HEALTH CARE QUALITY DIMENSIONS, CLIENT CHARACTERISTICS, AND PERFORMANCE OF FAMILY PLANNING PROGRAMME IN NAKURU COUNTY KENYA

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A Research Thesis Submitted in Partial Fulfilment of the requirements for the Award of a Degree of Doctor of Philosophy in Project Planning and Management of the University of Nairobi

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DECLARATION

This research Thesis is my own work and has not been submitted before for any other degree at any other institution.

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This research Thesis has been submitted for examination with our approval as the University Supervisors.

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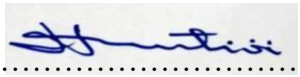
Signature……  Date……8/7/2021…….

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DEDICATION

This work is dedicated to my daughter Sharon Wangeci as a way of motivating her academic life.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

CHMT	County Health Management Team
CHW	Community Health Worker
CHW	Community Health Worker
CHV	Community Health Volunteer
CPR	Contraceptive Prevalence Rate
CYP	Couple Year of Protection
DHIS	District Health Information System
FHI	Family Health International
FP	Family Planning
GATHER	Greet, Ask, Tell, Help, Explain, Refer/ return visit
HCW	Health Care Worker
HCP	Health Care Provider
HIV	Human Immunodeficiency Virus
IOM	Institute of Medicine
IUCD	Intrauterine Contraceptive Device
IUD	Intra Uterine Device
KDHS	Kenya Demographic Health Survey
KQMH	Kenya Quality Model of Health
LAPM	Long acting and Permanent Method
MCH	Maternal Health Clinic
NRHS	National Reproductive Health strategy
QA	Quality Assurance
QC	Quality Control
QI	Quality Improvement
SAM	Short-acting Methods
SDG	Sustainable Development Goals
TFR	Total Fertility Rate
USAID	United States Agency for International development
WHO	World Health Organization
WRA	Women of Reproductive Age (15-49 years)

ABSTRACT

The purpose of the study was to examine the influence of Healthcare quality dimension, client characteristics and performance of family planning program in Kuresoi North sub County, Nakuru County, Kenya. This was directed by seven objectives which were to find out how; Management competency, contraceptive supply quality dimension, access to quality health care dimensions, quality counselling, the combined healthcare quality dimensions, and client characteristics influence performance of family planning programs in the county of Nakuru and to determine the moderating influence of client characteristics on the relationship between health care quality dimensions and performance of family planning programs in Nakuru county. The research was instituted on the model of constraint and assumed a pragmatism paradigm. It utilized descriptive research technique by means of mixed method tactic to explore the features of healthcare quality dimensions, client characteristics and performance of family planning program. The target population in the study was women of reproductive age in 33,482 households spread in the 4 Wards of Kuresoi North Sub County and 19 nursing officers in government health facilities providing family planning services in Kuresoi North Sub County of Nakuru County. The investigation study assumed stratified random sampling method. A sample size of 400 of females of reproductive age and 19 nursing officers was utilized. The data gathering tools utilized were a questionnaire, interview guide, and observation checklist for women of reproductive age and the interview guide for the nursing officers. Piloting was done in Molo Sub-County in order to test the validity and reliability of the data collection instruments. The questionnaire and interview guide were tested in Molo Sub-County targeting 15 women of procreative age. The investigation instrument was tested to reveal validity through utilization of experts in the field of reproductive health and further reviewed by the Nakuru county health management team for any error. The test re-test method was used to measure reliability of the study tools. Qualitative data was analyzed according to themes and patterns and then summarizing the data and linking it to objectives and hypothesis. The study outcomes recognized a significant and strong positive individual correlation of management competency, contraceptives supply quality dimension, access to quality dimensions, quality counseling dimensions and client characteristics to performance of family planning program in Kuresoi North Sub-County ($P=0.00<0.05$ for all instances). The investigation outcomes showed a significant positive relationship between the factors and performance of family planning program in Kuresoi North Sub-County ($P=0.00<0.05$ for all instances). The investigation recognized that the factors are associated with performance of family planning programs through the Chi-Square test of independence ($P=0.00<0.05$ for all instances). The investigation showed that the elements of combined health quality dimension in unison predicted and described to a big magnitude the performance of family planning ($F(1,399) =280.833$, $p=0.00<0.05$). Further, the research displayed that the elements of combined health quality dimension and client characteristics in harmony predicted and described to a big magnitude the performance of family planning ($F(1,399) =226.858$, $p=0.00<0.05$). It was also recognized that client characteristics transformed the degree of the association between the health care dimensions and family planning programs. The R-Square changed from 0.505 to 0.702. Also, the coefficients of management competency (0.079), contraceptives supply (0.440), access to quality dimensions (0.084), and quality counseling dimensions (0.287) changed to; 0.073, 0.436, 0.060, and 0.270 respectively. Henceforth, client characteristics had the effect of reducing the magnitude of the health care dimensions. The research outcomes concluded that there was a significant and strong positive correlation of each of the elements and when combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation commended that exploring the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program is of great significance to strategy developers and ounty and Country health leaders.

Additional investigations ought to done in other countries to determine if the investigation outcomes would hold.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Family planning program play a significant excelling part in inhibition of motherly and newborn death. Notwithstanding the paybacks linked to birth control, numerous females endure to face unmet family planning requirements resulting to undesirable gestations and poor healthiness for females and children. The World Health Organization (2018) through 2017 estimations specified that internationally, two hundred and fourteen million women of propagative age from nonindustrious nation-states would desire toutilize a family planning technique for child positioning but remain to face encounters and obstacles to ease of access.

Family planning has been cited to significant safe breathes of females and children globally. This was cited by World Health Organization (WHO) (2017) in a study finding carried out in 69 poorest countries. It indicated that the countries under investigation, three hundred mission females were utilizing modern methods of contraceptives. Further the report analysed that the utilization was equivalent to saving lives of women which could have translated to 82 million unwanted pregnancies, 25 million hazardous abortions, and 125 000 motherly demises annually. The report however did not indicate on how to get correct data related to abortion since in most countries, abortion is illegal making it hard to get data. WHO further indicated on the need to utilise quality family planning services.

In yet another report by World Health Organization (2017), in a task sharing submit, it indicated that a key tool in improving contraceptives is by increasing the number of health workers. Further the report indicated the need to do task shifting whereby community health volunteers can be able to offer contraceptives. The report also indicated that a well-structured curriculum could be utilised to train other carders to offer family planning. Other carders recommended were also pharmacists. Excellence of family planning amenities however need to be considered well. The report however did not indicate the level of education of community health volunteers and the expected risks in offering contraceptives. There is need to do a risk and benefit analysis of such an approach.

A performance family planning program ensures that females of reproductive age access family planning facilities when they want them. Ensuring universal access to contraceptives has been documented as an essential precedence for realizing the United Nation Sustainable Development Goal number 3 on decent healthiness and welfare (SDGs) (2017), and also among the highest price-efficient SDG targets. To accomplish better performance family planning program, family planning services have been incorporated with other program like immunization and maternity services during the postnatal period. Access to contraceptive commodities is a key contributor to gaining access to all related contraceptive services hence family planning program need to ensure that the commodities are availed.

USAID (2017) report indicates that roughly influences that enhance significantly to unattanined family planning prerequisites amongst females both married and unmarried are woman education status as well as wealth status. This was echoed by Asif & Pervaiz, (2019) in a study that indicated that educated and wealthy women were likely to afford and utilize family planning. The study further indicated that the households with an educated man was likely to utilise family planning hence linking economic and education empowerment as a key to child spacing. The study needed to segregate the data of households with only one partner empowered financially and academically to analyse which household make better reproductive health decisions.

Quality of any health service especially family planning usually results to either utilization or underutilization of the services. There are many measurers of quality in family planning. This was revealed by Thongmixay, et al (2020) on various measurers in family planning. The study considered measurers such as regular data review meetings, ability to conduct client feedbacks, general observations and availability of charts with information on family planning in the client waiting bays. A health facility can be rated as high, moderate or poor. The study however did not capture the element of skilled health attendant as a measure of quality.

Education has also been linked to lack of utilization of family planning services. This was echoed Bromage, et al (2020) who investigated on the factors that contributed to poor sexual reproductive health services. The findings indicated that school dropout

girls were at risk of many health complications that include unwanted pregnancy, poor maternal nutritional resulting in poor infant feeding and risk to motherly and new-born death. The study needed to indicate the factors contributing to adolescents getting out of learning institutions. Quality family planning programs should endeavour to reach girls and work closely with the department of education to sensitize girls in the needs of education.

Family planning programs need to consider quality component. This would support ensuring that clients get individualised care which is focused on client rights. This was echoed by Shukla, et al (2020) in a research in India that designated that quality is the key to achieving right based care. Offering clients family planning with an understanding that every client is unique with unique reproductive health goals. The study further indicated that counselling and client interactions support helps a client to make informed decisions and the health care provider to support the client according to her unique needs. The study however did not explore on couple counselling since every client comes from a unique family with unique needs.

Some government have made efforts to provide guidelines on quality of family planning services. Nepal came up with a guideline that defined quality through a survey, Nepal Health Facility Survey (NHFS) (2015). The survey conveyed that 98% of health centres surveyed were proviing the current birth control methods like oral tablet, injectable birthcontrol, reversible and long acting birth control; implants, IUCD and also equally men and women condoms and non reversible birth control (intended sterilization). The research additionaly highlighted that health facilities regarded as local that delivered birth control amenities on day-to-day base comprised 83% while those considered as regional health facilities comprised 76%, while the private sector at a junior level comprised 96%. Excellence counselling element of family planning program can be equipped to providing family planning amenities through an interactive association that assistance a consumer to make a knowledgeable pronouncement as well as captivating into deliberation customers or person's preferred amenities and objectives and the principles of the social order. The survey did not however explore on trained health care providers.

In another study by Kant et al, (2018) in Nepal, indicated that the unattained prerequisite for family planning was highest among females without ccomplished high

school certification. The study recommended the importance of keeping girls in schools to avoid unwanted pregnancies and to prepare them to make decisions regarding their lives. Utilization of contraceptive is one of the decisions a woman need to make and take charge of her body and her family size. This could be significantly achieved through enrolment into formal education. The study needed to indicate how boys could also be in corporated in enhancing child spacing in future.

Conferring to Hancock et al (2015) in a study carried out in Zambia that quality of birth control need to be assessed from the quality of service offered to clients, obtainability of the preferred method by the client, availability of equipment and supplies to effectively administer the method as well as affordability of high quality service and follow up of the clients to ensure retention. The study however did not include the skills of health care providers in the holistic definition of a quality family planning service.

Administration ability in family planning encompasses merging numerous approaches that can be operative in a program. This is in concurrence with findings from research by Curry, et al (2015) from USA in the article that designated giving current family planning amenities in calamity-affected localities, labelled methods that could be borrowed from prosperous nations on birth control programs. Few of the approaches that had functioned in some projects encompassed competence-instituted teaching, organized facilitative supervision, modest excellence enrichment equipment, joint advocacy and also effecting of excellence expansion and medical administration by means of utilizing the existing country health structure and constructing countrywide capability. Management proficiency excellence element consequently necessitates administrators to observe the projects in an all-inclusive method. The research would have explored the practicability of the strategies in other countries especially in Africa.

