that migration provides an opportunity for an individual to interact and socialize with many people majorly in urban areas, reducing the age of entry into first unions (Jampaklay, 2006).

4.5.7 Effect of Premarital Place of Residence on Early Marriages

The environment in which young people are nurtured during childhood may influence their view and response to a number of social issues. It is therefore assumed that people who grow up from different places may also behave differently in society thus affecting shared community values (Mukiza-Gapere & Ntozi, 1995). This is because living in urban or rural areas may, for example, have an influence on the type of education and the skills one acquires which may in turn influence the timing and the type of union to be formed. Individuals who grew up in urban areas are expected to control their sexual life compared to their rural counterparts. Table 4.12 indicates that among women who lived in urban areas during their childhood, their age at marriage was three years, four years and three years higher in the age group 20-29, 30-39 and 40-49 years respectively than those who lived in

rural areas. A similar pattern is indicated among men. This shows that childhood place of residence is found to be one of the significant determining factors of first nuptial age, with rural residence being associated with low mean age at marriage (Table 4.12).

Table 4.12: Mean age at marriage by premarital place of residence and current age

Place of residence	Females			Males		
	Age			Age		
	20-29	30-39	40-49	20-29	30-39	40-49
Rural	19.8	17.8	17.1	23.2	24.7	24.5
Urban	22.3	21.4	20.6	26.4	28.3	28.9
Total	21.7	20.5	19.8	25.4	27.5	27.7

Significant differences exist between men and women regarding the type of place of residence and the relative risk of entering into first marriage. Females whose childhood place of residence was urban settings were 47.4% less likely to have an earlier marriage, compared to those who resided in rural areas (OR = 0.526; p=0.030). On the other hand, men who were raised in urban areas (OR=0.217; p=0.0460) had lower probability of earlier marriage compared to their counterparts raised up in rural areas. The study findings are well aligned with existing literature (Knox & Marston, 2003; Garenne 2004; Ayiga & Rampagane, 2013; Jeofrey, 2014; Jisun, 2016), and can be explained in relation to the fact that individuals who reside in urban spaces are exposed to modern values and avenues for self-improvement as well as easier access to modern family planning. They are less likely to be under the influence of traditional beliefs and attitudes that foster entry into marriage at an early age and pregnancy and control the choice of spouse (Shapiro, 2015; Jisun, 2016).

Narrowing the rural-urban socio-economic differentials to curb early marriage requires intervention efforts that focus on cushioning against unemployment risk for the poorest households largely in rural areas (Ayiga & Rampagane, 2013). This suggests an urgent need for the Government to incorporate early marriage interventions into broader poverty alleviation and development programs such as economic growth, gender equality, food security, land distribution, reproductive health and child protection particularly in the rural areas (Ajwang, 2019). Furthermore, there is need for the provision of a minimum wage for unskilled labor and a means of livelihood to people at critical levels of subsistence in rural poor (Singh & Samara, 1996).

4.5.8 Spatial Variations in Early Marriage Prevalence Rate

Spatial differences in first marriage were investigated by computing and mapping percentages for each gender. However, exploratory analysis of the differences in first marriage in the past years could not be provided since spatial data on each sub-county are not available. Figure 4.19 shows spatial variation in early marriage prevalence rate with respect to each sub-county among women. The Figure depict that Ndhiwa sub-county had the highest percentage of early marriage prevalence which was 55.3%, followed by Suba North sand Rachuonyo North sub-counties with an average rate of 51.9% and 50.0% respectively. Moreover, Rachuonyo East and Homa Bay sub-counties had moderately high percentage of early marriage at 42.9% and 43.8% respectively. Significant spatial differences were observed among women, with Ndhiwa registering a relatively higher prevalence of early marriage than other sub-counties. Most likely this could be as a result of early school dropout and high poverty rates for women in the area of study forcing the women into early marriage.

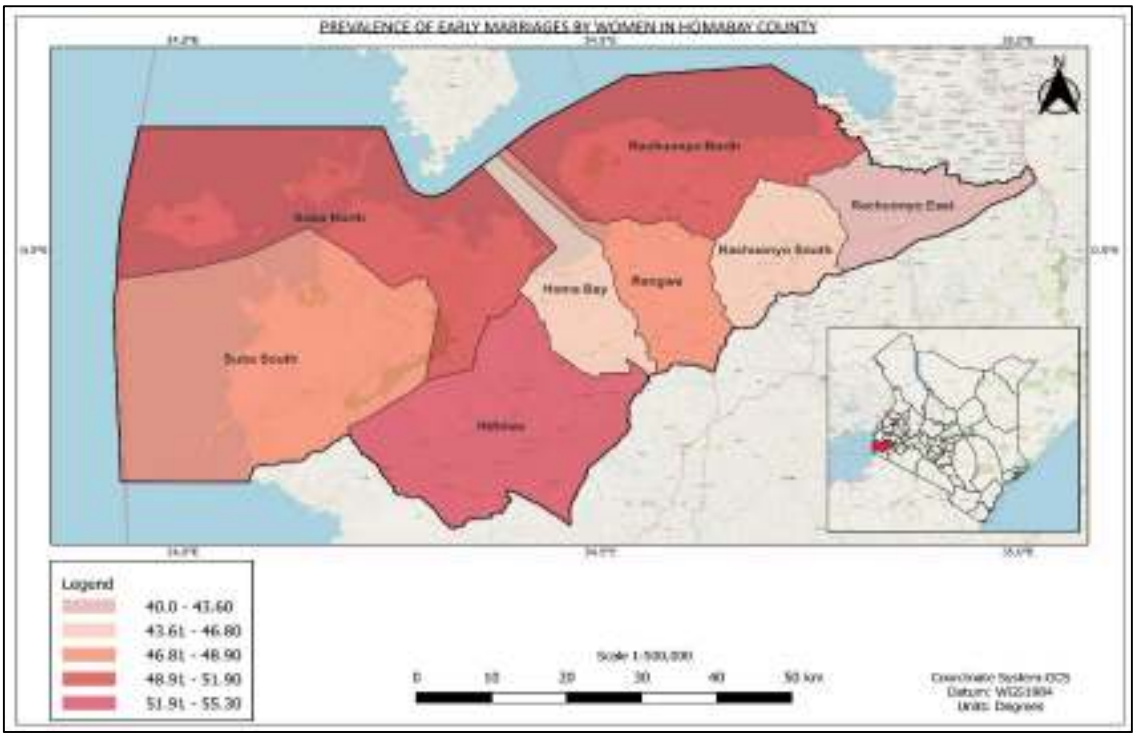

Figure 4.19: Spatial prevalence of early marriage among women in Homa Bay County, 2023.

With regards to spatial differences in first marriage patterns among men, the study findings show that Rachuonyo East, Rachuonyo North and Homa Bay sub counties had the lowest prevalence of early marriages. Surprisingly, though the early marriage prevalence rate was low among men, Ndhiwa sub-county was still the leading at 16.2% just like the case among women (Figure 4.20). On the other hand, the lowest prevalence spots were detected in Homa Bay (3.2%), Rachuonyo South (3.7%) and Rachuonyo North (5.3%) sub counties.

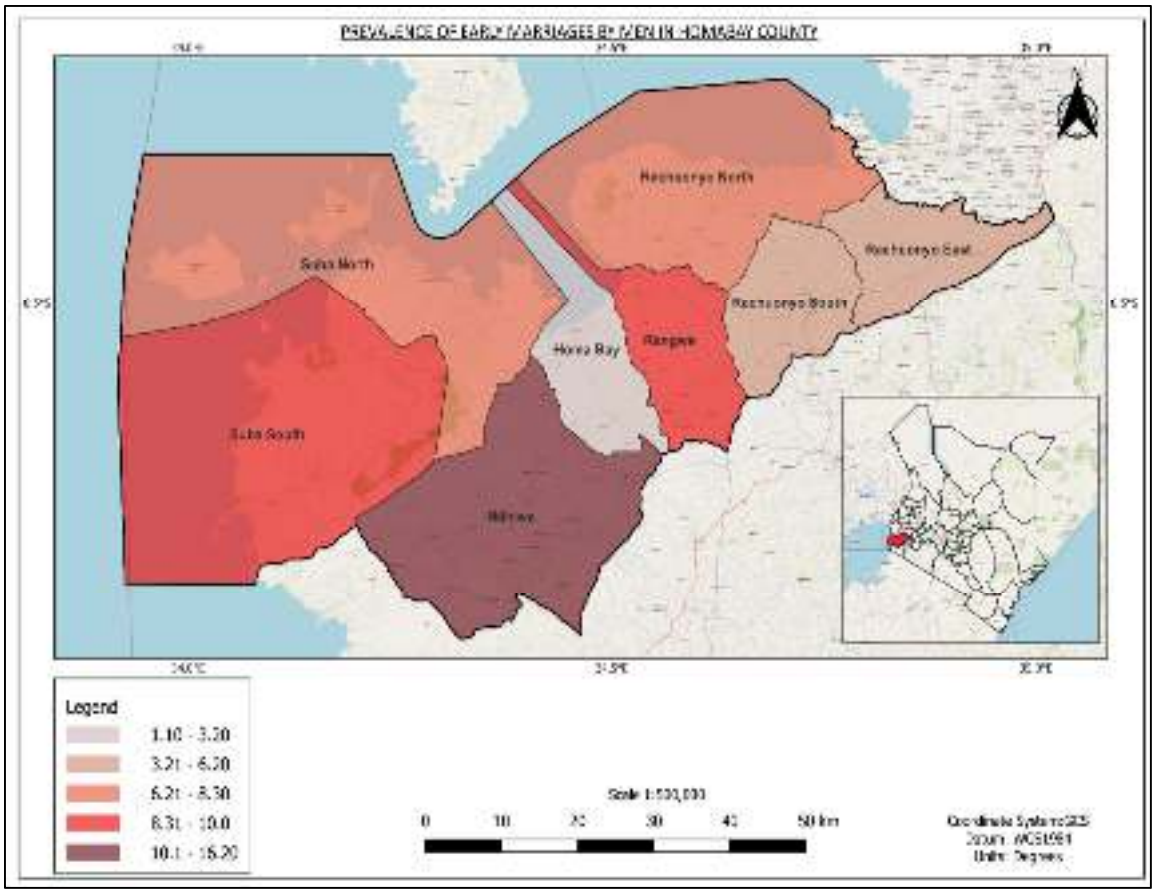

Figure 4.20: Spatial prevalence of early marriage among men in Homa Bay County, 2023.

Spatial clustering of the early marriage prevalence rate at sub county level were further investigated by use of Quantum GIS for each gender using the survey data. This use of Global Positioning System (GPS) identified significantly high and low prevalence spots of early marriages which informed the specific sub regions which required precedence and vital in discussing the phenomenon. Figure 4.21 depicts the spatial clustering of early marriage prevalence rate among women in all the sub-counties. Results of spatial analysis specified that age at first marriage varied though not significantly, according to sub-county,

with women from Ndhiwa sub-county predominantly exhibiting higher risk of early marriage compared to all other sub-counties. Dede (2019) established that there was high prevalence of teenage pregnancy (32.01%), premarital sex, low contraceptive and low sex education use among the 15 to 19 year olds in Ndhiwa sub-county, which suggests high prevalence of unprotected, early sexual debut. Furthermore, certain laws and legislation pertaining to the issue of early marriage could be less rigid in these areas thus perpetuating the practice of early marriage.

Other sub counties (Suba North and Rachuonyo North) also predominantly had very high prevalence rates of earlier marriages. The population of these three sub-counties are mainly peasant farmers and fishermen as their major source of livelihood (Ochieng, 2016; Ajwang, 2019). The high rates of earlier marriages in Ndhiwa, Suba North and Rachuonyo North sub-counties pose that drivers widespread to these sub-counties may be responsible for the spatial patterns observed, which are relative low economic level of industrial production and standard of living, low level of education, low contraceptive use and low urbanization (Ochieng, 2016; Dede, 2019). These have important policy implications, as interventions aimed at delaying marriage in the county will have to be holistic in their approaches, going beyond descriptive spatial variables. It is therefore suggested that community leaders residing in these sub-counties can be mobilized to review their social norms and raise awareness about the effects that these norms can have on their community. This can hopefully change the attitudes of the community at large. Social norms that perpetuate inequity and marginalize females economically, politically and socially should be changed through scaling up strategies that will be beneficial in eradicating the practice of early marriage.

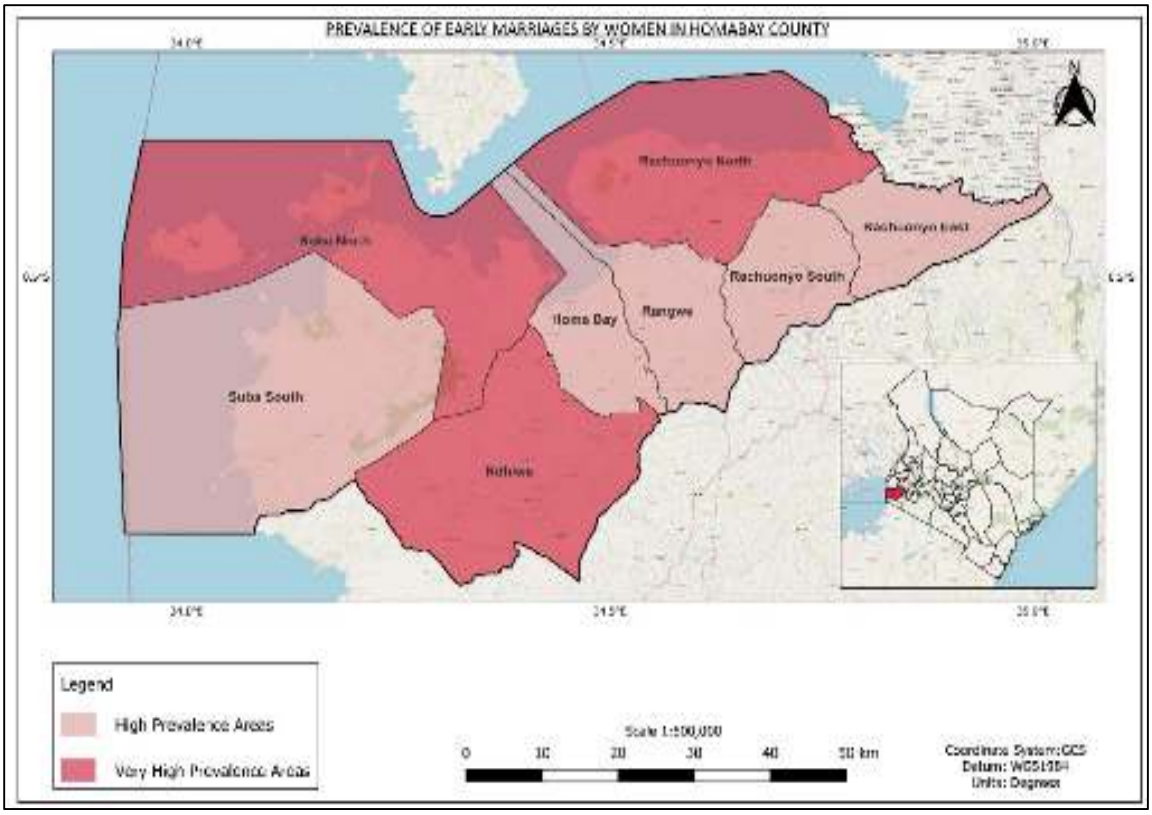

Figure 4.21: Prevalence clusters of early marriages among married women in Homa Bay County

On the other hand, Figure 4.22 shows the spatial clustering of early marriage prevalence rate among men in all the sub-counties. The spatial distribution revealed that there are no significant geographical variations in the sub-counties. However, males who reside in Ndhiwa sub-county still maintained and exhibited the greatest increased risk of exposure to early marriage compared to males who reside in other sub-counties. In addition, males who reside in Rachuonyo East and Homa Bay sub-counties exhibited a lower risk of exposure to early marriage compared to their counterparts who reside in other sub-counties. Homa Bay sub-county is the headquarter of Homa Bay County which suggests that it is the center of economic activity and trade. Due to the fact that there are more services and amenities available in the headquarter compared to other sub-counties, it can be argued that people living in this sub-county have a reduced likelihood of being subjected to political and socio-economic marginalization thus allowing them the freedom to pursue their economic and educational endeavors.

With respect to the geographical regions shown to have no significant differences in this study, a possible reason that can be provided for these non-differentials in first nuptial age could be that people in these sub-counties practice similar culture and customs and have homogenous belief systems and societal norms. Additionally, these sub-counties may have similar levels of economic growth. Therefore, in the context of marriage patterns in Homa Bay County, it can be postulated that since all the sub-counties are culturally homogeneous, marriage patterns do not show a discrepancy.

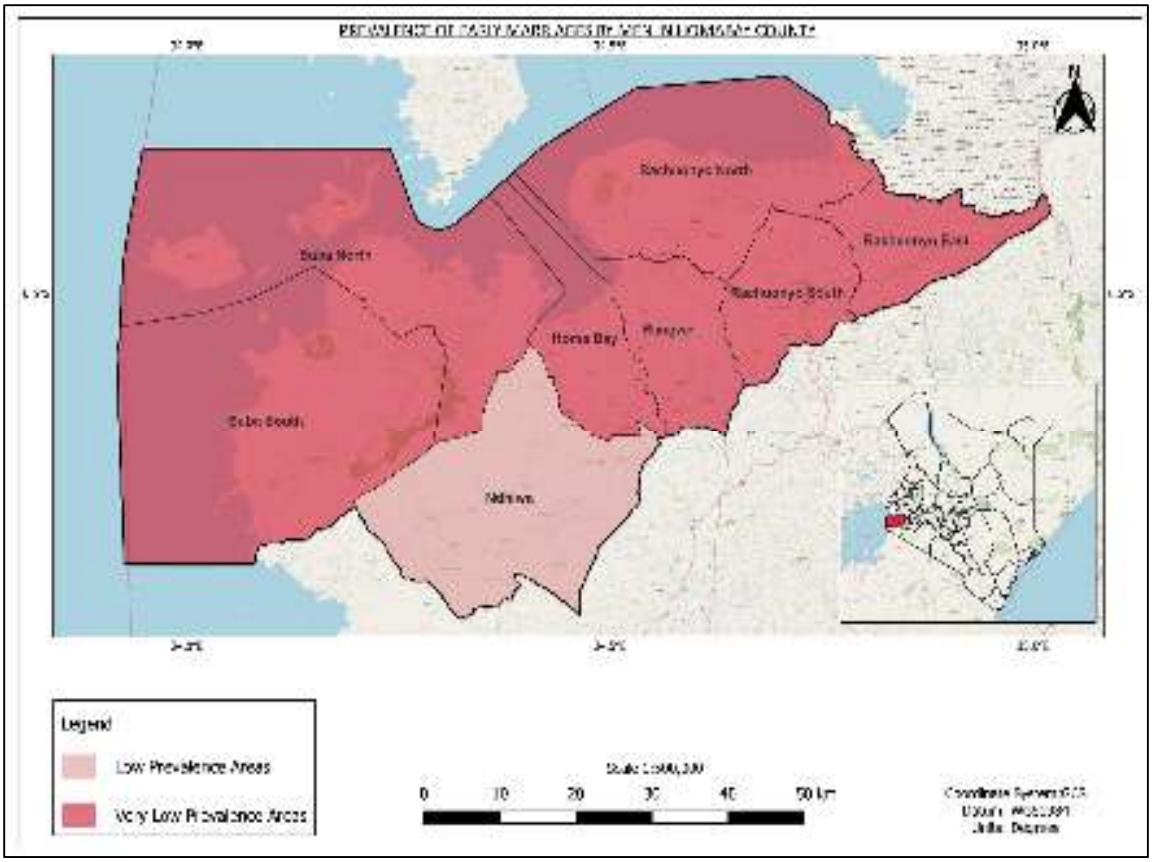

Figure 4.22: Prevalence clusters of early marriages among married men in Homa Bay County

4.5.9 Direct and Indirect Pathways of Spatiotemporal Dimensions on Early Marriage

Further, this study was able to develop and test a causal model that looked at simultaneous interactions of spatiotemporal dimensions to first nuptial age outcomes using path analysis. Path analysis is a statistical tool that create a causal modelling hypothesizing causal

relationships and the relative strength of each of the different effects towards the outcome using path coefficients (Islam, 2009). This was performed using maximum probability to simultaneously assess the indirect and direct pathways in which the different spatiotemporal dimensions affect age at first marriage. The resulting regression weights of the paths and relationships between different variables are visualized using the path diagram (Figure 4.23 and Table 4.13). The arrow heads show the direction in which the hypothesized relationship is working (Lleras, 2005). Out of 12 hypothesized pathways, 8 were found to be significant.

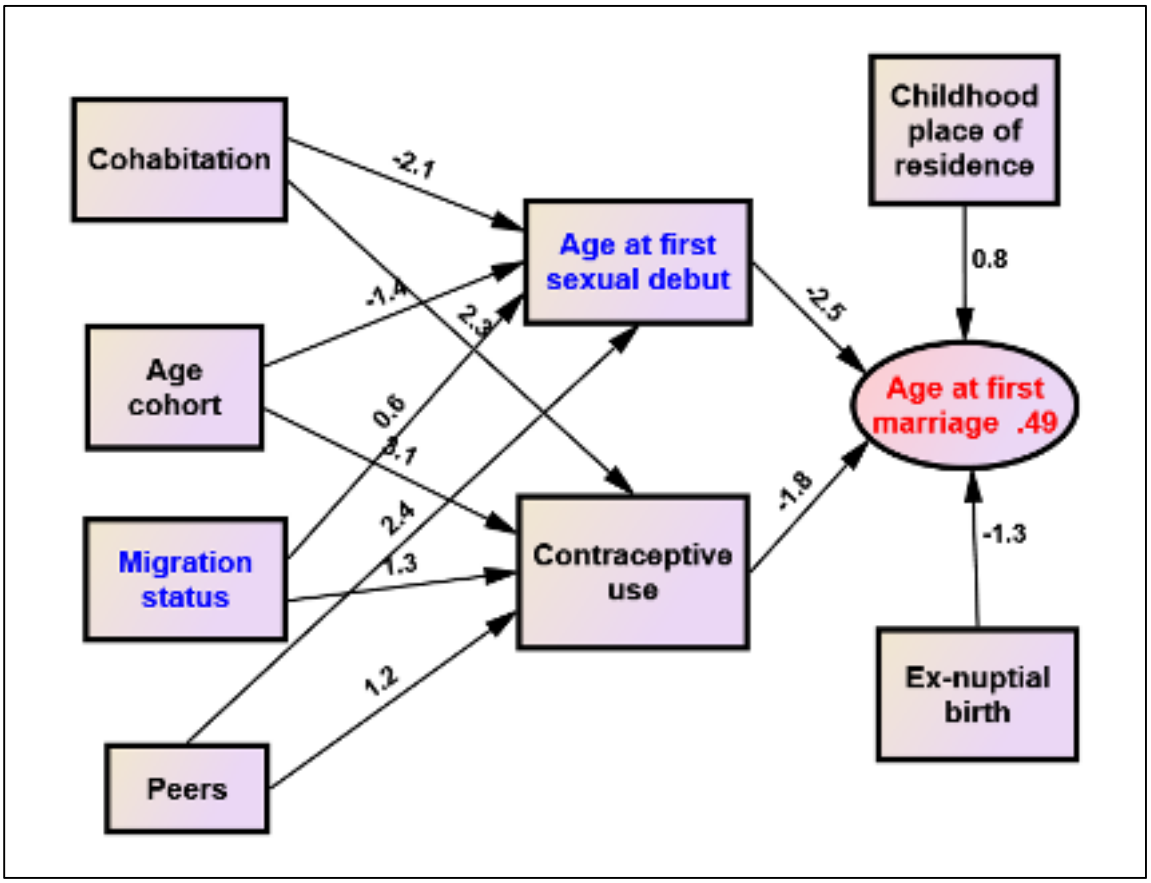

Figure 4.23: The structural Model of Path Analysis for Spatiotemporal Dimensions and Age at First Marriage (n=420)

Path analysis results showed that early marriage was directly affected by time at first sexual debut, contraceptive use, childhood place of residence and ex-nuptial birth. Time at first sexual debut at first marriage had a greater likelihood of decreasing early marriage (β = -2.51; 95% CI= -3.53 to -1.46; p =0.003) (Figure 4.23 and Table 4.13). Use of either

traditional or modern contraceptives before marriage had a greater possibility of decreasing early marriage (β = -1.80; 95% CI= -2.73 to 0.90; p= 0.005). Child place of residence at the rural had a greater possibility to increase marriage at an early age (β = 0.82; 95% CI= 0.24 to 1.74; p= 0.018). Having no experience of ex-nuptial birth were more likely to decrease marriage of adolescents at an early age (β =-1.34; CI 95%= -2.25 to -0.21; p=0.021). The reasons for these have already been discussed in section 4.4 in this report.

The results of the path analysis test further showed that premarital cohabitation, age cohort, migration status and influence of the peers had no direct influence with early marriage but through time at first sexual debut and premarital contraceptive use and were statistically significant except for migration status. Interestingly, while migration status (β= 0.57; 95% CI= 0.04 to 1.60; p= 0.120) and age cohort (β= -1.42; 95% CI= -2.32 to 1.52; p= 0.056) were not significant predictors of time at first sexual debut, those who cohabited had a greater likelihood of having early time at first sexual debut (β= -2.07; 95% CI= -3.01 to -1.44; p= 0.009). Role of positive peers also had a greater possibility of decreasing early age at first sexual debut (β= -2.36; 95% CI= 0.50 to 4.24; p= 0.023). Similarly, while migration status (β= 1.32; 95% CI= 0.32 to 2.55; p= 0.108) and age cohort (β= 3.06; 95% CI= 1.87 to 4.82; p= 0.057) were not significant predictors of premarital use of contraceptives, premarital cohabitation had a greater likelihood of increasing the use of either traditional or modern methods of contraceptives (β= 2.30; 95% CI= 0.42 to 3.81; p= 0.001). Role of positive peers also had a greater possibility of increasing the use of contraceptives (β= 1.17; 95% CI= 0.09 to 1.19; p= <0.001).

It is important to note that the path binomial logit model reveal that the value of the R^2 (multiple coefficient of determination) for the equation level goodness of fit shows that the included predictors explain 49 percent of the variation in first nuptial age across gender in Homa Bay County. This indicated that over 49 percent of the total variance in the dependent variable is accounted for by the indirect and direct combination of the variables (Figure 4.23). This implied that these variables were collectively significant and individually effective (Figure 4.23 and Table 4.13). The most important factors (in order of importance) were age at first sexual debut (-2.5), premarital contraceptive use (-1.8), followed by ex-nuptial birth (-1.3) and childhood place of residence (0.8) (Figure 4.23).

Table 4.13: The result of path analysis for spatiotemporal dimensions (n=420)

Dependent Variable	D	Independent Variable	Path Coefficient	CI 95%		P
				Lower Limit	Upper Limit	
Direct Effect						
Early age at first marriage	←	Time at first sexual debut At first marriage	-2.51	-3.53	-1.46	0.003
Early age at first marriage	←	Contraceptive Use Used modern or traditional	-1.80	-2.73	0.90	0.005
Early age at first marriage	←	Childhood place of residence Rural	0.82	0.24	1.74	0.018
Early age at first marriage	←	Ex-nuptial birth Did not have child	-1.34	-2.25	-0.21	0.021
Indirect Effect						
Age at first sexual debut At first marriage	←	Cohabitation Cohabited	-2.07	-3.01	-1.44	0.009
Age at first sexual debut At first marriage	←	Age cohort 20-34 Years	-1.42	-2.32	1.52	0.056
Age at first sexual debut At first marriage	←	Migration status Ever moved	0.57	0.04	1.60	0.120
Age at first sexual debut At first marriage	←	Peers Role of positive peer	2.36	0.50	4.24	0.023
Contraceptive Use Used modern or traditional	←	Cohabitation Cohabited	2.30	0.42	3.81	<0.001
Contraceptive Use Used modern or traditional	←	Age cohort 20-34 Years	3.06	1.87	4.82	0.057
Contraceptive Use Used modern or traditional	←	Migration status Ever moved	1.32	0.32	2.55	0.108
Contraceptive Use Used modern or traditional	←	Peers Role of positive peer	1.17	0.09	1.19	<0.001

4.6 Influence of Demographic Dynamics on Early Marriages

The specific objective of this section was to "determine the forms of demographic dynamics and their relationship with early marriages". In this objective, the variables were classified into family background characteristics, economic prospects and cultural dynamics. The results are shown in Table 4.14 which presents exponentials of regression coefficients (or odds ratios) and confidence intervals which are used to describe the influence of each predictor to the response variable. In addition to quantitative findings, this section explored qualitative narratives and perceptions of adolescent marriage, including societal norms, practices and influential factors that emerged from the in-depth interviews and focus group discussions.

