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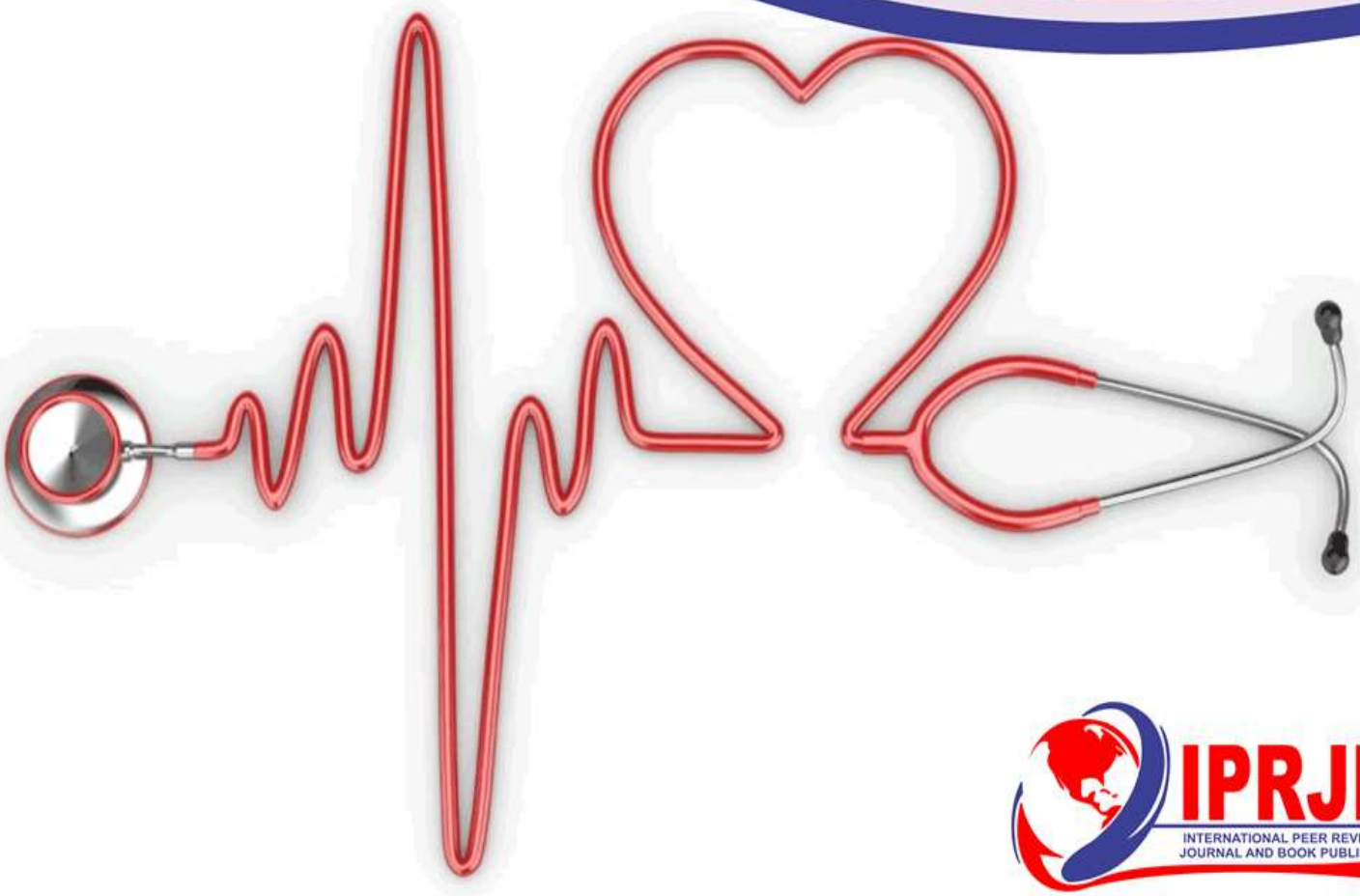

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Socio-Demographic Factors Influencing the Utilization of Modern Contraceptives among Women in West Pokot County, Kenya

[1*]Leonard Ayora Onderi
Department of Environmental Health and Disease Control, Jomo Kenyatta University of Agriculture and Technology, Kenya
*Corresponding Author's Email: ayoxlen@gmail.com

Betsy Cheriro Rono PhD
Department of Environmental Health and Disease Control, Jomo Kenyatta University of Agriculture and Technology, Kenya

Mokaya Daniel PhD
Department of Environmental Health and Disease Control, Jomo Kenyatta University of Agriculture and Technology, Kenya

[4]Dr. Mwiti Peter Kirimi PhD
Research Training and Innovation, Kenyatta National Hospital, Kenya

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Abstract

Purpose: The purpose of the study was to determine the socio-demographic factors associated with utilization of modern contraceptives among adult women of reproductive age (18-49 years) in West Pokot County, Kenya.

Methodology: The study adopted a cross-sectional household survey and targeted 42,015 households in Pokot West sub–county. The study targeted one adult women of reproductive age (18-49 years) per household with a sample size of 396 adult women. The study utilized a questionnaire during collection of data. The study analyzed data descriptively and inferentially and the output is presented in tabular and pictographic formats.

