



INDIGENOUS KNOWLEDGE AND SUSTAINABLE DEVELOPMENT



Editors:
Tom Kwanya, Peter Matu

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The Technical University of Kenya • Nairobi, Kenya

ISBN 978-9914-764-15-4



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International Conference on Information and Knowledge Management (3rd : 2024 : Nairobi, Kenya)

Indigenous Knowledge and Sustainable Development/editors: Tom Kwanya, Peter Matu, The Technical University of Kenya.

x, 674 pages ; 17.6 * 25.0 cm.

978-9914-764-15-4

1. Indigenous knowledge. 2. Sustainable development. 3. Traditional medicine. 4. Indigenous languages. 5. Indigenous arts 6. Indigenous ethics. I. Kwanya, Tom. II. Matu, Peter. III. Title.

Z666.5.I58 2024.

This manuscript was subjected to rigorous two-step double-blind peer review prior to publication.

Design and Production: Lucy Kibe, Alexander Wamonje

Cover image: Pixabay, used under Creative Commons Zero (CC0) License.

Printed in Nairobi, Kenya



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2. Evaluating the Efficacy of Traditional Family Planning Practices among the Kipsigis Community in Kericho County, Kenya

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Abstract

Kipsigis is one of the eight communities among the Kalenjin tribe. Traditional family planning is embedded within the Kalenjin culture and has been well-known for its effectiveness. This study sought to evaluate the efficacy of traditional family planning practices among the Kipsigis Community in Kericho County, Kenya. The objectives of the study were to establish existing sources of indigenous knowledge on family planning practices, establish the methods of disseminating indigenous knowledge on family planning practices, explore the benefits and demerits of traditional family planning practices, establish the level of adoption of Western methods of family planning among the Kipsigis Community and assess the perception of elders on the differential efficacy between the traditional family planning practices among the Kipsigis. The study used a multi-site case design that was both quantitative and qualitative to facilitate in-depth investigation and comparison of the themes from three sub-counties. The sub-counties were selected due to their rich traditions and ways of living. Three village elders were interviewed in each sub-county, and questionnaires were administered to 90 knowledgeable older women and men equally distributed between the three sub-counties. These participants were identified using snowballing. Qualitative data were analysed using content analysis, while quantitative data were analysed using Excel. The study revealed that the community are exposed to traditional family planning methods from many sources. As a result, the belief in the efficacy of traditional family planning methods is stronger than that of modern approaches.

Keywords: *Indigenous knowledge, contraception, modern methods of family planning, traditional methods of birth control*

1 Introduction

Family planning determines the number of children one wants, the age to have children and the spacing or the decision not to have any. The primary purpose of family planning services is to end preventable deaths during pregnancy and childbirth (Owoyemi et al., 2020). Family planning is practised in many communities. In Kalenjin, it is known that the communities use traditional and modern family planning methods. Kalenjin comprises eight sub-ethnic groups, including Nandi, Kipsigis, Tugen, Keiyo, Marakwet, Sabaot, Pokot and Terik. Kipsigis is the largest sub-group of the Kalenjin communities living in Kericho District, in the former administrative division of Rift Valley Province of Kenya (Cherono, 2020). They belong to the Nilotic group living in Kenya and speak Kipsigis as their native language (Chepkemoi, 2021). The Kipsigis sub-group had seven age set systems called “*Ipinda*”, which means young people. Every society has its traditions that are passed from generation to generation. This is done through teaching certain cultural norms, habits, beliefs, customs, and attitudes. These traditional

practices and beliefs also encompass all aspects of life, including family planning practices. Based on the historical perspective, traditional family planning practices were used to help increase the number of children. Traditional methods of contraception are practised worldwide because it does not require third parties (health care workers). Family planning is a vital issue in Kenya and around the globe (Rabiu, 2018). Traditional methods of contraception have been categorised into calendar method or rhythm method, lactational amenorrhea method, coitus interruptus (withdrawal method), abstinence and cervical mucus method. Some other methods of traditional contraception are rituals and the use of herbs (Malarcher et al., 2016).