4.6.1 Influence of Family Background Characteristics on Early Age at First Marriage

Children have in history been born into a family where they have been socialized, supervised and raised by parents, in that way getting their basic beliefs and attitudes to family life from them (Willoughby & Jones, 2012). However, some of these attitudes that affect first nuptial age are weakening as a result of modernity. Consequently, prior studies from developed nations shows substantial influences of these family changes on their children (Axinn & Yabiku, 2001). There has been relatively scanty research about intergenerational changes in sub Saharan Africa, where these effects are likely to be even stronger, and Kenya is not an exception (Ajwang, 2019). The variables encompassing objective two are presented below and are addressed with particular reference to each family background characteristic. The variables are classified into; parental literacy categorized as less than high school, high school and more than high school; parents work experience; household wealth index; family household structure; and exposure to modern media messages.

Table 4.14: Odds ratios of binary regression showing effect of family background characteristics on the likelihood of early marriage, by sex

SELECTED COVARIATES	Women			Men		
	ODDS RATIOS	Sig.	CI for Odds Ratio	ODD RATIOS	Sig.	CI for Odds Ratio
Fathers Level of Education						
< High School (**RC**)						
High School	0.24	0.016	0.075-0.767	0.97	0.997	0.93-1.05
> High School	0.27	0.032	0.084-0.892	0.95	0.998	0.91-0.99
Mothers Level of Education						
< High School (**RC**)						
High School	0.076	0.016	0.009-0.617	0.97	0.999	0.92-1.01
> High School	0.32	0.296	0.037-2.736	0.91	0.999	0.86-0.95
Household Structure						
Male Headed (**RC**)	1.00			1.00		
Female Headed	1.03	0.962	.653-1.95	1.67	0.631	.44-10.08
Blended Family	0.65	0.480	.460-1.37	0.79	0.785	.13-3.639
Single Parent Family	2.39	0.130	.406-2.11	3.97	0.121	.31-18.56
Family Wealth Index						
Poor (**RC**)						
Middle	.003	.001	0.004-0.237	0.93	0.998	0.88-0.97
Rich	.019	0.12	0.024-1.54	0.85	0.999	0.80-0.89
Fathers Wage Labor						
No Wage Labor (**RC**)				1.00		
Had Wage Labor				0.96	0.996	0.91-1.02
Exposure to mass media						
Television						
Watched (**RC**)						
Not watched	5.584	0.001	3.05-10.21	6.09	0.006	1.69- 21.8
Newspaper						
Read (RC**)**						
Not Read	2.75	0.009	1.285-5.88			

NOTE: RC: Reference Category

The binary logistic regression examined the family background factors predicting the age at first marriage (Table 4.14). The variables included in the model are fathers level of education, mothers level of education, family household structure, family wealth index and exposure to mass media. The multivariate logit model fit was evaluated by use of the Omnibus Test of Model Coefficients which displayed Chi-square ($\chi 2$) = 10.207 and p=0.003 indicating that the model is a good fit. From the bivariate logistic results, a positive association was detected between men and women raised in female headed households

[OR=1.67; 95% CI (0.44-10.08)] and [OR=1.03; 95% CI (0.653-1.95)] respectively, men and women raised in single parent families [OR=3.97; 95% CI (0.31-18.56)] and [OR=2.39; 95% CI (0.406-2.11)] respectively, exposure to mass media, and early marriage (Table 4.18). A negative association was detected between family wealth index, men's fathers who had wage labor [OR=0.96; 95% CI (0.91-1.02)], and early marriage (Table 4.14).

4.6.1.1 Effect of Parents Level of Education on Early Marriages

A study conducted by De vaus (2004) and Cavanagh (2011) indicated that prior life experiences that originate from temporal and family factors can influence marriage dissolution. Studies suggest that, children's attitudes towards a number of family and personal matters including separation/divorce and gender roles, tend to reflect the attitudes and beliefs of their parents or guardians (Cunningham & Lichter, 2009). This study, however, sought to find out how parents level of education influenced first nuptial. Each respondent was asked about the level of education attained by their parents.

According to the study finding, there was no significant difference in early marriage incidence between men whose father's education level was high school (p=0.997) and more than high school (p=0.998) (Table 4.14). Similarly, the results obtained in the logistic regression model surprisingly indicated that the level of education of mother was largely non-significant. This is contrary to a distinctive feature that emerged in one study conducted in the rural areas of Bangladesh that found that parents' level of education has an important influence on the age at first marriage for male and female children (Bates *et al.,* 2007). This, therefore, implies that parents educational level has no influence on age at first marriage among males in Homa Bay County. This could suggest that male children's attitudes towards union formation does not reflect the attitude and values of their parents' in terms of parental level of education.

It is shown in Table 4.14 that females whose fathers with high school level education were 76% less likely to marry earlier when compared to females whose fathers had less than high school level of education. However, females whose mothers level of education was more than high school were only 68% less likely to incur earlier marriage and not

significant, compared to those with less than high school level of education (OR = 0.32, p = 0.296, 95% CI = 0.037-2.736). Females whose mothers had high school level of education qualifications were 92.4% less likely to engage in earlier marriage, compared to females whose mothers had less than high school level of education (OR = 0.076, p = 0.016, 95% CI = 0.009 - 0.617). Females whose mothers had more than high school level of educational qualification were 68.3% less likely to incur earlier marriage, compared to those with less than high school level of educational qualification (OR = 0.317, p = 0.296, 95% CI = 0.037–2.736). This was a surprising finding bearing in mind that literature offers a counter-argument proposing that having more than high school education have a decreased propensity to marry early in relation to individuals with high school level of education (Hoem *et al.,* 2006).

The results are consistent with observations by Cavanagh (2011) and can be explained in relation to the fact that women with very educated parents are socialized to abide by the parental career goals and standards and reinforced by the parental role models as well. Findings by Shrestsha (1997) in Nepal revealed that educated parents instill in their daughters the ambition to be something other than conventional family roles of being a homemaker. A study by Sassler *et al.* (2009) further reported that daughters of well-educated parents on average are better educated themselves and are more likely to have a voice in choosing their potential mates and delay marriage. These findings suggest that female children's attitudes towards union formation does reflect the attitude and values of their parents'. Therefore, parents or guardians should continuously support young women in their household or community to stay in school, develop life skills, stay healthy, and delay childbearing.

4.6.1.2 Effect of Family Household Structure on Early Marriages

According to the social learning theory, children model the behavior of their parents in the course of growing-up (Manning *et al.,* 2010). This theory denotes that those who grow up with both parents would be unlikely to enter marital union early. However, while the relationship between parental household structure and their children's timing of marital union has been debated in the recent past, it has had divergent views. Manning *et al.* (2007) found potential links while no association was found by Willoughby and Carroll (2012).

The need for evidence on how childhood family household structure influence marital timing was therefore profound. The results in Table 4.14 show that there is no significant difference between childhood family structure and age at first marriage for both sexes. For both men and women, blended-headed households tended to be less engaged with early marriage practices than single parent households, male and female-headed households. For example, among women, the percentage of households experiencing earlier marriage was 56.40% among male-headed households, 67.30% among female headed households, whereas it was only 35.80 % among blended-headed households.

The study established that men who particularly lived in female headed households (by a factor of 1.667) and those who lived in single parent households (by a factor of 3.967, $p = 0.121$) had a higher likelihood of being ever married compared to the men from male headed households. A fair amount of literature indicates that children from one parent households are generally at a disadvantage compared to children from two-parent or blended households (UNICEF, 2005). Due to poverty which has been established to be higher in one parent households, the children are vulnerable to discrimination, exploitation, violence and abuse that may eventually lead to higher likelihood of early marriage and teenage pregnancy (UNICEF, 2005). Available evidence suggests that improving single households' ability to address the household-based risk factors that affect the adolescent's right time of marriage may benefit from implementing interventions that are responsive to the unique family structure and composition of the households (Pankhurst, 2002).

The findings are however discordant with observations made in previous studies by Adhikari (2010), which pointed out that women who lived in female headed households had lower probability of marrying younger than women who lived in male headed households. This was attributed to the female awareness and dependency on herself enabling them use reproductive health services more often, including higher level of using family planning than those in male-headed households. However, the finding that childhood family structure is not associated with differential probability of age at first marriage for both sexes is important and calls for further research to more fully evaluate this relationship. It is thus recommended that more rigorous analyses can provide satisfactory explanations into these associations so that concrete inferences can be made.

To further illustrate the relationship between family household structure and age at first marriage, the Kaplan-Meier plot was used to show how much the two variables correlate. Figure 4.24 presents the Kaplan-Meier plot that was generated from the quantitative data obtained from the respondents.

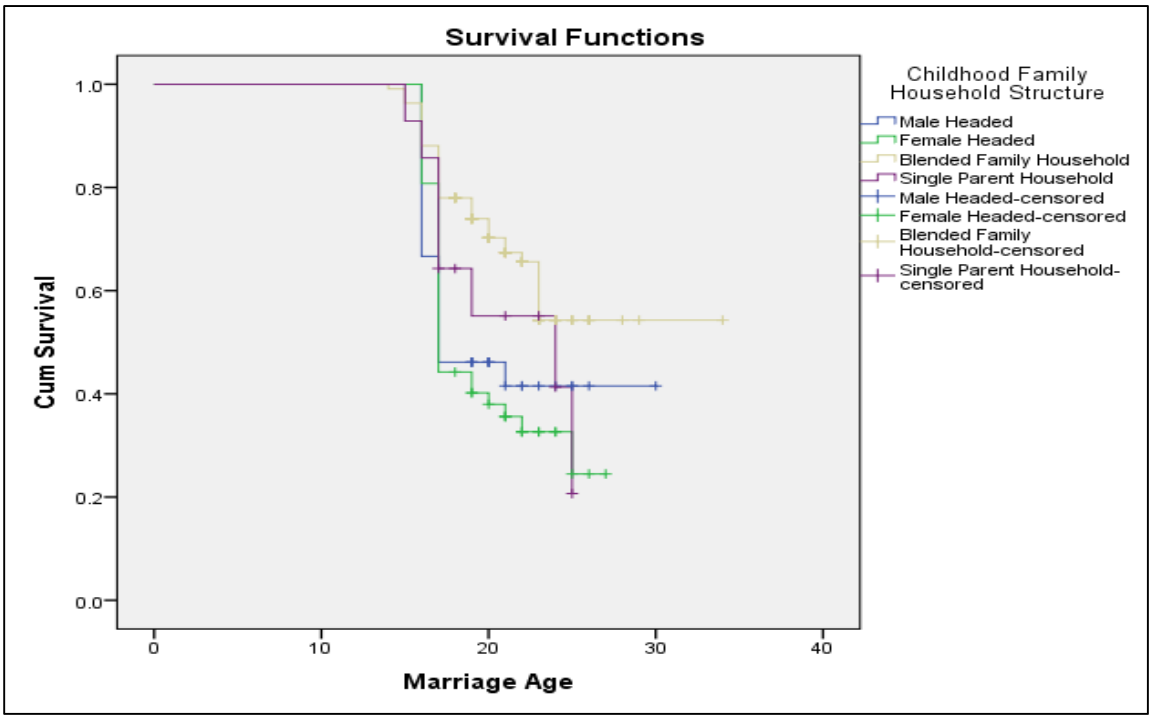

Figure 4.24: Kaplan-Meier plots displaying survivorship to age at first marriage by childhood family household structure

The plot diagram presented in Figure 4.24 shows that certainly women from female headed households married earlier than the other family household structures at all ages. The Figure shows that by age 23 years, nearly 67% of women from female headed households and 57% from male headed households are married compared to only 36% women from blended family household structures. These results may further indicate that single-parent and female headed households is associated with scarcer and reduced resources, a lot of dependence on kin, and high incidence of poverty, which is a major factor behind early marriages, particularly among women (Pankhurst, 2002). Poorer mothers in female headed households may therefore be less equipped to provide financial support for their children and may acquiesce to early marriage for their own daughters. On the other hand, the child-rearing burden is distributed equally in two-parent families and the presence of both

parents' nurture and equip their children with relevant information, education and counselling to enable them improve (UNICEF, 2005).

4.6.1.3 Effect of Natal Household Wealth Index on Early Marriages

In this study, wealth index was taken as a proxy for economic status of the household. It is the case in Homa Bay County that the more goods households have, the better off economically they are. The wealth index was decided by taking onto account a number of household possessions which are highly correlated with the economic condition of the household. The following weights was given to the following household items while calculating wealth index of the household: Car, 8; Motorcycle, 7; Video, 6; Gas, 5; Television, 4; Mobile smart phone, 3; Bicycle, 2; Radio, 1 and Nothing 0. The number of items possessed was multiplied by the weighting given to each in direct proportion to its price and accordingly the scores were assigned. The total score was taken to represent the economic status of the household. A household which had nothing in the household lies in the 0 range. The total score varied from 0 to 36 and they were grouped as follows: Poor, 0 – 11; Middle, 12 – 24 and Rich, 25 – 36.

Figure 4.25 shows a positive relationship between family economic status and marital timing. Cross tabulation results indicate that; early marriage was high (31%) among women from lower economic status compared with only 17 per cent from the middle economic status group. As the family economic status increases, early marriage declined. The study finding confirmed that the economic status of the natal family home impacts exposure to marriage among young females (Figure 4.25).

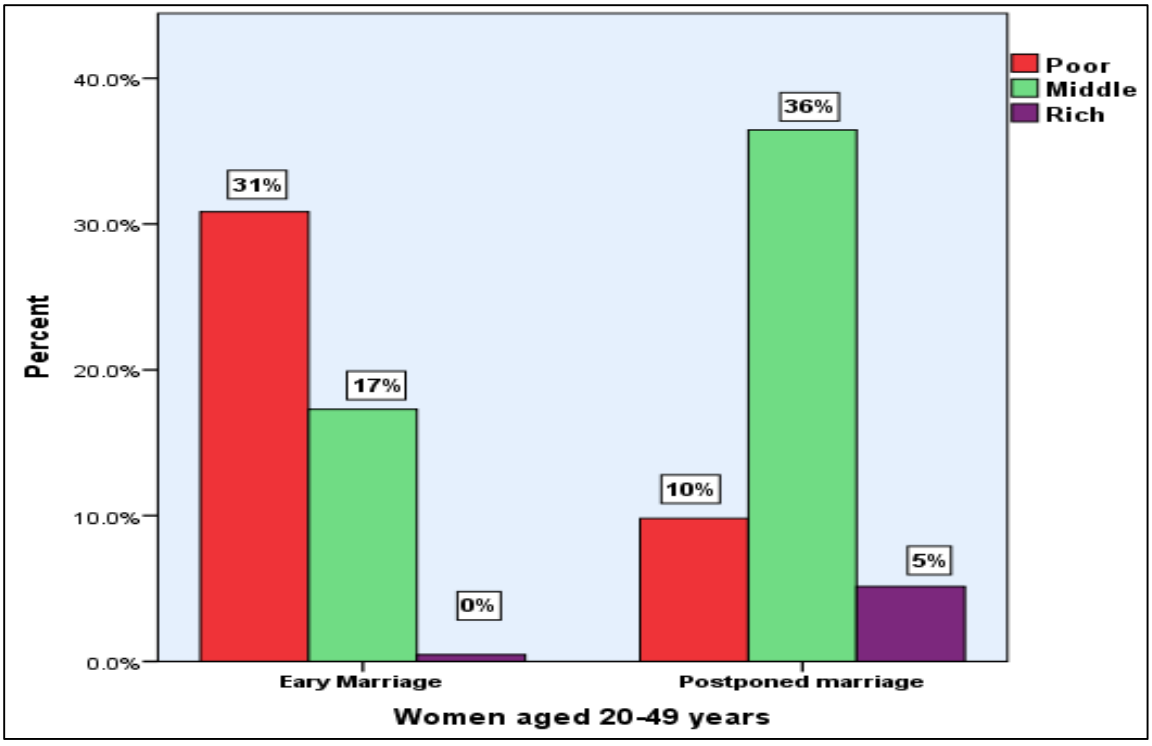

Figure 4.25: Percentage distribution of age at first marriage by household wealth index among the female respondents

Previous finding established that household poverty is a significant factor that is considered to be both a major driver and consequence of early marital union and it is habitually perpetuated by dire socioeconomic circumstances, even though it is frequently depicted as a traditional phenomenon (Davis *et al.,* 2013). The study established that women who lived in affluent households are significantly less likely to enter a marital union at an early age (97%) than women who lived in impoverished households (OR = 0.03, p = 0.001, 95% CI = 0.004–0.237) (Table 4.14). The results are consistent with observations by Quisumbing and Hallman (2003) and Gheda (2010) that reported that most lower economic status families consider marrying off their daughters as a strategy to reduce their economic hardships and to accumulate resources through bride wealth and obtaining future financial sustenance from the husband. Johnsons (2006) found that more affluent households may raise children's consumption aspirations, leading them to postpone marriage until they attain what they perceive to be an adequate standard of living.

Greater parental resources may postpone marriage by fostering higher educational ambitions and achievement; in turn, real or perceived conflicts between educational

attainment and family formation function to postpone the transition to marriage (Thornton, Axinn & Teachman, 1995). Improved access to economic resources through expanding employment and entrepreneurial opportunities as a recommended intervention for poor young married girls (Kabeer, 2005) has been indicated to lower the probability of early marriage among young people (Umashankar, 2006), while micro-credit programs that provide women and girls with the basic economic opportunities they often lack and a social support network that promotes changes in attitudes and behavior have been indicated as key interventions for curbing early marriages (Kabeer, 2005; Umashankar, 2006).

Further, respondents were asked to state their parents' participation in wage labor. The parents' participation in wage labor is an important variable with an indirect effect on education and welfare of their children. This is so because it determines the level of income and the subsequent amount of resources available to support children through the schooling process (Gheda, 2010). The Sessional Paper No. 1 of 2005, points that rampant unemployment in the country is one of the most critical challenges to effective acquisition of formal education and training at all levels of the education system (Republic of Kenya, 2005). Unemployment and underemployment precedes a morass of poverty, which in most cases is manifested in inadequate provision of essential needs such as food, clothing, shelter, health care and education among other requirements. This ultimately lead to early marriages of their children, particularly daughters.

The study results show that the father's work experience as a wage labor has a negative impact on the timing of marriage of men (Table 4.14). However, the effect was unexpectedly non-significant. The results are inconsistent with observations by Glynn *et al.* (2010) that father's experience of wage labour can also facilitate the risk of marriage of their sons and daughters through wider contact of colleague workers in the work place. Additionally, father's participation in wage labour before his daughter's marriage is often associated with autonomous choice of spouse and timing of marriage (Fricke & Teachman, 1993). This autonomy sometimes could lead to early involvement and quick intimacy resulting to early family formation.

4.6.1.4 Effect of Media Exposure on Early Marriages

Well planned mass media approaches in fronting and promoting delayed marriage can influence changes in attitudes and practices (Yount *et al.,* 2018). The daily use of the mass media has permeated the lives of adolescent's lives, so much that it is hard to believe that less than ten years ago the technologies hardly existed (Horst *et al.,* 2008). An essential question is what such a rapid change in the socio-cultural environment means for the marital timing of young people. The media material is used towards identity formation, occupational preparation, gender role learning and the development of a set of values and beliefs (Anderson *et al.,* 2012). Table 4.15 shows that the highest proportion (67.4%) of the women exposed to television media during childhood delayed marriage than those who did not. Effective communication from both television, radio and print media related to disadvantages of early marriage has led to a strong motivation to delay marriage.

Table 4.15: Percentage distribution of incidence of early marriage by exposure to mass media among the respondents

CATEGORIES	Females			Males		
	Early marriage (%)	Ideal marriage (%)	Chi-Square Value	Early marriage (%)	Ideal marriage (%)	Chi-Square Value
Television						
Watched	32.6	67.4	33.45	2.7	97.3	95.170
Not watched	72.9	27.1		14.6	85.4	
Newspaper						
Read	28.9	71.1	7.142	2.1	97.9	3.017
Not Read	52.8	47.2		10.1	89.9	

Results in Table 4.15 shows that among the mass media, exposure to television and newspaper have the most significant influence on women on when to get married while exposure to television had the greatest significant influence on men's marital timing. It is notable that men who did not watch television is associated with a significantly higher likelihood of being married compared to those in the reference category with approximately a six-time greater likelihood of being married (95% Cl 1.694 – 21.895, p=0.006) (Table 4.14). Men who did not watch television were 6.089 times more likely to enter marriage early than their counterparts who watched television. This could be because television media's greatest influence, motivation and understanding in making healthy

decisions or advocating for behavior change due to the informative programs, news broadcasts or advertisements aimed at discouraging premature marriages. Table 4.14 also shows that women who did not watch television (by a factor of 5.584, $p<0.001$), not exposed to reading newspaper (by a factor of 2.75, $p= 0.009$) had higher likelihood of being married compared to their counterparts who watched television and read newspaper during their childhood.

Findings from the analysis support those in previous studies. Yount *et al.* (2018) for example, found that the particular programs and values such as negative consequences of early marriages that one or more media channels disseminate are transmitted directly into the home, and have the ability to directly affect every member of the household despite the level of education. A study by Savitridina (2014) in Philippines further suggested that television and newspaper media have the greatest influence and understanding to make healthy decisions or advocate for behavior change due to the informative programs, news broadcasts or advertisements aimed at discouraging premature marriages. However, the finding is discordant with empirical findings of South *et al.* (2016) who reported that exposure to media messages facilitate early union formation by making young people feel closer to their partners.

These findings suggest the need for media campaigns using radio, television and other traditional communication methods to reach communities, especially those in rural areas to raise awareness on the consequences of early marriage and other such practices and the need to combat them. Learning from the COVID-19 experience, such information could perhaps be disseminated through all media platforms, including social media (Tsao *et al.,* 2021), social health campaigns and the integration of sensitization messages within the community and facility health workers' routine work. All these measures will help to ensure the domestic applicability of the national, as well as international legal instruments already ratified about girl's human rights in addition to promoting behavioral change for at risk adolescents.

Likewise, the results showing the Kaplan-Meier plots presented in Figure 4.26 seems to support this finding as the difference in timing of first marriage of similar ages for those

who watched television and those who did not watch television during their childhood is very wide. For example, the figure illustrates that by 23 years of age, just over 73% of the women who reported that they never watched television during their childhood were ever married compared to only 33% of the women who reported they watched television during their childhood. On the other hand, Figure 4.27 illustrates that by 23 years of age, over 53% of the women who reported that they did not read a newspaper during their childhood were ever married compared to only 29% of the women who read a newspaper during their childhood. These results are consistent with a previous study by Savitridina (2014) in Philippines where he observed that women's exposure to television and newspaper media during their childhood significantly influenced age at first marriage.

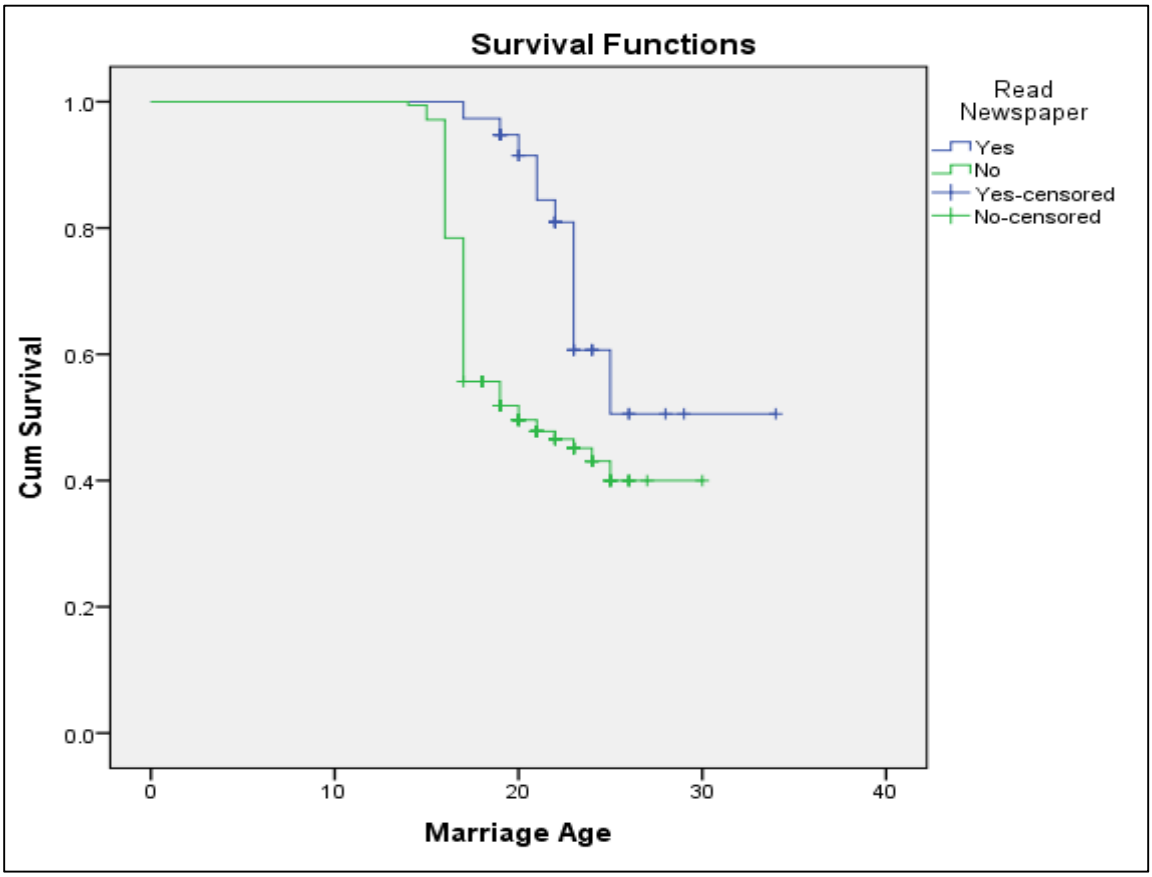

Figure 4.27: Kaplan-Meier plots displaying survivorship to age at first marriage by exposure to reading newspaper before marriage

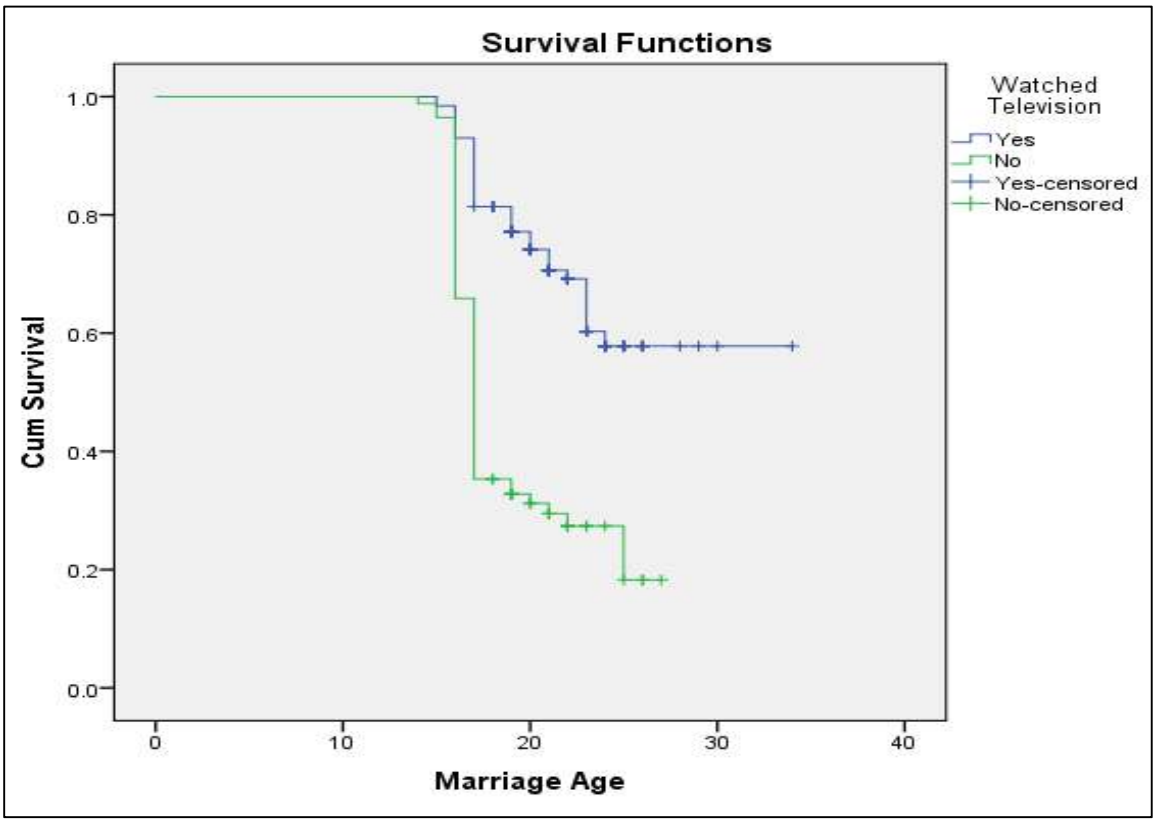

Figure 4.26: Kaplan-Meier plots displaying survivorship to age at first marriage by exposure to television mass media

4.6.1.5 Direct and Indirect Pathways of Family Background Characteristics on Early Marriage

This section presents the results from the pathway analysis. The model was created to examine the direct and indirect pathways in which the different family background characteristics may influence first nuptial age in Homa Bay County. Variables included were selected based on the results in the previous section (logit regression) which showed the possible relationships between the family background characteristics with first nuptial age. Those found to consistently show a relationship first nuptial age, as well as those that did not show possible collinearity, were selected for the model. This was conducted using path analysis to identify the form of the network of relationships that existed between specific family background characteristics with family wealth status, the effect of natal

parity size on family wealth status, their effect on natal parity size, and on age at first marriage. The overall path model was statistically significant ($\chi 2=34.2$, $df=9$, $p=.000$) and had a very good fit with $\chi 2/df=4.252$. The resulting regression weights of the paths and relationships between different variables are visualized using the path diagram (Figure 4.28) and presented as shown in Table 4.16 below. Out of 8 hypothesized pathways, 6 were found to be significant.