Findings: The findings indicated that utilization of modern contraceptives stands at 24.5% among women aged 18 years to 49 years.The demographic characteristics associated with the utilization of modern contraceptives among women are Age (OR = 4.8248, t = 4.15, $p < 0.05$), Age is associated with increased likelyhood of utilizing modern contraceptives, while education levels (OR = 0.5055, t = -2.05, $p < 0.05$), occupation (OR = 0.5965, t = -3.50, $p < 0.05$) and the parity levels (OR = 0.5744, t = -2.72, $p < 0.05$) are associated with decreased likelihood of utilization of modern contraceptive. The income levels (OR = 0.8744, t = -0.40, $p > 0.05$) and marital status (OR = 0.9844, t = --0.03, $p < 0.05$), are not significantly associated with utilization of modern contraceptive.

Unique Contribution to Theory Practice and Policy: This study contribute to the body of knowledge that social demographic factors such as age, education lever, occupation, economic status are associated with utilization of modern contraceptives. This low lever of utilization of modern contraceptives noted in this study calls for targeted strategies such as health education to this risk population by health care workers and ministry of health dealing with reproductive services to improve modern contraceptive use among adult women of reproductive age. There is need to conduct further research on other counties combining social demographic factors and other social health care determinants associated with of use of health care services such as modern contraceptive use among women.

Keywords: *Modern Contraceptive Methods, Utilization*

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INTRODUCTION

Modern contraceptives are not to be confused with family planning services as family planning services are a comprehensive package of services; basic fertility, pre-conception health, pregnancy testing and counselling, contraceptives, and management of sexually transmitted diseases (Gavin et al., 2014). Contraceptive utilization involves the deliberate and intentional prevention of conception through physiological, medical, chemical or biological processes and practices and is linked to the quality of family planning and reproductive health services.**ref** Modern contraceptive methods are either; permanent (male and female sterilization) or long-acting reversible contraceptives (intrauterine devices and subdermal implants) or short-acting reversible contraceptives (oral contraceptive pills, condoms (male and female), injectables, emergency pills, patches, diaphragms and cervical caps, spermicidal agents in form of gels, foams, creams, suppositories, vaginal rings and sponge) (Hubacher & Trussell, 2015).

Contraceptive utilization serves several functions; improves maternal and child health, empowers women, and advances economic development through limiting, spacing or delaying births (Kassa et al., 2018). Contraceptive utilization offers multiple benefits such as unintended pregnancies, lowering the incidence of abortions, disability and death related to pregnancy and childbirth complications in addition to improving maternal health, reducing child mortality and combating HIV/AIDS. Further, lengthens the inter-pregnancy interval, and/or delays childbearing age (Sedekia et al., 2017) and is key to reducing child and maternal morbidity and mortality and related social costs of adolescent pregnancies (de Vargas et al., 2019).

The demand for modern contraceptives stands at an estimated 225 million women in developing countries while at the global level, 966 million women of reproductive age are utilizing some form of contraception. Modern contraceptives are utilized by an estimated 874 million women (aged 15-49 years), while 92 million use the traditional contraceptive method. Whereas the numbers have doubled over the years, there are still 164 million women who are not utilizing any contraceptive method (United Nations, 2022). In sub–Saharan Africa, young sexually active unmarried women adopt modern contraceptives to delay childbirth or avoid pregnancies (Dennis et al., 2017). According to the Family Planning 2020 initiative, the prevalence of modern contraceptives among married women stands at 45.7 % against a demand of 67.9% (Cahill et al., 2018). Modern contraceptive utilization averages 56.1% but ranges from 55.2% in developing countries to 61.3% in developed countries. Africa ranks the lowest at 22.4%, followed by Oceania countries at 56.7%, Europe at 58.7 %, Asian Countries at 60.2%, Latin America and the Caribbean at 67.0% and North America (USA and Canada) at 72.9% (Buhling et al., 2014). In Africa; Western Africa (14.1%) ranks lowest, Central Africa (18.6%), Eastern Africa (28.4%), Northern Africa (50.4%) and Southern Africa (58.4 %) ranks highest (United Nations, 2022). Sub-Saharan Africa remains lowest in other regions as the family planning services are 56 per cent satisfactory but it also increased faster than in any other region (United Nations, 2022).In developing economies, 23% of women are utilizing LARC (IUDs & implants) and this is quite high in populous countries such as China, Egypt and Vietnam (Tulu & Gebremariam, 2018). While the global rates of LARC utilization (IUCD and implant) stand at 13.9%, in the African context, only 4.6% and 1.0% utilize IUCD and implants respectively. In comparison, the utilization of short-acting reversible contraceptives (SARC) is significantly higher. For instance, In Ethiopia, only 0.5% and 3.4% utilised IUCD and implants respectively (Polisi et al., 2014).