Clients have their perspective of quality family planning services. On one hand clients consider a service to be quality as long as they are satisfied. On the other hand, health care workers measure quality in other ways. Satisfaction of a client in contraceptives can be measured through client feedback, utilization of service and adherence to the service. This was echoed by Gebreyesus (2019) in a study that indicated that clients consider to be given quality family planning services if the health care worker is able to counsel them well. Further they indicated that counselling would entail information

on a certain method, its side effects and a modelling on how a method work through illustrations. The study did not explore on the issue of time and whether clients considered timely services as quality

Clients consider their privacy as a key measure for quality. A client is confident to take some family planning services such as IUCD if she is assured of privacy. This was echoed by Wogu, et al (2020) in Southern Ethiopia indicated that the rooms of family planning should reflect a good environment that makes a client comfortable. Client's satisfaction which was another measure of quality according to the study findings is highly connected to the physical appearance of family planning room. The study did not indicate on a checklist that can be used to support health management in ensuring confidentiality, and the environment component of quality. Quality of care in family planning therefore involves very many components.

According to the Ministry of Medical Services, and Ministry of Public Health and Sanitation (2020), the Governement of Kenya launched Kenya Quality Model of Health (KQMH) to address the quality of health among its citizens. The model delivered a concrete structure for proving all-inclusive and systematic amenities through solving a diversity of operational excellence matters with the key resolution of providing healthiness impacts that are optimistic. KQMH is a combined method to better-quality quality of healthcare with the main purpose being that of enhancing devotion to standards and guiding principle based on indication-based medicine, refining structure, procedure, results by applying quality philosophies and tools, sustaining patient or customer requirements in a socially suitable way. (Ministry of Medical Services, and Ministry of Public Health and Sanitation, 2020).

Notwithstanding the unveiling of the model, no research steered on the execution of KQMH and the effect on performance of family planning program in Kuresoi North Sub-County. Birth control amenities are very essential amenities in precautionary health particularly at the basic health care level. The current investigation has subdivided the healthcare quality dimensions into four main dimensions: (management competency dimension, Contraceptive supply quality dimension, access quality dimension, and quality counseling dimension inconnection to performance of family planning program in Nakuru County as well as client characteristics as a moderating variable.

1.1.1 Performance of Family Planning Program

Accomplishment in programs interrelated to contraceptive has been concomitant with important paybacks to motherlands and the populace. The foremost paybacks have been highlighted by WHO (2018) through a family planning/contraception key facts. Some of these benefits includes; preventing gestation-connected healthiness risks in females, reducing neonate death, supportive in preventing HIV/AIDS, endowing persons and enhancing learning, as well as dipping teen-age gravidities and slowing populace progress. Performance of programs interconnected to birth control continues to be very noteworthy in conquering the United Nations Sustainable Development Goals (2015). USAID in the knowledge for health program (2017) discovered existence of some loophole in execution of birth control projects globally. The report however missed out on male involvement in achieving family planning goals.

Countries were called upon by United Nations to ensure that by the year 2030, the citizens globally will be able to access collective health coverage. The united Nation (2019) through contraceptive Agenda 2030, further indicated that birth control options need to be reachable to all females by 2030. Further the UN report acknowledged the starring role of family planning in financial development of nations and health of children and mothers. The report further indicated the need to integrate all key stakeholders and include health as a cross cutting activity. The report however did not indicate on specific strategies for different nations since every country is unique with unique challenges.

Efforts in the utilization of methods of contraceptives have been indicated to yield results. This was echoed by United Nations (2020) on the report describing the fertility and contraceptive 2020. The report cited great improvement in women health to include reduced maternal and new-born demise, reduction on unplanned gravidities and gravidities at great threat. The report further indicated that more girls have been retained in school and hence reduced incidences of early marriages. With improved education over decades and utilization of family planning households have been empowered economically. The report indicated great strides in improving the economy of nations. The report needed to indicate the strategies of countries still struggling with reproductive health challenges such as African countries.

In a report by the US Government (2019) with collaboration with Reproductive Health Efforts and International Family Planning indicted the commitment of the government birth control program. The report recognised the significant role that of contraceptives in the well-being of females and children. The information also designated that approximately three hundred and three thousand women perish every year due to gravidity and delivery related difficulties in nearly all industrializing nations. Further, a third of these women maternal demise could be prevented through utilization of modern family planning. The US government expressed its continued support to avert such deaths. The report however did not indicate on the long term sustainability of family planning programs since most countries are dependent on donor's funds.

Quality is key in family planning programming. People need to understand the meaning and the process of achieving quality. Allen-Duck, et al (2017), in a research steered in the United States of America on health systems emphasised on excellence as a compromise to four major attributes of family planning systems which included; effective, safe, principles of excellence and efficiency. Family planning programs should strive towards achieving Excellency. Founded on these features, healthcare quality was referred to as the valuation and establishment of actual and harmless care, replicated in a philosophy of distinction, resultant in the accomplishment of optimum or anticipated health. Further, a measure of success in implementation of quality health dimension was referred to as the degree to which evidence-based treatment guidelines are adhered to according to the indication and results are well assessed. The description was not specific to any program but the overall health care system in America.

Measure of quality in family planning program has had challenges. For a long time, performance of family planning has been measured using the uptake of contraceptive leaving processes, structures and other quality measures. This is in convergence with a study by Dehlendorf, et al (2016) who described the performance and implementation of family planning program as not just uptake of contraceptives, which is always taken as a measure by many countries but also the measure of quality. The research however did not indicate all the components of quality and how quality can be achieved combining all the measures. A holist approach is need in achieving quality.

There has been a concern on the superlative way to improve the performance of family planning without abusing human rights and ensuring quality is maintained. In an attempt to address performance of family planning programs, many organizations have introduced payment grounded on accomplishment of deliverables. An investigation by Blacklock, et al (2016) in eleven counties on performance-based funding revealed that reimbursing health sector for performance is an approach that can be used to reach the unfulfilled requirement for contraceptives use in poor-income nations together with the medium-income nations. The study however needed to outline how such a model could work in counties or countries that do not charge any fee to clients.

1.1.2 Healthcare Quality Dimension

Healthcare quality dimension comprises of an extensive assortment of components and services that works in collaboration to ensure achievement of an expected degree of excellence in family planning program. An article by WHO press conducted by Bengoa, et al. (2018) designated excellence of care as a procedure for creation of tactical selections in health schemes. Six health quality dimensions of quality in healthcare were outlined. These were management competency, accessible, Client centred, counselling, equity and safety. Administration ability, which comprises the inclusive efficiency of a program and it, involves providing healthiness care that is in accordance with the confirmation created through research and outcomes in improved-excellence health outcomes for peoples and the social order. Auxiliary management ability indicates that the program should be grounded on prerequisites such product resource. The element of staffing was not however factored in the dimension.

Measure of quality in family planning has continued to challenge people. Without knowing the dimensions of quality, it is difficult to measure quality. Health care quality dimensions need to be outlined for health facilities and communities to rate the services many attempts have been made to outline the dimensions. Leisher et al (2016) in a report outlining quality dimension in family planning indicated six dimensions of quality. for any health provider to claim to have provided quality services then the six dimensions need be met. These were: proper environment to provide the service, well trained health care workers to offer the services, a well-structured system of tracking and monitoring clients, supportive leadership in family planning programming,

advocacy programs to sensitive people on availability of services and ensuring clients get value for the money paid. The dimensions however did not include the client's roles since the program must be accepted and services utilises by clients to sucked.

Provision of health services especially family planning is among the significant indicators in family planning. Family planning indicators were developed and have been used to measure performance. Indicators related to quality however were missed out since quality had not been in cooperated as a program in family planning. This was echoed by Barden & Reynolds (2017) in an assessment that sought to include other indicator for tracking by USAID implementing partners. Assessing of contraceptive program is the only way to facilitate decision making. Quality indicators need to be included in health systems to guide provision of services. The assessment however concentrated in only programs supported by USAID. There is need to improve quality holistically irrespective of donor support.

Measurement of quality therefore requires several indicators as recognized in yet another research by Blacklock et al. (2016) in eleven selected nations from poor and medium-income nations that evaluated three procedures of service quality. The procedures were period taken with patients, more comprehensive history and physical examination, and family planning psychotherapy to patients. Under this study, the main indicator in measuring quality in the performance of family planning is utilization of contraceptive methods, client satisfaction, and family planning reporting rates. The study needed to explore the feasibility of the indicators taken up by other countries.

1.1.2.1 Management Competency Quality Dimension

Management competency quality dimension and performance of family planning studied under this study comprises as; leadership, trained health care providers, good reporting and documentation and presence and adherence to family planning guidelines.

In most developing nations, family planning program is donor funded to a great significance. This poses a huge challenge in developing a sustainable plan. Countries need to identify leaders who can envision on the sustainability of birth control projects. This was resonated in a research finding by Aichatou et al (2016) in Senegal that

indicated the need to build strong leadership to spearhead sustainability of reproductive health programs. Further the study indicated the need to have a management structure that comprises of leadership, structures and processes. Though the study only outlined the developing nations, sustainability need to cut across all nations.

Management competency therefore involves a wide range of competencies all combined. This is in conjunction with research findings by Anvaria, et al (2016) in Dubai which indicated that important pointers of performance assessment in line with management proficiencies are; information, ability, mind-set and style of working as well as results of working. Management competency quality dimension combines several competencies. The current study main indicators to measure Management competency quality dimension will be leadership, health care provider, report, and documentation, adherence to guidelines and safety. The study needed to explore on the need to develop a checklist to measure management competency

Many organizations are trying out new management skills to ensure they remain relevant and competitive in the market. Lean approach endeavours to achieve their main strategies, which are; delivering value from the customer's perspective, elimination of waste and continuous improvement. The new management approach has activated and driven transformation in the culture that has supported many innovations in hospital projects in Dubai as was established in an assessement by Abuhejleh, et al (2016). The assessement further indicated that the approach noticeably and sustainably reduced access and waiting time, enhanced safety, and client satisfaction, and reinforced the hospital culture of vesting frontline care-workers. The assessement required to outline the feasibility of replicability of the approach in other countries.

Many nations in Africa have been struggling to achieve the universal health coverage especially the family planning agenda. For a government to achieve, there is need to have a guideline to support the process. Kenya through Ministry of Health (2017), developed a strategic plan to guide the country steps. The strategic planned developed was FP CIP 2017-20 which concentrated on six programmatic components. These components include; contraceptive products security; funding and maintainability; leadership, political goodwill and collaborations; managing of data; advocacy and

service provision. The strategic plan is however not evaluated. The strategic plan needed to come up with ways of monitoring the plan. Leadership is a crucial constituent in delivery of excellence amenities and should be enhanced.

1.1.2.2 Contraceptive Supply Quality Dimension

To realise efficiency in birth control project, contraceptive supply is a determinant factor in the project deliverables. Contraceptive supply is a health care dimension that endeavours to deliver family planning commodities and all supplies that are necessary in a method, which exploits resource usage and evades wastage. The contraceptive supply quality dimension in this study includes; family planning commodities, other supplies and equipment, reporting tools and ability of health care providers to forecast the family planning commodities. Family planning programs need to ensure contraceptive commodities needed are determined and supplied to delivery points through a well-established forecasting system.

Contraceptive availability in nations is a key objective in achieving family planning goals. Many African countries continue to suffer inadequacy in the supply of family planning commodities. Contraceptive security should be ensured to enhance accessibility by women. This was echoed by Choi et al (2016) in a study in Sub-Saharn Africa. There is need for governments to ensure a sustainable structure in ensuring contraceptives are available all the times. The study however did not explore on monitoring of contraceptives and the point of service delivery.