Path analysis results showed that early marriage was directly affected by family wealth, natal parity size, household structure and number of media exposure during childhood. While household structure (β= 1.65; 95% CI= 0.42 to 2.88; p= 0.053) and natal parity size (β= 1.41; 95% CI= 0.38 to 2.49; p= 0.062) was not a significant predictor of age at first marriage, the number of media exposure ≥2 media sources had a significantly greater likelihood of decreasing early marriage (β = -2.57; 95% CI= -3.59 to -1.47; p =<0.001). Family wealth of not poor had a significantly greater likelihood of decreasing marrying at an early (β = -2.36; 95% CI= -3.24 to -1.22; p= <0.001). The reasons for these have already been discussed in section 4.5 in this report.

Table 4.16: The result of path analysis for family background characteristics (n=420)

Dependent Variable	D	Independent Variable	Path Coefficient	CI 95%		P-value
				Lower Limit	Upper Limit	
Direct Effect						
Early age at first marriage	←	Family wealth Not Poor	-2.36	-3.24	-1.22	<0.001
Early age at first marriage	←	Natal parity size ≥3 Children	1.41	0.38	2.49	0.062
Early age at first marriage	←	Household structure Single parent	1.65	0.42	2.88	0.053
Early age at first marriage	←	Number of media exposure ≥2 media sources	-2.57	-3.59	-1.47	<0.001
Indirect Effect						
Family wealth Not Poor	←	Maternal education ≥High school	6.28	3.97	8.59	<0.001
Family wealth Not Poor	←	Paternal education ≥High school	2.60	1.95	4.25	<0.001
Natal parity size ≥3 children	←	Maternal education ≥High school	-1.38	-2.30	-0.44	0.009
Natal parity size ≥3 children	←	Paternal education ≥High school	-1.28	-2.28	-0.27	0.009

Family wealth and natal parity size were influenced by the level of parental education. Maternal education ≥High school had a significantly greater possibility of increasing family wealth above average (not poor) (β= 6.28; 95% CI= 3.97 to 8.59; p= <0.001). Paternal education ≥High school had a greater likelihood of increasing family wealth above average (not poor) (β= 2.60; 95% CI= 1.95 to 4.25; p= <0.001). On the other hand, paternal and maternal education level ≥High School had a greater possibility of decreasing natal parity size ≥3 children (β= -1.28; 95% CI= -2.28 to -0.27; p= 0.009) and (β= -1.38; 95% CI= -2.30 to -0.44; p= 0.009) respectively.

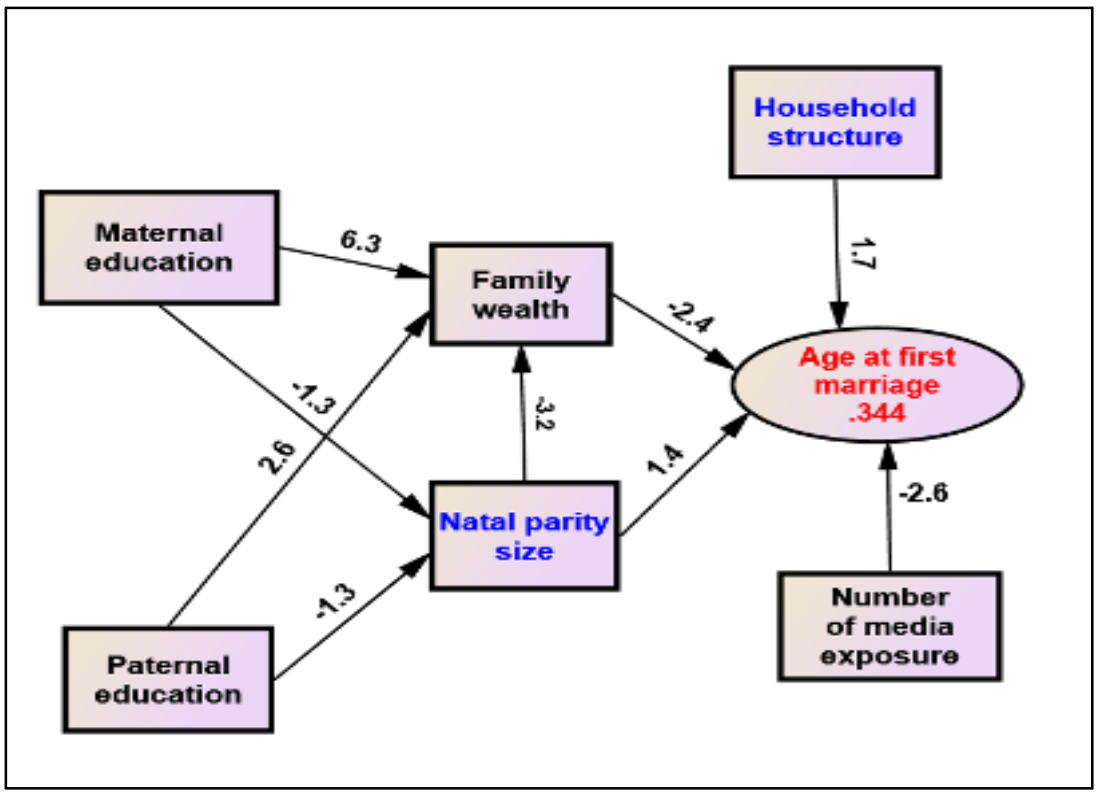

Figure 4.28: The structural model of path analysis for family background characteristics and age at first marriage (n=420)

Moreover, the Coefficient of Determination (R^2) for the equation level goodness of fit shows that the indirect and direct combination of the family background characteristics accounted for 34% of the variation in first nuptial age across gender of reproductive age in Homa Bay County (Figure 4.28). This variation was 15% lower than the first model for spatiotemporal dimensions. This implied that these variables were collectively significant and individually effective. While all family background characteristics, except household structure and natal parity size, were significant in total – some key variables were the largest contributors to first nuptial age in Homa Bay County. In order of importance, these number of media exposure (-2.6), family wealth (-2.4), followed by household structure (1.7) (Figure 4.28). Natal parity size (1.4), though no less important, was the least important contributor on the effect on first nuptial age.

4.6.2 Socio-Economic Variables Associated with Early Marriage Prevalence

In this second objective, the variables were classified into; respondents level of education categorized as no formal, primary, secondary and tertiary; premarital labor; and occupation. These underlying factors were identified using bivariate logit regression, Kaplan Meier Survival Analysis and path analysis. The model predicted the socio-economic related variables of age at first marriage. The Ominubus Test for Model Coefficient shows that Chi-square ($\chi 2$) =45.56 and p=0.002, which indicated that the model is a good fit.

Table 4.17. Odds ratios of binary regression showing the effect of socio-economic factors on the likelihood of early marriage, by sex

SELECTED COVARIATES	Women		Men	
	LOGIT ODDS RATIOS (P-VALUE)	95% (CIs) FOR ODDS RATIOS (ORs)	LOGIT ODDS RATIOS (P-VALUE)	95% (CIs) FOR ODDS RATIOS (ORs)
Level of Education				
No Formal	**RC**			
Primary	0.01 (0.001)	0.0-0.037	**RC**	
Secondary	0.01 (0.001)	0.0-0.007	0.06 (0.001)	0.013-0.282
Tertiary	0.077 (0.014)	0.01-0.598	0.51 (0.467)	0.083-3.134
Premarital Labor Force				
Unemployed	**RC**		**RC**	
Employed (Salaried)	0.082(0.001)	0.33-0.203	0.067 (0.010)	0.009-0.518
Occupation				
Peasant Farmer	**RC**			
Trading	0.15 (0.002)	0.048-0.509		
Public Servant	0.34 (0.050)	0.122-0.999		
Housewife	1.80 (0.344)	0.533-6.084		
Unemployed / student	0.24 (0.026)	0.068-0.843		
Self-employment	0.25 (0.064)	0.058-1.081		

From the bivariate logistic results, a positive association was detected between women working as housewives [OR=1.80; 95% CI (0.533-6.084)], and early marriage (Table 4.17). A negative association was detected between respondents' level of education, being

employed before marriage among men [OR=0.067; 95% CI (0.009-0.518)] and women [OR=0.082; 95% CI (0.33-0.203)], women's nature of work, and early marriage.

4.6.2.1 Effect of Level of Education on Early Marriages

It is assumed that education affects first nuptial age indirectly through age. Younger people have a better opportunity for schooling and consequently are better educated than older cohorts. Accordingly, people with higher educational attainment are expected to postpone marriage. With these views, the effect of age is controlled to examine the effect of education on first nuptial age across generations. For the purpose of analysis, current age has been grouped into age cohorts 20-29, 30-39 and 40-49 to reduce the number of small cells in the age classification (Table 4.18). Even after controlling for the effect of current age on education, the trends are that as the level of educational attainment increases, first nuptial age increases as well. While the least indirect effect of current age is manifest, the net effect of education is distinct (Table 4.18).

Table 4.18: Mean age at marriage by level of education and current age

Level of education	**Females**			**Males**		
	Age			**Age**		
	20-29	**30-39**	**40-49**	**20-29**	**30-39**	**40-49**
No formal	16.3	17.2	16.5	19.88	21.73	22.52
Primary	18.7	17.7	17.2	20.84	23.73	23.81
Secondary	19.1	18.6	18.6	23.19	23.45	24.91
Tertiary	20.3	21.7	21.5	26.52	27.17	27.36
Total	19.3	19.6	18.2	23.4	25.1	25.6

The study established that women in the highest educational category have a substantially lower likelihood to marry earlier (ORs = 0.01, 0.01, 0.077 for the primary, secondary and tertiary level of education, respectively) (Table 4.17). When compared to men in the reference category, the odds ratios of marrying earlier were less for all levels of education. However, these results were only significant for the secondary level of education (OR = 0.060, p = 0.001, 95% CI = 0.013–0.282) (Table 4.17). The researcher finds that the odds of early marriage decreases by 94% for men with secondary level of education compared to those with primary level of education and by 49.1% among those with tertiary level of education. These reveal an interesting and unexpected pattern of nonlinear results. These

results, however, indicate that after the completion of secondary education, the tempo of marriage steadily increases.

This finding is in accordance with results from previous studies conducted in other parts of Africa and Asian countries (Singh & Samara, 1996; Ikamari, 2005; UNICEF, 2014). Some of these authors argue that education has direct time restraints, necessitating an individual to withdraw from the marriage market and hence the older he or she is likely to be at their first marriage. Likewise, higher educational attainment often provides new outlook, and greater autonomy to women in the choice of marriage partners, lesser parental control over the marriage process and more independent lifestyle and attitudes that prioritize the achievement of personal fulfilment and career development that are antithetical to the beliefs of early family formation and reproduction (Ikamari, 2005).

Moreover, education may indirectly postpone marriage by increasing women's ability to regulate their fertility (UNICEF, 2014). Education is positively associated with increased awareness, acceptability and use of contraceptives, and with greater decision making power in areas related to contraceptive choice (Jejeebhoy, 1995; Agili, 2014). This indirect effect is likely to be the strongest in contexts where marriages is the socially encouraged response to unplanned pregnancy (UNICEF, 2014). Finally, educational attainment works in conjunction with more labor force participation to offset the attractiveness of early marriage and to reduce the economic motivation for early marriage by raising wage rates and increasing access to better jobs (Singh & Samara, 1996).

Contrary to what is documented above, higher female education may sometimes promote early union formation (Thorntorn, 2004). The researcher posited that learning institutions bring together boys and girls who are similar in ages and backgrounds and facilitates greater interactions and relationships among themselves hence intensifying the marriage market function. This eventually promotes early family formation (Marini, 2003; Thorntorn, 2004). However, the study found that in the area of study where marriage is still early and universal, higher level of education lead to postponement of first marital union. In the light of these findings, it may be suggested that young people may be encouraged to pursue higher education as well as participate in income-generating activities, which in turn motivate their parents to initiate their marriage lately. All these efforts will encourage

rational thinking and economic independence, delay first nuptial age, which in turn will have multifaceted social and demographic implications.

4.6.2.2 Effect of Premarital Employment on First Nuptial Timing

Unemployed spouses are likely to encounter a number of social problems including marriage instability. Studies in Kenya by Musau (2016) found that, unemployment among couples increased the risks of marital instability. However, the basis of this study was to establish the influence of employment status prior to marriage on first nuptial age. Figure 4.29 displays a summarized descriptive statistics of percentages for the type of respondents' employment. The vast majority (91.7%) in the total for each category of the respondents unemployed prior to marriage were women compared to only 8.3% who were men. In the total for each category having a nonstandard job before marriage, more than two thirds (69.7%) and a third (30.3%) were men and women respectively. The majority (73.1%) in the category of having a standard job prior to marriage were men, whereas women (26.9%) being the absolute lowest in the same category. Overall, the premarital employment among females was much lower than that of males in the general population.

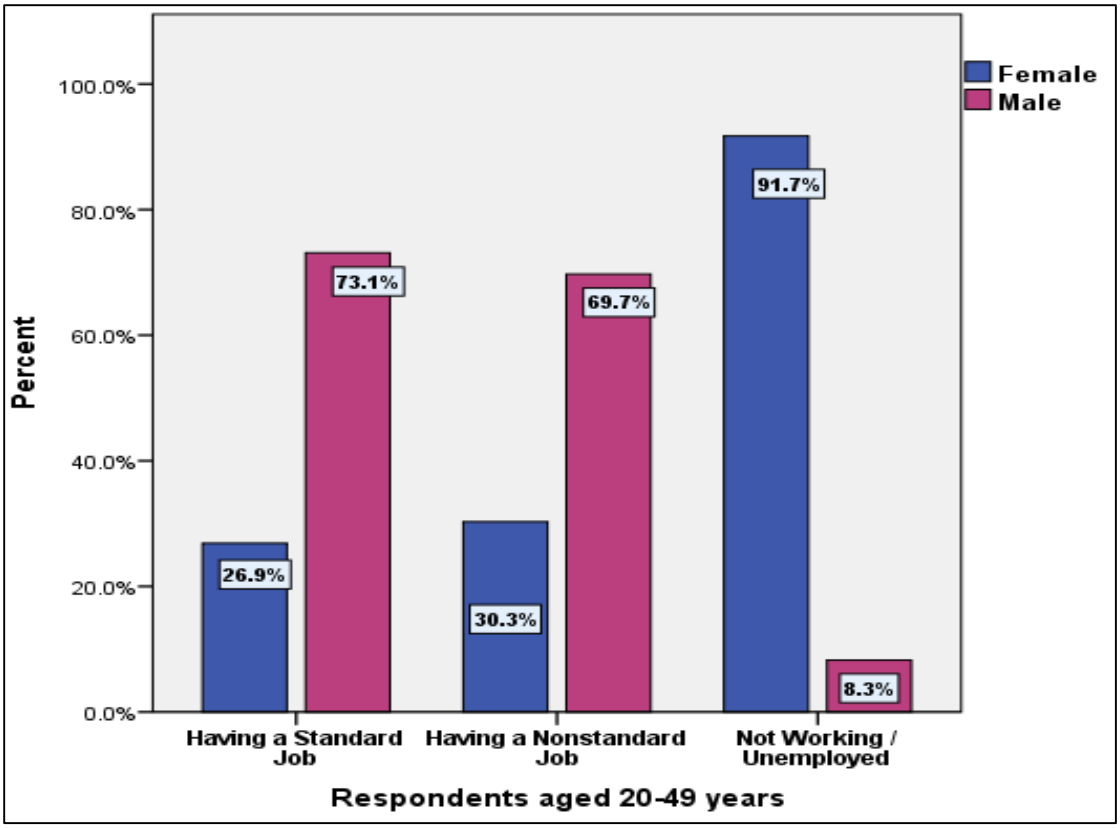

Figure 4.29: Employment status of the respondents before first marriage.

Observed relationship confirm a significant influence of respondent's premarital employment experience and age of first marriage among men and women (Table 4.17). It is hardly surprising that women who were employed or salaried before marriage were 0.082 times less likely to be ever married compared to their non-working counterparts (OR = 0.082, $p < 0.000$). The results consequently suggest that, lack of well-paying job or employment in unstable job pushed most women into early marriage and play a significant role. Similarly, it was distinctive that men who were employed prior to marriage were significantly 0.067 times less likely to be ever married than their peers unemployed prior to marriage (OR=0.067, 95% CI:0.009-0.518). It is found that people who work outside the home delay marriage than those who do not work (Becker, 1975; White, 1981). This may point to the role that premarital work plays in peoples' network, attitude and independence in deciding on when and whom to marry.

The results are consistent with prior observations by Yabiku (2005) and Caltabiano and Castiglioni (2008) that young people's work participation before marriage exposes them to

new alternative peer networks and financial motivations that may challenge traditional customs, family authority and early first nuptial patterns. Singh and Samara (1996) found that urban women who were employed before marriage appreciated greater parental support for marriage postponement than their unemployed counterparts. For some families, even a modest supplementary income provided by a working daughter can be a strong encouragement for delayed marriage (Choe *et al.,* 2005). Moreover, one study reported that premarital labor tends to delay the process of searching for a suitable mate, resulting in substantial delay in marital (Arktar *et al.,* 2017).

Other studies however posited opposite arguments for two reasons. Firstly, women's work participation before marriage and outside her parental home increases her opportunity to contact potential mates which could lead to early involvement in cohabitation and early pregnancy leading to the culmination of early marriage (Lin, 1987). Secondly, premarital labour could facilitate marriage by providing the resources needed for forming and maintaining an independent household (Goldscheider & Waite, 1986).

4.6.2.3 Effect of Occupation Before Marriage on Early Marriages

There is scanty evidence concerning how an individuals' nature of occupation interact to influence their first nuptial age. Studies based in Kenya have mostly focused on understanding the effects of spouses' occupation at marriage on the family livelihoods, marital instability, contraceptive use and fertility behavior (Musau, 2016) rather than on individuals marital timing. The need for evidence in this setting was therefore profound. In this study, the main occupation was tested by asking the respondents occupation prior to marriage. Figure 4.30 presents a cross tabulation between women's occupation and first nuptial age.

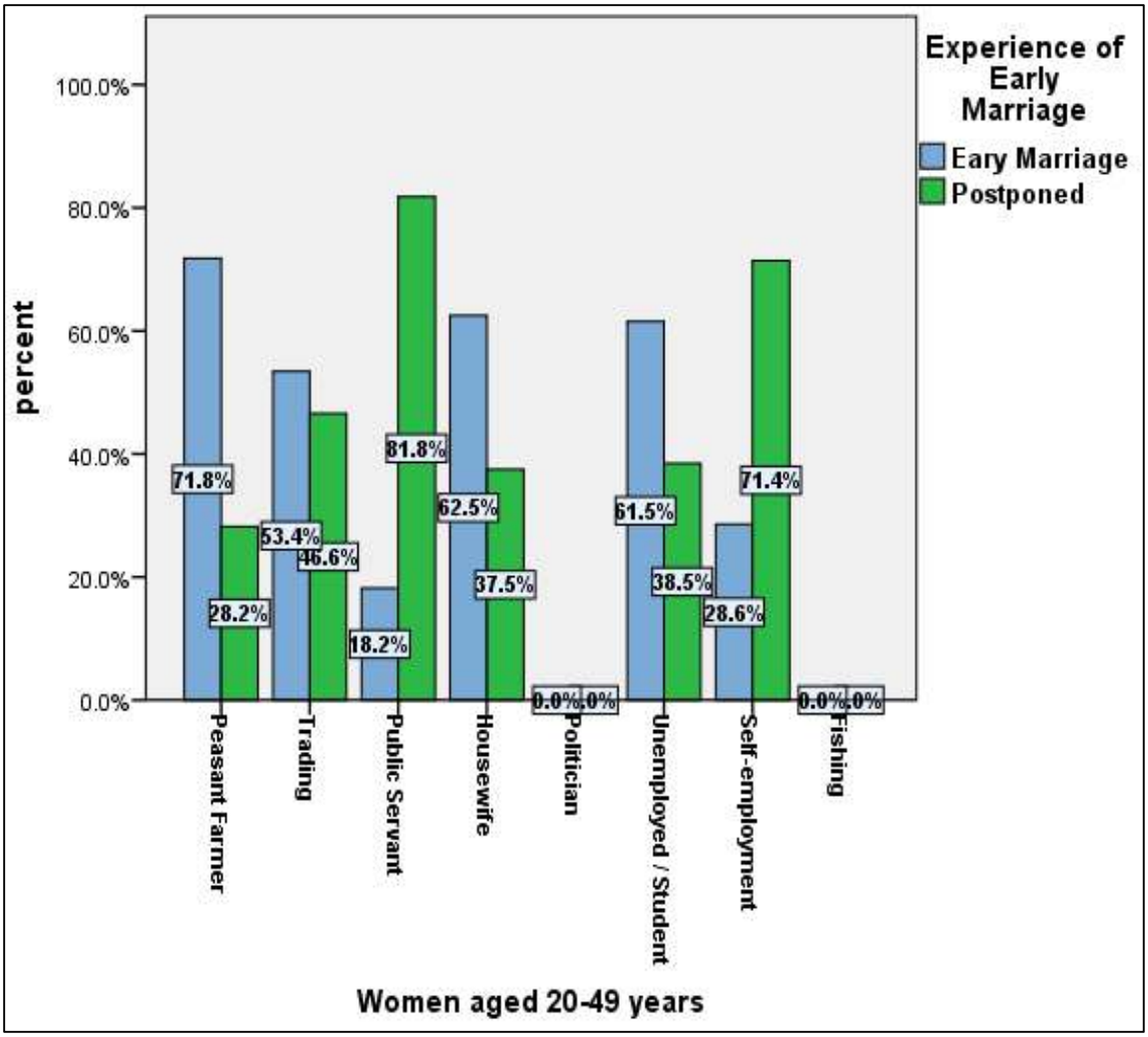

Figure 4.30: Cross-tabulation of women's timing of first marriage and occupation

It is seen in Table 4.30 that among the occupational groups, women who worked as peasant farmers reported the highest prevalence of early marriage (71.8%), closely followed by women who were house helps and unemployed with a prevalence of 62.5% and 61.5% respectively. Women who worked as public servants and as self-employed recorded the lowest early marriage prevalence rate of 18.2% and 28.6% respectively. In the contemporary society, job opportunities in the public service requires higher and better educational attainments which most of the women who married early did not have. This explains why a larger proportion of the female respondents joined the informal sector as small scale traders, peasant farmers or having some form of self-employed job.

Related to education, the findings in this study show that a woman's occupation before marriage had notable influence on her odds of early marriage. The odds of marrying early decreased by 65.1% for women working as public servants than their peasant farmers' peers (*p= 0.050*) (Table 4.17). Furthermore, women working as housewives reflected higher odds of early marriage, but the outcome was not statistically significant (OR = 1.800, p = 0.344). Similarly, trading occupations (OR=0.157, p = 0.002), unemployed / student (OR=0.240, p = 0.0.026) also reflected lower odds of early marriage compared to peasant farmers (reference category), and the outcome was statistically significant. In Kenya, those who work as public servants and self-employment not only have contact with other educated groups and are exposed to western ways of life, but also are more educated. Therefore, these sectors have a greater influence of delayed marriage (Tumwine, 2007).

Results from the study analysis support those in previous empirical studies. Adedokun (1999) for example, found in Nigeria that very few women employed in the public service and self-employed married earlier while majority of the peasant farmers, unemployed women and house helps were married between the ages of 15 and 18. Delayed marriage among women working as public servants can be attributed to the increasing empowerment of women through the modernizing influences of higher schooling, premarital labor force participation and urbanization (Goldin & Fatz, 2014). However, discordant results in United States were reported by McLaughlin *et al.* (1993) who found that women who were self-employed, employed in public or private sectors were more likely to marry than those unemployed.

4.6.2.4 Path Analysis for Individual Socio-Economic Factors and Early Marriage

Further, path analysis was conducted to calculate the relative strength of each of the different individual socio-economic effects towards the outcome variables using path coefficients and to quantify the direct, indirect and the total effect of the determinants of the outcome variables (Lleras, 2005; Islam, 2009). Indirect effects are estimated by multiplying the path coefficients of each of the connecting paths (Chi & Harris, 1997). The

resulting regression weights of the paths and relationships between different variables are best visualized using the path diagram (Figure 4.19 and Table 4.31).

Table 4.19: The Result of Path Analysis for Individual Socio-Economic Variables (n=420)

Dependent Variable		Independent Variable	Path Coefficient	CI 95%		P-value
				Lower Limit	Upper Limit	
Direct Effect						
Early age at first marriage	←	Household wealth Not Poor	-2.37	-3.23	-1.38	<0.001
Early age at first marriage	←	Children Ever Born ≤3 children	-1.34	-2.28	-0.43	0.140
Early age at first marriage	←	Form of marriage Monogamy	-1.35	-2.30	-0.31	0.062
Early age at first marriage	←	Religion Christian	-0.85	-1.84	-0.12	0.114
Indirect Effect						
Household wealth Not Poor	←	Occupation Formal employment	5.14	3.13	7.15	<0.001
Household wealth Not Poor	←	Level of education ≥High school	4.25	2.27	6.23	<0.001
Children Ever Born ≤3 children	←	Occupation Formal employment	2.10	1.38	2.86	0.008
Children Ever Born ≤3 children	←	Level of education ≥High school	2.31	1.50	3.12	0.009
Occupation Formal employment	←	Level of education ≥High school	5.62	3.59	7.65	<0.001

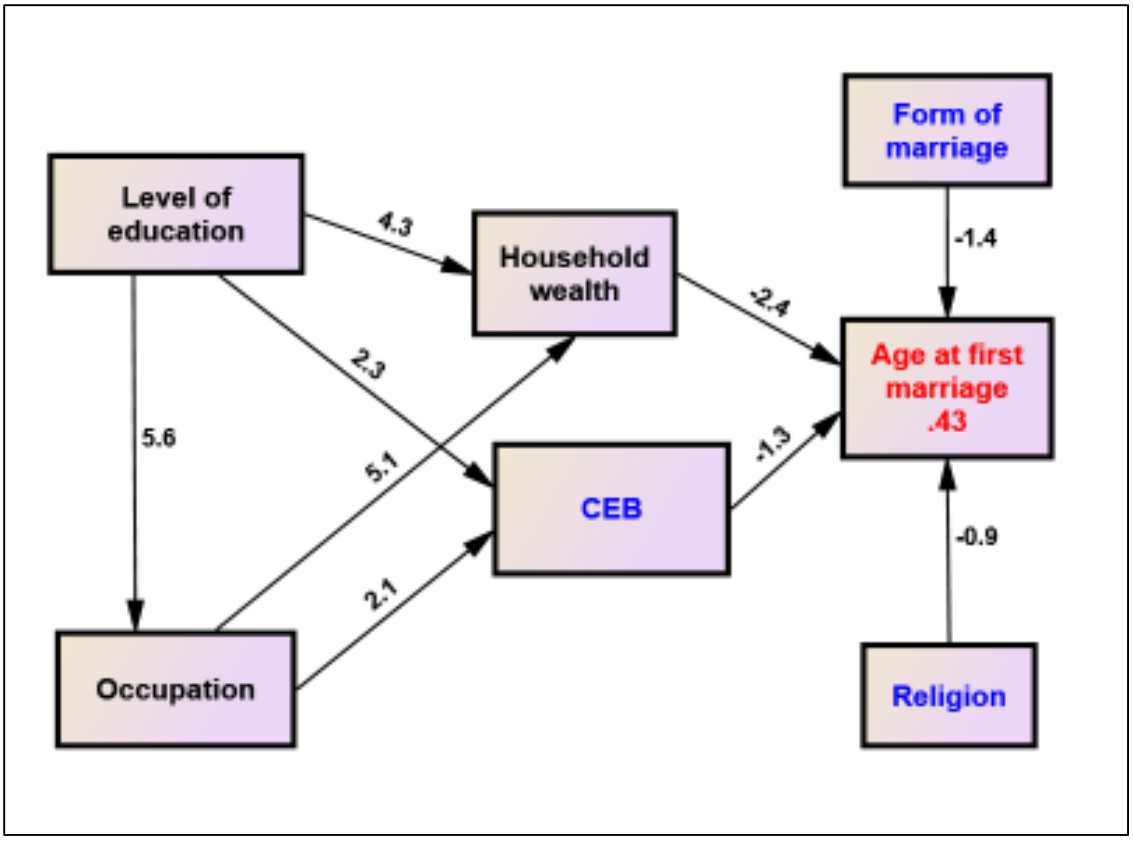

Figure 4.31: The structural Model of Path Analysis for Individual Socio-economic Factors and Age at First Marriage (n=420)

Out of 9 hypothesized pathways, 6 were found to be significant. Path analysis results showed that early marriage was directly affected by household wealth, number of children ever born (CEB), form of marriage and religion. While children ever born (β= -1.34; p= 0.140), form of marriage (β= -1.35; p= 0.062) and religion (β= -0.85; p= 0.057) was not a significant predictor of age at first marriage, the household wealth of not being poor had a greater likelihood of decreasing early marriage (β = -2.37; p =<0.001). The reasons for these have already been discussed in section 4.5 in this report.