The demographic and health surveys (DHS) in SSA are reporting a significant increase in LARC usage (Mariam et al., 2018). In Ethiopia, the most common form of LARC is implants (33%) and IUC devices (4.9%) (Gultie et al., 2016) while Kebede et al., (2020) reported the overall LARC prevalence of around 18.3%. In Kenya, DHS (2022) indicates that contraceptive utilization stands are 63 % for married women and 70% for sexually active unmarried women (15 – 49 years). Modern contraceptive utilization stands at 57% for married women and 59% for sexually active unmarried women while the most common modern contraceptive for married women includes injectables (20%), implants (19%), and contraceptive pills (8%), while sexually - active unmarried women rank male condoms (20%), followed by injectables (16%) and implants (11%) (KDHS, 2022).The utilization rates for modern contraceptives average 63% nationwide but are lowest in Mandera (1.8%), Wajir (2.8%), Marsabit (5.6%), West Pokot (23.2 %), Tana River (23.2%) Samburu (25.4%), Isiolo (28.7%), Turkana (30.7%) while the counties with highest utilization rates include Nyeri (70.5%), Kirinyaga (70.8%) and Embu (75.2%). Whereas modern contraceptive utilization has since increased steadily over time, from 32% in 2003 to 39% in 2008–09, 53% in 2014, and 57% in 2022, the DHS showed that the demand for contraceptives stands at 76% nationally, and the unmet demand averages about 14% for married women and 19% for sexually active unmarried women (KDHS, 2022).

Statement of the Problem

Contraceptive utilization offers multiple benefits such as unintended pregnancies, lowering the incidence of abortions, disability and death related to pregnancy and childbirth complications in addition to improving maternal health, reducing child mortality and combating HIV/AIDS. Globally 92 million women of reproductive age use the traditional contraceptive method, despite the numbers having been doubled over the years, there are still 164 million women who are not utilizing any contraceptive method (United Nations, 2022). In Kenya there is low utilization of modern Contraceptives by women aged 15 to 49 years old, which are compounded with challenges associated with socio demographic factors which is not well understood. In west Pokot communities are semi nomadic, and men are dominants in making decision discourage use o family planning methods.However, in Kenya West Pokot County has a 23.5% prevalence rate of modern contraceptive use among women of reproductive age, a figure that is way below the national average with an unmet need for family planning at 30% (KDHS, 2022). Social cultural factors such as myths and misconceptions, as well as the culture and religion of nomadic society such as West Pokot in Kenya, Men are key decision makers of whether their women will use modern contraceptives or not resulting to low utilization (Ochako et al.,2021).Women from West Pokot have to travel long distance to the health facilities to receive services.Therefore, due to these unmet gaps the researcher carried the study to determine the socio-demographic factors associated with accessibility and utilization of modern contraceptives among adult women of reproductive age (18-49 years) in West Pokot County, Kenya.

LITERATURE REVIEW

Contraceptive access and utilization in developing countries in SSA is constrained by several factors that include client-related, provider – related and even community factors (Kabalo, 2016) and cultural factors (Zegeye et al., 2021). These intrinsic factors include; the knowledge of modern contraceptives, income levels, affordability, religion, occupation and marital status (Tulu & Gebremariam, 2018). Other extrinsic factors include; limited choice of methods, limited access to services, fear or experience of side effects; cultural or religious affiliation;

poor quality of available services; users' and providers' bias; and gender-based barriers to accessing services (WHO, 2020). Other factors are ethnicity, media exposure, region, place of residence, community literacy level and community knowledge level of modern contraceptives (Zegeye et al., 2021). Being wealthy, more educated, employed, higher number of living children, being in a monogamous relationship, attending community conversations, and being visited by health workers at home strongly predicted the use of modern contraception. While living in rural areas, older age, being in a polygamous relationship, and witnessing one's own child's death were found to negatively influence modern contraceptive use.

A sub–Saharan African study observed modern contraceptive utilization is higher among younger, educated women, educated husbands and high social class. In particular, younger age, higher education level, high economic class use of contraceptives and spousal education level influence modern utilization (Polisi et al., 2014). Knowledge of contraceptives, previous experience of unwanted birth and abortion, having children of more than four, having a male child, the proximity of health facilities and spouse approval are some of the factors which facilitate the utilization of long-acting contraceptives (Polisi et al., 2014). Zegeye et al., (2021) examined the utilization of modern contraceptives in Senegal and identified two main factors; client – client-client-related factors and community–related factors. The community-related factors include ethnicity, media exposure, region, place of residence, community literacy level and community knowledge level of modern contraceptives. The utilization of LARC methods is influenced by cultural factors, obstetrics factors, spouse influence and other sociodemographic factors. Studies have shown that gender and/or relational factors impede the utilization of contraceptives as marital conflict is a barrier to contraceptive utilization. Similarly, partners' objection to LARC utilization, absence/limited male support/ shared decision, limited women's decision-making power and lack of discussion with partners were gender-related barriers to LARC utilization (Gebeyehu et al., 2018).

The IUC utilization is influenced by geographic differences, government policy and the HCP's educational level rather than by medical eligibility criteria (Buhling et al., 2014). Gultie et al., (2016) identified wealth index, high educational levels knowledge, attitude, no desire for more children and husband support as factors influencing contraceptive utilization. The findings by Zegeye et al., (2021) indicated that modern contraceptive use is associated with individual-level factors such as advanced age, higher educational level, husband's educational level, and having an ideal number of children. Mariam et al., (2018) observed that women`s education and knowledge about LARC are strongly associated with the utilization of LARC. Thus, overall LARC utilization increases with increasing knowledge of contraceptives and education levels of women and girls.