There have been efforts to enhance expansion of family planning in nations. Many strategies have been indicated. There is need to ensure that contraceptives are accessible to women even at community level. Contraceptive supply need to be enhanced at the health facilities as well as at the community service delivery points. Task shifting can be encouraged in order to have community health volunteers to support the distribution of contraceptives. This was echoed by Babazade, et al (2020) in DRC through a research finding that recommended expanding contraceptive supply in all service delivery points as well as expanding the service delivery providers. The

study did not however indicate the logistics of community receiving contraceptives and the monitoring of the same.

Security of contraceptives in any country ensures that women are able to utilise contraceptives when they desire to use. Utilisation of contraceptives among women plays a key role in enhancing a nation's economic growth. Women need to participate in the economic growth of the nations. They can only be able to participate if they are healthy and able to work. Labour force can be well boosted if women joined in the labour force. A study by Neetu et al (2020) in Ethiopia, indicated the great contribution that utilization of contraceptives was playing in ensuring that women were able to contribute to the labour force. Women has some skill set that need to be utilised in the economic growth. All nations should therefore enhance security of contraceptives. The study needed to explore the actual contribution of women in labour force.

Family planning is not just a service but also a holistic combination of services that be integrated to give the desired outcome. Assessment of performance in family planning program is very important as discussed by Starbird, et al (2016) in a study on assessing family planning program performance. The research had its core intention being to evaluate the pointers towards attaining the sustainable development goals. The study further recommended that effective family planning program needed to be well outlined to ensure that major factors were addressed. These factors were; offering of quality services, adherence to policies, giving clients the right information, health care workers' attitudes, practices and knowledge and also availability of family planning commodities among them all contraceptives. The study however did not include community participation.

1.1.2.3 Access to Quality Health Care Dimension

Access to excellence dimension is a fitness quality dimension that entails delivering contraceptive amenities that are suitable, geologically practical, and obtainable surrounded by a circumstantial where competences and resources are appropriate to health obligation, World Health Organization (2017). The major component included in this study are; location, time, and family planning counselling room. Family planning

room entails all the aspects of physical investigation including presence of secluded room, coach for examination, portable light, speculum, detergent, water, sterile and clean gloves, sterilising solution, and sharps-containers.

Unattained necessity for birth control has been connected with absence of availability to service. Topographical convenience has continued to be a foremost burden particularly amid ladies in countryside zones. This is in conjunction with the Uganda Bureau of Statistics and ICF (2018) report that specified that married males in countryside zones had advanced unmet necessity for contraceptive (30%) compared to married ladies in town zones (23%). It was also distinguished that there was a robust association amongst improved level of unmet prerequisite for contraceptives and the affluence prominence. It was moreover distinguished that as affluence upsurges, the unmet requirement for family planning condenses. The report needed to include feasible strategies in addressing the gap of unmet contraceptive needs.

Numerous research has been steered to evaluate the involvement that spouse's engagement can convey in woman resolution creating on procreant wellbeing. An investigation by Sileo, et al (2017) recognised that men commitment can increase availability improvement in reproductive healthiness amenities particularly birth control. The research suggested male contribution in all phases of lifecycle is fundamental so as to partake procreative health of their spouses as their own portion. For this to happen, there would be a need to appeal for an adjustment in program design to initiate males directed communications. The commendations are in conjunction with an assessement by Okigbo, et al (2015) who distinguished a loopehole in birth control designing, investigation and also in enlargement of policy guiding principle. The gap included absence of directed approach for men participation. The commendation was to have men directing methodologies from family planning, before conception, prenatal period, and giving birth as well as childcare. The study however did not outline on strategies of male involvement.

1.1.2.4 Quality Counselling Dimension

Counselling dimension in family planning is a health quality dimension that endeavours to deliver family planning services taking into account the predilections and ambitions

of clients and the philosophies of their societies through organized counselling. This includes client satisfaction, client preference, and selection.

Family planning counselling is the procedure of helping a client seeking contraceptive services from a trained health worker with an intention of making well-versed and intended selections about the number of offspring and the spacing of the children that the family intends to raise by use of the most suitable family planning method. Health care workers play a significant part in counselling of clients for uptake of contraceptive services. Many health care providers have taken up counselling as part of their roles.

These health care providers include nurses, clinical officers, HIV counsellors, and community health volunteers. The more the health care providers have been involved with counselling on family planning, the more the quality of counselling is affected as outlined in the study by Fruhauf et al. (2018). The research disclosed a reduction in the quality of counselling in Burkina Faso, Ethiopia, Kenya, and Uganda due to involvement of informal practitioners like community health workers. There was need to expand the study to other nations.

When a counsellor or a therapist has gone through an experience, it is usually very important to share an experience with clients for them to identify themselves with the situation. This can be referred to as self-disclosure where a therapist uses her experience to help the others. A study by Sleater & Scheiner (2017) in Burkina Faso, Ethiopia, Kenya, and Uganda. supported the use of personal experience to help clients overcome some situations or to make decisions. The study needed to search on the use of peer counsellors in family planning programming. Women can learn more from their peers.

Counselling on reproductive health related issues should be based on trust. Building a trusting relationship need to be well cultivated by a therapist. This is in convergence with recommendation by Malcolm & Golsworthy (2019) on the benefits of building a trusting relationship. The study needed to also explore on building trust by health care provider on clients. They need to understand the rumours myths and misconceptions that a community hold. Clients can only release the information if they trust a health care provider.

For clients to accept to use contraceptives services in African setup, there is a necessity to carry out social mobilization to create awareness on facilities and the advantages of family planning to equally males and females. This was the finding in a study by Shattuck, Wesson, et al (2016) on accomplishment of family planning aiming at vasectomy acceptance among men. In the study, there was need to have demand creation through social behaviour and communication component to advocate the utilization of contraception for men especially the permanent method. The study further recommended the use of existing structures such as leadership at all levels and the change of the current family planning polices to include social culture and to address the gender issues. The study needed to explore on various strategies for advocacy of permanent family planning services. Performance of family planning program therefore requires all-inclusive of the key stakeholders and the users in all stages of implementation to factor quality of services.

1.1.3 Client Characteristics

Family planning program targets females of procreative age and males. Client characteristics determine the consumption of contraceptive approaches while excellence of amenities offered determines the utilization of the services.

Many factors are considered to be hindering or promoting utilization of family planning. Some of these factors are client driven, others are health provider driven while others are family or community driven among others. Programmers need to understand the viewpoints of the exploitation of family planning in order to enhance utilization. This was echoed by Mesfin et al (2020) in a study that outlined some of the client characteristics that were found to influence utilization of contraceptives in Ethiopia were marriage status, presence or absence of physical or mental disability, and whether a woman was in formal employment. The study needed to explore education and also the types of disabilities. Health care workers require to understand the perspectives in order to address the gaps.

It is often assumed that sensitizing women on importance of family planning would significantly result to utilization of family planning. Unfortunately, there are others factors that make women not to utilise family planning despite being empowered with the information. This was revealed by Mustafa et al (2015) in Pakistan who noted that

some of the factors are family driven, religious driven and perception driven. The study further revealed the need to understand women characteristics that hinders utilization of contraceptives. The study however did not assess each factor independently to identify the strength of each factor for prioritization services. There is need to understand client driven factors for planning purposes of advocacy programs.

Gender of health care workers is very important in determining family planning outcomes. Some women are comfortable seeking family planning in health facilities that are managed by men while others would like to have the services offered by women. In some culture, women cannot seek any reproductive health service from a male provider. This was echoed by Saleem et al (2020) who indicated the need to train both genders on family planning. Further the study recommended on understanding the community and hence supporting the community with the health care provider they identify with. The study however needed to explore on the strategies of working with communities to accept family planning providers irrespective of their gender.

1.2 Statement of the Problem

Family planning program has been associated in playing a substantial starring role in the wellbeing of women and children. This is merging with the WHO statement (2018) that designated that family planning allows spacing of pregnancies, which indirectly or directly contribute to health of women to decrease undesirable gravidities, childbirth, and postnatal danger signs that results in many maternal and neonatal deaths. WHO expresses maternal demise or maternal mortality as any demise of a female while expectant or in the duration of forty-two days of cessation of gravidity, notwithstanding of the gestation and position of the gravidness, after any source connected to or heightened by the gravidity or the gravidity care apart from inadvertent or accident related reasons. Motherly demise rate can be described as the total maternal demises for every 100,000 childbirths.

Maternal death is used as a gauge of assessing excellence of health care in a country. In 2015, the World Bank found that Kenya had 510 maternal demises per 100,000 births per year, which is alarming. WHO (2018) reported that worldwide, 214 million females of motherhood age in industrializing nations wish to have a contraceptive commodity but they do not have access to the current family planning commodities. The report

further indicated that Africa was foremost most number of ladies with unsatisfied c birth control requirement at 24.2%. Few of the regions with greater contraceptive acceptance encompassed Asia, Latin America, as well as Caribbean that consisted of 10.2 % and 10.7%, levels of unattained family planning wants respectively

The ministry of health developed a guideline to quality of care, which was referred to as Kenya launched Kenya Quality Model of Health (KQMH) in 2020. It was to act as the model for offering comprehensive health services addressing diversity of organizational excellence issues with the main aim of giving positive health influences across all programs. Many counties however are yet to take up the concept of quality in family planning programming. Quality in health care is a combined tactic of processes, structure, and services. The main objective of quality in health care programming is to enhance quality of healthcare transversely in all program areas with prominence to increasing the devotion to standards and procedures. The objective also focussed on evidence-based remedy, enhancing structure, procedure, results through applying quality values and tools, sustaining patient or client requirements in a socially suitable way. Notwithstanding the inauguration of the Kenya Quality Model of Health, few studies have been steered on the execution of KQMH and its influence on accomplishment of various health programs.

Family planning amenities are very weighty amenities in precautionary healthiness particularly at basic well-being care level. It is consequently imperious to carry out a study to ascertain the Healthcare quality dimension, client characteristics, and accomplishment of family planning program in Nakuru County, Kuresoi North Sub-County. Over the past three Kenya demographic health surveys (1998, 2004, and 2014), Nakuru County emerged among the above average performing Counties in Kenya on the utilization of family services.

Nakuru County was rated among the above average counties in relationship to performance of family planning utilization, and the county having the best Couple Year of Protection (CYP), which is a measure used by the government to outline performance. The 2014 Kenya Demographic Health Survey (KDHS) revealed the CYP results, which was similar to the KDHS reports of 2004 and 1998. The report however noted that Kuresoi North Sub-County was below average and the poorest performing

sub-county in Nakuru County on family planning. Considering the performance of family planning consumption, it was imperative to explore the health quality dimensions and the performance of family planning in Nakuru County. Family planning program has remained one of the key components in reducing maternal and neonatal deaths.

Family planning Program has tried to address, the over-all fertility percentage of the nation state, which is at 3.9 as depicted by Kenya demographic health survey 2014 with 18 % unmet family planning needs. Maternal mortality rate is still high from 488 in 100000 to 510 in 100000 women which was a precursor of poorly applied FP programs. Healthcare Quality Dimensions is important in addressing the performance of FP program. The government of Kenya envisions achieving a healthy populace that can build the nation. This is outlined in Kenya Vision 2030 goals.

Despite an above average performance of Nakuru County in family planning utilization, there has been a significance poor performance in some sub-counties. The District Health Information System (DHIS) 2015/2016 description indicated that family planning acceptance in Nakuru County had achieved 46%. The sub-county that was taking the lead was Naivasha Sub-County, having achieved 61%, with Kuresoi South having achieved the lowest acceptance of family planning amenities, which had only achieved 28 per cent.