2 Statement of the problem

Unwanted pregnancies have remained an essential public health subject in low- and middle-income economies (Hajizadeh & Nghiem, 2020), particularly among young women. Globally, about two hundred and fourteen (214) million women of childbearing age are inclined to limit the size of their families. The unmet need for both modern and traditional methods of conception has resulted in poor maternal health outcomes (World Health Organization, 2018). It is believed to be one of the causes of abject poverty (Pham et al., 2020) in developing countries. At any point in future, the young generation who may want to delay pregnancy and simultaneously fulfil their emotional needs in relationships will be forced to adopt any method of family planning (Aliyu, 2018). However, factors which hamper the utilisation of family planning among couples and people in relationships abound. These factors include opposition from the husbands (Sinai et al., 2020), stigma (Ahmed et al., 2022), unsatisfactorily family health services, poor management of the family planning service delivery system, lack of knowledge on family planning services, and fears concerning contraceptive side effects. The barriers to the uptake of family planning can be minimised through targeted training (Kabagenyi et al., 2014; Mushy et al., 2020) on the methods starting at a tender age and reorganisation of social services to the younger generations. Whereas modern family planning methods are delivered to youth in their teens at a stage where attitude formation may have moulded the teens, traditional family planning approaches can be delivered subtly at very tender ages, making them more acceptable to the youth. Therefore, there is a need to evaluate the efficacy and practicability of traditional family planning methods with the aim of sensitising society to document and disseminate traditional family planning practices.

3 Literature review

Various sources of information on family planning include radio, television, hospitals, friends /relatives, posters, communities, seminars, social media, religious organisations, and spouses, among others (Chukwuji et al., 2018). Msovela et al. (2016) conducted a study on access to information on family planning and methods of contraception. The study established two main categories of sources of family planning information. Nearly half of the population (45.7%) obtained information on family planning from their spouses, while the remaining half received it through other sources. A similar study that targeted young women aged 15 to 49 established that knowledge of family planning methods is universal and that most women use any method of family planning from trusted sources, including media, friends, and clinic providers (Alege et al., 2016). These studies reveal that youths get family planning information from various sources whose authenticity is judged by public opinion. However, the authenticity of family planning from friends cannot be guaranteed. Social workers and elderly relatives can be considered more authentic based on training and experience. The methods of disseminating family planning knowledge depend on the source of the information.

Family planning has numerous benefits and a few demerits (Senderowicz, 2020). In the Kipsigis community, couples are required to agree on the spacing period between the following conceptions. This entailed a discussion between the couples and amicable approaches to achieving the spacing, including accepting co-wives were arrived at. The community values family planning methods (Guure et al., 2019; World Health Organization, 2017). In modern approaches, the use of family planning is associated with fear of infertility (Sedlander et al., 2022) among youth and possible rejection in the community, a situation which is not documented as having been prevalent with traditional practices.

Various factors associated with the unmet need for family planning have been identified. They include fear of side effects of using contraceptives, limited choice and access to family planning methods, age of women, number of living children, household's income, women's religion and place of residence, women's employment status, husband's education, poor quality of family planning services, mass media and religious or cultural constraints (Asif & Pervaiz, 2019). Men do not encourage the use of family planning methods among their wives. Some women may also link side effects and health risks experienced by other women using family planning methods, hence limiting them from using the required method of contraception (Sinai et al., 2020).

Modern contraception is the most preferred option in contemporary society. It includes injectables, sterilisation, subdermal implants, intrauterine devices and systems, oral contraceptives, emergency contraceptive pills, condoms, vaginal rings, patches, sponges, spermicidal agents, diaphragm and cervical caps (Hubacher & Trussell, 2015). Many people are not willing to use contraception due to cultural and religious and fear of adverse side effects (Adinlewa, 2022). Modern contraceptives are considered an important public health intervention in the community (Beson et al., 2018).

In sub-Saharan Africa, cultural, social, and religious norms have been identified as the main factors to influence decision-making on the use of modern contraceptives among women (Adde et al., 2022). Some barriers, like misconceptions and harmful myths about the use of modern contraceptives, affect the utilisation among individuals in society (Eram, 2017). Liu and Raftery (2020) identified other reasons that hinder the decision to use modern contraceptives. These reasons include cultural, economic, and geographical disparities that affect the promotion and use of family planning. Fenta and Gebremichael (2021) on their study showed that ten per cent (10 %) of women in urban settings are using modern contraception more than those living in rural areas. The low uptake of modern contraceptives in rural areas is caused by inadequate training of professionals in the public health sector on how to handle all issues concerning contraceptives. Men generally carry more weight in family planning decisions (Bado et al., 2020).