Kebede et al., (2020) observed that educational level was highly associated with attitudes towards the utilization of LARC. Improving the educational status of the mothers, advancing their knowledge and creating a positive attitude towards LARC. Wealth index, knowledge, desire for more children, husband support and educational status were significantly associated with the utilization of long-acting contraceptive methods such as implants and IUCD. Knowledge of contraceptives, previous experience of unwanted birth and abortion, having children more than four, having a male child, the proximity of health facilities and spouse approval are some of the factors which facilitate the utilization of LARC (Gultie et al., 2016).

Marital status and parity are important demographic characteristics determining women's reproductive health behaviors that mainly includes the uptake of modern contraception (de

Vargas Nunes Coll et al., 2019). While in West Pokot County, modern contraceptive use among married women and tradition religion was reported at only 13.3%, highlighting significant regional disparities (Pkemoi, 2018). There is gaps in utilization of modern contraceptives in West pokot as compared to other region.

Conceptual Framework

This conceptual framework demonstrate the association between social demographic characteristics and contraceptive utilization. This conceptual framework will utilize the socio-demographic factors associated with accessibility and utilization of modern contraceptives among adult women of reproductive age (18-49 years) in West Pokot County, Kenya.

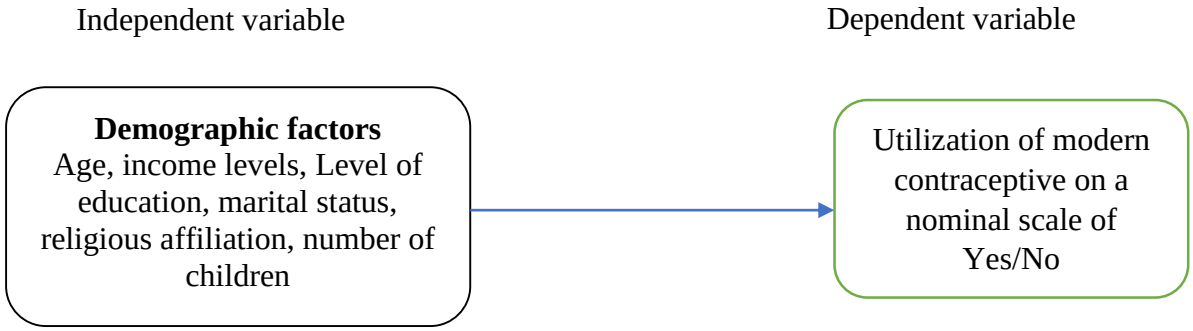

Figure 1: Conceptual framework

The conceptual framework demonstrate that individual characteristics that include the socio-demographics (age, education level, marital status, religious affiliation, number of children) and economic factors (occupation, income levels) that largely play a significant role in determining utilization of the contraceptives.

Theoretical Review

The Andersen model is a behavioral framework developed in the 1960s to analyze the various factors influencing a family's access to healthcare. (Andersen1995; Andersen and Newman1973). This model explains healthcare utilization through three key components: Population or individual socio-demographic characteristics, available healthcare resources that enable access, and the need for medical care. Over time, the Andersen model has been applied to study the use of different healthcare services. Research using this framework has improved insights into the key factors driving the utilization of specific healthcare facilities. Therefore, this study utilized this model to show interaction between social demographic factors and use of modern contraceptives.

Research Gaps

The research gap is that in Kenya there is low utilization of modern Contraceptives by women aged 15 to 49 years old, which are compounded with challenges associated with socio demographic factors such as parity,marital status and occupation are not well understood how they influence modern contraceptives use among semi-nomadic communities. However, in Kenya West Pokot County has a 23.5% prevalence rate of modern contraceptive use among women of reproductive age, a figure that is way below the national average with an unmet need for family planning at 30% (KDHS, 2022). It is therefore against this background that the study sought to determine the socio-demographic factors associated with utilization of modern

contraceptives among adult women of reproductive age (18-49 years) in West Pokot County, Kenya.

METHODOLOGY

Study Design

The study adopted a cross-sectional household survey at a designated point in time and was situated in Pokot West Sub- County, West Pokot County, Kenya. This study was carried out from March 2024 to October 2024

Study Population

The study population was women of reproductive age (18-49 years) in Pokot West Sub County. Adult woman of reproductive age (18-49 years) in West Pokot County who provided Informed consent were included while excluding women attending antenatal clinic.

Sample Size Determination

The field study approach on approximately 42,015 households in Pokot West Sub-County (KDHS, 2022) and randomly selected one adult woman of reproductive age (18-49 years) while excluding women attending antenatal clinic. The study computed the sample size using **Yamane, (1967)** formula;

$$n = \frac{N}{1 + N(e^2)}$$

Where *n* was the desired sample size, *N* was the entire population and *e* was the margin of error (which is 0.05). Thus, the sample size for the study was 396 adult women of childbearing age.