Kenya Demographic Health Survey, (2014) rated Nakuru county utilization of contraception at 56.8%, with only 38% of females utilizing modern-day contraceptives, rated as lower than the nation-wide median of 58%. Further, the KDHS (2014) report revealed that the overall unattained requirement for family planning in Nakuru County was at 35%, beside the nationwide median of 18%. Some of the factors that the survey attributed to be the barriers in the use of contraceptives in Nakuru County were minimal levels of reading ability, ethnicity, and religious conviction. Education was viewed as a contributing factor to use of contraceptives.

The report further indicated that every 3 females in a group of 10 in marriage relationships lacked formal education and thus were unable to gain access to knowledge related to contraceptive services in comparison to 1 female in a group of 10 having gone

through high school system of education. The survey also explored the independence of women in seeking contraceptives and found out that in Nakuru County, numerous females were still getting approval from their partners prior to deciding on the utilization of contraceptives for the purposes of spacing out their children. Religious conviction equally makes a major contribution with some religions like Roman Catholic forbidding utilization of modern-day family planning techniques for birth spacing. A report in the daily Nation by Mureithi (2017) also noted that 4 females in a group of 10 in Nakuru County we unable to gain access to family planning amenities. The findings as contained in the report, indicates that there is poor uptake of family planning in Nakuru County especially in Kuresoi North whose performance is the poorest compared to other sub-counties in Nakuru County. Given this context, the research sought to establish the impact of healthcare quality dimensions, client characteristics on performance of family planning programme in Nakuru County, Kuresoi North Sub-County.

The results of the research findings will improve on the information available to program administrators to articulate effective strategies towards addressing the healthcare quality dimensions of family planning program and help to develop program aimed at addressing gaps in the current programming. The findings and recommendations will further help to design strategies that can help in success of a family planning programme.

1.3 Purpose of the Study

The intention of the research findings was to discover the influence of healthcare quality dimensions and the moderating role of client individualities on the performance of family planning program in Nakuru County, Kenya.

1.4 Objectives of the Research

This study was steered by the objectives below

1. To establish how management competency quality dimension influence performance of family planning program in Kuresoi North of Nakuru county
2. To examine the magnitude to which contraceptive supply quality dimension influence performance of family planning program in Nakuru county

3. To find out how access to quality dimension influence performance of family planning program in Nakuru county
4. To establish how quality counseling dimension influence performance of family planning program in Nakuru county
5. To examine the extent to which combined healthcare quality dimensions' influence performance of family planning program in Nakuru county
6. To ascertain how client characteristics, influence performance of family planning program in Nakuru county
7. To determine the influence of client characteristics and combined health care quality dimensions on performance of family planning program in Nakuru County.

1.5 Research Questions

The research was directed by the research questions below

1. How does management competency quality dimension, influence performance of family planning program in Nakuru County?
2. To what level does contraceptive supply quality dimension, influence the performance of family planning program in Nakuru County?
3. How does access to quality, influence performance of family planning program in Nakuru County?
4. How does quality counseling dimension influence performance of family planning program in Nakuru County?
5. To what level does combined healthcare quality dimensions' influence performance of family planning program in Nakuru County?
6. How does the combined healthcare quality dimensions and moderating influence of client characteristic influence performance of family planning program in Nakuru County?
7. How does moderating influence of client characteristics influence performance of family planning program in Nakuru County?

1.6 Research Hypothesis

The study was steered by the research hypothesis below

1. **$H_1$1:** There is a significant association between management competency quality dimension and performance of family planning program in Nakuru county
2. **$H_1$2**: There is an association between contraceptive supply quality dimension and the performance of family planning program in Nakuru county
3. **$H_1$3:** There is a correlation between access to quality dimension and the performance of family planning program in Nakuru county
4. **$H_1$4:** There is a link between quality counseling dimension and the performance of family planning program in Nakuru county
5. **$H_1$5:** There is a connection between the combined healthcare quality dimensions and the performance of family planning program in Nakuru county
6. **$H_1$6:** There is a relationship between moderating influence of client characteristics and performance of family planning program in Nakuru county
7. **$H_1$7:** There is a relationship among the moderating influence of client characteristic and combined healthcare quality dimensions and the performance of family planning program in Nakuru County.

1.7 Significance of the Study

The research engrossed on the effect of healthcare quality dimension, client characteristics, and execution of birth control program in Nakuru County, Kenya. The

findings are of great relevance to all health care stakeholders and further inform policy makers on quality dimensions of family planning programs. The outcomes of this research will help program leaders to communicate operative stratagems in the direction of resolving the Healthcare Quality elements on the performance of birth control program and help to develop program intended to resolving gaps in the current family planning programming. Females of procreative age benefited from the study since the study was able to establish their opinion on quality of family planning essential services and how they wished contraceptives services to be provided to them. The health facility in-charges were able to get feedback from the clients they serve through the study and hence endeavour to satisfy the clients.

1.8 Basic Assumptions of the Study

The research scrutinized the effect of healthcare quality dimension and client characteristics on performance of family planning program in Nakuru County, Kenya. Therefore, it assumed that, quality counselling dimension, access to quality dimension, management competency quality dimension, contraceptive supply quality dimension, combined healthcare quality dimensions, and client individualities impact the performance of family planning program. Further, it is acknowledged that the respondents were truthful, supportive, accurate, unbiassed and dependable in their answers.

1.9 Limitations of the Study

The populace of the research was females of reproductive age who were between the age of 15 and 49 years, however, there were women below 15 years and above 49 years utilising family planning who did not participate. This resulted to study findings limited to generalization. The study examined influence of healthcare quality dimension, client characteristics on performance of family planning program in Kuresoi North, Nakuru County. The study utilized a sample size of 400 women from the target population, which limited generalization. The study was only limited to descriptive survey technique utilizing mixed method technique. The research tools utilized were only limited to questionnaires, observation checklist, and interview guide.

1.10 Delimitations of the Study

The study was delimited to scrutinising the influence of Healthcare quality dimension, client characteristics, and performance of family planning program in Kuresoi North Nakuru County, Kenya. This was due to the poor performance on reproductive health indicators especially family planning in Kuresoi North as compared to other sub-counties in Nakuru County. The dependent variables studied were quality counselling dimension, access to quality dimension, management competency quality dimension and contraceptive supply quality dimension. The moderating variable was client characteristics. This left out other variables that would be contributing to poor performance of family planning. The study utilized stratified sampling technique and hence left out other techniques like census. The tools used were only questionnaires, exhaustive interviews guide as well as observation checklists to gather information.

1.11 Definition of Significant Terms Used in the Study

This segment presents the contextual meaning of key terms as utilized in the research.

Access Dimension	Access as a quality dimension involves offering health care that is opportune, geologically serviceable, and obtainable in a background that abilities and supplies are appropriate to health requirement.
Client Characteristics	Client characteristics in family planning program means those personal traits that enables a client to take up family planning methods
Contraceptive Supply dimension	Refers to a situation whereby individuals can acquire as well as utilise superior contraceptives at whatever time they would like them.
Counselling dimension	Refers to the process of helping a client who has come to health care provider to seek family planning services to decide on the best family planning method suitable for her body.
Dimension	An aspect or feature of a situation
Family planning	A reproductive approach that a person or couples engage to satisfy their reproductive objectives and to prevent undesirable pregnancies.

Family Planning Commodities	These are contraceptives or methods of family planning for child spacing.
Family planning performance	Is the degree of success in uptake of family planning services
Healthcare Quality Dimension	Healthcare quality dimension comprises of a wide range of components and services that works in collaboration to ensure achievement an expected degree of excellence in family planning program. These includes counselling, accesses, contraceptive supplies and management competency.
Household	The smallest unit in a community comprising people living together under one roof with well-defined leadership structure.
Management competency dimension	Refers to the ability of a staff to have the suitable facts, skills, inspiration, and working environment to offer quality services.
Project performance	Refers to the degree of success of an investment
Quality Dimension	An aspect or feature of the requirement of something as quantified in contrast to other items of a comparable kind or the level of distinction of something
Women of Childbearing Age	Women aged 15-49 years

1.12 Organization of the Study

The investigation has been systematized in five sections that are highlighted as Chapter one to five, introductory pages entailing of the declaration, dedication, acknowledgements table of contents, List of tables, acronyms and abbreviations and the abstract. The appendages are itemized at the close of the text and comprises of significant specialists specified for the research to be steered and questionnaires utilized for the survey.

Chapter one is the contextual to the research. It provides the circumstantial or contextual to the study, statement of the problem, purpose of the study, the objectives of the study, research questions, research hypotheses, significance of the study,

Limitations and delimitations of the study, basic assumptions and the definition of significant terms as used in the study.

Chapter two outlines the reviews of collected works which appears at aspects compelling performance of family planning projects. The chapter likewise delivers the theoretical structure of the research.

Chapter three summaries the research strategy, the target populace, approaches of statistics gathering, validity and reliability of the investigation tools and statistics assortment processes. The chapter similarly comprises the ethical deliberations of the investigation, data scrutiny and exhibition, and the variables operationalization.

Chapter four pronounces the understanding and demonstration of the outcomes found from the ground. The chapter designates the reaction, the contextual statistics of the questioned respondents, outcomes of the research grounded on the goals of the study. The discussion of the outcomes, descriptive and inferential measurements has been applied. Chapter five offers a summary of the discoveries and deliberates the outcomes, deductions and commendations.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter discusses literature interrelated to healthcare quality dimensions, client characteristics and performance of family planning program in Nakuru county. It emphases on weighing the degree to which quality counselling dimension, accessible to quality dimension, management competency quality dimension and contraceptive supply quality dimension and client individualities influence performance of family planning projects. Studies related to quality of care world-wide have been reviewed. In general, there are some aspects of the existing literature that deserve scrutiny. Most of these studies have however given inadequate information on how and why various health dimensions need to be integrated hence the quality dimension of health care has not been achieved. The chapter also discusses the hypothetical context, theoretical context summary and information gaps recognized.

2.2 Performance of Family Planning Program

Birth control program performance is fundamental in accomplishing the third United Nations Sustainable Development Goals, (2015) which is respectable healthiness and comfort. Measurement of Performance of contraceptive program can be done through the family planning indicators. Key players in family planning program need to agree on unit or measure of success of programmatic implementation of family planning which ought to be sound documented in the family planning guidelines and other health documents. The need to have a measure for performance was also emphasized by Gregory, (2015) of United States of America in a study on measures of performance. The study outlined several strategies to ensure good performance of family planning

programs. Some stratagems included involving the male gender in the designing, and implementation of programs.

In an assessment carried out by Robert Wood Johnson Foundation, (2011) and reported on Institute of Medicine (IOM), there was a concern over changes in the health systems that were seriously affecting quality especially due to human resource shortage that heavily impacted on the services being delivered to clients. The study added that performance of family planning program was determined by various components of quality, which included management competency, counseling, and accessibility, among others. To measure performance of family planning therefore requires well-structured tools that can be used regularly by any institution and standardized across areas of operations.

Gregory, (2015) further indicated that to assess performance of quality in health care, there must be an agreement on how quality is defined. Actual measures to assess the routine offering of services and a structured way of reporting on quality was also found necessary. The study further outlined that there were several documents developed by various organizations with different definitions of quality. In convergence with the study, Agency for Healthcare Research and Quality (2018) outlined 6 dimensions of quality which included; harmless, real, client-positioned, opportune, well-organized and impartial. These dimensions were to guide measure of quality. It is important for any institution therefore to come up with a checklist of measuring quality. It was however, noted that some institutions had different definitions of quality. Some of the documents cited to have different definition of quality were a report by Dayal & Hort (2015) on in a World Health Organization report on excellence of care through the procedure of developing structural decisions in the systems of health. WHO viewed quality in terms of health systems which included a well-structured strategy and resources to implement the strategy adequately? The resources included social/ manpower, money/physical as well as knowledgeable resources. There is need to pull together all the resources to get the desired quality level.