Most programmes on family planning support the modern use of family planning methods, leaving behind the use of traditional methods of family planning. Couples are only encouraged to use traditional family planning methods when there is a failure in modern family planning methods. When there are such changes, investigations are required to determine whether the gain in using traditional family planning methods has come at the expense of modern family planning methods (Almalik et al., 2018). Modern methods of contraceptives are mainly used because people are knowledgeable about the use of such methods. Traditional family planning methods are less utilised than modern methods (Rossier & Corker, 2017).

Gebreselassie et al. (2017) found that traditional family planning methods are positively associated with education and the place of residence (rural and urban) in some countries.

In Kenya, older women prefer traditional family planning methods, while younger women mostly prefer modern methods of family planning (Beguy & Mberu, 2015). Utilisation of modern contraceptive methods is low due to the cost. Most people are, therefore, using traditional family planning methods as an alternative (Rossier & Corker, 2017). Some women also prefer traditional family planning methods to modern ones due to traditions and religious beliefs (Staveteig, 2017).

4 Methodology

The population of the study was the Kipsigis community. The sample for the study was derived based on knowledge of the extent of traditional family planning in the different regions and holders of the knowledge. The study used a multi-site case design, which was both qualitative and quantitative, to facilitate in-depth investigation and comparison, respectively, of the themes from the three sub-counties of Kericho County, namely, Ainamoi, Belgut and Sigowet. A sample of 90 participants comprising equal distribution of females and males above the age of 60 years was made. The age limit was to restrict data collection to persons who have lived in both traditional and modern societies. Participants were identified through snowballing until a saturation point was reached. Three village elders were interviewed in each sub-county, and questionnaires were administered to 90 knowledgeable older women and men in the three sub-counties. Qualitative data was analysed using content analysis, while quantitative data was analysed using Excel.

5 Findings and discussion

This section discusses the results based on formulated research objectives and questions.

5.1 Attributes of the respondents

Five attributes of the respondents considered essential to this study were age, education level, religion, gender, and marital status. Respondents to the study were in the age brackets of 60-80 (78%) and 81 and above (22%). The language of communication was Kipsigis, which the researcher was fluent in, and therefore, translation from the data collection tool and responses to transcription was well managed (Banerjee et al., 2020). Many respondents were in the lower age category of 60-80 due to the community's rarity of significantly older people. Indeed, getting the very old, above 81 years, was time-consuming, and listening to their responses required patience because they spoke in low tones and at a slow pace.

The majority of the respondents, 67%, had no formal education. One of the participants, B5, who was among the 22% with primary level education as the highest achievement, explained that:

...education was controlled by missionaries and provided at their specific centres, which were far away. Pupils had to travel through forests to go and stay with their relatives, who lived close to missionary centres like Chebowet, where I attended primary education. At the beginning of learning in class one, rules and processes were new and strict. This caused many of my friends to abandon learning altogether and return to their villages to take care of herds of animals. In my generation, therefore, very few peers attended school.

The study had planned to secure the participation of both females and males in equal distribution by relying on referrals from initial contacts. It, however, became evident that it was easier to reach females than males. Females were mainly at home or on scores within the home vicinity as opposed to the males, who had varied errands within and outside the village. The second obstacle was the theme of discussion and gender of the researcher. The females

were more open in discussing family planning with the researcher than the males, who tended to be reserved. Therefore, the participant distribution in the study was 67% female, with males constituting 33%. The views of both genders supplemented and corroborated the views from the different sub-counties.

The distribution of respondents by religion reflects the dominance of Christianity in Kericho County from the colonial days. All the respondents ascribed to the Christian faith. This is not unusual, as missionaries in Kericho used schools as recruitment bait for members. Muslims' interaction with Kenyans was first experienced along the Railways of which Nandi was part, as opposed to the Kipsigis, whose land was not crisscrossed by the railways.

The majority, 61%, of the study participants were widows/widowers or divorcees who currently lived alone but had experience in marriage and, therefore, to some extent, practised some form of family planning. The remaining 39% were living in marriage and were practising family planning. The approaches to family planning were varied, as shown in Table 1.

Table 1: Knowledge of specific traditional family planning methods

Knowledge of FP methods	Frequency	% Respondent's	Rank
Couple separation	45	50	1
Periodic abstinence	25	28	2
Clitoridectomy	13	14	3
Withdrawal	7	8	4
Use of condoms, injectables and traditional family-planning herbal medicine	0	0	5
Total	90	100	

Participants explained that the family planning decision is sometimes mutual but may also be unilateral by either partner (Underwood et al., 2020). According to B2, B4 and B9, the decision is made following discussions among the couples or reflection of one of the partners.