Sampling Procedures Details

The study utilized a cluster random sampling technique to target a sampled household in each ward as a cluster. The study adopted a questionnaire as the main research instrument which was which was validated by a pilot study on female students in Kapenguria Medical Training College upon which it was subjected to a Cronbach's Alpha reliability test. Field data was checked for consistency and completeness before being coded and entered in a statistical package for the social sciences (SPSS) and analysed through descriptive and inferential statistics.

Data Management and Analysis

Data preparation was carried out in several significant steps which included data editing, coding and entry utilizing a statistical package for the social sciences (SPSS). Data was analyzed through descriptive and inferential statistics. Descriptive statistics were used to describe social demographic characteristics of women participated in the study. Frequency distribution, percentage distribution, the proportion were used to analyze data. The study employed a bivariate statistical analysis to examine the relationship between social demographic factors and contraceptive utilization and utilized the chi-square distribution to examine the nature of the relationship between variables

Ethical Considerations

The researcher sought approval from Jomo-Kenyatta University of Agriculture and Technology (JKUAT) before seeking a permit from the National Council for Science Technology and Innovation (NACOSTI). During the data collection process, the researcher

with the aid of the research assistants sought voluntary participation with the individuals being informed of their right to choose to participate or not while providing a full disclosure to the research participants. The written informed consent was obtained from all participant. The data collected were treated with confidentiality with no identifying details being collected and the documents containing the data collected were kept under lock and key. The ethical approval Ref No: 113112 from the National Commission for Science, Technology & Innovation (NACOSTI), was obtained.

RESULTS

Socio-Demographic Characteristics of the Respondents

The age distribution showed that 48.0% were aged between 18 and 25 years 34.9 % were aged between 26 and 33 years, 15% were aged between 36 and 41 years and lastly, 2.2 % were aged between 42 and 49 years were Essential, the majority of the respondents (82.9%) were aged between 18 and 33 years. Concerning the education levels, 66.5% had a secondary school level, 32.4 % had a basic primary school level and only 1.1 % had a diploma-level education. Largely, nearly all the respondents had the minimum basic schooling level of education which mirrors the national distribution of a minimum basic secondary education level (KDHS, 2022). In terms of occupation status, 65.1 % were unemployed, 20.7 % were students, 7.4 % were formal – employed and 6.8 % were self–employed. The study noted that more than four-fifths (82.8%) had income levels below Kshs. 10,000 with 8.7 % earning between Kshs 10,001 to Kshs 20,000 and the remaining 8.5 % earning between Kshs 20,001 to Kshs 40,000. On the question of religious affiliation, 51.8 % were Christian Catholics, 14.4% were Christian protestants, 33.5 % were Christian Evangelicals and 0.3 % were associated with indigenous religion.

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Table 1: Socio-Demographic Characteristics of the Participants

Variables	n	%
Age in years		
18 to 25 Years	176	48.0
26 to 33 Years	128	34.9
36 to 41 Years	55	15.0
42 to 49 Years	8	2.2
Highest level of education		
Diploma Levels	4	1.1
Secondary Level	244	66.5
Primary Level	119	32.4
Employment status		
Un-employed	239	65.1
Self-employed	25	6.8
Students	76	20.7
Formally - employed	27	7.4
Approximate monthly income		
Below Kshs 10,000	304	82.8
Kshs 10,001 to Kshs 20,000	32	8.7
Kshs 20,001 to Kshs 30,000	26	7.1
Kshs 30,001 to Kshs 40,000	5	1.4
Marital Status		
Single	144	39.2
Married	221	60.2
Divorced	2	0.5
Religious Affiliation		
Indigenous Religion	1	0.3
Christian Catholic	190	51.8
Christian Protestant	53	14.4
Christian Evangelical	123	33.5
Location		
Rural	361	98.4
Urban	6	1.6
Children in the household		
None	103	28.1
One	24	6.5
2 - 4	200	54.5
5 or more	40	10.9

Utilization of Modern Contraceptive

The Figure 1 below indicates that 20.4 % of women aged18 years to 49 years have used contraceptives over the last three months while 24.5% are currently using a contraceptive.

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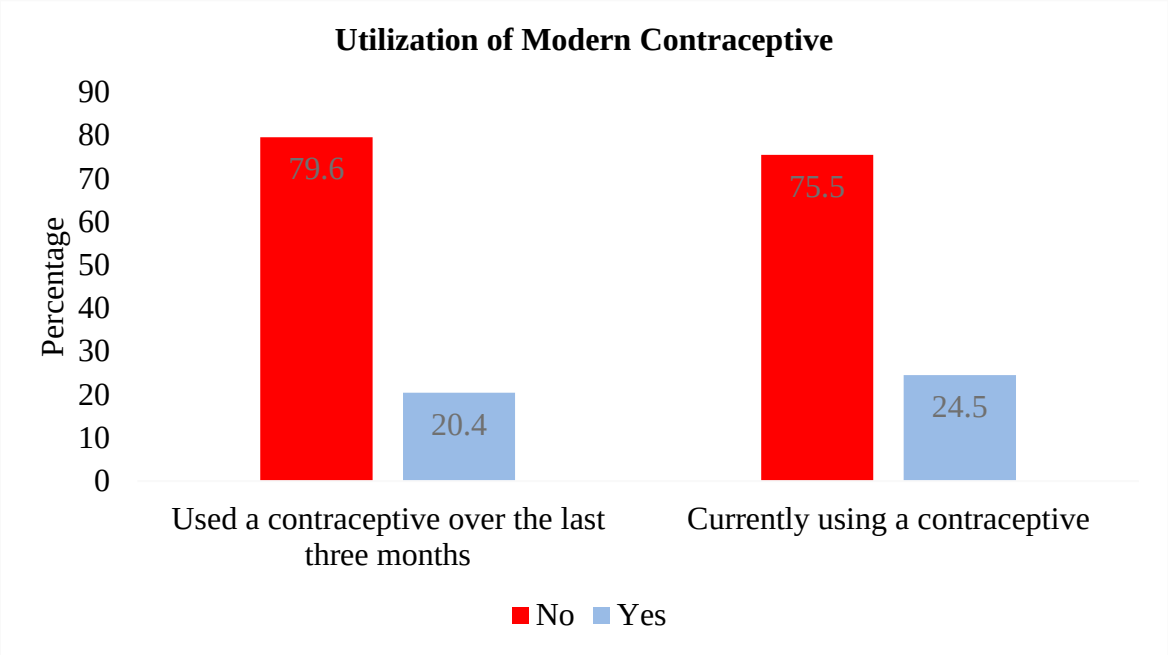