Household wealth and children ever born were directly influenced by the level of education and the type of occupation. Also, the type of occupation was influenced by level of education. Individual level of education ≥High school had a greater possibility of increasing household wealth above average (not poor) (β= 4.25; p= <0.001). The occupations in formal employment likewise had a greater likelihood of increasing household wealth above average (not poor) (β= 5.14; p= <0.001). Individual level of

education ≥High school had a greater likelihood of decreasing children ever born ≤3 children (β= 2.31; p= 0.009). Similarly, occupations in formal employment had a greater likelihood of decreasing children ever born ≤3 children (β= 2.10; p= 0.008). Finally, individual education level ≥High School had a greater chance of being employed in formal employment occupations (β= 5.62; p= <0.001).

It is important to note that the path binomial logit model reveal that the value of the R^2 (multiple coefficient of determination) for the equation level goodness of fit shows that the included predictors explain 43 percent of the variation in first nuptial age across gender in Homa Bay County. This indicated that over 43 percent of the total variance in the dependent variable is accounted for by the indirect and direct combination of the variables (Figure 4.31). This implied that these variables were collectively significant and individually effective. The most important factors (in order of importance) were household wealth (-2.4), form of marriage (-1.4), followed by children ever born (-1.3) and religion (-0.9) (Figure 4.31).

4.6.3 Cultural Dynamics Associated with Early Marriage Prevalence

A continuing debate in demographic studies concerns the importance of traditional norms in reproducing and re-enforcing nuptial patterns, and thereby in influencing family formation processes. Recent empirical research has emphasized the role of traditional norms in the transition to adulthood (Ajwang, 2019), the productive and reproductive roles of young women (Ochieng, 2016). On the other hand, proponents of modernization argue that rapid socio-economic development erodes the influence of culture on family formation processes by altering the goals that traditionally influenced marriage norms previously supported (Othuon *et al.,* 2006). While it has been demonstrated that SSA countries often witness marked changes in marriage patterns, the persistence of cultural influences on family formation behavior during times of rapid social change is less well understood. Part of the study analysis involved Chi-square tests that established a definite relationship between the cultural variables and age at first marriage (Table 4.20).

Table 4.20: Chi-square statistic of the relationship between cultural dynamics and early marriages

Cultural Drivers	Females				Males			
	Early marriage (%)	Ideal marriage (%)	P-Value	Chi-Square Value	Early marriage (%)	Ideal marriage (%)	P-Value	Chi-Square Value
Religion								
None	66.7	33.3	0.177	7.64	0.0	100.0	0.216	7.066
Roman Catholic	40.8	59.2			8.6	91.4		
SDA	38.5	61.5			4.7	95.3		
Pentecostal	57.1	42.9			14.9	85.1		
Muslim	41.7	58.3			0.0	100.0		
African Independent	60.7	39.3			15.0	85.0		
Form of Marriage								
Monogamous	48.7	51.3	0.960	0.03	7.5	92.5	0.210	1.57
Polygynous	48.1	51.9			15.8	84.2		
Spousal Choice								
Couple	47.1	52.9	0.306	2.37	7.1	92.9	0.132	4.052
Partly parents / Partly Couple	69.2	30.8			6.5	93.5		
Arranged	48.1	51.9			20.0	80.0		
Bride Wealth								
Yes	38.2	61.8	**0.001***	12.49	2.2	97.8	**0.004***	8.113
No	62.6	37.4			13.2	86.8		

NOTE: * = Significant at $p \leq .05$

Overall, religion, form of marriage and spousal choice were found to be insignificant in predicting marital timing at 0.05 level or better (Table 4.20). These variables were therefore dropped and not included in the subsequent multivariate analyses except for payment of bride wealth. Because individuals take their particular religion as a pervasive force in their lives, marriage norms and customs vary widely according to religious group (Rampagane, 2016). Religious influence in marital timing was measured using the religion in which the respondents were raised. The results indicate that religious affiliation had no influence on first nuptial age in the area of study (Table 4.20). A plausible explanation for this difference is that this study established that there is a high level of cultural homogeneity in all sub-counties within area of study. This could also be so as Kenya may be fully become a secular society, where religion no longer prescribes a code of life, a system of beliefs, attitudes and practices which individuals share in groups (Ikamari, 2005).

The results of analysis where religious affiliation is insignificantly associated with age at first marriage are in sharp contrast to prior studies by (Haloi & Limbu, 2013; Amoo, 2017; Adebowale *et al.,* 2012). The researchers found that females who are Muslim and Protestant have an increased hazard of entering an early marriage in relation to other religious denominations like Catholic. This is mainly because Protestant leaders emphasize marriage and strongly urge their members to enter marital unions and once they have done so, to avoid divorce except for compelling reasons (Wilson & Musick, 1996). In certain Islamic societies, parents imbibe early marriages for fear of their daughters being exposed to pre-marital sexual activities, pregnancy out of wedlock and the only available option could be earlier marriage. Most times, these decisions are often made without the consent of the child and with no recourse to the consequences of the actions (Adebowale *et al.,* 2012).

Out of the total respondents, 48 per cent of the marriages were mediated by couple themselves and these respondents were married at an average age of 24.3 years which is the highest age at marriage among the different methods of spousal choice (Table 4.21). Though the study findings are insignificant, they nonetheless suggest that, the idea of choosing a spouse has changed from the usual conventional way and embraces the modern values (Musau, 2016). The study results suggest that, while cultural and modern values are not present to the same degree in the people's lives, they coexist among themselves; nonetheless, the trend depicts a faster process of social change from traditional to modern norms and values. For example, most young people today meet each other in either educational institutions or work places, then inform their parents for the other marriage ceremonies to follow. This finding further indicate that although marriage is a family affair, the relationship between potential mates, is uttermost.

Table 4.21: Mean Age at Marriage (MAM) by main method of spousal choice

Choice of spouse	**MAM**	**Percent (%)**	**Frequency (N)**
Respondent's chose	24.4	48.1	202
Parents / seniors chose	18.2	10.2	43
Partly parents or elders / partly couple	22.2	18.4	77
Friends	21.1	12.7	53
Relative	20.9	10.6	45
Total	**23.6**	**100**	**420**

Ten percent of the marriages were arranged by elders / parents and these respondents were married at an average age of 18.2 years which is evidently the lowest among the different methods of spousal choice. The spousal choice where partly parents or elders / partly couple was ideal by respondents was because their parents didn't favor very late first nuptial age (25 years and above). This was probably due to fear of childlessness or non-marital pregnancy as both are socially looked down upon in the society (Ochieng, 2016). Moreover, 18.4% per cent of all the marriages were semi-arranged (partly parents or seniors / partly couple) and these respondents were married at an average age of 22.2 years (Table 4.21). This latter type of spousal choice, males or females are at liberty to disagree if they are not satisfied with their elders or parents' choice. First nuptial age is higher in societies where marriage occurs by free choice, and it is lower in societies where seniors take the entire responsibility to choose for their children a spouse (Botev, 1990).

Historically, elders would arrange marriages for their sons and daughters (Ocholla-Ayayo, 1986). Informants agreed with findings of Ocholla-Ayayo, in the practices of identifying and choosing marriage partners among the traditional Luos. Spousal choice by parents showed the social importance of marriage, especially as it concerned the families and relatives of the couple (Ocholla-Ayayo, 1986). Parents or young men would travel long distances, or took time investigating a possible distant relationship before finding a mate not closely related to him (Ocholla-Ayayo,1976; Ominde, 1987). The choice of a bride that often delayed a man's marriage was also limited by the fear of incest expressed in the exogamous rule (Ocholla-Ayayo, 1976). The man had to get permission from his father to take her as his wife, and the usual negotiations would be put in hand. However, mostly, a man left the choice of his wife to his father, who would select a suitable maiden with regard only to the mutual advantage of the two families concerned (Ominde, 1987).

The study found that arranged marriages by parents / elders are no longer pronounced (Table 4.21). This change to modernity reflects a greater disintegration in customs of marriage because traditionally, personal qualities of the potential mate were taken into account and the spouse opinion was not important since it could cause wrong selection. The insignificant association between spousal choice and marital timing is consistent with existing literature (Lesthaeghe & Surkyn, 2008; Ochieng, 2016) and can be attributed to

increased female participation in education and in labour force activities outside the home. Additionally, many parents who reside in the rural areas may know few educated potential mates for their children since it is uncommon for educated people to marry their counterparts with low level of education as many formal marriages begin with courtship (Lesthaeghe & Surkyn, 2008). Education also increase the likelihood of cross marriages between tribes and marriage partners may not necessarily have to be from the same ethnic community as observed from the increase in the number of intermarriages (Othuon *et al.,* 2006; Ajwang, 2019). Thus the empirical evidence for this study does lend support to these emerging world views.

In one focus group discussion, a woman who married during her teenage years explained how people have become sensitive to modernization factors that influence their first nuptial age:

> "*…. some traditional attitudes and historically held social orientations that affect marriage age such as parents' involvement in choosing marriage partners; parental inheritance as the primary source of wealth; sub-ordination to senior kin or parents; abstinence before marriage; marriage by seniority; surveillance process of mates; use of traditional items in payment of bride price are in decline. These changes are as a result of modernity through migration, participation in labor force by women, youth independence and personal freedom, formal education and urbanization*…." FGD female participant

The study found that preparation for marriage was a good practice that is neglected in the contemporary society. The excerpt above showcases a need to emulate the traditional institutions that undergirded postponed marriage despite the emergence of other new institutions such as schools, churches and the modern mass media. There is need to coordinate the current flow of information about marriage, family life preparation and sex, make it clear and simple for the youth to decipher effectively through the same institutions of *siwindhe, duol and simba* (Ocholla-Ayayo, 2000; Othuon *et al.,* 2006). Furthermore, in order to avoid instances of incest expressed in the exogamous rule that did not permit unions between relatives, avoid spread of hereditary diseases such as sickle cell as well as

bad practices such as witchcraft and theft, young people are encouraged to take time and investigate about the families of the intended partners before making pledge to marriage.

The second part of this analysis focuses on binary logistic regression including the explanatory variables that were statistically significant in the first analysis using Chi-square tests. It is hardly surprising to note that the payment of bride wealth is another important cultural and highly significant factor determining the age at first marriage of both gender. Bride wealth involved the exchange of money or traditional physical items (livestock, clothing and food) or other valuable property by the family of the bridegroom to be to the family of his bride to be. Information from the discussants showed that bride wealth serves as an equivalent of a marriage certificate that certify as a public pledge, the man's rights over his wife and children and empowered him to be called a man *("jaot"*) among men (Ocholla-Ayayo, 1986). The general observation was that bride wealth has been commercialized to include envelopes containing sums of money for many relatives of the woman instead of traditional physical items such as livestock and non-food items. There was remarkable consensus from the focus group discussants that commercialization of bride wealth should be abolished and the positive cultural values of the marriage system be upheld by those who revere them.

The bivariate logistic results presented in Table 4.22 show that compared to women whose bride wealth was paid, the women are less likely to be ever married (OR=0.369, CI=0.211-0.644) if their bride wealth was not paid. Similarly, among men, where exchange of gifts occurred was associated with increased probability of early marriage compared to where gifts were not exchanged (OR = 0.147, p = 0.012, 95% CI: 0.033-0.659). Higher bride wealth gains for poor households serve as a common incentive to marry off their daughters as young as 14 years.

Table 4.22: Odds ratios of binary regression showing effect of bride wealth on the likelihood of early marriage, by sex

EXPLANATORY VARIABLES	Women		Men	
	LOGIT ODDS RATIOS (P-VALUE)	95% (CIs) FOR ODDS RATIOS (ORs)	LOGIT ODDS RATIOS (P-VALUE)	95% (CIs) FOR ODDS RATIOS (ORs)
Bride wealth				
Yes	**RC**		**RC**	
No	.369 (0.001)	0.211-0.645	.147 (0.012)	0.033-0.659

This finding is consistent to empirical findings of Lloyd (2005) in Nigeria and Ochieng' (2016) in Kenya. They established that the payment of bride wealth, paid in exchange for the bride's labour and fertility is an important resource for greater wealth and survival of some family and therefore may induce early arrangements of marriage by parents. It is also noteworthy to report that hardly any individual is marrying in birth order contrary to prior observations by (Ocholla-Ayayo, 1980; Osiemo, 1986). It can thus be argued that the custom of bride wealth creates an economic incentive for some parents on when to marry off their daughters.

The study also established that there are incidences of some informal nuptial practices like come we stay marriages and lax documentation of marriage rites which blur the lines between legal marriage and illegitimate relationships. In these informal relationships, parents have less influence on their children's choice of when or whom their children would marry, regardless of whether parental consent was obtained. Available evidence suggests that compulsory registration of births, deaths, marriage and divorces is important in safeguarding the lives of young girls from their families' wishes to marry early (UNICEF, 1996; Ajwang, 2019). The compulsory registration of marriage is imperative as there is no law requiring compulsory registration of marriages throughout Kenya. Thus, enforcement of such legal provision is likely to pressurize parents to delay marriage.

4.7 The Roles of Key Stakeholders in Curbing Early Marriages and the Extent to Which their Level of Activities Influences Delayed Marriages

The findings are based from the results from the questionnaire, IDI and FGD which provided rich insights and in-depth data in both quantitative and qualitative forms on the determinants that should be considered towards family formation behavior of both sexes. The section profiles the response within the community to the legal instruments, along with the incentive and key stakeholder based programs to tackle early marriages.

4.7.1 Knowledge Level of Legal Nuptial Information and Behavior in the Community

The adopted legal instruments as relate to early marriages in Kenya include the Constitution (2010), the Children's Act and the Marriage act (No. 4 of 2014). They prohibit marriage for girls and boys below 18 years of age. These instruments protect children from harmful cultural rights and states that nobody should make a child undergo early marriage or other cultural practices that are likely to negatively affect the child's life, health, social welfare, dignity, physical or psychological development. Further, consent and registration of the marriage is compulsory. The marriage act (No. 4 of 2014), Sec. 87(3), sets penalties and corrective measures such as imprisonment for a maximum of 5 years or fined a maximum of KSh 1,000,000 or to both for marrying a person who is under the age of 18.

Those who celebrate or witness a marriage knowing very well that one of the parties is under the age of 18 can be convicted and is liable to a maximum of 6 months' imprisonment or a fine of up to KSh 50,000 ($500) or to both (Sec. 91(1)(a)). Sec. 42(3) also states that it is a crime in Kenya not to register a marriage, and if convicted the person is liable to a fine not exceeding KSh 5000 ($500) or community service or both. These Acts address the impunity of perpetrators and also ensure accountability of duty bearers. Effective implementation and enforcement of legal instruments can prevent such marriages and weak implementation processes can undermine the law's potential effectiveness. Figure 4.32 highlights the level of awareness about legal instruments and legal age among respondents.

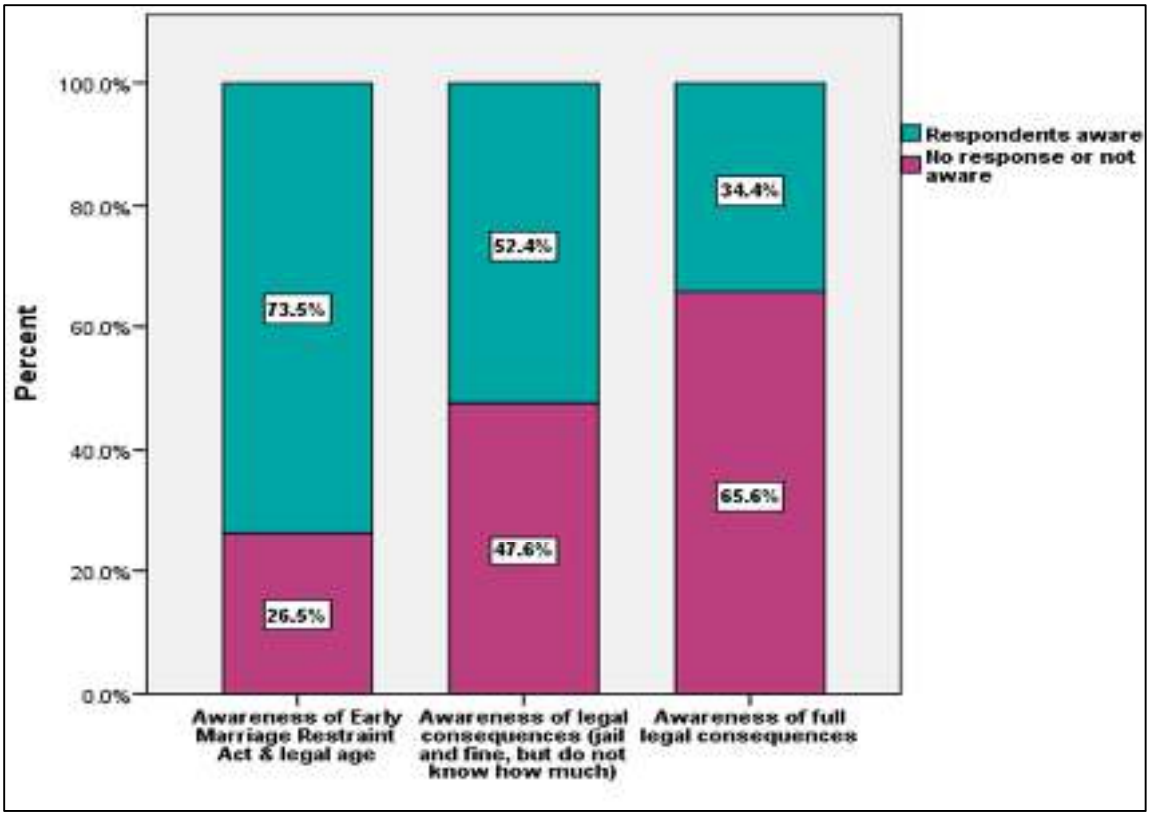

Figure 4.32: Level of awareness about early marriage legal instruments and legal age

Though legal instruments have strong tenets to prevent early marriages, the figure above clearly demonstrates that there is very low awareness amongst local people. Limited awareness also includes sub-county and community government officials in the area of study. The implication is weak enforcement of the law which undermines its potential to curb early marriages. Of the 420 respondents, majority (73.5%) responded agreeably that they were aware of the legal frameworks and the legal age for marriage of girls and boys in Kenya. However, ignorance about the legal age at first marriage has led to premature marriages but in very few cases as indicated by the following statement.

"Yes, the community is aware that the law prescribes that children and adolescents should not be forced and marry before attaining the age of 18 years. At least over 90 percent are aware of the law and what it states." - Children Protection Officer IDI, Suba North Sub County.

"People perpetuating the vice are using ignorance to practice the vice. But the fact is, an overwhelming majority is aware that it is illegal." Interview with Children Protection Officer, Ndhiwa Sub County.

The above excerpt corresponds to KAP-approaches, as explained by Ansell (2005), which emphasize a linear relationship between knowledge and changed attitudes and hence, practices. As shown in Figure 4.32, slightly more than half (52.4%) of these respondents knew about the legal consequences of being jailed or fined, but did not know how much or duration. There was a general less awareness (34.4%) around the provisions, the prescribed penalties of the legal instruments, and the process for annulling an early marriage. This could be due to insufficient information about the particulars of the legal frameworks, poor implementation, and lack of any known violations.

It emerged from the focus group discussion that there are several instances of police bribery, if the perpetrators had adequate money. Some of the government administrators such as the chiefs / assistant chiefs weakly enforce the legal frameworks as well. A discussant expressed that since the administrators are members of the community, they are hesitant to report against their neighbors. There is therefore need for intervention strategies that support legal literacy and paralegal services, since legal instruments that prohibit and penalize early marriages are not enough. Well-trained and skilled social workers can play a crucial role here, as they are more suited to help with legislative implementation processes at community levels (Ajwang, 2019).

Several regional instruments such as Addis Ababa Declaration on Ending Child Marriages, African Charter on the Rights and Welfare of the Child (ACRWC) and the Women's Protocol, which Kenya has signed, make marriage registration obligatory (African Union, 2005). Sec 12 of the Kenyan Constitution indicates that marriage is voidable if it was not registered. On the same note, customary marriages should be registered within 3 months of the completion of the relevant ceremonies, and both parties should be 18 years and above and should have freely consented to the marriage. While such marriage registration is crucial to ensure minimum marriage age (Government of Kenya, 2015), it emerged from the focus group discussions that most marriages are often not registered. The suggested reasons for nonregistration varied to include lack of registration facilities, fear of being caught and punished, not seeing value in registering the marriage, proper protocols not

followed during marriage ceremony, lack of proper documentation required and lack of money.

4.7.2 Support Given by Key Stakeholders in Curbing Early Marriages in the Community

The study found that a range of individuals and institutions perpetuate the practice of early marriage; consequently, intervention measures must engage different stakeholders. Depending on the intervention approach, different stakeholders may be more important than others. While the key stakeholders are differentiated into individual, household, community, and societal structures, there is great overlap in which they are to be engaged (Figure 4.33). For example, religious leaders should be engaged in partnerships as well as mobilization efforts. Engaging a combination of approaches and stakeholders enable adolescent empowerment, provision of viable alternatives to early marriage, and mobilize families and communities to reject early marriage. Priority stakeholder groups are listed according to the progression of the framework, starting with the individual adolescent and moving outward to national-level, institutional structures.

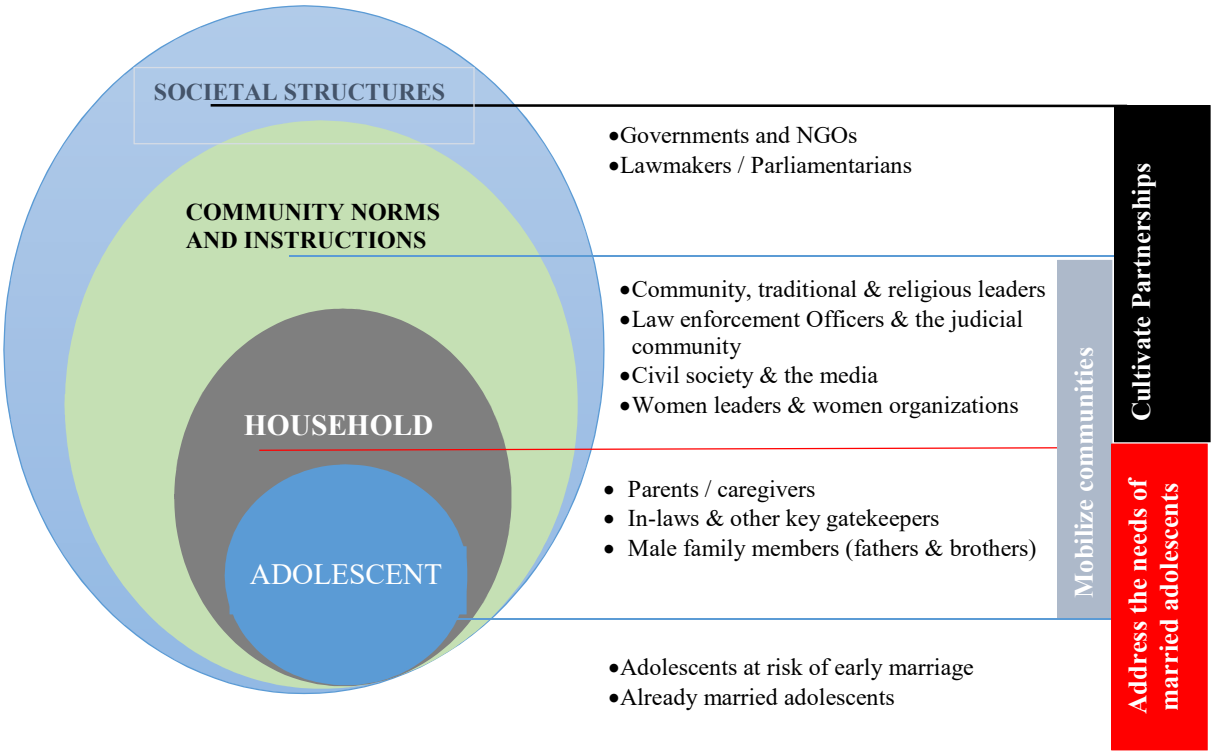

Figure 4.33: Key stakeholders involved in curbing early marriages

The participants mentioned the key stakeholders such as the church, NGOs, local administrators e.g. chief, Government institutions like schools and relevant government departments i.e. children's department, the police. Also mentioned are individual families and community based organizations, as well as teenagers themselves. Participants argued that these stakeholders have played a significant role in raising community awareness on issues related to early marriages, HIV/AIDs and teenage pregnancy.

The study findings revealed that the level of support offered by the key stakeholders varies (Table 4.23). A few programs in SSA countries recognize that parents play a critical role as influencers within the household and can support their children's involvement in programs or their access to information (Temin & Levine, 2009). The researchers opined that good parenting, strong bonds between parents and children, and positive, non-violent discipline have an impact. The study findings reveal that parents do not provide much support in curbing early marriages and this is a possible reason why some teenagers discontinue from school and get married early (Table 4.23). This suggests that approaches that target key adults such as home visiting programs, which are rare, can assist parents' in practicing good parenting, bond with their teenage children, create a supportive environment and address potential root drivers of early marriages.

Table 4.23: Rating the support given by stakeholders in curbing early marriages

Category of stakeholder	No response	Quite a lot	A lot	Little	Not at all
NGO's	11.3	48.6	26.4	7.3	8.3
Academics and researchers	12.7	15.2	23.4	32.1	16.6
Child protection officers	6	27.2	30.5	22.6	13.7
Media	8.3	17.3	26	31.2	19.2
Educational institutions	6.5	55.8	26.2	7.3	4.2
Religious leaders	8.5	22.2	26.6	17.1	25.6
Health institutions	3.4	33.1	40.9	14.5	8.1
Teenagers themselves	9.3	17.2	29	29.2	15.3
Community	8.5	19.8	25.2	24.1	22.4
Police	10.9	21.2	20.4	26.7	20.8
Chiefs / assistant chiefs	13.6	22.3	24.4	23.2	16.5
Parents / family members	6.2	29.2	30.3	24.2	10.1

The community, parents and teenagers themselves mentioned above provide minimal support to curb early marriages. Some parents shy off discussing issues of sex, basic life

skills and safe relationships with their children who in turn engage in such discussions with people who mislead them. More still, some parents are too much preoccupied with their daily activities to an extent that they don't create time to check on who their children interact with. This leaves the adolescents with a lot of freedom which they often misuse. The community on the other hand offer minimal support since in the contemporary society, the nuclear family set up has shelved out communal responsibility of guiding teenagers which would curb cases of early sexual relationships. There is therefore need for the social workers and child protection advocates to explicitly channel their efforts and support in reaching out to young people, so that they can be active partners in curbing early marriages and advocates for girls' reproductive rights in their communities. Available evidence suggests that key stakeholders like the NGOs and the government can create safe spaces for teenagers where they gather with a mentor on a regular basis to learn skills, make friends, and discuss their lives (Temin & Levine, 2009).