B2 volunteered to pace children because:

I observed that in the village, most men were polygamous, and some who were open kept another partner in some region far away. I, therefore, decided to practice periodic abstinence to avoid a situation where my spouse could leave me with a large family as a single mother or a cowife to another woman who may be more demanding and keep our husband too busy to take care of my children.

Some women, however, grew up in families where Christian beliefs were not strong, so their parents brought them up with complete Kipsigis tradition, including a rite of passage. This is exemplified in the admission of B7, an elderly grandmother who stated:

Spacing of children was not an issue in our generation. The majority of girls and women did not have a strong urge towards men and even their husbands. At the age of 13, I was taken to some place far from home to live with an old grandmother. I found myself in a group of peers who were to be taken through a rite of passage. My clitoris was severed, and we stayed in the grandmother's home for some three months to heal. Clitoridectomy extensively reduced my libido, and I could play with boys without looking at them as people of the opposite gender. When I got married, it was my husband who would force me into the female-male union, and this was discomforting to him, so he ended up bringing more wives but getting the same coldness from us.... We were of the same generation, so most of us women had gone through the same rights. With low libido, the spacing of children became natural. I would psych myself to be close to my husband only when I felt like getting another baby.

5.2 Sources of indigenous knowledge on traditional family planning practices

The respondents were asked to state their preferred sources of indigenous knowledge on traditional family planning practices. Their responses are five primary sources of indigenous knowledge, as shown in Table 2.

Table 2: Sources of indigenous knowledge on traditional family planning practices

Sources of information	Frequency	Respondent's response in %	Rank
Friends/ relatives	40	44	1
Spouses	20	22	2
Initiation venues	15	17	3
Social media	10	11	4
Hospitals	5	6	5
Total	90	100	

The most cited source of indigenous knowledge on family planning is friends and relatives, with relatives being more than friends. Relatives who pass down the knowledge are grandparents, aunts, and uncles. It was revealed that children were free with their grandparents, who often referred to them fondly with language that befits boys and girls.

The second most common source is the spouse. In many cases, the man was always the older partner, and with age, more knowledge was accumulated. Men's interactions also go beyond the immediate families. Different age groups come together when herding cattle (Wadende et al., 2022), which gives them opportunities to discuss life experiences and share information passed on to them by parents and grandparents. Since there is no structured approach to passing on indigenous knowledge in family planning, some children get more details than others depending on the interaction space with the elders.

Another important source of indigenous knowledge on family planning is initiation venues. Both male and female youth are taken through initiation. The practices were more prevalent in the olden days. At initiation, men have their foreskin trimmed while girls undergo clitoridectomy by traditional practitioners (Onyango et al., 2023). The initiation process requires the boys and girls to be accommodated in some camps where they are taught about responsibilities and family life.

These findings were corroborated in interview sessions where the elders explained how the different sources transfer knowledge to the younger generation. For the interview, the source of indigenous knowledge on traditional family planning practices was derived from the question that sought to establish the respondents' knowledge of traditional family planning practices. The responses were as follows:

Village elders A1 and A3 concurred that:

Elder A2 explained that:

Most community members learn about traditional family planning practices from parents and friends. Older women typically invite young women to a particular venue where they are taught many lessons concerning traditional family planning practices. Each woman is given a chance to ask questions for clarification. Newly married people are taught family planning practices and are encouraged to follow them strictly to avoid being admonished in future similar gatherings. Girls and boys were also taught traditional family planning towards the end of their rite of passage sessions.

Elder A2 was excited to inform that:

Even we elderly men share indigenous knowledge on family planning out of fun when sharing drinks and some other games. In these sessions, we bid one another on the depth of knowledge on family planning and compare the efficacy of the methods we have individually adopted. Our expertise can also be gleaned from how our lineages perform in child spacing and the general health of the family we are proud of.

SharingEvidently, sharing indigenous family planning practices is a lifelong phenomenon (Yembuu, 2021). The elderly remind themselves of the details when they transfer to the girls and boys and when they ‘recite’ them during informal fond times.

5.3 Methods of disseminating indigenous knowledge on family planning

Respondents were asked to state the methods of disseminating indigenous knowledge on family planning. Their respondents identified multiple methods of disseminating indigenous knowledge on family planning, including rite of passage, discussion with elders, folk media, community discussions, and mass media, which are distributed in Table 3.

Table 3: Methods of disseminating indigenous knowledge on family planning.