Figure 1: Utilization of Modern Contraceptives

Importance for Utilization of Modern Contraceptives among Women

The contraceptive utilization indicated in Table 2 shows that 51.5 % of women would utilize contraceptives to prevent pregnancies, 39.5 % would utilize contraceptives to space the children, and 9.0% would utilize contraceptives to delay pregnancies.

Table 2: Importance for Utilization of Modern Contraceptives among Women

Variable	Categories	N	%
Main reasons for contraceptive usage	Spacing children	**145**	**39.5**
	Delaying pregnancies	**33**	**9.0**
	Preventing pregnancies	**189**	**51.5**
	Total	**367**	**100.0**
Other reasons	Lifestyle trend	128	34.9
	Stopping pregnancies	55	15.0
	Preventing STIs/HIV	1	.3
	Economic reasons	183	49.9
	Total	**367**	**100.0**

Demographic Characteristics associated with Current Contraceptive Utilization

The study findings in table 3 shows that demographic characteristics have a statistically significant association with current contraceptive use with age ($\chi^2 = 60.409$, $p < 0.05$), occupational status ($\chi^2 = 12.327$, $p < 0.05$), marital status ($\chi^2 = 13.669$, $p < 0.05$) and parity levels ($\chi^2 = 17.612$, $p < 0.05$), having a statistically significant influence on current contraceptive utilization, while level of education ($\chi^2 = 6.597$, $p > 0.05$), income levels ($\chi^2 = 6.597$, $p > 0.05$) and religious affiliations ($\chi^2 = 4.658$, $p > 0.05$) were not significantly associated with contraceptive use.

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Table 3: Demographic Characteristics associated with Current Contraceptive Utilization

Variable	χ2 statistic	df	p-value	Decision criteria
Age	60.409	3	0.000	Significant
Income level	6.597	3	0.086	Not significant
Level of education	1.810	2	0.404	Not significant
Occupation	12.327	3	0.006	Significant
Marital status	13.669	2	0.001	Significant
Parity	17.612	3	0.001	Significant
Religious affiliation	4.658	3	0.199	Not significant

Demographic Determinants of Contraceptive Utilization

The results in Table 4 concern the influence of demographic characteristics on the utilization of modern contraceptives. Age (OR = 4.8248, t = 4.15, $p < 0.05$), Age is associated with increased likelyhood of utilizing modern contraceptives, while education levels (OR = 0.5055, t = -2.05, $p < 0.05$), occupation (OR = 0.5965, t = -3.50, $p < 0.05$) and the parity levels (OR = 0.5744, t = -2.72, $p < 0.05$) are associated with decreased likelihood of utilization of modern contraceptive. The income levels (OR = 0.8744, t = -0.40, $p > 0.05$) and marital status (OR = 0.9844, t = --0.03, $p < 0.05$), are not significantly associated with utilization of modern contraceptive.

Table 4: Demographic Determinants of Contraceptive Utilization

Model summary					
Log Likelihood	-165.3627		χ^2 (6) = 40.96	0.0000	
Pseudo R^2	0.1102				
Coefficient Estimates					
Variable	**Odd ratio (OR)**	**Standard Error**	**t**	**p**	**[95% Conf. Interval]**
Age	4.8248	1.8318	4.15	0.000	2.2925 10.1544
Education levels	0.5055	0.1686	-2.05	0.041	0.2630 0.9718
Occupation	0.5965	0.0879	-3.50	0.000	0.4468 0.7963
Income levels	0.8744	0.2965	-0.40	0.692	0.4499 1.6997
Marital status	0.9884	0.3958	-0.03	0.977	0.4509 2.1668
Parity levels	0.5744	0.1169	-2.72	0.006	0.3854 0.8562

Discussion

This study found that modern contraceptive utilization stands at 24.5% among women aged 18 to 49 years at West Pokot County, Kenya. This study findings indicates that more than eight–tenths of the respondents do not use contraceptives and tallies up with the survey which observed a 23.5% prevalence rate for modern contraceptive use in West Pokot County (KDHS, 2022).This call for targeted strategies to improve modern contraceptive use among adult women of reproductive age.