The role of mass media is critical for behavior change, however, the focus group discussants expressed that the reliance on newspapers and television is insufficient as many households in the community have very little exposure to these sources. Based on the study findings, even when and where media plays a role, the positive messaging around discouraging early marriage seems inadequate. The minimal support of the mass media, (Table 4.23), also arises since the information about the legal instruments is not well profiled through these media. One of the male discussants stated that while print and television media have high influence in communicating messages, they have a minimal role in the community due to illiteracy and lack of electricity. The wall writings that were observed at strategic places during the study in the specific sites that profile information about the law and about the rights of the adolescent child were inadequate. Beyond limitation in content, another challenge is illiteracy and therefore incapacity of most members of the community to comprehend the written communications. These suggest an urgent need to have supportive messaging using cultural art forms and music.

Those who provide exceptional support are NGO's and educational institutions (Table 4.23). NGO's provide support in terms of offering essential necessities needed by the girls i.e. sanitary towels, basic education on responsible and acceptable lifestyle. Some NGO's

are involved in HIV/AIDS mitigation programs and family planning services while some like the Dream Girl have been of value to girls as they create awareness among the adolescents on the dangers of early marriages and the essence of education to the girl child. On the other hand, teachers and school administrators do so through the guidance and counselling sessions on acceptable behavior and relationships, and what roles are appropriate for boys/men and girls/women. Teachers can also provide support and foster self-confidence in learners, giving them the ability to form their own opinions and stand up for their beliefs when negotiating responsible behaviors and relationships.

The local administrators expressed concern about the objectives, scope and implementation strategies employed to curb early marriages as some local leaders put it:

"The objectives towards curbing early marriages is to ensure that most girls if not all are educated since they say a household without a girl is like a river without a source." Children Protection Officer IDIs, Rangwe Sub County.

Some non-governmental organizations have put in place associations such as "Dream Girls" with an aim to promote sexual education for the girl child. Girls who have attained the adolescent age have been exposed to early family planning methods so as to reduce the number of unwanted pregnancies. - Area Chief IDIs, Kabuoch North, Ndhiwa Sub County.

In the words of another area chief:

"Some schools in these areas have assigned guidance and counselling teachers to help teach the adolescents on the consequences of early marriages and also to support the children accordingly. Schools also establish and promote SRH –clubs (Sexual Reproductive Health Clubs) wherein adolescents can voluntarily come together and discuss and learn about important SRH-topics such as contraception, menstruation and early marriage. The club in addition functions as a concrete safety net, such that if there is suspicion of marriage, adolescents can go to their club leader (a trained teacher who fulfils the roles of practical leader, source of information and first point of contact for the members" - Area Chief IDIs, Kanyamwa Kosewe, Ndhiwa Sub County.

The study established that adolescents who participate in SRH-clubs greatly cherish the information they receive from the club and embrace understandings as to the health risks

posed by early family formation, the practice of early marriage being a harmful practice and the result of a lack of knowledge. In other words, adolescents' internalization of the conceptualizations of early union formation as presented to them in SRH-club appeared to have greatly influenced teenagers' understandings of early marriage.

The participant's views on the stakeholder roles were summarized in Table 4.24.

Table 4.24: Interviews' quotation on roles of key stakeholders and the support they give to married adolescents

Stakeholder	**Illustrative quotes**
The Church	*"In certain churches, there are departments like the youth departments that are aimed at educating the youth on the importance of acceptable boy-girl relationships".*
	"In some instances, youths contemplating marriage are guided through the fundamental courtship stages that often leads to acceptable marriage".
	Religions incorporate developmental topics such as Harmful Traditional Practices (HTPs), gender equality and population issues into their services or ceremonies and reject them.
CBOs	*"Some do capacity building to freely educate adolescents on relationships and expected moral values that they should display".*
	"Some CBOs like Nyarongi Women Network link with paralegals in the community that have leant enough law to defend community. They link together, identify cases, solve them or do referrals if they are unable to square the cases at their level".
	"They train women as human rights defenders to enable them create awareness on children's rights e.g. freedom of expression, movement, owning property like land, educate them on gender based violence".
	"Paralegals work unanimously to avoid risks in their attempt to help situation. Some even appear in scene of crime to defend the victims".
NGOs	*Involved in HIV/AIDS mitigation programs and family planning services*
	"Some NGOs like the Dream Girl have been of value to girls as they create awareness among the adolescents on the dangers of early marriages and the essence of education to the girl child".
	"Some NGOs offer essential necessities needed by the girls i.e. sanitary towels, basic education on responsible and acceptable lifestyle".
	"Some NGOs also offer counselling sessions to girls who are victims of early marriages".

Chiefs	*"influence opinions and values within the community through village meetings and specific sensitization workshops for various actors, such as caregivers and religious leaders".*
	Majority of the chiefs have instilled values to the youths
	"In collaboration with the boys' / girls' parents, they work round the clock to ensure that the adolescents are always at school. For this reason, the adolescents are always occupied such that they rarely engage in unnecessary relationships".
Schools	*"There are guidance and counselling sessions for adolescents on acceptable relationships, and on the importance of getting married later".*
	Life skills education e.g. through girls' forums to mentor and coach them to cherish value of education early at primary level.
Children's department	*"It's here where cases of early marriages are reported and this enables them follow up on such issues with an aim of upholding the children's right".*
	"It's in these departments where those already affected by incidences of early marriages at times seek counselling which enables them accept their fate and live their life meaningfully".
The police	*"They arrest and take the individuals who champion for early marriages to court to face the law".*
Individual families	*"They report the cases to the relevant authority who in turn do a follow up on the same and on appropriate action taken".*
	"Families offer financial, emotional and psychological support to those already affected by early marriage".
	"They also ensure academic enhancement by providing the basic needs and educational materials needed for their children's success".

From the excerpts of the participants, it could be inferred that the essential focus of the interventions is to *"provide understanding about early union formation and its harmful consequences"* since early union formation was regarded as a barrier for both adolescents' sexual reproductive health and their formal educational participation. In that regard, therefore, these results are similar to those of UN (2014) that found that working with adolescents through clubs in schools and networks in the community, increasing educational participation, creating awareness about harmful traditional practices' and providing knowledge about sexual reproductive health had an impact in curbing early marriages. Similarly, UNFPA (2006) concluded that there was a strong association between the timing of first marriage and engagement and mobilization of adolescents on sexual and reproductive health matters.

Below are some of the assessment of the support given by these key stakeholders.

"The community is fairly satisfied and this is because of the impact that these interventions have had as evidenced by the reduction in the incidences of early marriages. However, many of the key stakeholders often work in isolation, indicating a need for better communication to share lessons learned and improve the efficiency of interventions." – Oyugis Zone, older woman, rural.

Furthermore, 40 years old local administrative officer notes;

"On the type of interventions, not many of the interventions are targeting married adolescents. Nonetheless, education programs are many." – Area Chief IDIs, Kobodo Zone, Ndhiwa.

"It is nearly impossible to find counts of cases registered and cases prosecuted", Area Chief IDIs, Kobodo Zone, Ndhiwa.

Similarly, another administrative officer asserted that;

"The support given by these stakeholders has brought a great impact since as it stands currently, their works are evidenced by the decrease in the cases of early marriages", – Area Chief IDIs, Kobodo Zone, Ndhiwa.

From the excerpts of the state officers, it could also be inferred that only few programs targeted married adolescents, whereas majority of the programs focused on unmarried boys and girls. Moreover, a few programs focused on both married and unmarried adolescents. This therefore indicates that married adolescents are largely overlooked in the early marriage intervention measures, despite their pressing wants and concerns. This may be because most interventions in the community are interested in preventing early marriages, not helping those who have already experienced it. There is therefore need for services for married adolescents.

The study was unable to answer whether existing interventions are in fact effective in reducing the prevalence of early marriages since evaluation results were not available for them. Hardly any programs provided information on the impact of their evaluations, suggesting a need for funding program evaluations. Without evaluation, it is not known

whether early marriage intervention measurers are effective or if funds are spent efficiently. Key stakeholders implementing intervention programs can also use evaluation results to share lessons and create best practices, which can aid them reduce early marriage prevalence more successfully and strategically. The study recommends the need for program evaluation to provide a systematic review of early marriage programs, and its usefulness to researchers and program implementers.

4.7.3 Challenges Stakeholders Face in Addressing Early Marriages

In an FGD with various study participants as well as in an interview with community leaders, barriers cited in addressing early marriages included illiteracy, uncooperative law enforcers, and some community members and defiant adolescents, financial problems, and challenges with disciplining children.

According to a child protection officer:

"The distinctive health, social, educational and economic needs of married adolescents are underserved by existing early marriage programs. This may be because most interventions are interested in preventing early marriages, not assisting those who have already experienced it", Child Protection Officer, IDIs, Ndhiwa Sub County.

The discussant's shared their views as summarized in Table 4.25.

Table 4.25: Interviews' quotation on barriers faced while addressing early marriages

Barrier	**Illustrative quotes**
Illiteracy	*"Some parents in the community are illiterate and due to this they have minimal understanding of the marriage law and what it requires of them".*
	"Some parents are ignorant such that they are less concerned even if their children fall victims of early marriages. Much worse, they value bride wealth for girls as it is seen as a source of income".
	Voices of teenage girls and boys are not heard.
	"Illiteracy and ignorance among some few community members who fail to give relevant information that is essential in curbing the vice".
Inadequate governance, administrative and technical capacity	*"Lack of administrative and technical capacity on the part of the local administration such as the chiefs and CBOs to formulate strategies and programs, and to coordinate and monitor their implementation".*

	"Law enforcement bodies such as police officers, judiciary officials, local government representatives and community leaders in areas where early marriage prevalence's are high lack training on how to enforce national child marriage laws".
	"Uncooperative and corrupt law enforcement bodies who take bribes to cover up the perpetrators of early marriages while denying victims justice".
	"Some policies / interventions are short term which does not auger well with their continuity and sustainability".
Insufficient funds	*"The budget of most CBOs are donor driven. When finance is withdrawn or delayed, they become ineffective to respond to the adolescent needs".*
Mismanagement of funds	*"Misappropriation of resources and lack of accountability by some key stakeholders working to curb early marriages to its stakeholders, government, the public and donor agencies".*
Defiance	*"Defiant adolescents who always want to experiment with a mindset that marriage is a bed of roses".*
	Some adolescents act under the influence of drugs.
	"Some teenagers are a bit difficult to advice due to the negative peer influence. Some of them believe in what they do and never accept any fresh advice".
	Repugnance to culture and emerging issue challenge like uncontrolled internet.

From the discussant's views, it could be inferred that impunity for early marriage persists due to poor enforcement of laws, gaps and weaknesses in the legal framework to end early marriage, and barriers to access to justice faced by women and girls seeking remedies for child marriage. Amin (2011) equally found that early marriage is linked to low awareness of the law and consequences of violations, limited capacity and willingness of officials to report early marriages, and limited trust in institutions enforcing child marriage laws.

4.7.4 An Integrated Strategy for Delaying First Nuptial Age

The finding that emerged in FGD with elderly females is that the community is fairly satisfied regarding current interventions. This is because of the impact that these interventions have had as evidenced by the reduction in the incidences of early marriages. Nonetheless, there were limited measures, plans and strategies on how to curb early marriages, notably: education; economic empowerment; policies and advocacy; and, setting up clubs and movements. A number of discussants and key informants provided

thoughtful and strategic suggestions for addressing early marriage through existing intervention efforts. These are presented in Table 4.26.

"Interventions to curb early marriage span a range of sectors such as education, health, legal, policy and economic and approaches such as community sensitization, awareness-raising and life-skills education. However, communication and collaboration among programs is limited, hindering the ability to share lessons learned." Children Protection Officer IDI, Suba North Sub County.

"Parents or parent-figures should endlessly interact with the teenagers to support them engage positively with information on sex and sexuality from peers, mass media and other sources. These aim to prevent hurried early sexual debut; distorted, partial or incomplete information on sexuality and sexual health; barriers to sexual health services; and non-consensual sex and forced sex". FGD Women Participants

Table 4.26: Interviews' quotation on suggestions for delaying first marriage

Suggestion	**Illustrative quotes**
Religious and ethical education	*"Highly subsidize and strengthen opportunities for post primary education for adolescents while simultaneously meeting commitments to universal primary education including providing support needed for girls' education such as free books and uniforms".*
	"Mentorship programs by patrons for example, should be done in all learning institutions with the aim of exposing adolescents in the outer world, gain more knowledge and experiences on how to tackle life issues maturely and appropriately".
	"More capacity building and community workshop for adolescents to inform and equip them with the appropriate skills and knowledge to enable them make responsible choices in social and sexual lives".
	Comprehensive and effective sexuality, relationship and family life education combined with moral and spiritual support–Mbita region, Urban, Older woman"
	"Organizing, training and assisting adolescents for enrolment or re-enrolment in learning institutions".
Policies, lobby and human rights advocacy	*"Teenagers should be enlightened to be aware of their rights and empowered to raise their voices".*
	"Enhanced evidence based lobbying and advocacy by community members and government officials for new policies and enforcement of existing laws / policies directed at eradicating early marriage and preventing teenage pregnancy".

	"Strengthen the capacity of law enforcement bodies like police officers, judiciary officials to work more closely with communities, schools, and governmental, non-governmental associations and outside agencies to prevent early marriages".
	Conduct research and acquire data for advocacy purposes
	"The government with support from international development partners and donor agencies can play a vital role in overcoming administrative and technical capacity bottlenecks through financial and technical assistance".
	"Law enforcing agencies should be warned against taking bribes and encouraged to always act justly to ensure that this vice is curbed".
Economic empowerment	*"The county and national government should assist individuals, self-help schemes, CBOs with aid, micro-credit credit programs, capacity building to initiate projects as the basis for sustainable lifestyles, self-help job creation, poverty and early marriage reduction. These will improve economic incomes, morale, attitudes and behavior of those who partake in these activities".*
	"Create more employment opportunities through creation of diverse economy based on industrial expansion, improved agricultural practice and the promotion of small, micro, medium and informal business at the community level. This can be achieved through implementation of growth oriented reforms designed to reduce poverty".
	"Establish poverty forum in the community, microfinance and related training to support income generation by married adolescents".
	"Eradicate gender inequality in employment by decreasing women's reliance on informal employment, closing gender gaps in earnings, and reducing occupational segregation".
Parental guidance and Role model	*"Continuous communication in the family, comfortably engage kids in discussion of sexual matters because of their ignorance or discomfort".*
	"Sex education should be stressed in the community. Parents should inform their children on their sexuality and sexual rights, encouraging them to make empowered decisions regarding their sexuality, sexual expression, sexual and reproductive health".
	"Parents / caregivers should spare time for their children, guide and support them in their decisions".
	Education, counselling and good examples from adults in the community
Setting up clubs and movements	*"Establish clubs that offer games, music, sex education, financial literacy, vocational training, and access to microfinance for young men and women trying to become entrepreneurs".*

	"Established clubs and movements would enable the adolescents to identify their talents and improve on them. These talents when well nurtured can be a source of income to these adolescents as they age".
	"These forums, clubs and meetings formed can allow adolescents to meet, connect and socialize outside the home. It enables them to stand firm and know their rights such that should they be led to marrying early, they would know the right procedure to follow in order to get service".
Mass media	*"Use various media platforms to carry out campaigns on Information, education and communication (IEC) that convey messages about early marriages, schooling, human rights, reproductive health and other topics".*

The excerpts and suggestions stated above links to Parsons *et al*. (2015) who affirmed the importance of adopting a good legal system for protection from early marriage by having an effective birth and marriage registration system; establishing the necessary institutional framework and enforcement mechanism such as specialized Children's Courts. Global evidence also shows that the means for tackling the global problem of early marriage have included programs that educate parents and young people on the effects of early marriage; improve adolescents' access to health care services; and provide adolescents better educational, nutritional and economic opportunities (Clark, 2004). In the choice to engage in early marriage, the economic component played a fundamental role. Many participants underscored the economic value of early marriage and the role poverty plays. Therefore, in line with Jain & Kurz (2007) and Lee-Rife *et al.* (2012), the significance of including an economic component in prevention approaches should be recognized.

The study further shows that girls tend to marry later if they have higher levels of education and access to employment options (Clark, 2004; UNICEF, 2016). A case in point are countries like South Korea, Taiwan and Thailand that eliminated the practice of early marriage in little more than a generation. The marriage-age increase in these countries were coupled with increases in the levels of education and economic opportunities for girls and young women as well as broader development success in terms of economic growth and improvements in health and welfare (Clark, 2004; UNICEF, 2016). Experience in these countries shows the close connection between later marriages and successful development investments (UNICEF, 2016).

4.7.4.1 An Integrated Model Policy for Delaying Nuptial Age

Based on the study findings on the perceptions, status of early marriage and suggestions to delay first marriage, the study supports the need for a clear mandate for an integrated delaying nuptial age framework in Homa Bay County. The framework involves six key domains specifically the formulation of strict objectives, the incorporation of the relevant institutions, appropriate allocation to the requirements or needs, overcome major challenges, and the involvement of influential key stakeholders. Furthermore, in evaluating and monitoring programs and other measurers, it is essential to formulate the appropriate benchmarks. The strategy of the integrated model is conceived in the context of the six main elements and sub-elements that form a pattern for delaying first nuptial age (Figure 4.34).

The family and community will embrace the policy if the importance and socialization are direct through the five major goals. They are enhancing the knowledge on teenagers sexual and reproductive health matters; improving the knowledge and awareness of teenagers on modern contraception in terms of the number of children ever born and spacing; enhancing the knowledge and awareness of teenagers in financial preparedness in the marriage life; improving the knowledge and awareness of teenagers in physiological maturity aspect in family life; and enhancing the knowledge and awareness of teenagers in psychosocial and psychological maturity aspect in family life.

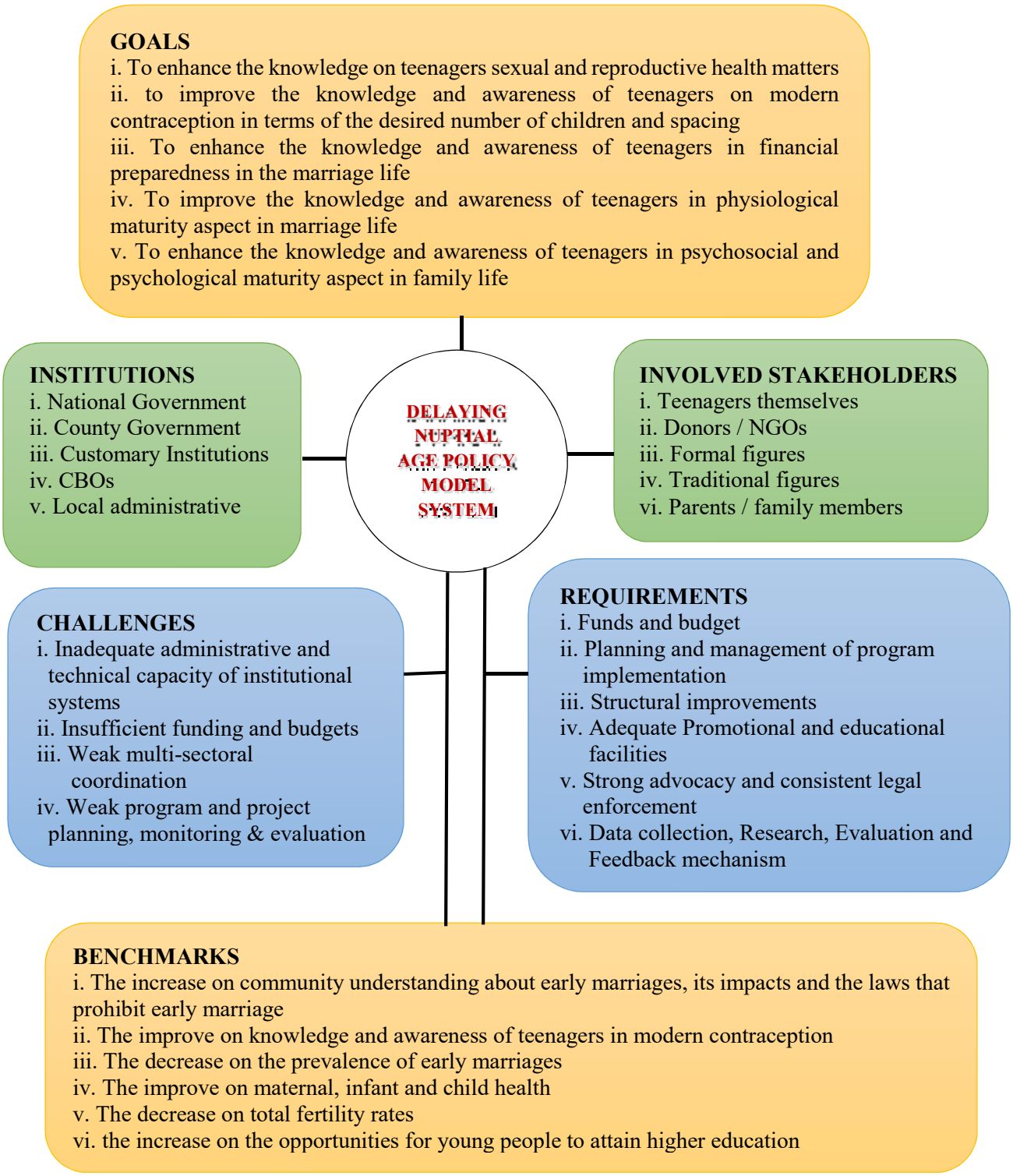

Figure 4.34: Major sub-elements in the development of an integrated strategy framework for delaying nuptial age

The achievement of the objectives depends greatly on the involvement of key institutions with strong influence, namely the national government, county government, customary

institutions, community based organizations and the local administration. Other institutions don't need to create separate programs and other measures but instead use the influence of these key institutions by fostering and developing multi-sectoral engagement. The contemporary challenges that may hinder full involvement of these key institutions predominantly include inadequate administrative and technical capacity of institutional systems, insufficient funding and budgets, weak multi-sectoral coordination in the implementation of policy program and activities, weak program and project planning, monitoring and evaluation.

Key stakeholder involvement in the implementation of programs is also a key factor for the achievement of the goals. The stakeholders need to provide special attention because of their great influence in the community, namely donors / NGOs, formal figures such as the police, chiefs and child protection officers, traditional figures and parents. There are six major program requirements, namely: sufficient funds and budget, planning and management of program implementation, structural improvements, adequate promotional and educational facilities, strong advocacy, strict and consistent legal enforcement, and evaluation and feedback mechanisms. Moreover, six key benchmarks can be assessed of the achievement of the programs and projects.

The development of the policy model in the area of study is recommended by taking into account the six main domains of the goals, institutions, involved stakeholders, challenges, requirements, and benchmarks of the activities. These six domains must be determined proportionally as a system to ensure the success of the policy goals. Additionally, based on the significance of the main sub-domains contained in each of the domains, it is suggested that four strategies of delaying nuptial age policy are 1) program or project formulation strategy; 2) institutional development and implementation regulation strategy; 3) program monitoring and evaluation strategy, and 4) funding strategy. The program formulation strategy is a plan further directing the policy on the five main goals as earlier stated.

Institutional development and implementation regulation strategy includes the following facets: (i) Ensuring the availability of sufficient facilities, particularly for promotion, socialization, and education; (ii) The enhancement on quality of planning and management of the implementation program by government and non-state agencies by mapping

comprehensively early marriage at the community level; (iii) Improving the institutional system and on the quality of professionals in the field who are directly in charge of promotional activities, socialization, and education; (iv) Improving multi-sector collaboration. In this case, it is indispensable to create an institution that becomes a forum that involve the community with a major effect to ensure the success of the program, and (v) Assist the preparation of auxiliary rules and policies at the community level that are synchronized with county/national policies and regulations. Similarly, data collection, monitoring, research and evaluation strategy at the government level, which are often weak or inadequate, can assist to determine the efficiency and cost-effectiveness of different intervention programs and assist in promoting best practices.

The adequate funding strategy aim at increasing the sector and community budget of delaying nuptial age policy program and project. Funding is critical if any meaningful achievements are to be recorded as every activity requires resources for implementation. Program efforts should leverage funds and resources from other program sectors, donors, partners, and local governments to integrate early marriage into new and existing initiatives. Lessons learned related to what works to prevent early marriage and meet the needs of married adolescents should be considered in future program cycle budgets, resources, and planning.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This last chapter summarizes the relevance of the key findings and conclusions of the study. The study's recommendations for research and policy are also outlined in the sub-sections that follow, to map the policies and interventions that are required in Homa Bay County specifically to improve interventions and curb early marriages. In addition, the core contributions of the study to knowledge are outlined in this section to recap the study. Finally, recommendations for further research are presented at the end of the chapter.

5.2 Summary of Main Findings

The study sought to assess the dynamics affecting age at first marriage among men and women of reproductive age with the goal to guide policy on sustainable socio-economic development of Kenya. To do so, the study aimed at; investigating the spatiotemporal dimensions of marriage formation and their relationship with early marriages; the demographic dynamics and their relationship with early marriages, and to assess the roles of key stakeholders in curbing early marriages in Homa Bay County.

The study employed a cross sectional mixed methods research design to collect retrospective and present status data. Through probability and non-probability sampling procedures such as stratified, systematic sampling and purposive sampling, a representative sample of respondents was drawn from each sub county. In total, the sample constituted of 440 married men and women of reproductive age 20-49 years. To accomplish the main objectives of the study, primary data were collected from the field using interviewer administered questionnaires, FGDs and IDIs. The data collected were analyzed and presented in tables and charts through the use of simple percentages and frequency counts for the respondents' biodata. Pearson's Chi-square statistic ($\chi 2$), Logistic regression analysis, Quantum GIS, The Kaplan-Meier survival analysis and Path Analysis were for the research questions. The following research questions were answered: -

i. What spatiotemporal dimensions of marriage formation are evident and how are they related to early marriages?
ii. How are the forms of demographic dynamics related to early marriages?
iii. What are the roles of key stakeholders in curbing early marriages and the extent to which their level of activities influences delayed marriages?

5.2.1 Spatiotemporal Dimensions of Marriage Formation and How they are Related to Early Marriages

There was a variation in early marriage prevalence rate across the county's sub-regions as well as across gender. Early marriage prevalence rate was found to be 8.3% and 48.6% among men and women respectively. Very high early marriage prevalence rates among women were reported in Ndhiwa (55.3%), and Suba North (51.9%) compared to all other sub-counties. Nonetheless, results of spatial analysis specified that none of the geographical locations was a significant risk area of early age at marriage. These non-differentials in first nuptial age could be that people in these sub-counties practice similar culture and customs and have homogenous belief systems and societal norms.

Four spatiotemporal dimensions, such as, time at first sexual debut, contraceptive use, childhood place of residence and ex-nuptial birth, showed a significant relationship with early marriage age in Homa Bay County. Time at first sexual debut at first marriage had a greater likelihood of decreasing early marriage (β = -2.51, p =0.003). Use of either traditional or modern contraceptives before marriage had a greater possibility of decreasing early marriage (β = -1.80, p= 0.005). Childhood place of residence at the rural had a greater possibility to increase marriage at an early age (β = 0.82, p= 0.018). Having no experience of ex-nuptial birth were more likely to decrease marriage of adolescents at an early age (β =-1.34, p=0.021).

Premarital cohabitation, age cohort, migration status and influence of the peers had no direct influence with early marriage but through time at first sexual debut and premarital contraceptive use and were statistically significant except for migration status. While migration status (β= 0.57, p= 0.120) and age cohort (β= -1.42, p= 0.056) were not a significant predictor of time at first sexual debut, those who cohabited had a greater

likelihood of having early time at first sexual debut (β= -2.07, p= 0.009). Role of positive peers also had a greater possibility of decreasing early age at first sexual debut (β= -2.36, p= 0.023). Similarly, while migration status (β= 1.32; 95, p= 0.108) and age cohort (β= 3.06, p= 0.057) was not a significant predictor of premarital use of contraceptives, premarital cohabitation had a greater likelihood of increasing the use of either traditional or modern methods of contraceptives (β= 2.30, p= 0.001). Role of positive peers also had a greater possibility of increasing the use of contraceptives (β= 1.17, p= <0.001).

The multiple coefficient of determination (R^2) for the equation level goodness of fit showed that all the spatiotemporal dimensions explain 49% of the variation in first nuptial age across gender in Homa Bay County. The most important factors (in order of importance) were age at first sexual debut (-2.5), premarital contraceptive use (-1.8), ex-nuptial birth (-1.3) and childhood place of residence (0.8).

The barriers to effective utilization of contraceptives before marital union were social factors / fear of side effects of using contraceptives (frequency=142) ranked highest by the frequency mentioned, was followed by lack of physical and financial access (frequency=85), lack of knowledge on the importance and availability of contraceptive types (frequency=63), lack of knowledge on reproductive health right (frequency=56), religious beliefs (frequency=41), partner / friend disapproval (frequency=37), and lack of facilities / specialists on reproductive health in the institutions (frequency=28).