With dynamics of health, health service providers are moving from just providing health care to providing quality health care. This is in convergence with the discoveries from an investigation steered by Cheng et al, (2014), on excellence measurement, which indicated that there was a shift in health care from workload-based to value-based

compensation of health care services. This would ensure that clients would get value for their resources and the hospitals would receive resources worth the service offered. The study further specified that to be able to quantity the worth of health care one should have a ration of excellence and cost. The study employed usage of conceptual model for assessing quality which defines health care quality inform of structure, procedures as well as the results.

It has been noted that many studies and decision makers are working tirelessly to advance a well-organized process of determining as well as learning through modeling excellence of care from various facilities and care givers as reported by Australian Commission (2019) on a survey that sought to define pointers of safety and excellence. The report also revealed that several countries were reporting quality as part of health systems reports on performance such countries included most the Netherlands, Nordic countries, Belgium, Mexico, Canada, Spain, Italy, and Australia. Despite identifying access and commodity as part of quality, that indicated that institutions have not been able to determine excellence of care given to clienteles. The study failed to look at other determinants of quality like environment, staff skills, and other determinants. Institutions therefore need to develop tools or checklists to periodically monitor quality.

Despite a strive by many countries towards achieving excellence of care in providing family planning, a room for improvement remains in the aspect of quality. In an investigation undertaken in Congo by Mpunga et al. (2017), the results indicated the need for continued improvement of family planning programs. Quality should therefore be continuously improved. Improvement of quality is very important since it ensures that control measures are put in place. The study however did not give guidance on measures of quality improvement. This study was echoed by another research steered by Tessema et al, (2016) on features influencing excellence of care in provision of services of family planning in Africa, which revealed lack of enough information to determine the actual assessments of quality in programs related health especially family planning.

The study described quality services and improvement as a combination of services or interventions. There was however a need to give guidance on how to integrate all the combinations to give the expected results. Performance of contraceptive program is acknowledged as a key component towards dropping maternal and neonatal demises

worldwide. The republic of Congo recognized the part played by contraceptive in controlling maternal mortality and as a way of addressing the economic issues in the country. This is well described in the country National Multisectoral Strategic Plan 2014 – 2020, which acts as a guide to family planning programs. The study was in convergence with a study by Kristensen et al, (2015) which sought to analyze the number of readmission in relationship with quality of care. The findings revealed that it was possible to reduce readmissions through quality improvement which equally results to cost saving. The study however did not explore other causes of readmissions other than compromised quality. To support citizens in achieving affordable health care services, its therefore important to improve quality which also reduces patients cost.

Quality improvement is a process that takes several steps to achieve and maintain the standards of performance. Every step must be followed and adhered to, to ensure that quality is achieved. For the steps to well followed, there is need to have well defined indicators on quality as recommended by Fujita et al, (2018) on a study of excellence indicators for accountable health. This was echoed in a documentary carried out by USAID (2016) on utilizing a quality Enhancement approach to enhance communal-based contraceptive amenities in Busia district Uganda. During the documentary on quality improvement, seven steps were followed which resulted to improvement in performance of family planning indicators at community level. The study however failed to outline the steps to be followed at the health facility level. There should be a good linkage between the community and health care facility to achieve a well-coordinated service delivery model.

Advancement in the performance of programs in family planning, which are steered towards on reducing the unmet family planning needs for family planning, involves multiple interventions coordinated to achieve the objective. Quality care services are only one of the interventions. The study by Darroch &Singh, (2013) on progress in family planning needs and uptake in unindustrialized countries in 2003, 2008, and 2012, revealed that provision of high-quality services is just one of the interventions among others like increase in health budgets, enhancing commodity supplies, and availability to contraceptives and also creation of awareness with aim of reducing social barriers.

Quality enhancement is a multidisciplinary tactic which requires all the stakeholder's involvement. In provision of maternal health, the community plays a key role and hence need to be involved. In a study carried out in Ethiopia on enhancing motherly and Neonatal Health Care in the Countryside of Amhara and Oromiya districts, the study indicated that there was improvement in motherly and neonatal indicators when a multi-disciplinary approach was utilized. This included in cooperating a group of community health workers, communal health progress agents as well as traditional birth attendants (Sibley et al, 2015). The study however did not outline the role of the stakeholders like the traditional birth attendance in quality enhancement of maternal and neonatal amenities. Further WHO, (2017) launched a worldwide endeavor to assure quality through reducing serious, preventable drug-related danger globally by 50% for five years. Through the endeavor, one of the measure of quality was to be through reduction in medical, preventable errors. The endeavor is still on going until 2022 hence outcome is yet to be established.

Client satisfaction is a measure of quality in health care amenities, which is in convergence with findings from a research conducted by Berkowitz (2016) that investigated on the experience of patients and their satisfaction. The study directly or indirectly linked patients experience with their satisfaction. This is grounded on the patient's expectation which client uses to judge quality for example, if a client expects to have arthromeres measurements before being seen by a clinician that becomes the first measure of quality from her or his perspectives. The study however did not correlate the patient's expectation with that of the health care provider's expectation.

Structures such as comfortable chair, waiting bay, efficient machines among others play a major role in client definition and measure of quality. This was shown in yet another study by Al-Awamreh & Suliman (2019), where patients considered structure set up as part of quality in health care. The study involved assessment of patient satisfaction, patients reported that they were satisfied, though they pointed out few structural issues that needed to be improved. The study however did not assess clients on other software services such as counselling and only assessed the physical set up. It is therefore significant for health facilities to contemplate structure as part of excellence measure in health care.

Quality in running of health care amenities is usually measured by the services given, however the working environment for provision of quality of care is also important in ensuring quality. In a research conducted in Kenya on structural limitations to improved healthiness in delivery rooms in countryside Kenya by Essendi et al, (2015), discovered that the community view excellence of health care from infrastructure point of view to include access to health facility through good roads, availability of equipment's and electricity, as well as the facility structure. The study however needed to give guidance on the association among several components of infrastructure in relation to excellence of health care.

Understanding quality management and total quality management provides a basis for performance of quality programs. The Kenya Quality Model for Health (2020) describes quality management as a combination of enhancement and valuation methods and apparatuses to enhance the holistic performance of structures including quality assurance methods and processes. Furthers, it adds that quality improvement and assurance in management can be viewed as part of the broad comprehensive organization development management structure with components such as organization culture, standards, contribution, cooperation and enable, mentor empowerment. In addition, it describes Total Quality Management (TQM) as a management method of a group, placed on quality, founded on the contribution of all its memberships and targeting at long-standing achievement through client fulfillment and paybacks to all associates of the association and to community.

The Ministry of Health Kenya, through Kenya Quality Model for Health (2020) outlines quality enhancement as a methodical tactic to the procedures of effort that appears to eliminate surplus, damage, redraft, hindrance, etc., to make the procedures of efforts more real, well-organized, and suitable. The ISO 9000 describes quality improvement as the movements taken through the association or group to increase the efficiency of happenings and procedures to deliver added paybacks equally to the association and its clienteles. ISO 9000 further shortens the meaning of quality improvement to mean whatever that roots a valuable transformation in excellence performance.

A report by Ministry of Health Kenya informed by a study carried by Wangia & Kandi (2016), recommended addressing of quality should not just look at the contraceptive

service delivery level but should also include quality at community level. There is however more to be done at community since patients come from the community and it's only at the community that the ministry could get the best outcomes especially on health promotion and prevention. Some of the quality improvement recommendations included, revision of and strengthening of the community strategy to contain hygiene and CLTS, de-worming, water sanitation and nourishment surveillance and treatment for stunting. The study however failed to explore on the community resources to facilitate quality assessment at community level. There is therefore need to explore on how to support the community to ensure quality at the primary health care level.

A fundamental measure of excellence in health segment is presence of an adequate and well skilled workforce. Kenya Ministry of Health, (2015) through an assessment report on the country Health labor force status reported recommended four major elements for the government to consider in order to hire and retain health workers. These elements included: accessibility of sufficient proficient health specialists as per the need and the populace of a given area, ease of access to the health technicians at all times and days. The report also considered appropriateness of the services offered by the health professionals which includes the way they handle clients with respect and the quality of skill set of health care provider which includes refresher courses and continues medical education. The work force report however failed to outline the strategies for specific counties due to specialized needs of each county.

2.3 Healthcare Quality Dimensions and Performance of Family Planning Program

Healthcare quality dimension comprises of extensive choice of components and amenities that works in collaboration to ensure achievement of an expected degree of excellence in family planning program. The variables under health care quality dimensions in the current study are management competency, contraceptive supply quality dimension, access to quality and quality of counseling as discussed below.

2.3.1 Management Competency and Performance of Family Planning Program

The first objective in the research was to evaluate the effect of management proficiency quality dimension on performance of family planning program in the County of Nakuru.

Leadership is considered as a key strategy in management. International Hospital Federation (2015) in a report considered a leader as a person with ability to instigate

people and managerial distinction, make a mutual dream and efficaciously accomplish transformation to accomplish the administration's planned goals resulting to successful performance. The report however did not capture tools that a leader need to impact on an institution performance. For management competency to be considered of good quality, leadership is therefore very important.

A respectable accomplishment companyor institution ordinarily has principles that supports to uphold values from end to end. In healthiness care, the philosophy necessitates to be cultivated, and health care workers coached on by the institution management. This would safeguard excellence enhancement, harmless and empathy health care which has continued to be a significant hinderance in health segment. There are several investigates directed on the starring role of management in increasing a culture of persistent enhancement. To leadership posses a fundamental staring role to ensure sustainability of an organization way of life in excellence as discovered by West et al. (2015) in an investigation on governance improvement in England. The research however failed to outline the roles of other staff in enhancing good leadership.

In implementing the Sustainable Development Goals (SDGs) from September 2015, intercontinental authorities and multifaceted organizations approved comprehensive wellbeing coverage as mutually an imperative module of workable progressive and a precondition for attaining fairness in worldwide health. For the SDGs to achieved, there is need to have good leadership to enhance collaboration and integration between all sectors as outlined by Hussain, et al. (2020) in a research finding. The report however failed to outline on the need to have tools to enhance collaboration and linkage between organizations and different key players. Linkage of departments can allow countries to achieve more.

The study was echoed by Bennett, et al (2020) in yet another study that indicated that in order to accomplish the SDGs, the top leadership in health especially at the policy decision making level should be engaged in a continuous way to ensure that key areas that would result to quality care are improved continuously. Additional, the research discovered that plentiful establishments were fronting an encounter of absence of a philosophy of excellence distribution and unremitting enhancement creating several establishments to deteriorate in excellence of care particularly in health care. The study also added that it was the starring role of administration is to heighten a place of work with refining thrilling excellence, not hurtful and compassionate healthiness care amenities. The leading influence of management in any establishment is very

imperative. Management consequently has an unlimited starring role to guarantee faithfulness to the institution principles, policies and mission. The research nevertheless was not able to deliver a recommendation on how leaders can deliver the coaching.