The current study found out age of women is associated with in modern contraceptive use, which is comparable with other studies where they found young women of reproductive age are more likely to the utilize modern contraceptive methods The young women are more likely to be more educated, more sexually active and independent about their life choices and

therefore high probability of having access to information on contraceptive methods (Sidibé et al., 2020)

Our study found significant associated between education and utilization of modern contraceptive which is consistent with other studies which has pointed out education is associated with utilization of contraceptive use among women. The study done in Ghana found out the main predictors of modern contraceptive use among women of reproductive ages is level of education (Aviisah et al., 2018). Other studies have found out modern contraceptive is utilized by multiple women aged 25–34 years with secondary/higher education levels with higher economic status (Apanga et al., 2020).Andi et al., (2014) observed that modern contraceptive usage was predicted by educational level, marital status, number of children alive. More studies have been done and found the educational level of a woman also influences the perception towards modern contraceptive methods. Women with higher (tertiary) education are more likely to use modern contraceptives compared to those with lower educational level attainment. Education helps women to be informed on the benefits of modern contraceptives. It also empowers them to have the autonomy to make decisions on their fertility, and in the exercise of their reproductive rights (Apanga et al., 2020)

Economic status. This study found out high economic status of women is not significantly associated with utilization of modern contraceptive. There is evidence combination of economic status and other social demographic factors have influence of utilization of modern contraceptive. The study by Sidibé et al., (2020) found out associated of modern contraceptive use with single young women aged 20–24 years, living in urban areas with higher income status (Sidibé et al., 2020). There is marked variation in contraceptive utilization across various socioeconomic groups evidence indicating that improving education and improving economic status of women are critical in improving contraceptive utilization (Nonvignon & Novignon, 2014).

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study found that modern contraceptive utilization stands at 24.5% among women aged 18 to 49 years at West Pokot County, Kenya., which is very low compared with national survey. This indicates that the adoption of the modern contraceptive is still low among older women and unmet contraceptive needs which present opportunities for reproductive health organizations to avail these modern contraceptive methods. The study found social demographic factors are associated with modern contraceptive use among adult women of reproductive age. Age is associated with increased likelyhood of utilizing of modern contraceptives, while education levels, occupation. and the parity levels are associated with decreased likelihood of utilization of modern contraceptive. The income levels and marital status are not significantly associated with utilization of modern contraceptive.

Unique Contribution to Theory Practice and Policy

This study contributes to body of knowledge that social demographic factors such as age, education lever, occupation, economic status are associated with utilization of modern contraceptives. Where social demographic factors remains unaddressed they contribute to low utilization of modern contraceptives among women. Considering that reproductive healthcare services are a universal right, the government of Kenya should improve the provisioning of family planning services to the rural counties considering that there is a high national unmet

demand for contraceptives use in the country. This low lever of utilization of modern contraceptives calls for targeted strategies such as health education to this risk population by health care workers and ministry of health dealing with reproductive services to improve modern contraceptive use among adult women of reproductive age. There is need to conduct further research on other counties including others health care derterminants associated with of use of health care services such as modern contraceptive use among women.

REFERENCES

Andi, J. R., Wamala, R., Ocaya, B., & Kabagenyi, A. (2014). Modern contraceptive use among women in Uganda: An analysis of trend and patterns (1995-2011). *Etude de la population africaine= African population studies*, *28*(2), 1009.

Andersen R.M., Newman J.F. (1973). Societal and individual determinants of medical care utilization in the United States. *The Milbank Memorial Fund Quarterly. Health and Society*. 51: 95–124.

Andersen RM. (1995). Revisiting the behavioural model and access to medical care: does it matter? *J Health Soc Behav.* 36(1): 1–10

Apanga, P. A., Kumbeni, M. T., Ayamga, E. A., Ulanja, M. B., & Akparibo, R. (2020). Prevalence and factors associated with modern contraceptive use among women of reproductive age in 20 African countries: a large population-based study. *BMJ open*, *10*(9), e041103.

Apanga, P. A., & Adam, M. A. (2015). Factors influencing the uptake of family planning services in the Talensi District, Ghana. *Pan African Medical Journal*, *20*(1).

Aviisah, P. A., Dery, S., Atsu, B. K., Yawson, A., Alotaibi, R. M., Rezk, H. R., & Guure, C. (2018). Modern contraceptive use among women of reproductive age in Ghana: analysis of the 2003–2014 Ghana Demographic and Health Surveys. *BMC women's health*, *18*, 1-10.

Buhling, K. J., Zite, N. B., Lotke, P., Black, K., & INTRA Writing Group. (2014). Worldwide utilization of intrauterine contraception: a review. *Contraception*, *89*(3), 162-173.