5.2.2 Characteristics of Demographic Dynamics and their Relationship with Early Marriages

Early marriage was directly affected by family wealth, natal parity size, household structure and number of media exposure during childhood. While household structure (β= 1.65, p= 0.053) and natal parity size (β= 1.41, p= 0.062) were not a significant predictor of age at first marriage, the number of media exposure ≥2 media sources had a significantly greater likelihood of decreasing early marriage (β = -2.57, p =<0.001). Family wealth of not poor had a significantly greater likelihood of decreasing marrying at an early age (β = -2.36, p= <0.001).

Family wealth and natal parity size were influenced by the level of parental education. Maternal education ≥High school had a significantly greater possibility of increasing family wealth above average (not poor) (β= 6.28, p= <0.001). Paternal education ≥High school had a greater likelihood of increasing family wealth above average (not poor) (β= 2.60, p= <0.001). On the other hand, paternal and maternal education level ≥High School had a greater possibility of decreasing natal parity size ≥3 children (β= -1.28, p= 0.009) and (β= -1.38, p= 0.009) respectively. Furthermore, 34% of the total variance (R^2) in the dependent variable was accounted for by the indirect and direct combination of the family background characteristics. Key variables in order of largest contribution to first nuptial age were, number of media exposure (-2.6), family wealth (-2.4), household structure (1.7) and natal parity size (1.4).

Early marriage was directly affected by household wealth, number of children ever born (CEB), form of marriage and religion. While children ever born (β= -1.34, p= 0.140), form of marriage (β= -1.35, p= 0.062) and religion (β= -0.85, p= 0.057) were not a significant predictor of age at first marriage, the household wealth of not being poor had a greater likelihood of decreasing early marriage (β = -2.37, p =<0.001). Individual level of education ≥High school had a greater possibility of increasing household wealth above average (not poor) (β= 4.25, p= <0.001). The occupations in formal employment likewise had a greater likelihood of increasing household wealth above average (not poor) (β= 5.14, p= <0.001). Individual level of education ≥High school had a greater likelihood of decreasing children ever born ≤3 children (β= 2.3, p= 0.009). Similarly, occupations in formal employment had a greater likelihood of decreasing children ever born ≤3 children (β= 2.10, p= 0.008). Finally, individual education level ≥High School had a greater chance of being employed in formal employment occupations (β= 5.62, p= <0.001). The indirect and direct combination of the individual socio-economic factors significantly accounted for 43% of the variation (R^2) in first nuptial age. The most important factors (in order of importance) were household wealth (-2.4), form of marriage (-1.4), followed by children ever born (-1.3) and religion (-0.9).

5.2.3 Cultural Dynamics Associated with Early Marriage Prevalence

Religion, form of marriage and spousal choice were found to be insignificant in predicting marital timing. Compared to women whose bride wealth was paid, the women are less likely to be ever married (OR=0.369, p=0.001, CI=0.211-0.644) if their bride wealth was not paid. Similarly, among men, where exchange of gifts occurred was associated with increased probability of early marriage compared to where gifts were never exchanged (OR = 0.147, p = 0.012). It was established that the payment of bride wealth was an important resource for greater wealth and survival of some family and therefore may induce early arrangements of marriage by parents.

5.2.4 The Roles of Key Stakeholders in Curbing Early Marriages and the Extent to Which their Level of Activities Influences Delayed Marriages

During several FGDs and IDIs, it was mentioned that varied stakeholders such as the church, NGOs, local administrators, learning institutions and relevant government departments are at the forefront in curbing early marriages. Participants argued that these stakeholders have played a significant role in raising community awareness on issues related to early marriages, HIV/AIDs and teenage pregnancy.

At the community level, knowledge of the legal instruments is mostly restricted to the prescribed legal age for marriage and the fact that early marriage is a punishable offence. While majority (73.5%) of the respondents knew the legal age of marriage and that there is a legal law prohibiting marriage below the age of 18 years, the particulars of how it is implemented are not widely comprehended. Most marriages are often not registered. Some of the reasons mentioned vary to include insufficient registration facilities, fear of being caught and reprimanded, not seeing the importance of marriage registration, appropriate procedures not adhered to during marriage ceremony, absence of appropriate certification needed and inadequate finance.

In an FGD with various study participants as well as in an interview with local leaders, challenges persist in an attempt address early marriages. Barriers cited include illiteracy of some parents and community members; inadequate governance, administrative and

technical capacity; uncooperative law enforcers and some community members; defiant adolescents to elderly advice; financial problems to effectively respond to the adolescent needs; and challenges with disciplining children.

5.3 Conclusions

It is evident from this study that; logit regression, Kaplan-Meir survival analysis, path model and Quantum GIS were an applicable tool for predicting the prevalence and gender socio-demographic dynamics of early marriages. This will ease the yearning of policy makers, key stakeholders and family demography researchers for first nuptial data for up to date planning. Generally, the inference that can be drawn from this study was that early marriage is a perpetual phenomenon that is still carried out in Homa Bay County and is mainly prevalent among women 106 (48.6%) compared to men 17 (8.3%). Since causal conclusions could be drawn from these results, it is hoped that adoption of relevant measures for continuing to reduce early and universal marriage particularly, enforcing socio-economic and legal policies as components of population programs by the government and County government may prove successful.

While nearly all of the demographic literature on marriage patterns is about women, knowledge gaps have remained on comparable information, and still less historical information about the marriage patterns of men, the drivers and measures that are beneficial in the eradication of early marriage. Thus, the significant contribution that this study has made to the body of literature is that it has contributed to the scanty knowledge on gender socio-demographic dynamics of marriage timing in sub-Saharan Africa and assist planners and policy makers to develop evidence-based policies. Program scan offers a better understanding of what is being done on the ground. It is hoped that this work will lead to additional investments in innovative measures to eliminate early marriage. Another significant contribution that this study has made to the body of literature is that it has shown that early marriage is not only driven solely by socioeconomic factors, but various underlying cultural and demographic dynamics subtly operate through these determinants and was hence be studied in the study. Still yet, there is an apparent socio-cultural change in the contemporary society as reflected in the emerging marriage patterns.

5.4 Recommendations for Policy and the Way Forward

It was understood from this present study that there was ample evidence regarding the influence of the determinants on age at first marriage in Homa Bay County. The recommendation draws from the study findings and conclusions to guide policy.

i. An important challenge is to reduce local geographic differentials to increase the first nuptial age of 23 years old by the year 2030. In order to overcome such differentials, the proposed integrated delaying nuptial age policy model can be used by policy-makers, political activists, religious leaders, in collaboration with civil society organizations and development partners with coordinated strategies, action plans and resources to end early marriages and enable every adolescent to thrive.

ii. The study results showed that customary payment of bride wealth that have been imposed by parents / guardians with the intention of marrying their children early specifically among households living in the rural areas of Homa Bay County are not aligned with the legal instruments and civil laws that have been implemented by the Kenyan government. This suggests that the civil laws do not adequately protect adolescents from entering into premature marriages. Accordingly, the Kenyan government, through the ministry of public service, youth and gender affairs and the County government needs to mobilize traditional leaders and parents to reconsider this cultural practice that will be beneficial in completely outlawing early marriages

iii. The government through the ministry of education and development partners should avail enough resources to subsidize education of poor households with bursaries, scholarships and other essential school supplies. This aims at improving their socio-economic status, reduce adolescent pregnancy and non-marital fertility. Furthermore, arranging for policies to be supportive of expectant and childrearing girls to stay or re-enter in school could benefit this group of girls enormously. There is also urgent need to re-orientate the thinking and value system of both parents and their children through mass educational campaign regarding the importance of education and the need for parents to insist on their children going to school (at least up to tertiary level) before getting married, seeking employment or going into business.

iv. The findings of the study show that poverty is one of the major drivers underpinning early marriages which is a risk for intergenerational transfer of vulnerabilities. It is recommended the government should empower and raise the self-esteem of girls and women from poorer socioeconomic neighborhoods through poverty alleviation programs and income disparities, to benefit both rural and urban dwellers.

v. Since many occupations such as peasant farming increases the likelihood of early marriages and poverty enhancing, points to measures to increase quality jobs by the Kenyan government. That peasant farming increases the odds of early marriages can be explained by the vicious cycle of poverty and early marriages given low capital, limited access to modern techniques both in the farms and other non-farm occupations. The government should also encourage productivity and access in both farm and non-farm occupations through direct input supply, strengthening and expanding of agricultural research and extension services, adapting agricultural technology to poor farmers, and by improving physical infrastructure such as rural roads. At the same time income sources diversification should be encouraged.

vi. To effectively implement the prohibition against early marriage and related offences, the Kenyan government must provide an enabling legal and policy framework including strengthened civil registration systems which record births and marriages, by making it free and accessible. States agencies like the National Gender and Equality Commission should design campaigns and interventions intended at producing broad public awareness and compliance with the legal prohibition of early marriage. Government and independent media agencies should be involved to support information and public awareness campaigns. Different media messaging including local theatre productions, writing features, producing documentaries, billboards, audio-visual coverage of real cases and debates with public participation should be used. A variety of media channels, social media, churches, schools and other networks and communities would be of enormous benefit in the campaign to end early marriages.

vii. To postpone age at sexual debut and prevent premarital fertility, parents and government policy should filter out immoral media content from reaching young people, to introduce compulsory comprehensive sexuality education as a stand-alone subject in

primary and secondary schools, and to encourage parents / guardians to be good role models on issues pertaining to sexuality. According to UNESCO (2018), children from ages 5 and upwards have a right to learn about issues related to sexuality that are relevant to their lives, in an age-appropriate, culturally relevant manner. The topics and learning objectives should address four age groups and corresponding levels, namely: ages 5 to 8 (Level 1), ages 9 to 12 (Level 2), ages 12 to 15 (Level 3), and ages 15 to 18+ (Level 4). Deliberate overlaps should accommodate the broad range of learners who might be in the same class.

5.5 Study's Contribution to Existing Body of Knowledge

This study has made significant contribution to the existing body of knowledge in a number of ways. First, this study makes significant contribution in theory and fills the existing gap in empirical literature by extending theoretical and methodological approaches by considering gender socio-demographic dynamics regarding cross-cultural understanding of age at first marriage and scholarly appreciation of early marriage phenomenon specifically in Homa Bay County, and other Counties in Kenya by extension.

The second contribution is of incorporation of gender sociodemographic dichotomy which is greatly under researched in first nuptial studies, both in first nuptial studies of Kenya and those conducted elsewhere as well. Third, this scientific achievement advanced fresh queries and should be enhanced since it established several issues on prevalence, drivers and consequences, and interventions of curbing early marriages. As a result, grounds for further research on age at first marriage have been created, especially as regards the lifestyle and experiences of individuals who married during their adolescent periods.

The study used Quantum GIS to assess spatial analysis of the early marriage prevalence rate at sub county level. This study identified high and low prevalence spots of early marriages which informed the sub regions which required precedence. The study focused both on individual, household and several contextual risk factors, as well addressed wider cultural environment in which the outcomes of early marriages occur. Moreover, this study relied both on quantitative and qualitative data that was important for a better

understanding of the effects of specific socio-economic and cultural factors that underlie the effect of variables on age at first marriage were explored in the qualitative study.

The analyses conducted herein both show associative relationships and causation. Relationships between and among the covariates included in this thesis were assessed by using pathway analysis, which has not often been used in the field of family demography and population studies. The pathway analysis enabled for the investigation and testing of the conceptual model, as well for a better comprehension as to how the direct and indirect determinants work together to affect first nuptial ages in a society. This is opposed to the use of usual regression models that basically show the association between variables, and not the hypothesized causal pathways. Finally, the study has produced a new and relevant integrated model, considered important in delaying nuptial age in Homa Bay County.

5.6 Suggestions for Further Research

Future studies could both confirm and build on the methods, framework, and findings from this study. The understanding of the boundaries and generalizability of the study findings requires more studies that use additional measures of first nuptial age outcomes. For example, little is known on the perpetrators of early marriages, especially in a society where early marriage is at such high levels. Therefore, complimented to studies looking at gender socio-demographic asymmetries are warranted studies on the actual perpetrators of early marriages. This will allow for a better understanding of the socio-demographic make-up of the perpetrators and allow for better models of programs eliminate early marriages.

Path and regression models included herein should be refined and investigated with other contextual factors which were not included in this study, as well replicated in other counties of Kenya using larger sample size. Further research on marriage dynamics and fertility in the era of HIV and AIDS in Homa Bay County, could be in form of a multi-disciplinary study involving family demographers, GIS experts, statisticians, economists and anthropologists is also a viable area, to give a holistic picture.

REFERENCES

Abejo, S., Cruz G., and Marquez, M. (2006). "Contraceptive Use, Discontinuation and Switching Behavior in the Philippines." 2003 National Demographic and Health Survey Further Analysis.

Adebowale, A., Fagbamigbe, A., and Bamgboye, A. (2012). Survival analysis of timing of first marriage among women of reproductive age in Nigeria: regional differences: *Afr J Reprod Health*, *15*(4),60-7.

Adebowale, S., Fagbamigbe, F., and Bamgboye, E. (2011). Contraceptive use: implication for completed fertility, parity progression and maternal nutritional status in Nigeria. *Afr J Reprod Health*, *16*(4), 95 - 107.

Adebusoye, P. M. (1995). "The impact of female employment on women's status and fertility", paper presented at the workshop on *Status of Women and Demographic Change*: East-West Center, Honolulu, Hawaii, USA, Decemebr 18-2-, 1995.

Adedokun. O. (1999). Shifting Patterns of Age at First Marriage and Implications for Family Size in Metropolitan Lagos. Union for African Population Studies. Report No. 41, Dakar, p. 16.

Adhikari, R. (2010). Demographic, socio-economic, and cultural factors affecting fertility differentials in Nepal. BMC Pregnancy and Childbirth, 10(19).

African Union (2015). Campaign to end child marriage in Africa. The effects of traditional and religious practices of child marriage on Africa's socio-economic development: A review of research reports and toolkits from Africa. AU, 2015.

African Union (2005). Protocol to the African Charter on Human and People's on the Rights of Women in Africa. http://www.achpr.org/instruments/women-protocol/

Agili, H. O. (2014). Socio-economic and cultural barriers to utilization of contraceptives among women in Ndhiwa Sub-county, Homa Bay County, Kenya. Kenyatta University.

Ahawo, D. P. T. (1981). "Age at first birth and age at first marriage": A Study of Adolescent Fertility in Kenya". MA Thesis submitted to the University of Nairobi.

Ajwang, W. (2019). Child Marriages, Child Protection and Sustainable Development in. *African Journal of Reproductive Health June 2019; 23 (2):121*

Aktar, S., Mondal, S., Hossain, A., and Rashid, H. (2017). Socio-economic Determinants of Age at First Marriage of Rural Women: A Statistical Analysis. *International Journal of Engineering and Computer Science*, 6(12), 22255-22260.

Ali, A., Ibrahim, I. A., Abdelgbar, S. A., and Elgessim, M. E. (2014). Socio-demographic factors affecting child marriage in Sudan. *J Women's Health Care, 3*(11*)*, 163-173.

Allan, G. (2003). "A critique of using Grounded theory as a research method." *Electronic Journal of Business Research Methods*. 2(1), 1-10.

Allison, P. D. (1984). *Event History Analysis*. *Regression for Longitudinal Data*. Beverly Hills: Sage.

Allison, P. D. (1995). *Survival Analysis Using the SAS System: A Practical Guide, Cary, North Carolina: SAS Institute Inc.*

Alvesson, M., and Sköldberg, K. (2000). *Reflexive Methodology: New Vistas for Qualitative Research*. SAGE.

Amin, S. (2011). "Empowering Adolescent Girls in Rural Bangladesh: Kishori Abhijan." Promoting Healthy, Safe, and Productive Transitions to Adulthood. Brief No. 13. New York: Population Council.

Anderson, S. (2007). The economics of dowry and bride price. *Journal of Economic Perspectives* 21(4), 151-174.

Anderson, L., and McCabe, D. (2012) "A co-constructed world: Adolescent self-socialization on the internet". *Journal of public policy*. 31(2) 240-253.

Angawa, F. P. (1988). "The impact of Age at First Birth and First Marriage in Kenya". Msc Thesis submitted to the University of Nairobi.

Ansell, N. (2005). *Children, youth and development*. Routledge Perspectives on Development. Taylor & Amp; Francis Ltd, Abingdon, UK.

Antoine, P., and Diouf, P. D. (1986). Demographic changes and millennium urbanization. Paper presented at Séminaire sur la mortalité au Senegal. Dakar.

Archambault, C. S. (2011). Ethnographic empathy and the social context of rights: "Rescuing" Maasai girls from early marriage. *American Anthropologist*, *113*(4), 632 – 643.

Arthur, M., Earle, A., Raub, A., Vincent, I., Atabay, E., and Latz, I. (2018). Child Marriage Laws around the World: Minimum Marriage Age, Legal Exceptions, and Gender Disparities. *Journal of Women, Politics and Policy, 39*(1), 51-74.

Aryal, T. R. (2007). Age at first marriage in Nepal: Differentials and determinants, *Journal of Bio-Social Sciences* 39 (5) 693-706.

Ashley, D. (2016). Situational Analysis on Child, Early and Forced Marriage in Vietnam, Laos, Myanmar and Cambodia. World Vision.

Asiimwe, S., Jacob, K., Ariyo, G., Kobusingye, P., Kamugisha, N., and Christopher, F. (2023). Peer Pressure and Early Marriages among School Going Children in Uganda: A Case Study of Kakumiro District Local Government. *International Journal of Academic Multidisciplinary Research*: 7(2)37-49.

Assefa, D., Wassie, E., Getahun, M., Berhaneselassie, M., and Melaku, A. (2005). Harmful Traditional Practices. *The Carter Centre*.

Asrese, K., and Abebe, M. (2014). Early marriage in south Wollo and east Gojjam zones of the Amhara region, Ethiopia. *Humanit Soc Sci. 2*(2), 11–16.

Atienzo, E., Campero, L., Herrera, C., and Lozada, A. L. (2014). Family Formation Expectations and Early Pregnancy in Mexican Adolescents. *Journal of Child and Family Studies*, 1-12.

Axinn, W. G., and Thornton, A. (1996). "The influence of parents' marital dissolutions on children's attitudes toward family formation," Demography *33***,** 66–81.

Axinn, W.G., and Thornton, A. (1992). The Influence of Parental Resources on the Timing of the Transition to Marriage, *Social Science Research,* 21(3), 261-285.

Ayiemba, E. H. O. (1983). "Nuptial Determinants of Fertility in Western Kenya". PhD Thesis submitted to the University of Nairobi.

Ayiga, N., and Rampagane, V. (2013). Determinants of age at first marriage in sub-Saharan Africa: A comparative study of Uganda and South Africa. *Journal of Social Development in Africa*, *28(1),* 9–36.

Babbie, E. (2001) *The practice of social Research*. Wads worth Thomson, Belmont, C.A

Bayisenge, J. (2012). "Early marriage as a barrier to girls' education: A Developmental Challenge in Africa", *Journal of Social Pyschology: 12*(6):23-48.

Bavel, J. V., and Jan, K. (2009). "Social Control and Intergenerational Transmission of Age at Marriage in rural Holland, Population. *Humanit Soc Sci. 64*(2), 343-360.
Becker, G. (1973). A theory of marriage. J Polit Econ. 81(4):813–46.
Becker, G. (1974). A Theory of Marriage. In: Schultz, T. W. (ed.). *Economics of the Family: Marriage, Children, and Human Capital*. University of Chicago Press: 299–351.
Bello-Bravo, J. (2015). Rural-urban migration: a path for empowering women through entrepreneurial activities in sub-Saharan Africa. J Glob Entrepr Res. 2015; 5(9).
Bencha, Y. (1981). Premarital use of family planning: effects on age at marriage. Research Report No. 50. Institute for Population and Social Research Mahidol University, Bangkok Thailand
Bennett, N., Bloom, D., and Miller, C. (1995). The influence of nonmarital childbearing on the formation of first marriages. *Demography. 32*, 47–62.
Bennett, O. (1995). Sex Ratio in Nepal. *Economic Journal of Nepal: 15*(1):30-37.
Berrington, A., and Diamond, I. (1997). Marital dissolution among the 1958 British birth cohort: The role of cohabitation. *Population Studies: 53*(1), 19–38.
Bianchi, S. M. (2014). A Demographic Perspective on Family Change. *Journal of Family Theory & Review. 6*:35–44. [PubMed: 26078785]
Bishai, D., and Grossbard, S. (2010). Bride price and extramarital sexual relations in Uganda. *Journal of Population Economics*, 23(4), 1177-1187.
Bldsoe, C. H., and Cohen, B. (1993). Social Dynamics of Adolescent Fertility in sub-Saharan Africa, National Academy Press, Washington, D.C.
Blossfeld, H. P., Klijzing, E., Mills, M., and Kurz, K. (2005). Globalization, Uncertainty and Youth in Society, Routledge.
Bongaarts, J., and Watkins, C. (2006). Social Interactions and Contemporary Fertility Transitions, *Population and Development Review,* 22(4), 639-647.
Brewer, H. (2005). By birth or consent: Children, law, and the Anglo-American revolution in authority. 1st ed. North Carolina: University of Congress.
Brown, G. (2012). Out of wedlock, into school: combating early marriage through education. London: The office of Gordon and Sarah Brown.
Bryman, A. (2008). *Social Research Methods*, 4th Edition. Oxford University Press, Oxford, UK.
Bumpass, L. (1990). "What's happening to the family? Interactions between demographic and institutional change," Demography *27*, 483–498.
Buchmann, M., and Kriesi, I. (2011). The Transition to Adulthood in Europe. *Annual Review of Sociology, 37*(6), 481-503.
Burgess, S., Propper, C., and Aassve, A. (2003). The Role of Income in Marriage and Divorce Transitions Among Young Americans, *Journal of Population Economics*, 16 (3) 455-475.
Buunk, B., and Hupka, R. B. (1986). "Autonomy in close relationship: A cross-cultural study." *Family Perspectives 20*(5), 2009-211.
Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York: Taylor and Francis Group.
Caldwell, J. C. (1996). "Toward a Restatement of Demographic Transition Theory," *Population and Development Review*, 2: 321-366.

Caltabiano, M., and Castiglioni, M. (2008). "Changing Family Formation in Nepal: Marriage, Cohabitation and First Sexual Intercourse", *Studies in Family Planning, 34*(1):30-39.

Calvo-Armengol, A., Patacchini E., and Zenou, Y. (2009). Peer Effects and Social Networks in Education. *Review of Economic Studies*, *76*(4), 1239-1267.

Casale, D., and Posel, D. (2010). The male marital earnings premium in the context of bride wealth payments: Evidence from South Africa. *Economic Development and Cultural Change,* 58(2):211-230.

Casterline, J., Williams L., and Macdonald, P. (1986). The age difference between spouses' variations among developed countries. *Population Studies, 40* (3), 120-132.

Cavanagh, M. (2011). Students' experiences of active engagement through cooperative learning activities in lectures. *Humanit Soc Sci. 12*(1): 23-33.

Chaudhuri, E. R. (2015). Thematic report: Unrecognized sexual abuse and exploitation of children in child, early and forced marriage. Bangkok: ECPAT, Plan International.

Chao, S., and Ngo, T. (2017). The Global State of Evidence on Interventions to Prevent Child Marriage. GIRL Center, Research Brief No. 1. New York: Population Council.

Cherlin, A. (1978). "Postponing Marriage: The Influence of Schooling, Working and Work Plans for Young Women". 1978 Annual Meeting of the American Sociological Association, Sept 4-8.

Chi, P. S., and Harris, R. J. (1979). An Integrated model of fertility: a multivariate analysis of fertility differentials in Colombia. *Canadian Studies in Population*, *6*: 111-125.

Choe, M., Thapa, S., and Mishra, V. (2005). "Early Marriage and Early Motherhood in Nepal", *Journal of Biosocial Science, 37*(2):143-162.

Chojnacka, H. (2000). "Early Marriage and Polygyny: Feature Characteristics of Nuptiality in Africa." Genus *50*(6),179-208.

Cislaghi, B., and Shakya, H. (2018). Social norms and adolescents' sexual health in sub-Saharan African countries. African Journal of Reproductive Health ;22(1): 38-46.

Clark, S., Bruce, J., and Dude, A. (2006). Protecting young women from HIV/AIDS: the case against child and adolescent marriage. *Int Fam Plan Perspect. 32*(2):79-88.

Clarkberg, M. (1999). "The price of partnering: The role of economic well-being in young adults' first union experiences," Social Forces *77*, 945–968.

Clasen, L., Blauert, A., and Madsen, S. (2018). Social Consequences for Danish Victims of Sexual Assaults in Peer Groups. Journal of Child Sexual Abuse, 27(3), 217-236.

Clifford, G. C. (2000). Ethics and politics in qualitative research. *Handbook of qualitative research*. 2nd ed. London: Sage Publications Inc. p. 133-155.

Cochrane, S. H. (1999). "Fertility and Education: *What do we really know?* World Bank Staff Occasional Papers, No. 26, Washington, D.C.

Collin, M., and Talbot, T. (2017). Do age-of-marriage laws work? Evidence from a large sample of developing countries. Working Paper 458. Washington. Google Scholar

Coltabiano, M., and Castiglioni, M. (2008). Changing family formation in Nepal: Marriage Cohabitation, and First sexual intercourse. *International Family Planning perspectives, 34 (1)* 30-39.

Cox, D. R. (1970). The Analysis of Binary Data. Methuen, Chapman and Hall, London.

Cox, D. R. (1972). Regression models and life tables. Journal of Royal Statistical Society B, *34*: 187–220.

Copen, C. E., Daniels, K., and Mosher, W. D. (2012). First Premarital Cohabitation in the United States: 2006–2010 National Survey of Family Growth. National Health Statistics Reports, No. 64, April 4, 2013. Washington, D.C.

Creswell, J. W. (2013). Qualitative Inquiry and Research Design: Choosing among Five Approaches, 3rd ed. Thousand Oaks: Sage.

Creswell, J. W. (2005). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research. Upper Saddle River, NJ: Pearson Merrill Prentice Hall.

Crowther, M. J., Look, M. P., and Riley, R. D. (2014). Multilevel mixed effects parametric survival models with application to recurrent events and individual participant data meta-analysis. *Stat. Med*., *33*, 3844–3858.

Curtis, A., and Waldfogel, J. (2009). Fertility timing of unmarried and married mothers: Evidence on variation across U.S. cities from fragile families and child bearing study, *Population Research and Policy Review*, *28 (5):*569-588.

Darroch, J., Woog, V., Bankole, A., and Ashford, L. (2016). Costs and benefits of meeting the contraceptive needs of adolescents. Guttmacher Institute, *15*(9):15-20.

Davis, K. A. (1992). Validity and Reliability in Qualitative Research on Second Language Acquisition and Teaching: Another Researcher Comment, *26*(5): 605– 608.

De Silva, W. I. (1997). Correlates of marital postponement in Sri Lanka. *The Journal of Family Welfare, 46*(2): 42-50.

De Vos, A. S., Strydom, H., Fouche, C. B., and Delport, C. S. (2005). Research at the grass roots for the Social Sciences and human service professions.3rd ed. Pretoria.

Doyle, A. M., Mavedzenge, S. N., Plummer, M. L., and Ross, D. A. (2012). The sexual behavior of adolescents in sub-Saharan Africa. *Tropical Medicine and International Health, 17*(7):796–807.

Dominguez, M., and Castro-Martin, T. (2013). Cohabitation in Spain: no longer a marginal path to family formation. *Journal of Marriage and Family*,*75*(2), 422-437.

Dubow, E., Boxer, P., and Huesmann, L. (2009). Long-term effects of parents' education on children's educational and occupational success. *Merrill-Palmer Quarterly*, *55*(1), 224–249.

Dyer, W., and Farlie, T. (2004). Do family caps reduce out of wedlock births in United States? *Population Research and Policy Review*, 23 441- 473.

ECA (2017). *Urbanization and Industrialization for Africa's Transformation*. Addis Ababa, Ethiopia: United Nations Economic Commission for Africa.

Ekiran, M. A. (2003). *Marriage and the family: a sociological perspective.* Lagos: Rebonik Publications Limited.

Emirie, G. (2005). Early marriage and Its Effects on Girls' Education in Rural Ethiopia*:* (Unpublished doctoral dissertation). Universität Göttingen, Göttingen, Germany.

Engebretsen, S., Gueye, M., Melnikas, A., Fane, B., and Amin, S. (2020). Adolescent girls' migration and its impact on early marriage: Qualitative findings in Mali. PLOS ONE *15(3)*:1-18

Erulkar, A., and Muthengi, E. (2009). Evaluation of Berhane Hewan: a program to delay child marriage in rural Ethiopia*. Int Perspect Sex Reprod Health, 35(1): 6-14.*

Esteve, A., Lesthaeghe, R., and López, G. (2012). The Latin American cohabitation boom, 1970–2007. *Population and development review. 38*(12):55–81.