Methods of dissemination	Frequency	Respondent’s response in %	Rank
Rite of passage	40	44	1
Discussion with elders	27	30	2
Folks media	10	11	3
Community education	7	8	4
Mass media	6	7	5
Totals	90	100	

The most frequently cited method of passing indigenous knowledge on family planning is teaching during rite of passage functions. During rites of passage, girls and boys are taken care of by elders who have much authority. The girls and boys take the teaching very seriously as the process defines their future in terms of responsibilities.

The second most frequent method of dissemination is discussion with elders. This occurs in varied situations, for example, when a father is warming his body around the fireplace with his sons or when a mother prepares meals in a kitchen with her young adult daughters. The elder usually initiates discussion based on his or her observation of the young adults.

Other methods of disseminating indigenous knowledge on family planning are folk media (Rono, 2022) and mass media. Traditionally, Kipsigis celebrate seasons such as the return of young adults from initiation. The celebrations are conducted at the community level, where members of the community are invited to an evening bonfire around which the youth and adults perform dances with traditional music and riddles.

5.4 Benefits of traditional family planning practices

Respondents were asked to identify the benefits they have experienced from traditional family planning. Four benefits were commonly cited, including child spacing, reduced unwanted pregnancies, improved quality of life and postponed pregnancy, as shown in Table 4.

Table 4: Benefits of traditional family planning practices

Benefits	Frequency of Respondents	Respondent's percentage
Child spacing	40	44
Reduce unwanted pregnancies	30	33
Improve quality of lives	5	6
Postponed pregnancies	15	17
Total	90	100

From Table 4, child spacing was the most cited benefit. The most common age gap among siblings is two years. The second commonly cited benefit is reducing unwanted pregnancies. The least cited benefit of the traditional family planning method is improved quality of life. Quality of life is, however, an outcome of family planning in general. The quality of life is general to the family and specific to the mother and the child.

5.5 Demerits of traditional family planning practices

Respondents were asked to identify demerits associated with traditional family planning methods. The main demerits identified were lack of support by men, fear of stigma in the community, inadequate knowledge of suitable methods and religious and cultural constraints.

Table 5: Demerits of traditional family planning practices

Demerits	Frequency of respondents	Respondent's percentage
Men do not support the issue of FP	40	44
Fear of stigma in the community	25	28
Lack of knowledge of FP methods	15	17
Religious or cultural constraints	10	11
Total	90	100

The majority of the respondents, 44%, who were females, cited their husbands' lack of cooperation towards family planning. The observation of these respondents was that, whereas a husband would not be categorically opposed to family planning, this can be deduced from their actions of marrying multiple wives. The second common demerit is fear of stigma in the community; 25% explained that there is no universal perspective on family planning. Women who take too long to give birth are seen as retrogressive or are often thought of as being infertile. Other demerits identified were a lack of knowledge of traditional family planning practices, 17%, and religious or cultural constraints, 11%.

5.6 Level of adoption of Western methods of family planning among the Kipsigis community

The respondents were asked to rate the observed level of adoption of modern family planning practices based on their knowledge of the community and reports at Chiefs' meetings. The rating is displayed in Table 6.

Table 6 Rating Observed Level of Adoption of modern methods of family planning.

Adoption level	Frequency of respondents	Percentage of respondents
Good	8	9
Average	22	24
Fair	60	67
Total	90	100.0

The observed level of adoption of modern (Western) family planning methods is below average, 67%, but fair in the sense that the practices are acceptable to a section of the Kipsigis community. Rating as average, the level of adoption of modern family planning practices was low among 24% of respondents. The proportion that claimed the level of adoption is good was 9%. The predominantly low level of adoption is in part due to already available traditional practices which young adults are being taught during initiation ceremonies. Secondly, there is a notional belief within the community that modern family planning practices tend to have undesired effects.

5.7 Perception of elders on the differential efficacy between traditional family planning and Western methods

The study sought to establish the reasons behind the differences in the level of use of traditional approaches and the adoption of modern approaches to family planning. Questions were posed to the respondents, and the ratings provided were strongly disagree 1, disagree 2, agree 3, and strongly agree 4. The responses received were tabulated in matrix form, as in Table 7.