In yet another study by McGuire, A. et al. (2019) that had convergence in the responsibilities of leadership in ensuring collaboration through co-financing of health programs, 81 models of co-financing health programs were reviewed in 81 countries. The models were high in the developed nations at 93% while 6 inventive models had been established in Africa, Asia and South America. These countries included Brazil, Uganda, Mozambique, El Salvador, Kenya and Zambia. The models reviewed that the concept of co-financing was effective in integrating programs and giving better outcome in health indicators. Leadership is therefore key in ensuring integration of services. The review however, failed to indicated whether the models were also co-implemented and co-monitored

In another study by Hangoma & Surgey (2019) which was in divergence indicated that Millennium Development Goals (MDGs) were well structured as compared to SDGs. This due to cited some inconsistency in the goals arguing that most of the SDGs were interconnected and that as one accomplishes one goal, another goal was to be negatively impacted. The study cited the relationship between economic growth and climate action in opposition that development cannot be sustainable due to its impact on environmental since as growth increase the degradation of the environment increases. There is need for a study to evaluate the reviews in order to inform the policy makers during the midterm review of SDGs.

Management approaches in healthiness care has been related with saving of life's, which should therefore need to be well balanced to focus on the health outcome of patients. One of the biggest challenged faced by leadership in health is the ability to ensure that health outcomes are achieved with clients getting value for the service given. This was outlined by Appold, (2020) who cited the challenges of two models that is the model of giving a service then getting reimbursed and the model of giving a service tied to the value which included quality. While the study outlined the issues of quality, health care responds to urgent issues which are not planned for hence clients at times are not able to choose where to seek services especially due to the status hence

the concept cannot apply to many health facilities especially in rural government health facilities.

With emerging issues like COVID19 pandemic, leadership need to develop strategies that would enhance continuity care of patient without physical presence. This has been enhanced by Kaltwasser, J, (2021) who described the important of electronic monitoring of patients. He indicated that patients on chronic medication need to be monitored remotely in a well-structured system that can be able to generate patient progress with a way of picking danger signs that would require a patient's physical attendance. While the concept of telemedicine and digital medicine is a brilliant idea, many counties continue to suffer from lack of the basic infrastructure. Most rural areas lack electricity and have very poor road network.

The style of leadership that any manager chooses to engage in plays a crucial starring role in impacting to the health care especially the nursing care. This has been discussed by Sfantou, et al (2017), who indicated the need to strengthen quality in nursing care as well as patient care. The study discovered that the style of leadership was key in determine outcome of patients on care. The study recommended the need to evaluate leadership styles used in health care and train the leaders entrusted in leadership on leadership and how the styles of leadership can be utilized to achieve the best outcome of patients. The study however failed to outline other elements in health care that are interrelated with leadership that enhance quality patient care. Such elements include the physical structures and resources especially the supplies.

In convergence with study Kiwanuka,.et al, (2021) indicated that where the leadership style is change driven, mindful of the patients and health care workers and leadership by modeling, it positively impacts on patients and results to better patient outcomes, well-motivated workers and great working environment. The study recommended the need to have a good working environment with a good organization culture that could be passed from one leader to another. There is therefore need to support organizations dealing with health, government institutions, faith based and private institutions to strengthen great leadership styles.

The style of leadership employed have been linked with patient outcomes and staff retention and attraction in various organizations. This was echoed by Alilyyani, et al, (2018) who reviewed the relationship between the patient's outcomes and the nursing leadership. The review checked on the states of psychosocial of care givers and patients, the gratification related to the job, factors related to working environment, as well as healthiness of caregivers and patient outcomes. The Study discovered a great correspondence between the type of leadership and the overall outcomes of patients. There is therefore need to review leadership styles and their impact on health.

Many scholars have studied on the impact of leadership style and health worker's attraction and retention in health institutions. In a study by Cummings, et al (2018) that sought to check on the connection amongst the management style and performance of health care workers focused on some elements. These elements included health workers job satisfaction, the health care provider's attitude to work, health status of the health workers, and interpersonal relationship amongst the workers, institutional factors related to the working environment and the performance of and efficiency of health care providers. The research recognized a precise robust correlation amongst the leadership style and the health care worker's performance. The study nonetheless was unable to outline the relationship between the leadership style and care outcomes of patients. There is need to have more studies to establish care outcomes.

In yet another study by Dwyer. (2019), that sought to establish styles of leadership employed in nursing and features of administration in various institutions focused on some elements in management of the elderly. These elements were; nurses level of education, continuous technical progression, attitude of nurses towards the aged as well as a requirement for a facilitative working environment. The study showed that the nurses that were working more motivated to provide care to the elderly as compared to nurses working in hospital setups. The study also revealed that the nurses providing geriatric care had better performance outcome. The study also pointed out some few weaknesses that included lack of a structured training model for nurse administrators to manage on managing types.

In convergence with the discoveries of the research, there is need to develop a training guide for clinical management targeting leadership styles and skills. This was echoed by Mianda &Voce (2018), in a study that outlined the need for a training package for clinicians and nurses. The study indicated that leadership is an ongoing skill which should be trained in a continuous manner and handed over from one leader to another. Further the study o

Conceptualization of management and clinical care with the use of mentorship and coaching model to impact knowledge since competency of health care professionals greatly impacts on health outcomes. The study needed to explore on other learning models such as classroom set up through in-service training model in order to target the understaffed health facilities which may lack a mentor to coach other clinicians.

As health institutions wish to improve health care, quality is very important. Improvement of skills of health care providers on quality is key to achieving the overall quality in health care. This can be done through various models of capacity building of staff. These includes frequent continues medical education, coaching, on the job training, mentorship and structured supportive supervision. Chamane, et al, (2019) indicated that poor quality services can be associated with incompetency amongst the health care providers. The study recommended a structured way of improving the skills of health care providers. The study however failed to explore other causes of poor services including the supplies. More studies need to be enhanced on quality of care.

In convergence with the verdicts of the research by Wiysonge, et al (2016) designated that regular update and supervision of health care workers has been found to improve the care in regards to quality. Improvement of quality is a holist approach that requires several measures to be put in place and a systematic monitoring and evaluation system. The study recommended implementation of quality as a project to be integrated in all components of health care and in all departments of all health facilities. The study however did not explore on mechanism of implementing quality of care as a project in health facilities and at community level.

Quality of care in ICUs is very critical in determining the patient's outcome. Most patients in ICU are not able to communicate with a significant majority on life saving machines and therefore the highest standard of care need to be provided to patients in

ICU. This was reverberated in research discoveries by Adams, et al (2019) which recommended the need of supporting nurses providing care in ICUs through capacity building in order to provide the highest standard of care. The study however did not explore other support structures other than the skills.

2.3.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program

The second objective that was guiding literature review was to establish the effect of contraceptive supply quality dimension on performance of family planning program in Nakuru County. Contraceptive supply is a health care dimension that endeavours to offer wellbeing services in a way that exploits supply usage and evades waste. Contraceptive supply is one of the components in health care quality dimension.

Family Planning Programs are required to make certain quality amenities are offered in all health care facilities, security of contraceptives or supply of contraceptive need to be assured. In any health program, commodity security is of paramount importance, a study on contraceptive security carried out by Kwete et al. (2018). Contraceptive commodity security can be defined as the ability of any facilities offering contraceptive services to stock the appropriate family planning commodities within appropriate place, in the appropriate time and in the appropriate cost.

Contraceptive security is very important in ensuring that women of procreative age can access modern methods of family planning. This was echoed by Riley et al. (2018) through outcomes of investigation in Congo, Nigeria and Ethiopia. The study revealed that across all the three countries, both private and public health facilities had experienced stock out for family planning commodities. This indicated that women could not access certain commodities hence not able to receive their method of choice. It is important for the national mechanisms of various countries to ensure that missed chances are reduced. Family planning plays an abundant starring role in dropping motherly and youngster deaths since women are able to have an opportunity to space their children. Though the study did not explore on how family planning commodity

security could be ensured, it provided key information on the contraceptive status in the three countries

Despite the benefits of family planning especially due to Its contribution to the health of children and mothers, many women continue to experience barriers in achieving their needs in child spacing. This was echoed by Campbell, et al., (2015) who evaluated performance of family planning in both developed and non-developed indicated that there exists a huge requirement for family planning services among women particularly in sub-Saharan Africa. Some republics in Sub-Saharan Africa had as huge gap of 72% which was being experienced in both public as well as private sector in equal measure. It was also noted that some chemists were supplying family planning commodities but they did not have ways of reporting the same. Some women also preferred to seek services in private health facilities hence the need to support and facilitate private facilities. Though the research did not explore on why women preferred to seek their reproductive health services in the private sector, there is need to explore on how private and faith based facilities can be facilitated to provide quality services.

In yet another study targeting Sub-Saharan countries carried out by Thanel, et al. (2018) focusing on long acting family planning methods, the discoveries publicised that utmost of the countries were experiencing stock outs of long term commodities of family planning. Which posed a big barrier in achieving FP2020 obligations in sub-Saharan Africa. Some of the republics that were experimented to contribute in the research included Ethiopia, Nigeria, and Congo. Long acting and adjustable methods of family planning typically delivers an opening to influence on the inclusive contraceptive year of protection. When these family planning methods are unavailable, generally the performance of family planning goes down hence the need to always maintain these family planning procedures. Additionally, the study also revealed most health facilities lacked the equipment necessary to offer some methods such as implants and IUCDs. The study needed to explore on a way of measuring health facilities with commodities but clients could not access those commodities due to either inadequate skills of health care providers or lack of equipment.

Services that accompany family planning services and need to be integrated into family planning includes cervical cancer screening, testing for HIV as well as testing for malaria. Most of the health facilities both private and public lacks a system that ensures that such services are well integrated and some lacks the services. This was revealed by Hanson & Goodman (2017) who indicated that most countries in Saharan African lacks the basic diagnostic test kits and were not able to integrate the services into family planning. Women who seeks family planning services need to be provided with all the services that can be provided since they are not sick and it's an opportunity to have them in the health facilities and hence they need to go home having had a holistic service. Some of the barriers sited included were high cost of the tests in the facilities with the services and in most 74% of government health facilities lacked the services and those facilities that had the services were not able to integrate them either due to shortage of staff or due to lack of interest. The study however, did not explore on the systems that the few facilities that were integrating services were using and the tools that enabled the integration for bench marking by other health facilities.

Following of protocols and guidelines in provision of health services results to quality of care. Government across the nations should ensure adherence to protocols and guidelines in all health facilities whether private or public. Government institution follows the protocols and guidelines as compared to private facilities. This was reverberated in a discovery by Phok et al, (2017) in Thailand, the Lao PDR, Cambodia, and Myanmar which revealed that treatment of malaria and integrating of malarial treatment into other services was better in public health facilities parallel to private health facilities. Though the study did not explore on integrating of malaria treatment into family planning services, it revealed information in regarding to quality of care through following of the protocols and guidelines that need to be adopted and adapted in across health care programs.

In yet another study by Leisher et al, (2016) that explored the usage and adherence to family planning tools in a quality assessment, the assessment revealed that there are goods tools developed for measuring performance as well as quality. Despite availability of the tools, in both low- and medium-income nations, most countries 86% were not able to use the tools correctly. Tools are very important in monitoring performance of any program and in measuring effectiveness of a program. It is therefore

very important for countries to ensure adherence to the use of tools developed to measure quality. Though the study did not outline the tools, and percentage of usage of individual tools, the study provided an insight on the need to regular check on usage of tools. Proper use of tools would ensure excellence information gathering and usage of information for resolution creation which is lacking in most health facilities.