Everitt, B., and Skrondal, A. (2010). The Cambridge Dictionary of Statistics, Cambridge University Press.
Field, A. P. (2017). Discovering Statistics Using SPSS. London, Sage Publishers
Fisher, N. (1995). *Statistical Analysis of Circular Data* (New Ed edition). Cambridge: Cambridge University Press.
Flood, M. (2016). Men as students and teachers of feminist scholarship. Men and masculinities: *14*(1):135-54.
Frank, D., and McEneaney, E. (1999). "The individualization of society and the liberalization of state policies on same-sex sexual relations, 1984–1995," Social Forces *77*, 911–944.
Frank, S., and Olsen, S. (2004). *Instruments for clinical health-care research*. London, England: Jones and Bartlett.
Frejka, T., Jones, G. W., and Sardon, J. P. (2010). East Asian childbearing patterns and policy developments. *Scopus*, *2*(3):345–356.
Gay, L., Geoffrey, E., and Peter, A. (2009). *Educational Research: Competencies for Analysis and Application*. London: Pearson.
Gayawan, E. and Adebayo, S. (2013). A Bayesian semi-parametric multilevel survival modelling of age at first birth in Nigeria, Demographic Research, *28* (45) 1339-1372.
Garenne, M. (2004). Age at marriage and modernization in sub-Saharan Africa. *Southern African Journal of Demography, 9*(2):59–79.
Gemignani, R., and Wodon, Q. (2015). Child marriage and faith affiliation in Sub Saharan Africa. *The Review of Faith & International Affairs, 13*(3):41-47.
Gheda, T. (2010). Timing of First Marriage Among Egyptian Women. *Demographic Research*, *26*(4):1-15
Ghimire, D., William, G., Yabiku, S., and Arland, T. (2006). "Social Change, Premarital Non-Family Experience and Spouse Choice in an Arranged Marriage Society." *American Journal of Sociology 111*(4):1181-1219.
Girls Not Brides (2016). The role of parliamentarians in ending child marriage: A toolkit (2nd ed.). London: Girls not Brides.
Giyan, H. A. (2009). Women and Education: Equityand Equality. Berkley: McButcheon.
Glick, P., and Sahn, D. (1998). "Maternal labor supply and child nutrition in West Africa." *Bulletin of Economics and Statistics 60*(3): 325–355.
Glynn, S., Randolph, E., Garrick, T., and Lui, A. (2010). A proof of concept trial of an online psychoeducational program for relatives of both veterans and civilians living with schizophrenia. *Psychiatric rehabilitation journal, 33*(4), 278.
Goddard, W., and Melville, S. (2001). Research methodology: an introduction. 2nd ed.: Juta.
Government of Kenya (2015). Taking child protection to the next level in Kenya. Government of Kenya, UNICEF & Global Affairs Canada, 2015.
Grant, M., and Furstenberg, F. (2007). Changes in the Transition to Adulthood in Less Developed Countries. *European Journal of Population, 23*(34):415–428.
Gupta, G. R. (1998). "Claiming the Future." In the Progress of Nations: 1998, edited by UNICEF. New York: United Nations Children's Fund.
Gruskin, S. (2000). 'The conceptual and practical implications of reproductive and sexual rights: How far have we come?' 4 *Health and Human Rights* 1.

Haberland, N., Chong, E., Bracken, H., and WHO, G. (2003). *Married adolescents: an overview. Technical Consultation on Married Adolescents.* Geneva: WHO.

Haddad, C. (2009). Role of men and boys in promoting gender equality: Advocacy brief. Asia-Pacific Programme of Education for All (APPEAL): UNESCO, Bangkok.

Haloi, A., and Limbu, D. (2013). Socio-economic factors influencing age at first marriage of Muslim women of a remote population from North East India, Antrocom Online. *70*(2).

Hall, D. R. (1997). Cohabitation and the risk of divorce in Canada. An empirical study. *Journal of Comparative Family Studies 26*(7): 1–12.

Haralambos, M., and Holborn, M. (2008). *Sociology themes and perspectives*. 7th ed. London: HarperCollins Publishers Limited.

Handa, S. (2015). 'Impact of the Kenya Cash Transfer for Orphans and Vulnerable Children on early pregnancy and marriage of adolescent girls'. *Social Science & Medicine*, Vol. 141, September 2015.

Harding, D., and Jencks, C. (2003). Changing attitudes toward premarital sex. Public Opinion Quarterly, *67*(2), 211–226.

Hardy, M., and Bryman, A. (2009). Handbook of Data Analysis. London, Thousand Oaks, and New Delhi: Sage Publishing, USA. 276 – 92

Hardiani, H., and Junaidi, J. (2018). Determinants of early marriage and model of maturing marriage age policy: Case in Jambi Province, Indonesia. *10*(1).

Hayase, Y., and Liaw, K. (2015). Factors on polygamy in sub-Saharan Africa. *The Developing Economies*, *35*(3):293- 327.

Hearton, T., and Lawson, T. (1996). *Explaining gender differences in educational achievement*. Skills-Based Sociology. Palgrave, London.

Heaton, T.B. (1996). "Socioeconomic and Familial Status of Women Associated with Age at First Marriage in Three Islamic Societies", *Journal of Comparative Family Studies, 27*(1):41-58.

Herlihy, D. (1985). *Medieval Households*. 1st ed. New York: Harvard University Press.

Hernes, G. (1972). The process of entry into first marriage. *American Sociological Review*, *37*(2), 47-82

Hertrich, V. (2017). Trends in Age at Marriage and the Onset of Fertility Transition in sub-Saharan Africa. *Population and Development Review 43*:112–137.

Hesse, B., and Leavy, P. (2011). *The practice of qualitative research* (2nd ed.). Thousand Oaks, CA: SAGE.

Hesse, B. S. (2015). Introduction: *The Oxford handbook of multimethod and mixed methods research inquiry* (p. 33–53). New York: Oxford University Press.

Homa-Bay County Integrated Development Plan 2018-2022. Nairobi, Kenya: Kenya Gazette.

Hooper, D., Coughlan, J., and Mullen, M. (2008). Structural equation modeling: Guidelines for determining model fit. *Journal of Business Research Methods, 6*(1), 53-60.

Horst, H., Ifo, M., Bittanti, M., and Boyd, D. (2008). *Living and learning with new media: Summary of findings from the digital project.* MacArthur foundation. Illnois.

Hosmer, D. W., and Lemeshow, S. (2000). Applied Logistic Regression. 2nd Edition, John Wiley & Sons, New York

Hotchkiss, D., Godha, D., Gage, J., and Cappa, C. (2016). Risk factors associated with the practice of child marriage among Roma girls in Serbia. *BMC Int Health Hum Rights*.*16*(1):6.

Hoq, M. (2013). Regional differentials in age at first marriage among women in Bangladesh, Asian Journal of Applied Science and Engineering. (2)76-83.

Huschek, D., Liefbroer, A., and De Valk, H. (2010). Timing of first union among second generation Turks in Europe: The role of parents, peers and institutional context, *Demographic Research*, 22 (16) 473-504

Idris, I. (2019). *Interventions to reduce forced marriage.* K4D Helpdesk Report 694. Brighton, UK: Institute of Development Studies.

Ikamari, L. D. (2008). Regional variations in initiation of childbearing in Kenya. *African Population Studies*, *23*:25 – 40.

Ikamari, L. D. (2005). "The effect of education on the timing of marriage in Kenya." *Demographic research, 12*(1).

International Center for Research on Women (2007). New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs. ICRW: Washington, D.C.

Islam, T. M. (2009). Influence of socio-demographic variables on fertility in Bangladesh: Application of path model analysis. *Pakistan Journal of Social Sciences*, *6*(5): 313-320.

Islam, M., and Hasan, A. (2000). Mass media exposure and its impact on family planning in Bangladesh. *Journal of Biosocial Science, 32*(04):513-539.

Jain, S., and Kurz, K. (2007). New Insights on Preventing Child Marriage: A Global Analysis of Factors and Programs. Washington, DC: International Center for Research on Women.

Jampaklay, A. (2006). *How does leaving home affect marital timing?* An event-history analysis of migration and marriage in Nang Rong, Thailand. *43(4)*:711-25.

Janson, W. (2006). "Gender and the Expansion of University Education in Jordan." *Gender and Education 18*(5): 473-490.

Jayakody, R., Thornton, A., and Axinn, W. G. (2008). "Perspectives on International Family Change" in *International Family Change: Ideational Perspectives*, Erlbaum Associates, New York.

Jejeebhoym, S. J. (1995). "Women's education, autonomy, and reproductive behavior: Assessing what we have learned, East-West Center, Honolulu, Hawaii, USA.

Jensen, R., and Thornton, R. (2003). Early female marriage in the developing world. *Gender & Development*, *11*(2), 9-19.

Jewkes, R., Flood, M., and Lang, J. (2015). From work with men and boys to changes of social norms and reduction of inequalities in gender relations: A conceptual shift in prevention of violence against women and girls. The Lancet: *385(9977*):1580-9.

Jisun, T. F. (2016). Early Marriage of Women: The Case of Bangladesh. *World Journal of Social Sciences*, *6*(2):51-61.

John, D. (2008). Reconstruction in Philosophy. In Boydston, J., & Ross, R. (Eds). The Middle Works of John Dewey, 1899-1924 (Vol. 12. pp 77-202). Carbondale. Southern Illinois University Press.

Johnson, B. (2012). Educational Research, Qualitative, Quantitative and Mixed Approach. (4th ed). California: SAGE Publication.

Johnson-Hanks, J. (2002). "On the Modernity of Traditional Contraception: Time and the Social Context of Fertility." Population and Development Review. 28 (2): 229–249.
Jones, G., and Gubhaju, B. (2011). Trends in Age at Marriage in the Provinces of Indonesia. Singapore: Asia Research Institute
Kalamar, A. M., Lee-Rife S., and Hindin, M. J. (2016). Interventions to Prevent Child Marriage Among Young People in Low and Middle Income Countries. Journal of Adolescent Health, *59(3)*:16–21.
Kabeer, N. (2005). Is Microfinance a Magic Bullet for Women's Empowerment? Analysis of findings from South Asia. *Economic and Political Weekly*.
Kalmijn, M. (2007). Explaining cross-national differences in marriage, cohabitation, and divorce in Europe 1990-2000, *Population Studies*, *61(3)*:243-263.
Kalule-Sabiti, I., Makiwane, M., Palamuleni, M., and Amoateng, A.Y. (2007). *Family Formation and Dissolution patterns*, Cape Town, HSRC Press.
Kamal, S. M. (2012). Decline in child marriage and changes in its effect on reproductive outcomes in Bangladesh. *Journal of Health, Population, and Nutrition*, *30(3),* 317-330.
Kaplan, E. L., and Meir, P. (1958). Nonparametric estimation from incomplete observations. Journal of the American Statistical Association, *58(282)*:457-481.
Karam, A. (2015). Faith-inspired initiatives to tackle the social determinants of child marriage. The Review of Faith & International Affairs: 3(3): 59-68.
Kenny, L., Koshin, H., Sulaiman, M., and Cislaghi, B. (2019). Adolescent-led marriage in Somaliland and Puntland: A surprising interaction of agency and social norms. *J Adolescent, 72:*101-11.
Kenya National Bureau of Statistics and ICF Macro. (2010). Kenya Demographic Health Survey 2008-9. Calverton, Maryland, USA: Kenya National Bureau of Statistics (KNBS) and ICF Macro
Kenya National Bureau of Statistics. (2015). Kenya Demographic and Health Survey 2014. Nairobi, Kenya.
Kenya National Bureau of Statistics and ICF Macro. (2015). Kenya Demographic Health Survey 2014. Calverton, Maryland: KNBS and ICF Macro
Kenya National Bureau of Statistics. (2019). *2019 Kenya Population and Housing Census,* Volume IV: *Distribution of Population by Socio-Economic Characteristics,* Kenya National Bureau of Statistics.
Kincheloe, J., and McLaren, P. (2000). Rethinking critical theory and qualitative research. *Handbook of qualitative research*. 2nd ed. Sage Publications Inc. 279-313.
Kitzinger, J. (1995). Qualitative research. Introducing focus groups. *BMJ: British medical journal*, *311(7000)*:299 – 302.
Knox, L. P., and Marston, A. S. (2003). Places and Regions in global context human geography. Pearson Education Inc. Upper Saddle River, New Jersey.
Kondo, A. (2012). Gender-specific labor market conditions and family formation. *Journal of Population Economics*, *25*(1), 151-174.
Kohno, A. S., Teeranee, S., Pilar, D., Maznah, N. F., Nik, D., and Takeo, N. (2020). Investigation of the key factors that influence the girls to enter into child marriage: A meta-synthesis of qualitative evidence. *15*(7).

Koski, A., Clark, S., and Nandi, A. (2017). Has child marriage declined in sub-Saharan Africa? An analysis of trends in 31 countries. *Population Development Review, 43*(1):7-29.

Kumar, R. (2008). *Research methodology*. APH Publishing. New Delhi.

Lekenby, D., and Hesse, B. (2007). "Feminist approaches to mixed methods research". Hesser- Biber, S.N and Leavy P.L (eds) *Feminist research practice: Aprimer*. PP. 249-291. Sage Publications. Thousand oaks, C.A

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel psychology*, *28*:563 – 575.

Lee-Rife, S., Malhotra, A., Warner, A., and McGonagle, G. A. (2012). What works to prevent child marriage: a review of the evidence. *Stud. Fam. Plann. 43*(4):287–303.

Legard, R., Keegan, J., and Ward, K. (2003). In-depth interviews. *Qualitative research practice: A guide for social science students and researchers*, 138 – 169.

Lesclingand, M., and Hertrich, V. (2017). When girls take the lead: Adolescent girls' migration in Mali. Population (Engl Ed). *72(1)*:63–92.

Lesthaeghe, R. (2014). The second demographic transition: A concise overview of its development. Proceedings of the National Academy of Sciences, *9*:121–70.

Lesthaeghe, R. (1983). "A century of demographic and cultural change in Western Europe: Population and Development Review *9*, 411–35.

Lesthaeghe, R., and Surkyn, J. (1988). "Cultural dynamics and economic theories of fertility change," Population and Development Review *14*, 1–45.

Lesthaeghe, R., and Surkyn, J. (2008). When history moves on: The foundations and diffusion of a second demographic transition. Ideational perspectives on international family change. *2008*:81–118.

Lewis, H. (1992). *The age of enlightenment*. [Online] Available at: http://history-world.org/age_of_enlightenment.htm [Accessed 23rd April 2022].

Lichter, D., McLaughlin, D., Kephart, G., and Landry, D. (1992). Race and the retreat from marriage: a shortage of marriageable men? *Am. Sociol. Rev., 57*: 781-799.

Lleras, C. (2005). Path analysis. *Encyclopedia of Social Measurement*, *3*:25-30.

Lloyd, C. B. (2005). *Growing Up Global: The Changing Transitions to Adulthood in Developing Countries*. Washington, DC: National Academies Press.

Loaiza, E., and Wong, S. (2012). Marrying Too Young: End Child Marriage. New York: United Nations Population Fund (UNFPA).

Loebner, H., and Driver, E. (1973). Differential fertility in Central India: a path analysis. *Demography*, *10(3)*:329-350.

Manda, S. and Meyer, R. (2005). Age at first marriage in Malawi: A Bayesian multi-level analysis using a discrete time to event model, *Journal of the Royal Statistical Society,* Series A, *168*, 439–455.

Mangeli, M., Rayyani, M., Cheraghi, M. A., and Tirgari, B. (2017). Factors that encourage early marriage and motherhood from the perspective of Iranian adolescent mothers: a qualitative study. *Middle East Journal of Family Medicine, 7*(10):67.

Macfarlane, A. (1986). "Who Controls the Marriage Decision?" Marriage and Love in England: Methods of Reproduction Oxford, UK.

Majgaard, K., and Mingat, A. (2012). *Education in Sub-Saharan Africa: A Comparative Analysis*. Washington, D.C: The World Bank.

Malhotra, A. (1997). Gender and the Timing of Marriage: Rural-Urban Differences in Java. *Journal of Marriage and the Family 59*(2):434.

Manson, K. O. (1997). "The impact of Women's Position on Demographic Change During the course of Development", *Sociological Forum, 2*:718-745.

Marmot, M., Friel, S., Bell, R., Houweling, T., and Taylor, S. (2008). Closing the gap in a generation: health equity through action on the social determinants of health. *The Lancet*, *372(9650):*1661–1669.

Martin, P., and Mbambo, B. (2011). An exploratory study on the interplay between African customary law and practices and children's protection rights in South Africa. Save the Children.

Marston, M., Slaymaker, E., Cremin, I., Floyd, S., Kasamba, I., and Zaba, B. (2009). Trends in marriage and time spent single in sub-Saharan Africa, *85*(1):64-71.

Marston, M. Slaymaker, E., Nyirenda, M., and Zaba, B. (2009). Trends in marriage and time spent single in sub-Saharan Africa: a comparative analysis of six population-based cohort studies, *Sex Transm. Infect*., *85(1)*:164-171.

Maswikwa, B., Richter, L., Kaufman, J., and Nandi, A. (2015). Minimum marriage age law and the prevalence of child marriage and adolescent birth: Evidence from sub-Saharan Africa. *International Perspectives on Sexual & Reproductive Health: 41*(2): 58-68.

McLanahan, S. (1997). Parent absence or poverty: Which matters more? In G. J. Duncan & J. Brooks Gunn (Eds.), *Consequences of growing up poor* (pp. 35–48). New York: Russell Sage Foundation.

McLanahan, S., and Bumpass, L. (1988). Intergenerational Consequences of Family Disruption. *American Journal of Sociology, 94*, 130-152.

McLaughlin, J. (1997). Medieval child marriage: Abuse of wardship? Plymouth, 1997. Conference on Medieval Studies.

McLaughlin, D., and Lichter, D.T. (1997). "Poverty and the marital behavior of young women". Journal of marriage and the Family, Vol.59, No.3.

McLaughlin, D., Lichter, D., and Johnston, G. (1993). Transitions to first marriage in metropolitan and non-metropolitan areas. University Park PA: Population Research Institute, Pennsylvania State University. Working Paper 1993: 12.

McMillan, J. H., and Schumaker, S. (2006). *Research Education. Evidence-Based Inquiry*. Boston: Pearson Education.

Mensch, B., Susheela, S., and Casterline, B. (2005). Trends in the timing of first marriage among men and women in the developing world. National Academies Press: 118–171.

Metcalfe, A. (1993). Disappearance of the dowry: Women, families, and social change in Sao Paulo, Brazil. *Journal of Social History, 26(3)*:648-651.

Migiro, K. (2017). When women rule: Kenyan rebel evades child marriage and Maasai curses to win power. Thomson Reuters Foundation.

Montazeri, S., Gharache, M., Mohammadi, N., Alaghband, R., and Eftekhar, A. H. (2016). Determinants of early marriage from married girls' perspectives in Iranian setting: a qualitative study. *Journal of environmental and public health, 17*(15):129-152.

Mooyaart, J., and Liefbroer, A. (2016). The Influence of Parental Education on Timing and Type of Union Formation: Changes Over the Life Course and Over Time in the Netherlands. *Demography*, *53*(4):885-919.

Morgan, D. L. (1996). Focus groups. *Annual Review of Sociology*, *22(199):*129-152.
Msuya, N. H. (2017). Tradition and culture in Africa: Practices that facilitate trafficking of women and children. Dignity: A Journal on Sexual Exploitation and Violence: *2(1)*: Article 3.
Mugenda, O., and Mugenda, A. (1999). *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: Acts Press.
Mulder, C., Clark, W., and Wagner, M. (2012). Resources, living arrangements and first union formation in the USA, the Netherlands and West Germany. *European Journal of Population*, *22*(1):3–35.
Nasrullah, M., Muazzam, S., Bhutta, A., and Raj, A. (2014). Girl Child marriage and Its Effects on Fertility in Pakistan. *Maternal and Child Health Journal, 18*(3):534-543.
National Council for Population and Development (2012). Sessional Paper No. 3 of 2012. Nairobi: NCPD.
Nagelkerke, N. (1991). A note on a general definition of the coefficient of determination. *Biometrika, 78*:691-692
National Council for Population and Development. (2010). Kenya Population Situation Analysis. Government of Kenya, Nairobi, Kenya.
Naz, A. (2011). *Socio-Cultural and Political Constraints to Gender Development.* An Unpublished PhD Dissertation, Department of Anthropology, Quaid-i-Azam University, Islamabad, Pakistan.
Nazio, T., and Blossfeld, H. (2003). The Diffusion of Cohabitation among Young Women in West Germany, East Germany and Italy. *European Journal of Population*, *19*(1),47-82.
Nour, N. M. (2006). Health Consequences of child marriage in Africa. Emerging Infectious Diseases, *12*(11):1644-1649
Nour, N. M. (2009). Child marriage: A silent health and human rights issue. Rev Obstet Gynecol; *2*(1): 51-8.
Noviana, A., Soemanto, R., and Ety, P. (2017). Socioeconomic and Cultural Determinants of Early Marriage in Ngawi, East Java. *Journal of Health Promotion and Behavior, 2*(4): 302-312
Ocholla-Ayayo, A.B.C. (1980). "The Luo Culture: A Reconstruction of the Material Culture Patterns of a Traditional African Society. Wiesbaden: Frank Steiner Verlag GMBH.
Ocholla-Ayayo, A.B.C. (1976). "Traditional Ideology and Ethics Among the Southern Luo, Uppsala: SIAS
Ocholla-Ayayo, A.B.C. (2000). "The African family in development crisis in the 2nd Millennium. Crisis". *The African Anthropologist*, vol. 7 No. 1 March 2000.
Ochieng', B. (2016). *Determinants of Early Marriage Among Young Women in Homa Bay County in Kenya* (Thesis). University of Nairobi, Nairobi, Kenya.
Okigbo, C., Kabiru, C., Mumah, J., Mojola, S., and Beguy, D. (2015). Influence of parental factors on adolescents' transition to first sexual intercourse in Nairobi, Kenya: a longitudinal study. *Reproductive Health*, *12*(1):73–87.
Ominde, H. S. (1987). The Luo Girl from Infancy to Marriage. Nairobi: Kenya Literature Bureau.
Ono, H. (2005). "Women's Economic Standing, Marriage Timing, and Cross-National Contexts of Gender." *Journal of Marriage and Family 65*:275-286.

Oppenheimer, V. (2003). "Cohabiting and Marriage during Young Men's Career-Developing Process." *Demography 40*:127-149.
Oppenheimer, V. (1988). A Theory of Marriage Timing. *American Journal of Sociology, 94*(3):563-591.
Osiemo, A. J. (1986). "Estimation of fertility levels and differentials in Kenya: An application of Coale-Trusell and Compertz Relational Models", University of Nairobi: M.Sc Thesis, PSRI.
Othuon, L. A., MCOnyango, O., Angawa, F., and Ayieko, M. (2006). Growing up and sexual maturation among the Luo of Kenya: Removing barriers to quality education. Phoenix Publishers: Nairobi.
Otoo-Oyortey, N., and Pobi, S. (2003). Early marriage and Poverty: Exploring links and key policy issues. *Gender & Development*, *11* (2), 42 – 51.
Palamuleni, M. E. (2011). Socioeconomic determinants of age at marriage in Malawi. *International Journal of Sociology and Anthropology*, *3(7),* 224–235.
Pallant, J. (2011). SPSS Survival Manual, a step by step to data analysis using SPSS, 4th Edition.
Pande, R., Kurz, S., Walia, K., and Jain, S. (2006). Improving the Reproductive Health of Married and Unmarried Youth in India: (ICRW): Washington, D.C.
Pankhurst, H. (2002). Gender, Development and Identity: An Ethiopian Study. Zed Books; London.
Parsons, J., Edmeades, J., Kes, A., Petroni, S., Sexton, M., and Wodon, Q. (2015). Economic impacts of child marriage: *The Review of Faith & International Affairs*, *13*(3):12-22.
Patacchini, E., and Zenou, Y. (2012). Juvenile Delinquency and Conformism. *Journal of Law, Economics, and Organization*, *1*, 1-31.
Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks, CA: SAGE.
Perelli, B., Kreyenfeld, M., Sigle, T., Jasilioniene, A., Berghammer, C., and Di Giulio, P. (2012). Changes in union status during the transition to parenthood in European countries, 1970s to early 2000s. *Population Studies, 66*(2): 167–182.
Pesando, L. (2019). Global Family Change: Persistent Diversity with Development. *Population and Development Review 45*(1):133–168.
Plan International (2016). In-depth review of legal and regulatory frameworks on child marriage in Malawi: https://ams3.digitaloceanspaces.com/girlsnotbrides-org.pdf
Polit, D. F., and Beck, C. T. (2004). Nursing research: Appraising evidence for nursing practice (7th Edition). Philadelphia: Wolters Klower/Lippincott Williams & Wilkins. Sage.
Porta, D., and Keating, M. (2008). "How many approaches in the social sciences? An epistemological introduction". In *Approaches and methodologies, in the social sciences: A pluralistic perspective.* Cambridge university press. Cambridge.
Posel, D., Rudwick, S., and Casale, D. (2011). Is marriage a dying institution in South Africa? Exploring changes in marriage in the context of ilobolo payments. *Agenda*, *25*(2):102–111.
Quisumbing, A. R., and Hallman, K. (2003). Marriage in transition: Evidence on age, education, and assets from six developing countries. Policy Research Population Council. Working paper, P.183.

Rabbi, A. F. (2012). Mass media exposure and its impact on fertility: current scenario of Bangladesh. *Journal of Scientific Research, 4*(2):383.

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the nutrition society*, *63*(04): 655-660.

Raj, A., and Boehmer, U. (2013). Girl Child Marriage and Its Association with National Rates of HIV, Maternal Health, and Infant Mortality Across 97 Countries. *Violence Against Women*.*19*(4):536-51.

Raj, A. (2010). When the mother is a child: The impact of child marriage on the health and human rights of girls. *Archives of Disease in Childhood, 95*, 931–935.

Rashad, H., and Roudi-Fahimi, F. (2005). Marriage in the Arab world, Population Reference Bureau page 1-4.

Raymo, J., Iwasawa, M., and Bumpass, L. (2009). Cohabitation and family formation in Japan, *Demography*, 46 (4) 785-803.

Ritchie, J., Lewis, J., Nicholls, C. M., and Ormston, R. (Eds.). (2013). *Qualitative research practice: A guide for social science students and researchers*. Sage.

Robertson, S., (2002). Age of Consent Law and the Making of Modern Childhood in New York City, 1886-1921. *Journal of Social History, 35*(4), 781-98.

Robson, C. (2002). (2nd edition), Real World Research, 350 Main Street, USA: Blackwell Publishers

Rumble, L., Peterman, A., Irdiana, N., Triyana, M., and Minnick, E. (2018). An empirical exploration of female child marriage determinants in Indonesia. BMC Public Health.*18(1)*:407.

Rwezaura, B. (1994). 'The Changing Context of Sub-Saharan Africa' in Philp Alston (ed.) The Best Interests of the Child, Clarendon Press, Oxford.

Ryder, N. (1965). The Cohort as a Concept in the Study of Social Change. *American Sociological Review 30*(4): 843-861.

Sabbe, A., Oulami, H., Hamzali, S., Oulami, N., and Abdallaoui, M. (2015). Women's perspectives on marriage and rights in Morocco. *17*(2):135–49.

Saleheen, A., Afrin, S., Kabir, S., Habib, M., Zinnia, M., and Hossain, M. (2021). Sociodemographic factors and early marriage among women in Bangladesh, Ghana and Iraq.*7*(5).

Sandoy, I., Mudenda, M., Zulu, J., Munsaka, E., Makasa, M., and Musonda, P. (2016). Effectiveness of a girls' empowerment programme on early childbearing, marriage and school dropout among adolescent girls in rural Zambia: *17*(1):588–603.

Sarkar, S. (2016). Child marriage trafficking in India: Victims of sexual and gender-based violence. Anthropology Now: *8*(3): 62-70.

Sassler, S., and Schoen, R. (1999). "The effect of attitudes and economic activity on marriage," Journal of Marriage and the Family *61***,** 147–159.

Sassler, L. S. (1997). Women's marital timing at the turn of the century: *Generational and Ethnic Differences,* The Sociological Quarterly, *38(*4):567-585.

Sassler, S., Cunningham, A., and Lichter, D. (2009). Intergenerational Patterns of Union Formation and Relationship Quality. *Journal of Family Issues*, *30*(6):757–786.

Sayer, I., Paula, E., Paul, D., and Nicole, K. (2011). How Employment Satisfaction Affect Women's and Men's Decisions to Leave Marriages, *116*(6): 1982-2018.