Table 7: Perception of elders on differential efficacy of traditional and modern FP methods

S/N	Perception of elders	Strongly Agree	Agree	Disagree	Strongly disagree
1	Couples are encouraged to use traditional family planning methods as compared to Western methods	50 56%	20 22%	15 17%	5 6%
2	Traditional family planning methods are mostly preferred due to traditions and religious beliefs	55 61%	15 17%	10 11%	10 11%
3	Traditional family planning methods are easy to adopt as compared to Western methods	45 50%	25 28%	5 6%	15 17%
4	Traditional family planning methods like withdrawal are mostly preferred by many couples because there are no side effects	50 56%	20 22%	10 11%	10 11%
5	The effectiveness of traditional and Western methods of family planning methods are not the same	30 33%	30 33%	20 22%	10 11%
6	Elderly couples prefer traditional methods of family planning as compared to younger generation	40 44%	20 22%	20 22%	10 11%
7	Traditional family planning method is cost-effective as compared to Western methods of family planning	35 39%	15 17%	30 33%	10 11%
	Average	48%	23%	17%	11%

The findings revealed that 56% of the respondents strongly agree that most elders encourage couples to use traditional family planning methods compared to Western methods. Most couples, 61%, highly agreed that elders prefer traditional family planning due to traditions and religious beliefs. Specific traditional methods of family planning, such as withdrawal, were highly preferred by couples 56%. In comparison, the proportion of couples who either

strongly or agreed that there was a difference in efficacy of traditional and modern approaches to family planning was high at 66%.

On average, traditional approaches to family planning were strongly agreeable, 48% to most respondents. Indeed, the overwhelming majority, 71%, highly agreed or agreed to traditional approaches. The study revealed that elders favoured traditional approaches to family planning (Harkness & Super, 1987) on several fronts. By default, the younger adults are exposed to traditional family planning during initiation, teaching by the elderly in society and the impression of the belief that they are easier to use and safer for health. In addition, the traditional approaches are friendlier to the pocket as one train on them without taking a ride, and there are no materials to be purchased to adopt them. This contradicts modern family planning practices, which have remained low (Ahinkorah, 2020).

6 Research implications

Research on traditional family planning practices can contribute to understanding reproductive health issues, focusing on biological, cultural, and social factors among individuals in the community. Many traditional family planning practices are firmly established through cultural beliefs and practices. In this study, culture plays a vital role in promoting reproductive health. Empowering community members concerning various options for family planning methods and their respective efficacy rates will help promote safe and effective family planning. This research can highlight how traditional family planning practices can impact men and women differently and inform efforts to promote gender equity in family planning decision-making. Research findings will help in finding research gaps in knowledge involving traditional family planning practices, which will guide future research.

7 Conclusion

Traditional family planning methods are widely known among Kipsigis communities. The indigenous knowledge is shared by community members from the time they become young adults. The one to two years the young adults spent in orientation at initiation was long enough for one to get the skills. Members of the community are exposed to the traditional family planning methods from many sources in everyday life, and the teaching comes from respected older people in the community. As a result, the belief in the efficacy of traditional family planning methods is stronger than that of modern approaches, which members of society perceive as having some side effects, and access to information about modern methods requires visits to certain centres, which is time-consuming and has certain cost implications. Therefore, the processes disseminating indigenous knowledge on family planning should be improved, and elders should take responsibility for ensuring that knowledge sharing is sustained.

8 Recommendations

This section presents the recommendations of the research study. The recommendations include.

- Carrying out a comprehensive assessment of the efficacy of traditional family planning practices among the Kipsigis community should contribute to evidence-based decision-making in reproductive health.
- The research findings should help measure the effectiveness of traditional family planning methods, including conception success and failure rates, pregnancy rates, and contraceptive success and failure.

- There should be an evaluation of user acceptance.
- Comparing the efficacy of traditional methods with modern contraceptive methods should provide valuable insights into the relative effectiveness and acceptability of different approaches to family planning.