Costing implementation of a program is very fundamental goal in informing cost allocation as well as enhancing program base budgeting. Some countries have come up with a plan to guide implementation of family planning program. Ethiopia through the Ministry of Health (2016), developed a tabulated execution strategy meant to bridge the gaps in missed opportunities for services related to family planning. The study found out that most women had preference to short acting family planning methods. Introduction of long activing and reversible family planning commodities such as IUCD through development partners revealed that women were receptive on the long term family methods. This revealed that the barrier of not using the long term methods was not emanating from women but from the health workers. The study did not explore on how sustain the model of enhancing long term family planning without development partners. For any program to succeed, there is need for sustainable measures.

Some countries have recognized the starring role of birth control in overall health of the nation and its contribution to the economy of the nation. This was echoed by Mukaba et al (2015) in the development of policy of birth control in the Democratic Republic of the Congo. The policy document was grounded on the contribution of family planning in various aspects of nation development. These aspects included; influence on reduction of maternal death and growth in trade and industry, development of learning agenda information dissemination on doable interventions in African countries, stakeholder's involvement in creation of a countrywide costed plan, structured partnership with all the key players, efficiency through in championing the plan through health specialists, and enhancing support from donors. The strategy was well structured, the strategy lacked sustainability of the programs but focused on donor support. Governments need to reduce dependency on donor funds.

Every opportunity a health care provider interacts with a woman of reproductive age should be an opportunity to support the her in her reproductive health choices especially

in child spacing. One of the opportunities is when women visit a health facility for a skilled birth attendance in child birth. No woman should get out of maternity without her child spacing concerns attended to. This was echoed by Jarvis et al, (2018) from discoveries from study findings in Congo that indicated the need of initiating family services to women immediately after birth since it could be the only opportunity a health care provider is able to interact with women. The study recommended the use of long acting methods post-partum to give women opportunities to regain their health and to effectively breastfeed children. Post-partum family planning need to be utilised in all health facilities. The study did not explore on tools to monitor use of postpartum family planning and adherence to the tools which is key in the implementation.

In yet another study carried out in Congo by Kwete et al (2018), focusing on exploring innovative ways of achieving the nation strategic plan for family planning, the study revealed initiatives that were deemed to yield results. These initiatives were thought to overcome the existing barriers. They included enhancing national harmonising mechanism in all provinces to steer the service delivery at the lower health facility levels. Improving the quantity and excellence of family planning services followed by demand creation for the services, use of various channels to carry out societal marketing of commodities of family planning, and expanding the expertise by permitting nursing students to carry out community distribution role through collaboration with learning institutions. The study however did not explore on the cost and the risks related to entrusting the students as community distributers and how to overcome the challenges.

This was in convergence with another study in Congo by Babazadeh et al. (2020). That focused on assessing access of contraceptive amenities at health facility level. The study assessed various components of access such access to administration services, institutional services, ability to seek services within a reasonable distance, ability to pay for the services i.e. the actual service and the cost related to transport, ability to get excellence services, ability to get proper counselling and mental preparation for the services being offered. The study recommended use of that for accessibility to be considered achieved, one has to consider all the components of accessibility including the client perception and readiness to receive a service. The study equally recommended availing all commodities at the community service points. The research however did not explore on the actual barriers to accessibility in order to help in in inform strategic

and evidence based interventions. Addressing hindrances to accessibility can significantly impact on family planning program.

A key challenge that has persisted over years is lack of proper data monitoring systems on family planning. There is need to have a system of tracking data from demand creation to the actual exploitation of family planning amenities and tracking the revisits of clients. This was echoed by Johns Hopkins University (2020) that developed an innovative ways of information gathering and information scrutiny through use of mobile phones. The study indicated that there are easier ways of monitoring clients and family planning commodities. Though the investigation explored the use of care providers utilising mobile phones, there was need to explore utilization of mobile phones to send reminders to clients on their appointment date. Monitoring of utilization of FP commodities and using data for decision making is key in family planning programing

There's exist a huge missed opportunity among in accessing family planning services. This is associated by the fat that health care workers get opportunities to interact with women yet they miss to offer them family planning services. This was revealed in a study by Ngo et al. (2016) that focused on assessing the level of missed chances in 14 countries in Africa. The study revealed that private health facilities and private chemist and pharmacists. It was also noted that private chemists would sold some commodities of family planning without recording then the commodities go unreported. There is need to harmonise health facilities owned by government, faith based as well as private facilities. The study recommended expanding family planning in all service delivery points including the smallest and addressing client associated barrier such as reducing the cost of family planning. The study however did not explore on community related barriers that could also impact on utilization of services at the lowest levels of the community.

Some nations have made effort in addressing the barriers related to accessibility of family planning. A report by FP watch Group (2016), indicated that there are several strategies that could significantly improve programing in family planning. These includes; use of long term contraceptives to escalate the family planning incidence proportion, introduction extensive choice of modern family planning approaches,

creating demand for utilization of long-standing techniques of family planning and using community health volunteers to distribute FP Commodities and student nurses. In addition, the study recommended addressing the inefficiency in the coordination and supervision of both public and private sector as well as improving quality to ensure that patients are able to get value for their money and to reduce cost especially for long term family planning approaches. The study did not explore on a strategy of training nurses to offer permanent family planning such as bilateral tubal ligation.

This was in convergence with yet another study by Rutta et al, (2015) in Tanzania, on the importance of expanding contraceptives through licencing private chemists. The study indicated that unless the family planning was made accessible to women from the lowest health facilities, women would still have missed chances. The study indicted the importance of country wide accreditation of chemists to offer family planning. Although expanding family planning through the recommendation would ensure that women have opportunities of getting meeting their reproductive health services, the study needed to explore on the staff qualification in the private sectors to ensure that the workers are able to provide the services. Quality should remain a key focus in expanding any health service.

Licencing of drug outlets need to be considered through a thorough assessment to safeguard health of women. It is better for women to move for an elongated journey to acquire amenities and get a quality service instead of having a service within reach by untrained staff. Family planning just like other health commodities need to be monitored to avoid women taking a services and not able to handle adverse drug reactions. This is convergence with an investigation by Thomson et al (2018) in Tanzania that revealed weakness community outlet service delivery points with a very high worker's turnover exposing quality concerns that need to be assured before licencing any community delivery service point. The study however failed to outline client related weakness that could impact on expansion health services

Providing health care services need to be well integrated with quality. For any country to achieve the universal health coverages as indicated by united nation submit (2019), health care providers must focus on quality. This was echoed by Orubu, et al, (2020) in Kenya, that for medicine to perform well, excellence must be assured. The study

indicated on the importance of developing tools to measure quality across all health related programs. In addition, the study recommended prioritization by the government equally at county and nation-wide level to develop polices and standard guidelines that can be used to legislate and impose principles, quantity and document excellence and enhance quality through supervision and mentorship. Further, the study indicated the need on the need to enhance quality across all the processes including procurement of health commodities and licencing of health care providers. The study however did not include on monitoring of quality which need to be captured.

Quality was also indicated as a key in achieving excellence in health care as per WHO. (2020) in the universal health coverage (UHC) that emphasised on the need for countries to strive to achieve excellence health care. In addition, the report defined quality health care as the ability of clients/ patients as well as the societies to get well-being services they require affordably. A health service should consider all aspects of quality such as supplies, excellence service in all health care from health advocacy, to inhibition, management, recuperation, as well as palliative in all communities. Despite development of the UHC agenda, there was need to outline strategies for governments to finance health care to achieve excellence.

Nations need to critically address the concern of affordability to avoid compromising on quality as well as making some product unavailable. An investigation by Pisani, et al. (2019), discovered that as governments were making efforts to accomplish the UHC, some nations cross the globe developed several policies of procurement of medical supplies for public institutions. The move made earnings-focussed pharmacological enterprises to safeguard their profits through cutting prices, or retreating from less gainful markets which impacted on the products being supplied. Governments need to have a mechanism of determining the actual production cost of medical supplies and regulate the buying and selling prize. This would ensure a competitive market.

There is need to enhance advocacy and create awareness on family planning so as to be able to enhance utilization of family planning amenities. This is because of the missed opportunities among women of procreative age continue to increase. A study by Tumlinson et al. (2015) in Kenya revealed that only 67% of women were utilising contemporary methods of contraception. There is need to come up with a strategy to rich women especially the rural women with accurate information followed by offering

them services and hence impacting on accessibility of the health commodities especial contraceptive supplies. The study recommended the need to rich out to every woman however, the study did not explore on whether the strategies to reach rural women would work for urban women since the two operates under different environments and culture.

Expanding contraceptive use requires providing wide range of approaches to empower women to create sound knowledgeable selections and to access the method of their choice. Many women lack such an opportunity and they only utilise what is available and at times they fail to access a service delivery point. This was echoed by Tilahun, et al. (2016) on the need of escalating longstanding family planning approaches through providing intrauterine contraceptive device (IUCD) across the government facilities in Ethiopia. Though the study indicated on the need to expand IUCD, there is need to measure the capability of health care workers to deliver IUCD since it requires a skill set that can be transferred through coaching, mentorship and on the job training.

To enhance effectiveness there has been proposition of integrating numerous disease-targeted supply chains, such as vaccines, mother and baby health supplies including medicines, and contraceptive products, into one combined supply chain as per WHO (2016) through a report by expert committee on specifications for Pharmaceutical Preparations. More information is needed on feasibility of the same since vaccines are transported through cold chain equipment's. Commodity security of reproductive health is essential of the unattained family planning requirements amongst females will be addressed. The report however did not outline on the strategies to enhance feasibility of integrating supply of health commodities and the cost implication.

Use of contraceptive among the young people and the elderly women has been determined to decrease maternal and infant deaths. A report from a study carried out by Rutstein & Winter (2015), suggested for stages that would effectively reduce such deaths if women were offered contraceptives. These were during teenage, women aged forty years and above, females with frequent child births, as well as women who have delivered more than four babies. The study further showed that 21% of females who were not gravid had unattained requirement for contraception. The findings however did not explore on strategies of offering age specific services of family planning.

Family planning is not just a service it is a holistic combination of services that be integrated to give the desired outcome. This is in agreement with a study by Starbird, Norton, & Marcus (2016) on devoting resources in contraceptive programs is crucial to accomplishing the sustainable development goals, contraceptives were pronounced as integration of the services, strategies, evidence, attitudes, practices, and products, as well as contraceptives, that offer females, males, couples, and youths the capability to circumvent unintentional pregnancy and select whether and or when to have a baby. Contraceptives are a crucial component in determining the performance of Contraceptive related programs hence the need to have all facilities well stocked.

The study was convergent with report by maternal and child survival program (2020) in Tanzania that described importance of integrating family planning into immunization services especially in programing. Most women with children requiring vaccination are usually in the reproductive age and hence immunizations offer health facilities a great opportunity to interact with mothers and a chance to introduce family planning services. The report however did not indicate the mechanism of enhancing the integration since the two services have different procedures. There need to be a standard way of integrating services and outlining which service should precede the other. For the integration to be accomplished, health care providers should be empowered with the skills necessary to offer the two services.

Procuring of contraceptive commodities is one thing while ensuring that the commodities get to specific delivery point and clients are able to access them remains a challenge in Kenya. Measure evaluation (2018) described the whole supply chain of contraceptives as an arrangement of gaining adequate measures of contraceptives and other Reproductive Health (RH) supplies and to delivering them to service delivery outlets. This would include goods commodity forecasting, ordering or procurement and supply up to when the consumer benefits. The report was convergent with the USAID (2015) report by Yemen on recording the procurement procedure for Child Spacing and reproductive health supplies. In the report, there was emphasis on the importance of forecasting to determine the quantities needed by each health facility. The two reports however failed to give guidance on a formula that can be utilized in determining the quantities of contraceptives given to health care facility or country at any particular time.