Savitridina, R. (2014). "Determinants and Consequences of Early Marriage in Java, Indonesia." *Asia-Pacific Population Journal 12*(2):25–48

Scolaro, E., Blagojevic, A., Fillion, B., Chandra-Mouli, V., Say, L., Svanemyr, J., and Temmerman, M. (2015). Child marriage legislation in the Asia-Pacific region. *The Review of Faith & International Affairs, 13*(3), 23-31.

Shapiro, D., and Gebreselassie, T. (2014). Marriage in sub-Saharan Africa: Trends, determinants, and consequences. *Popul Res Policy Rev. 33*(2):229–55.

Smith, P.C. (1993). "The Impact of Age at Marriage and Proportions Marrying on Fertility," Academic Press, New York.

Smock, P. J. (2000). "Cohabitation in the United States: An appraisal of research themes, findings, and implications," Annual review of Sociology *26*, 1–20.

South, S. J. (1996). "Mate availability and the transition to unwed motherhood: A paradox of population structure," Journal of Marriage and the Family 58, 265–279.

South, S. J., and Crowder, K. D. (2000). "The declining significance of neighborhoods? Marital transitions in community context," Social Forces *78*, 1067–1099.

Shyrock, H. S., and Siegal, J. S. (1976). The Methods and Materials of Demography, New York, Academic Press, 1976.

Singh, S., and Samara, R. (1996). Early marriage among women in developing countries. *International Family Planning Perspectives, 22*(3):212-224.

South, S. J., Trent, K., and Bose, S. (2016). Demographic Opportunity and The Mate Selection Process in India. *Journal of Comparative Family Studies*, *47*(2):221–246.

Steele, F. (2005). NCRM methods review papers, NCRM/004. Event History Analysis. Bristol: University of Bristol, Graduate School of Education.

Sultana, I., and Mohammad, H. (2015). Factors Affecting on Early Marriage of Women in Rural Areas, Bangladesh. Sociology. *213*(703):229–55

Swartz, L. (2002). South African HIV AND AIDS best practiced models and strategic interventions, NPU, South Africa.

Svanemyr, J., Scolaro, E., Blondeel, K., Chandra, V., and Temmerman, M. (2013). The contribution of laws to change the practice of child marriage in Africa. Inter-Parliamentary Union: Geneva.

Tabachnick, B. G., and Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). New York, NY: Allyn and Bacon.

Tashakkori, A., and Teddle, C. (1998). *Mixed methodology: combining qualitative and quantitative approaches.* Sage Publications. Thousand Oaks. C.A.

Temin, M., Montgomery, M., Engebretsen, S., and Barker, M. (2013). Adolescent girls and migration in the developing world. New York: Population Council.

The 2010 Constitution of Kenya (2010). Government Printers. Nairobi.

The National Research Council and Institute of Medicine (2005). *The Changing Transitions to Adulthood in Developing Countries.* The National Academies Press: Washington, D.C.

Thornton, A. (1991). Influence of the marital history of parents on the marital and cohabitation experiences of children. *American Journal of Sociology 96*:868-894.

Tilson, D., and Larsen, U. (2000). Divorce in Ethiopia: The impact of early marriage and Childlessness. *Journal of Biosocial Science, 32*, 355 – 372.

Tian, F. (2013). Transition to First Marriage in Reform-Era Urban China: The Persistent Effect of Education in a Period of Rapid Social Change. *32*(4):529–552.

Tong, K., and White, J. (2017). UNFPA-UNICEF Global Programme to Accelerate Action to End Child Marriage Evaluability Assessment. UNICEF and UNFPA.

Torabi, F., and Bschieri, A. (2010). Ethnic differences in transition to first marriage in Iran: the role of marriage market, women's socio-economic status, and process of development, *Demographic Research 22*(2):29-62.

Trent, K., and South, J. S. (1992). "Sociodemographic Status, Parental Background, Childhood Family Structure, and Attitudes toward Family Formation." *Journal of Marriage, 54*:427-39.

Tsuya, N. (1994). "Nuptiality Change in Asia: Patterns, Causes and Prospects." Paper presented at the Michigan Family Studies Seminar, University of Michigan, Ann Arbor, Michigan.

Tumwine, F. R. (2007). "Population Geography: Demographic characteristics and trends in Uganda". Mkuki na Nyota Publishers Ltd.

Turner, W. D. (2010). "Qualitative interview Design: A practical Guide for novice investigators" *The Qualitative Report. 15*(3):754-760.

Umashankar, D. (2006). Women's empowerment: *effect of participation in self-help groups*. Indian institute of management, Bangalore.

UN. (1995). The Beijing Platform for Action. *Report of the Fourth World Conference on Women.* September 1995. Beijing. Available at: http://www.un.org/esa/gopher-data/conf/fwcw/off/a--20.en.

UN (1979). *The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).* New York, NY: UN.

UN (1948). *The Universal Declaration of Human Rights.* New York, NY: UN. Available at: http://www.un.org/en/documents/udhr/.

UN Commission on Population and Development. (1994). Programme of Action of the International Conference on Population and Development. *Report of the International Conference on Population and Development*. 5-13 September 1994. Cairo: UN.

UNDP (2019). *Human Development Report 2019*. New York: United Nations Development Programme.

United Nations (2019). World population prospects. The 2019 revision [electronic resource]. New York: United Nations.

UNICEF (2020). Child marriage around the world: UNICEF; 2020 [Available from: https://www.unicef.org/stories/child-marriage-around-world.

UNICEF (2019). Child marriage around the world: Infographic. UNICEF, New York (2019). Google Scholar

UNICEF (2016). *Child marriage: Current Status and Progress*. Available at: https://data.unicef.org/topic/child-protection/child-marriage/ [Accessed 22nd April 2022].

UNICEF (2015) *Child marriage and Adolescent Pregnancy in Mozambique: Causes and Impact.* Maputo, Mozambique: UNICEF.

UNICEF (2014). Ending child marriage: Progress and prospects. New York.

UNICEF (2016). *Child protection from violence, exploitation and abuse*. New York City, USA. Retrieved from: https://www.unicef.org/protection/57929_58008.html.

UNAIDS, WHO and UNFPA *Position statement condoms and HIV prevention* (2009).

UNICEF (2005). *Early Marriage: A Harmful Traditional Practice.* New York, NY, USA: UNICEF.

United Nations General Assembly (2015). Transforming our world: the 2030 agenda for sustainable development (a/res/70/1). New York: United Nations; 2015.
United Nations (2006). Universal Declaration of Human Rights (Cited 2022 January 7th)
United Nations (1988). *First marriage: Patterns and determinants*. Department of International Economic and Social Affairs New York: United Nations.
United Nations (1990). *Patterns of First Marriage: Timing and Prevalence.* New York.
UNFPA (2014). State of World Population 2014*: The Power of 18 Billion.* New York: UNFPA. Available at: http://www.unfpa.org/swop.
USAID (2012). Ending child marriage and meeting the needs of married children: The USAID vision for action. Washington, DC.
USAID (2015). *Child, Early and Forced Marriage Resource Guide*.
Van Barel, J. (2007). The decline of illegitimacy and the control of marital fertility during demographic transition, Belgium, *Historical social research*, 32 (2) 42-67.
Vignoli, D., Tocchioni, V., and Salvini, S. (2016). Uncertain lives: Insights into the role of job precariousness in union formation in Italy. *Demographic Research*, *35*(10):253–282.
Wahhaj, Z. (2014). A Theory of Child Marriage. *School of Economics Discussion Papers, No. 1520*. University of Kent, UK.
Wako, A. (2017). Child marriage rampant in Kenya due to poverty, gender inequality. The Star 11 Dec, 2017.
Walker, J. A. (2012). Early Marriage in Africa–Trends, Harmful Effects and Interventions. *African Journal of Reproductive Health*, *16(2):*231–240.
Walker, J. (2013). Mapping Early Marriage in West Africa: A Scan of Trends, Interventions, What Works, and Best Practices. Nigeria: Ford Foundation.
Wedel, J. R., Shore, C., Feldman, G., and Lathrop, S. (2005). Toward an anthropology of public policy. *Annals of the American Academy of Political and Social Science, 600,* 30–49.
Weeks, J. (2007). Population: an introduction to concepts and issues. 10th edition. Thomson Wasswoth publishing house
Wegh, S. F. (2008). Beginning Anthropology. SAP Ltd. Makurdi.
Wells, L., Lorenzetti, L., Carolo, H., Dinner, T., Jones, C., Minerson, T., and Estina, E. (2013). Engaging men and boys in domestic violence prevention: Opportunities and promising approaches. Calgary, AB: The University of Calgary.
Westofff, C. F. (2003). Trends in marriage and early childbearing in developing countries. *DHS comparative reports No. 5*, Macro, Calverton.
Wilkinson, S. (1998). Focus group methodology: A review. *International Journal of Social Research Methodology*, *1* (3), 181 – 203.
Williams, B., and Guest, P. (2005). Attitudes toward marriage among the urban middle-class in Vietnam, Thailand, and the Philippines. *Journal of Comparative Family Studies*, *36*, 163-186.
Wodon, Q., Male, A., and Nayihouba, C. (2017). Economic Impacts of Child Marriage: Global Synthesis Report, The International Center for Research on Women (ICRW), Washington, DC, USA, 2017
Wodon, Q., Tavares, P., Fiala, O., Le Nestour, A., and Wise, L. (2017). Ending child marriage: Legal age for marriage, illegal child marriages and the need for interventions. Washington, DC: Save the Children and The World Bank.

World Health Organization (2010). Policy approaches to engaging men and boys in achieving gender equality and health equity. Geneva: WHO Press, 2010.
World Health Organization (2002). *Report of a Technical Consultation on Sexual Health* (WHO: Geneva 2002)
World Health Organization (2011). *Early marriages, adolescent and young pregnancies* (Executive Board, 130th).
Yabiku, S. T. (2006). "Neighbors and Neighborhoods: Effects on Marriage Timing", *Population Research and Policy Review, 25*(2):305-327.
Yabiku, S. T. (2005). The Effect of Non-Family Experiences on Age of Marriage in a Setting of Rapid Social Change, *Population Studies, 59*(3), 339-354.
Yaya, S., Odusina, E., and Bishwajit, G. (2019). Prevalence of child marriage and its impact on fertility outcomes in 34 sub-Saharan African countries. *BMC International Health and Human Rights.19*(1):33.
Yihunie, L. (2013). Geographical variation and factors influencing modern contraceptive use among married women in Ethiopia: evidence from a national population based survey. Reproductive Health, *10*(1):52
Yount, K., Crandall, A., and Cheong, Y. (2018). Women's age at first marriage and long-term economic empowerment in Egypt World Development. *102*(18):124-134.

THESIS APPENDICES

Introduction

This section outlines diagnostic tools where different indicators of family formation (the study's work-plan and timeframe, the budget of the study, questionnaire and interview guide) are assembled. These tools are based on a process of gathering data from public sources, comprising of individuals and public officials.

Appendix (i): The Study's Work-Plan and Timeline

	TIME FRAME	**WORK PLAN**
01	3 Months	Preparation of concept paper
02		Presentation of concept paper at Departmental level
03	4 Months	Proposal writing and consultation with supervisors
04	3 Month	Making corrections on the proposal to accommodate faculty suggestions
05	2 Months	Submission of proposal to School of Post Graduate Studies through Geography Department and School of Arts and Social sciences and seek substantive registration for PhD
06	1 Month	Logistical preparations: Seek research permit, preparation of research instruments and consultative meetings
07	1 Months	Recruiting and training research assistants Sourcing for stationeries Pre-visit study and familiarization with potential respondents Data collection tools preview Appointments for interview schedules
08	1 Month	Pre-test survey study and adjustment of data collection tools
09	5 Months	Fieldwork / Data collection
10	1 Month	Coding; Data cleaning; Crosschecking of data; Data entry
11	1 Month	Data analysis, Writing of Draft Reports, and Notice of Submission
12	1 Month	Final report, Documentation and Submission of thesis to School of Post Graduate Studies for examination and Defense of the same
13		Graduation as per the University Calendar
	23 Months	**THESIS DURATION**

Appendix (ii): The Budget for the Study

RESEARCH ACTIVITY	ITEMS REQUIRED	HUMAN RESOURCE	COSTS (KSH)
Consolidation of literature Photocopying and printing of literature materials and proposal Collecting literature	Internet search Library search - Stationery - Travelling expenses to KNBS and NCPD offices	Researcher @5,000 @20,000	 5,000 20,000
Preparation of research instruments (respondent's questionnaire, Interview guide for FGDS)		@10,000	10,000
Induction and training of the research assistants	1. Office space 2. Training and induction materials	@5,000 including office space Stationery @5,000 Research assistants 4@1,000 for 5 days Researcher @2,000	5,000 5,000 20,000 10,000
Pre-test study	Office space	@10,000 Research assistants (Travelling expenses and subsistence as follows) 4 research assistants for 20 days@1,800 Researcher for 20 days@1,000	10,000 144,000 20,000
Data collection (4 months)	 Stationeries, Handbags and Research instruments Travelling expenses	Research assistants and researcher @15,000 Research assistants 4@1,000 for 80 days	 15,000 320,000

		Researcher @1,000 for 80 days	80,000
Data processing and analysis	Accessories Office space	Printing and photocopying papers @3,000 Data analyst @5,000	 3,000 5,000
Thesis development Printing and spiral binding - First draft - Second draft - Third draft - Fourth draft - Final draft	 Stationeries Office space	 @15,000 @1500	 15,000 1,500
Documentation, Publication costs and conferences - Documentation - Literature - Publication - Stationery		 @11,500 @500 @30,000 @1,500	 11,500 500 30,000 1,500
Contingency			20,000
TOTAL			**750,000**

Appendix (iii): Interview Consent Form

Study Title: ***Demographic Dynamics and Spatiotemporal Dimensions of Early Marriages in Homa Bay County, Kenya***
Name of the Researcher: Hezron Ouma Agili
Institution: Department of Social Studies, Jaramogi Oginga Odinga University of Science and Technology, School of Education, Humanities & Social Sciences

Information for participants

Information about the study

Good morning/afternoon. My name is _____ and on this study I am working as_____. **Mr Hezron Ouma Agili** is the study principal researcher and he is affiliated with Jaramogi Oginga Odinga University of Science and Technology. The study is investigating the marriage timing and family formation processes and factors influencing family formation, with a focus on how the demographic dynamics and socio-cultural changes contribute to marital timing mortality in this community. This study will be collecting information from households from July 2022 to December 2022. This information sheet summarizes the aim of the study and gives an explanation of your participation and rights as a participant if you agree to be involved.

Participants' involvement

I am appealing to you to participate in this research study. Participation in the study is voluntary, so you may decide to participate or not without having to give a reason. There will be no payment for participation. I am now going to explain the study to you. Please feel free to ask any questions that you may have about the research; I will be pleased to clarify anything in more detail. You are being asked to join because you are aged 20-49 years and ever married. I would want to seek your experience on marriage and family formation processes. You will be asked questions related to the factors influencing family formation and any other challenge you experience as a result of marrying at a given age. There are no risks whatsoever to you for participating in this study. If you do not wish to continue, you have the right to withdraw from the study, at any time without penalty. Your cooperation will be highly appreciated until the end because your views are crucial in improving the well-being in this community.

How information will be used

The benefit of the collected information is that you will be helping us to understand the ***Demographic Dynamics and Spatiotemporal Dimensions of Early Marriages in Homa Bay County***. This information should be useful to us in improving the livelihoods of households not only in the community but other counties as well by promoting delayed marriage.

The interview will last about 30-40 minutes. Notes will be written during the interview. An audio tape of the interview will be made. If you don't want to be taped, you will not be able to participate in the study.

Confidentiality

The information you provide in this study as a participant will strictly be used for academic purposes and will be treated with utmost anonymity and confidentiality. Your name will not be identified in any reports or publications using information obtained from this

interview. Successive uses of records and data will be subject to standard data use policies which guard the confidentiality of persons and institutions.

Participant - "I have read and understood the explanation provided to me. All of my questions and concerns about this research study have been satisfactorily addressed. I decide, voluntarily, to participate in this study. I certify that I am 18 years of age and above".

_____ _____

Signature of participant date

_____ _____

Signature of Interviewer date

For further information, please contact:

[Hezron Ouma Agili] [Email: agili.hez1@gmail.com]

I consent to having the interview recorded

Sign_____

Appendix (iv): Questionnaire of the Demographic Household Survey

INTRODUCTION

(Spoken by the research assistant to the respondent)

My name is Hezron Ouma Agili, a postgraduate student at Jaramogi Oginga Odinga University of Science and Technology, Kenya. Currently, I'm undertaking a study to assess ***"Demographic Dynamics and Spatiotemporal Dimensions of Early Marriages in Homa Bay County, Kenya".*** I kindly appeal to you to respond to the given questions with the honesty they merit. The information you provide will strictly be used for academic purposes and will be treated with ultimate confidentiality hence do not indicate your name anywhere in this questionnaire. Your cooperation will be highly appreciated.

Mark using a tick (√) in the bracket of the most appropriate response. Where an explanation is required, use the spaces provided.

1.0 SOCIO-DEMOGRAPHIC DATA

1.1 Gender: Male ( ) Female ( ) Zone_____ Sub-County _____

1.2 Age: _____ Year of Birth: _____ Place of residence: Rural ( ) Urban ( )

1.3 What was your age at first marriage? _____ Year of Marriage: _____ CEB_____

1.4 Please tick (√) in the table below where you belong.

Form of Marriage	**Level of Education**	**Nature of marriage**	**Main Occupation**	**Monthly income in Kshs**	**Ever moved before marriage** (after age 15)	**Religious affiliation**
Monogamous	No formal education	Civil	Peasant farmer	10,000 and below	Yes	None
Polygynous	Primary incomplete	Religious	Trading	10,000-50,000	No	Roman Catholic
	Primary complete	Customary	Public servant	51,000-90,000		SDA
	Secondary incomplete	Come we stay marriage	Housewife	91,000 and above		Pentecostal
	Secondary complete	Other, (specify)	Politician			Muslim
	College		Unemployed / student			African Independent
	University		Self-employment			
			Fishing			
			Idle			

2.0 Paternal family household structure

Household family structure	**Tick**
Male headed family	
Female headed family	
Single parent family	
Blended family	

3.0 Premarital Labor force participation

3.1. Tick (√) in the table below, your status in the labor market prior to marriage

Employment status prior to marriage	**Tick**
Having a standard job (full time / permanent employment)	
Having a nonstandard job (part-time job, day labor or self-employment)	

Not working / unemployed	

4.0 Courtship / Premarital cohabitation

4.1 Did you ever live with your spouse before marrying? If yes, for how long? Tick (√) in the table below.

Ever lived with spouse before marriage	**Tick**	**Length of living with spouse before marriage**	**Tick**
Yes		For some weeks	
No		Months	
		More than 12 months	

5.0 Childhood place of residence (Respondents life course experiences, say up to age 15)

Outside exposure before marriage	**Tick**	**Living arrangement**	**Tick**
Never lived outside village		Always lived with senior relatives	
Lived outside		Lived apart from seniors	

6.0 Media exposure prior to marriage

7.1 Did you ever have an access to the following media at least once a week before marriage, say age 15? Tick (√) Yes/No in the table below, and you are free to tick more than one.

Exposure to modern media	**Yes**	**No**
Listened to the radio		
Watched television		
Internet through mobile phone		
Read a newspapers		
Regularly exposed to all		
Not regularly exposed to any media		

7.0 Peer group attachment

8.1 Did you go or belong to any club(s) or parties or movies before marriage? Yes ( ) No ( )

8.2 If yes, which one / ones? Tick (√) in the table below, and you are free to tick more than one.

Type of group attachment	**Tick (√)**	**Type of group attachment**	**Tick (√)**
Sports club		Health club	
Straight talk club		Journalism club	
Religious society		Others (specify) ……..	

8.0 Premarital sexual relationship

Time at first intercourse	**Tick**	**Age at first sexual debut**	**Tick**	**Birth before marriage**	**Tick**
Before first marriage		≤15 years		Pregnant at the time of marriage	

At first marriage		16 – 19 years		Did not have a child	
		≥20 years		Had a child before first marriage	

8.1 In your opinion, what do you think are factors influencing premarital sex in your community?

8.2 What could be the factors contributing to non-marital fertility?

9.0 Premarital contraceptive use

Contraceptive use before marriage	**Tick**
No method	
Traditional or modern method used	

10.0 **Family background characteristics**

11.1 Natal Family Size: Females …… Males …… Total …….

11.2 Did your natal family own any of the following? Tick (√), if any, in the table below.

Natal household ownership	**Tick**	**Natal household ownership**	**Tick**
Car		Mobile smart phone	
Motorcycle		Bicycle	
Gas		Radio	
Television		None	
Video			

11.3 Please tick (√) in the table below concerning your natal family background prior to (before) marriage

Father's work experience	Mothers work experience	Father's Highest Level of Education	Mother's Highest Level of Education	Father's Occupation	Mother's Occupation	Orphanage Before marriage	Broken family structure before marriage
No wage labor	No wage labor	Less than high school	Less than high school	Peasant farmer	Peasant farmer	Parents both alive	Divorced
Had wage labor	Had wage labor	High school	High school	Trading	Trading	Only mother alive	Separation
		More than high school	More than high school	Public servant	Public servant	Only father alive	Intact
				Housewife	Housewife	Both parents not alive	
				Politician	Politician		
				Unemployed / student	Unemployed / student		
				Self-employment	Self-employment		
				Fishing	Fishing		
				None	None		

12.0 Socio-cultural dynamics

12.1 Do you feel you were ready for marriage?

(a) Yes ( ) (b) No ( ) (c) Uncertain ( )

Comment:……

12.2 Which institution did you receive or heard any marriage, sexuality and parenting instruction before marriage?

12.4 Attitude towards age at marriage;

How would you describe your age at marriage?

Late ( ) Early ( ) Right Time ( ) Do not know ( )

12.5 Suppose that things turn out that you plan to get married now, what do you think would be the ideal age for you to get married? ……

13-16 years ( ) 17-20 years ( ) As early as possible ( ) Above 18 years ( )

Other (specify) _____

12.6 Main methods of marriage mediation

Please tick (√) in the table below, which of the following do you prefer for your children regarding selection of a marriage partner?

Mate selection for children	True	False
Parents decide everything		
Parents choose prospective spouse, then children make the final decision		
Children choose themselves then parents make final decision		
Children decide everything		

12.7 Payment of bride wealth

Yes ( ) No ( )

12.8 Please tick (√) in the table below, who made spousal choice?

Choice of spouse	Tick	Choice of spouse	Tick
Respondent's chose		Friends	
Parents / seniors chose		Relative	
Partly parents or seniors / partly couple			

12.9 In your view what is the best intervention against early marriage in Homa Bay County?

_____

_____

13.0 **Role of stakeholders and intervention strategies**

Who are the key stakeholders working against child marriage in each state?

What roles do they play?

13.1 In the last few months, tick (√) if you have heard or seen any message about effects of early marriages in the media listed below. You are free to tick more than one.

Media	Yes	No	Media	Yes	No
Radio			Newspaper / magazine		
Television			Wall painting / hoarding		
Cinema/film show			Drama / folk dance		

13.2 Level of awareness about early marriage legal instruments and legal age

Knowledge & Awareness	Yes	No
Awareness of Early Marriage Restraint Act and legal age		
Awareness of legal consequences (imprisonment and fine, but don't know how much		
Awareness of full legal consequences		

13.4 How would you rate the support given by the given key stakeholders working against early marriages in the community? Please tick (√) your choice by: Quite a lot (5); A lot (4); Little (3); Not at all (2); No response (1).

Category of stakeholders	5	4	3	2	1	Category of stakeholders	5	4	3	2	1
NGOs						Health institutions					
Academics & researchers						Teenagers themselves					
Child protection officers						Community(/ Peer group)					
Media						Police					
Educational institutions						Chiefs / assistant chiefs					
Religious leaders						Parents / family members					

13.5 What roles do these stakeholders do to curb early marriages?

13.6 What challenges, if any, do you experience in an attempt to curb early marriages?

_____

_____

THANK YOU FOR YOUR CONTRIBUTION TO THIS STUDY

Appendix (v): Interview Guide for Key Informants (Chief Administrators and Child Protection Officers)

1. Introduction
2. Purpose of the visit
3. Position of the informant

Research objectives	Key research questions
Introduction	- How are you doing? (breaking the ice) -What is your role/position? Can you tell me something about it? -Are there other things you would like to talk about? -What is your responsibility with regard to early marriage?
Trends in early marriages	- How would you describe the prevalence of early marriages in this community / sub county? - What are the gender differences in transition to early marriages in this community / sub county?
	- In your area of work, from whom have you received complaints about early marriages in the last three years?
	- What are your experiences handling early marriages within your locality / sub county?
Drivers associated with early marriages	- In your opinion, what do you think are the drivers of early marriages in this community / sub-county?
Consequences of early marriages	- What are some of the effects of early marriages you have seen on men and women in this locality / sub county?
Interventions strategies	-How do you think early marriage can best be prevented?
Intervention challenges and gaps	-What do you consider the main difficulties with regard to early marriage prevention?
Recommendations	- Please comment freely on the best way forward to solve the problem of early marriages ---------- ---------- ---------- Are there other things you would like to talk about?

THANK YOU FOR YOUR CONTRIBUTION TO THIS STUDY

Appendix (vi): Focus Group Discussion Guide

The FGD guide is aimed at gathering in-depth information from respondents pertaining to family formation in Homa Bay County. The information sought is to enable the researcher complete Postgraduate study of Jaramogi Oginga University of Science and Technology, Kenya. Consequently, all information supplied will be treated confidentially. The findings and recommendations of the study may however be useful in creating understanding and awareness on the dynamics of early marriages in Homa Bay County and identifying plausible solutions / interventions to decrease the prevalence of early marriages. The maximum duration for the FGD is 2 hours.

Research objectives	**Key research questions**
Trend analysis of Early Marriage in Homa Bay County	-How are you doing? (breaking the ice) How would you describe the past and current prevalence of early marriages in this community? What do you consider an ideal age at marriage for both men and women in this society? Why?
Demographic dynamics and Spatiotemporal dimensions of early marriages	- What are the social, economic and religious drivers of early marriages in Homa Bay County at the following level? a. Social drivers b. Policy level drivers c. Community level drivers d. Institutional level drivers e. Family level drivers f. Children and adolescent level
Consequences of early marriages	- What challenges do people face as a result of marrying early? Child and adolescent level a. Family level b. Community level c. Institutional level c. Government level
Platforms for change	- Who are the key stakeholders working against early marriages in this community? - What roles do they play currently to curb early marriages and what support do they give if any, to married adolescents? - How would you describe the support given by these key stakeholders?
Community response to strategies and interventions to curb early marriages	- Is the community aware that the law prescribes that children and adolescents should not be married before reaching the age of 18? - What prevents them from respecting the law? - How do community members feel about current intervention programs trying to prevent early marriage?
Implementation challenges and gaps	- What are the challenges faced by key stakeholders as they implement interventions to curb early marriages?
Recommendations and Alternatives to marriage	- What are the potentially viable alternatives to marriage that community want? - What in your view do you propose that might be strengthened or developed to curb early marriages? Are there other things you would like to talk about?

THANK YOU FOR PARTICIPATING IN THE DISCUSSIONS

Appendix (vii): JOOUST Research Authorization Letter

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

BOARD OF POSTGRADUATE STUDIES

Office of the Director

Tel. 057-2501804
Email: bps@jaoust.ac.ke

P.O. BOX 210 - 40601
BONDO

Our Ref: Z461/4022/2020

Date: 20th July 2022

TO WHOM IT MAY CONCERN

RE: HEZRON OUMA AGILI – Z461/4022/2020

The above person is a bonafide postgraduate student of Jaramogi Oginga Odinga University of Science and Technology in the School of Education, Humanities and Social Sciences pursuing a PhD in Geography. He has been authorized by the University to undertake research on the topic: ***"Demographic Dynamics and Spatiotemporal Dimensions of Early Marriages in Homa Bay County, Kenya".***

Any assistance accorded him shall be appreciated.

Thank you.

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
DIRECTOR BOARD OF POST GRADUATE STUDIES
JUL 2022
P.O. Box 210 - 40601, BONDO

Prof. Dennis Ochuodho
DIRECTOR, BOARD OF POSTGRADUATE STUDIES

Appendix (viii): NACOSTI Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **832069**

Date of Issue: **07/November/2022**

RESEARCH LICENSE

This is to Certify that Mr.. Hezron OUMA AGILI of Jaramogi Oginga Odinga University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Homabay on the topic: DEMOGRAPHIC DYNAMICS AND SPATIOTEMPORAL DIMENSIONS OF EARLY MARRIAGES IN HOMA BAY COUNTY, KENYA for the period ending : 07/November/2023.

License No: **NACOSTI/P/22/21616**

832069

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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

See overleaf for conditions