References

- Adde, K. S., Ameyaw, E. K., Mottey, B. E., Akpeke, M., Amoah, R. M., Sulemana, N., & Dickson, K. S. (2022). Health decision-making capacity and modern contraceptive utilisation among sexually active women: Evidence from the 2014–2015 Chad Demographic and Health Survey. *Contraception and Reproductive Medicine*, 7(1), 1–9.
- Adinlewa, T. (2022). Routing for alternative paradigms in campaigning for the adoption of modern contraceptive methods of family planning in Nigeria. *Jozac Academic Voice*, 4-8.
- Ahinkorah, B. O. (2020). Predictors of modern contraceptive use among adolescent girls and young women in sub-Saharan Africa: a mixed-effects multilevel analysis of data from 29 demographic and health surveys. *Contraception and reproductive medicine*, 5, 1-12.
- Ahmed, S., Chase, L. E., Wagnild, J., Akhter, N., Sturridge, S., Clarke, A., ... & Hampshire, K. (2022). Community health workers and health equity in low-and middle-income countries: systematic review and recommendations for policy and practice. *International Journal for Equity in Health*, 21(1), 49.
- Alege, S. G., Matovu, J. K., Ssensalire, S., & Nabiwemba, E. (2016). Knowledge, sources and use of family planning methods among women aged 15-49 years in Uganda: a cross-sectional study. *Pan African Medical Journal*, 24(1).
- Aliyu, A. A. (2018). Family planning services in Africa: The successes and challenges. *Family Planning*, p. 69.
- Almalik, M., Mosleh, S., & Almasarweh, I. (2018). Are users of modern and traditional contraceptive methods in Jordan different? *East Mediterr Health J*, 24(4), 377-84.
- Asif, M. F., & Pervaiz, Z. (2019). Socio-demographic determinants of unmet need for family planning among married women in Pakistan. *BMC Public Health*, 19(1), 1–8.
- Bado, A. R., Badolo, H., & Zoma, L. R. (2020). Use of modern contraceptive methods in Burkina Faso: What are the obstacles to male involvement in improving indicators in the centre-east and centre-north regions? *Open Access Journal of Contraception*, 147-156.
- Banerjee, J., Jain, U., Khobragade, P., Weerman, B., Hu, P., Chien, S., ... & Rajguru, C. (2020). Methodological considerations in designing and implementing the harmonised diagnostic assessment of dementia for longitudinal ageing study in India (LASI-DAD). *Biodemography and social biology*, 65(3), 189-213.
- Beguy, D., & Mberu, B. (2015). Patterns of fertility preferences and contraceptive behaviour over time: change and continuities among the urban poor in Nairobi, Kenya. *Culture, health & sexuality*, 17(9), 1074-1089.
- Beson, P., Appiah, R., & Adomah-Afari, A. (2018). Modern contraceptive use among reproductive-aged women in Ghana: prevalence, predictors, and policy implications. *BMC women's health*, 18(1), 1-8.
- Chepkemoi, M. (2021). The Africa Inland Mission and the Education for Girls among the Kipsigis of the Kericho and Bomet Counties, Kenya, 1900-1945. *Missionary Education: Historical Approaches and Global Perspectives*, 1, 255.
- Cherono, E. (2020). Change and continuity in riddles and riddle performance among the Kipsigis of Kericho County, Kenya (Doctoral dissertation, Egerton University).