Cahill, N., Sonneveldt, E., Stover, J., Weinberger, M., Williamson, J., Wei, C., ... & Alkema, L. (2018). Modern contraceptive use, unmet need, and demand satisfied among women of reproductive age who are married or in a union in the focus countries of the Family Planning 2020 initiative: a systematic analysis using the Family Planning Estimation Tool. *The Lancet*, *391*(10123), 870-882.

de Vargas Nunes Coll, C., Ewerling, F., Hellwig, F., & De Barros, A. J. D. (2019). Contraception in adolescence: the influence of parity and marital status on contraceptive use in 73 low-and middle-income countries. *Reproductive health*, *16*, 1-12.

Dennis, M. L., Radovich, E., Wong, K. L., Owolabi, O., Cavallaro, F. L., Mbizvo, M. T., ... & Benova, L. (2017). Pathways to increased coverage: an analysis of time trends in contraceptive need and use among adolescents and young women in Kenya, Rwanda, Tanzania, and Uganda. *Reproductive health*, *14*, 1-13.

Gavin, L., Moskosky, S., Carter, M., Curtis, K., Glass, E., Godfrey, E., ... & Zapata, L. (2014). Providing quality family planning services: recommendations of CDC and the US Office of Population Affairs. *MMWR Recomm Rep*, *63*(RR-04), 1-54.

Gebeyehu, A., Asnake, M., Dibaba, Y., Setegn, T., Yirga, M., Teklu, A. M., & Tura, G. (2018). Barriers to utilization of long acting reversible and permanent contraceptive methods in Ethiopia: Systematic review. *Ethiopian Journal of Reproductive Health*, *10*(3), 1-24

Gebremariam, A., & Addissie, A. (2014). Intention to utilization of long-acting and permanent contraceptive methods and factors affecting it among married women in Adigrat town, Tigray, Northern Ethiopia. *Reproductive health*, *11*(1), 1-9.

Gebeyehu, A., Asnake, M., Dibaba, Y., Setegn, T., Yirga, M., Teklu, A. M., & Tura, G. (2018). Barriers to utilization of long acting reversible and permanent contraceptive methods in Ethiopia: Systematic review. *Ethiopian Journal of Reproductive Health*, *10*(3), 1-24

Gultie, T., Hailu, D., & Workineh, Y. (2016). Predictors of long-acting contraceptives utilization among reproductive age women in Arba Minch Zuria district, Ethiopia. *Quality of Primary Care*, *24*(1), 17-22.

Hubacher, D., & Trussell, J. (2015). A definition of modern contraceptive methods. *Contraception*, *92*(5), 420-421.

Kabalo, M. Y. (2016). Utilization of reversible long-acting family planning methods among married 15-49 years women in Areka town, Southern Ethiopia. International Journal of Scientific Reports, *2*(1), 1-6

KDHS (2022). Kenya Demographic Health Survey. Kenya National Bureau of Statistics

Kebede, B., Belete, M. A., Negeri, H. A., Halil, H., Anshebo, A., & Abdo, R. (2020). Magnitude and factors affecting long-acting reversible contraceptive utilization among reproductive age women in Silti District, Southern Ethiopia. *Journal of Women's Health Care*, *9*(494), 2167-0420.

Mariam, T. G., Kebede, Y., Shibru, A., & Birhanu, A. (2018). Utilization of reversible long-acting contraceptive methods and associated factors among women getting family planning service in governmental health institutions of Gondar City, Northwest Ethiopia 2015. *Austin Journal of Public Health and Epidemiology*, *5*(1), 1069 – 1079

Nonvignon, J., & Novignon, J. (2014). Trend and determinants of contraceptive use among women of reproductive age in Ghana. *African Population Studies*, 956-967

Ochako, R., Gichuhi, W., & Temmerman, M. (2021). Factors associated with modern contraceptive use among urban women in Kenya: A cross-sectional study examining regional disparities and unmet needs for family planning services across counties like West Pokot versus Siaya's higher coverage zones. BMC Public Health.

Polisi, A., Gebrehanna, E., Tesfaye, G., & Asefa, F. (2014). Modern contraceptive utilization among female ART attendees in health facilities of Gimbie town, West Ethiopia. *Reproductive health*, *11*(1), 1-6.

United Nations. (2022). World Family Planning 2022: Meeting the changing needs for family planning: Contraceptive utilization by age and method.

Sedekia, Y., Nathan, R., Church, K., Temu, S., Hanson, C., Schellenberg, J., & Marchant, T. (2017). Delaying first birth: an analysis of household survey data from rural Southern Tanzania. *BMC Public Health*, *17*, 1-9.

Sidibé, S., Delamou, A., Camara, B. S., Dioubaté, N., Manet, H., El Ayadi, A. M., ... & Kouanda, S. (2020). Trends in contraceptive use, unmet need and associated factors of modern contraceptive use among urban adolescents and young women in Guinea. *BMC Public Health*, *20*, 1-10.

Tulu, A. S., & Gebremariam, T. (2018). Utilization of reversible long-acting contraceptive methods and associated factors among women getting family planning service in governmental health institutions of Gondar city administration, Northwest Ethiopia. *International Journal of Health Science Research*, *8*(2), 178-87.

Zegeye, B., Ahinkorah, B. O., Idriss-Wheeler, D., Olorunsaiye, C. Z., Adjei, N. K., & Yaya, S. (2021). Modern contraceptive utilization and its associated factors among married women in Senegal: a multilevel analysis. *BMC Public Health*, *21*(1)