- Chukwuji, C. N., Tsafe, A. G., Sayudi, S., Yusuf, Z., & Zakariya, J. (2018). Awareness, access and utilisation of family planning information in Zamfara State, Nigeria. *Library Philosophy and Practice (e-journal)*, 771.
- Eram, U. (2017). Myths and beliefs about contraceptive methods: a review article. *Saudi J Med Pharm Sci*, 3(1), 9–12.
- Fenta, S. M., & Gebremichael, S. G. (2021). Predictors of modern contraceptive usage among sexually active rural women in Ethiopia: A multilevel analysis. *Archives of Public Health*, 79(1), 1-10.
- Gebreselassie, T., Bietsch, K., Staveteig, S., & Pullum, T. W. (2017). Trends, determinants, and dynamics of traditional contraceptive method use. ICF.
- Guure, C., Maya, E. T., Dery, S., da-Costa Vrom, B., Alotaibi, R. M., Rezk, H. R., & Yawson, A. (2019). Factors influencing the unmet need for family planning among Ghanaian married/union women: a multinomial mixed effects logistic regression modelling approach. *Archives of Public Health*, pp. 77, 1–12.
- Hajizadeh, M., & Nghiem, S. (2020). Does unwanted pregnancy lead to adverse health and health-care utilisation for mother and child? Evidence from low-and middle-income countries. *International journal of public health*, 65, 457-468.
- Harkness, S., & Super, C. M. (1987). Fertility change, child survival, and child development: Observations on a rural Kenyan community. In *Child survival: Anthropological perspectives on the treatment and maltreatment of children* (pp. 59–70). Dordrecht: Springer Netherlands.
- Hubacher, D., & Trussell, J. (2015). A definition of modern contraceptive methods. *Contraception*, 92(5), 420-421.
- Kabagenyi, A., Jennings, L., Reid, A., Nalwadda, G., Ntozi, J., & Atuyambe, L. (2014). Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive health*, 11(1), 1–9.
- Liu, D. H., & Raftery, A. E. (2020). How do education and family planning accelerate fertility decline? *Population and Development Review*, 46(3), 409–441.
- Malarcher, S., Spieler, J., Fabic, M. S., Jordan, S., Starbird, E. H., & Kenon, C. (2016). Fertility awareness methods: distinctive modern contraceptives. *Global Health: Science and Practice*, 4(1), 13-15.
- Msovela, J., Tengia-Kessy, A., & Mubyazi, G. M. (2016). Access to family planning information and contraception methods use among Tanzanian men: a cross-sectional study in Kibaha District. *Journal of Epidemiology and Preventive Medicine*, 2(2).
- Mushy, S. E., Tarimo, E. A., Massae, A. F., & Horiuchi, S. (2020). Barriers to adopting modern family planning methods among female youth of Temeke District in Dar es Salaam, Tanzania: A qualitative study. *Sexual & Reproductive Healthcare*, 24, 100499.
- Onyango, J., Ochillo, M., Omanga, E., Spala, O., Wango, G. N., Lwanya, E., & Agot, K. (2023). Early infant male circumcision: Potential for changing adverse gender norms associated with traditional male circumcision among circumcising communities in Kenya. *African Journal of AIDS Research*, 22(2), 136-144.
- Owoyemi, J. O., Ifatimehin, O. O., Egwuaba, E., & Obaka, P. I. (2020). Accessibility and Utilization of Family Planning Services Among Married Couples in Kogi State, North Central Nigeria. *Cent Afr J Public Health*, 6, 110-21.
- Pham, B. N., Whittaker, M., Okely, A. D., & Pomat, W. (2020). Measuring unmet need for contraception among women in rural areas of Papua New Guinea. *Sexual and reproductive health matters*, 28(2), 1848004.
- Quereishi, M. J., Mathew, A. K., & Sinha, A. (2017). Knowledge, attitude and practice of family planning methods among the rural females of Bagbahara block Mahasamund district in Chhattishgarh State, India. *Glob J Med Public Heal*, 6(2), 1-7.

- Rabiu, A. (2018). The role of traditional contraceptive methods in family planning among women attending primary health care centres in Kano. *Annals of African medicine*, 17(4), 189.
- Rono, C. K. E. (2022). Evolutions, Transformations and Trends in Kalenjin Traditional Songs. *Journal of African Cultural Studies*, 34(4), 422-437.
- Rossier, C., & Corker, J. (2017). Contemporary use of traditional contraception in sub-Saharan Africa. *Population and Development Review*, 43(Suppl 1), p. 192.
- Sedlander, E., Yilma, H., Emaway, D., & Rimal, R. N. (2022). If fear of infertility restricts contraception use, what do we know about this fear? An examination in rural Ethiopia. *Reproductive health*, 19(1), 1–10.
- Senderowicz, L. (2020). Contraceptive autonomy: conceptions and measurement of a novel family planning indicator. *Studies in family planning*, 51(2), 161-176.
- Sinai, I., Omoluabi, E., Jimoh, A., & Jurczynska, K. (2020). Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions. *Culture, health & sexuality*, 22(11), 1253-1268.
- Staveteig, S. (2017). Fear, opposition, ambivalence, and omission: results from a follow-up study on unmet need for family planning in Ghana. *PloS one*, 12(7), e0182076.
- Underwood, C. R., Dayton, L. I., & Hendrickson, Z. M. (2020). Concordance, communication, and shared decision-making about family planning among couples in Nepal: A qualitative and quantitative investigation. *Journal of Social and Personal Relationships*, 37(2), 357–376.
- Wadende, P. A., Lasser, J., & Fite, K. (2022). The Kenyan Parent in Changing Times: An Update. In *Parenting Across Cultures: Childrearing, Motherhood and Fatherhood in Non-Western Cultures* (pp. 1-11). Cham: Springer International Publishing.
- World Health Organization (2017). Family Planning/Contraception. Available from: <http://www.who.int/mediacentre/factsheets/fs351/en/>
- World Health Organization (2018). Fact Sheet- Family Planning. Retrieved from Family Planning / Contraception: <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>.
- Yemba, B. (2021). Intergenerational learning of traditional knowledge through informal education: the Mongolian context. *International Journal of Lifelong Education*, 40(4), 339–358.