Contraceptive commodities need to be determined to ensure that commodities are available all the times through a well-established forecasting system. USAID et al. (2016) developed a guide on forecasting. The guide was meant to facilitate leads of various programs as well as health care workers, and all the key players in family planning. The guide entailed the necessary data needed in forecasting procedures, as well as utilization of consumption data. The guide also provided a supervision checklist to be used by leadership to enhance continuous mentorship. The guide however did not focus on task shifting due to shortage of health care providers.

Some studies carried out across the world has shown a significance in the reduction of neonatal deaths as well as maternal deaths through use of contraceptives. A report by Division of Reproductive Health (2019) in through CDC indicated despite efforts done in reducing maternal deaths, many women in unindustrialized nations continue to lose their lives due to childbearing or gravidity-interrelated conditions. Utilization of contraceptives is therefore very important in reducing maternal deaths and demand for contraceptive use need to be done.

2.3.3 Access to quality dimension and Performance of Family Planning Program

The third objective that directed the investigation was to establish the influence of access to quality dimension on performance of family planning program in Nakuru County.

Nations need to be committed to achieving birth control goals so as to be able to impact their economy and health. A submit hosted by UNFPA & Bill & Melinda Gates Foundation (2020) outlined several strategies that nations could adopt and adapt to address the issue of family planning. 34 nations were represented during the submit that outlined several measures to be considered. Nations made commitment to revive family planning programs focusing on accessing of the FP services. These commitments included; to hasten advancement in human rights-grounded programming's, to rejuvenate FP2020 attention nations and enhance donor support in programming of family planning. The outcomes of the submit were great but there was need to review the issue of donor support and emphasis on nations building their own capacity to

sustain FP programs. Sustainability of access to FP commodities can be assured if governments are able to budget for the program.

This was also echoed by United Nations, (2019), through the maintainable progress through FP agenda 2030. The report was grounded on the fact that for SDGs to be achieved, women need to access FP services. The report specified the necessity of having females access information on birth control and be informed on birth control in an all-inclusive manner. Further, modern methods of contraceptives need to be made accessible to all women. The collaboration and partnership between nationals and international agencies need to be enhanced and data captured at all pints and used to make decisions. The report needed to outline the key stakeholders and include the drug manufacturing companies. Drug manufacturing companies need to understand the actual needs of clients.

This is in convergence with WHO (2015), commendations on well-being advocacy activities for motherly and infant health. The report specified the standing of unreached birth control desires midst women of child bearing age. Numerous clienteles in the globally have unattained family planning necessities owed to plentiful rationalisations similar access to the contraceptive facilities. The report provided additional considerations into the policymaking processes and overpowering access obstacles. The report further recommended the harmonization of partners working indifferent countries to complement effort in ensuring access to health care services.

WHO (2018) through the family planning worldwide guidebook for health care workers indicated that universally, roughly 214 million women of motherhood era from progressing republics desire to have a birth control method but have no access to the contraceptives. The report additionally indicated that Africa was prominent with the number of women with unfulfilled birth control desires of 24.2%. Some of the regions which had great contraceptive reception encompassed Asia, Latin America and Caribbean which had 10.2 % and 10.7%, intensities of unfulfilled birth control necessities. There is prerequisite for states throughout the world to have a premeditated strategy intended at resolving the access to excellence dimension of birth control. The report needed to have specific country strategies since each country is faced by unique challenges.

To advance access, numerous family planning programs have exasperated dissimilar approaches of executing family planning. World Health Organization (2017) through a mission allotment to expand accessibility of contraception. The report indicated the need to expand FP provision by other carders other than nurses and doctors due to the global shortage of health care providers. Though the recommendation is good there is need to develop a curriculum to train other carders of health care providers since nurses and doctors have a specific skill set in providing the services.

Access to brilliance safety care to susceptible populaces is an approach that necessitate to be encompassed by numerous programs. This is in conjunction with an investigation by Bhatt & Bathija (2018) in America that designated that the trend to improvement of the health care of all clienteles and all humanities is to have an indistinct recommendation. In agreement with this, American Hospital Association established a pathway onward, with a responsibility of five regions of excellence health care, that included; access, significance, associates, safety, and organization. These mechanisms are important in attaining excellence of health care.

As a pathway to accessing excellence well-being care, specialists have recognized methods of clienteles and patients evaluating health amenities in absence of a physical appearance to a doctor. Such modernised methods comprise the application of Telemedicine, which is defined by Daniel & Sulmas (2015) as the consumption of invention through knowledge to provide health amenities from remote. The usage of telemedicine is proposed to multiply access for clients. This would be very supportive to clienteles who might not require a physical interaction with a specialist and will increase health effects while decreasing the expenses of medical care. The usage of technology can also decrease many blockades and support respectable partnership with patients and also client holding and taking responsibility of their well-being. There is need to explore on the use of telemedicine in rural areas and its integration in accessibility of family planning.

Access to not hurtful, realistically valued and quality vital medications and technologies remains a contest in many African countries. An evaluation on World-wide Healthiness Coverage structure for Africa by Wang, et al (2018) specified that access is a support

to the world-wide well-being coverage. The structure additionally described the foremost blockades to accessing excellence health care, which encompassed high charges, inadequate finance, weak pharmacological recommendation, inadequate procuring, and supply structures. The report needed to further do a recommendation on the strategies that nations can employ to overcome these barriers and enhance accessibility.

The structure correspondingly designated that utmost Africa republics had inadequate access to materials concerning well-being by the broad populace and also unappropriate usage of statistics. Africa continent has similarly been confronted with main challenge in health product with a distinguished upsurge of insufficient health products resulting from reduced performance in imposing the guidelines and principles. Deprived health excellence access encompasses of the price of care, wastage, and threatened resources. Access to health care should endeavour to consider the requirements of all-inclusive populace which comprises of individuals existing with infirmity since they lack opportunities as described by Mosher et al (2017) in an assessment that revealed that females living with any form of disability had lesser chances of receiving FP facilities in comparison to females without infirmities. It is therefore important for programmers in health to consider women living with disabilities. The assessment needed to include the structural ability to accommodate women with disabilities visiting health facilities.

This was in convergent with finding of an assessment by Abells et al. (2016) which indicated that females living with disabilities were less likely to get quality reproductive compared to females without disability. The study further revealed that women with disabilities were more susceptible to exploitation both sexually and physically. With this revelation, women with disability need to be targeted to receive family planning services and to be protected from any form of abuse. The assessment equally revealed that disabled women are also very susceptible to at sophisticated danger of gestation as well as delivery difficulties. They should therefore be well monitored and regular reviewed. The assessment did not however indicate means of monitoring women with disability and how to know their actual numbers.

In yet another study by Meade et al (2015) on discrepancy of services, it indicated that women living with disabilities had a challenge accessing reproductive services especially family planning. The study recommended the government to conceptualize

and understand the discrepancies in the implementation of health programs targeting all cohorts and clients. Access to quality health care can be achieved people across the cohorts are able to get the services including people living with disabilities. The assessment did not however include the structures that the health facilities should include to be considered to have addressed the access component among people living with disabilities.

Access to healthiness care amenities might have dissimilar setting and challenges. In an effort to comprehend access framework in offering motherly health care, Ekirapa-Kiracho, et al, (2016) assessed access in maternal facilities in Uganda and designated that health outcomes are reliant on on having arrangements to invest in females experiencing health emergencies to influence appropriate health facilities for the amenities they require. The assessement recommended the need to economically empower women to improve their decisions on health care. Women need to have money for transport to access health facilities and hence the need to support women to come up with sustainable projects. The study however failed to outline examples of sustainable projects that have worked.

In convergent with the study, Heller, et al, (2016) indicated the need to expand injectable family planning services by allowing pharmacists to administrator injectable contraceptives. While the move could help in eliminating the access barriers for family planning, the move is subject to several risks. These risks could be concerns related to adverse drug reaction, and client monitoring as well as data capturing and entry to the systems. Many chemists lack the required capability to capture the data and follow up clients as well as feed the data in the government systems. A curriculum for training pharmacist should be developed and guidelines established for the feasibility of the implementation.

In yet another study by Heller, et al, (2017), It indicated that pharmists need to be trained subcutaneous injectable of family planning in order to expand FP services and enhance accessibility in the rural setups. The challenge with the recommendation would be how to implement such a project given that just like other health care providers, the pharmacists are few, the current contraceptive products in most countries cannot be administered sub-continuously. The cost training pharmacist, manufacturing

contraceptives for subcutaneous use would be greater than employing the right carder (nurses)to offer family planning services.

In lack of indispensable assessement tools, it is challenging to provide excellence amenities. This was rebounded by Leisher, et al (2016) during the Bellagio conference on elements of family planning which specified the stipulated on the need of having a checklist outlining all the requirements in a family planning psychotherapy rooms to safeguard and quantity excellence. A checklist can be used as a respectable guide to all the healthiness care providers to guarantee and sustain excellence. Family planning room component entails the all the aspects of assessment involving accessibility of secluded room, speculum, examination couch or bench, portable light, detergent, tap water, latex gloves, sterilizing liquid, and razor-sharp container. The paper did not include the need to have a standard operational technique to monitor the usage of such apparatuses.

Many governments are striving to make sustainable solutions in health care through health financing. In order to accomplish the coverage of health, Botswana government enhance the commitment through establishing a technical working group to develop a strategy. This was indicated by Jonathan &Avila, (2016) through outlining the pathway of establishing a sustainable strategy of financing health. The strategy was to be utilised in both government and private institutions. Though the health financing strategy would work well in government institutions, there was need to establish feasibility of working in private health facilities bearing in mind some institutions are grounded on profit. The technical working group was however well represented by all the key players in health in Botswana.

Many donor, are still faced with the challenge of dependency from the developing countries. Donors continue to fund projects that heavily depend on foreign aid hence lacking a sustainability. In a report carried out in 40 countries, Makinen, et al, (2016) indicated the challenge of donor dependency. The research aimed at exploring support to countries to mobilize their own resource to sustain health. Further the research, recommended the need for developing countries to be supported to raise their national funds and be guided to direct resources to health. The governments need to be guided to manage the resources in an effective and efficient manner including procurement of

quality health products. The move was aimed at improving access to health care. The strategies however left out community participation and mobilization. Community can significantly contribute to health through referral hence the need to be included in such moves.

This is in convergent with yet another report finding by Kelly, et al (2017) on Vietnam strategies to sustain health. One of the strategy that Vietnam considered to improve access to health was through utilization of social insurance scheme. Cost of health care continue to pose a huge barrier in accessing health care. Collaborating with insurance companies could significantly improve access especially the reproductive health including family planning. The report needed to explore on community engagement and investment for ownership of sustainable health coverage. The community could have ideas on ways to contribute to their health and hence their ownership.

Access to healthiness care is very critical for the general health of nations and economic growth as well as achieving universal health coverage. This was echoed by Kutzin, et al (2017) in a report that described UHC as the ability of a community to access well-being amenities that they require at the highest standard, with affordable prize, and in a timely manner. Ability to finance health helps families and the communities to direct their resources in development and hence directly contribute to the economy of a nation. The governments should therefore have strategies to strengthen the health financing to ensure access. Political commitment is therefore required for nations to achieve UHC. The report did not explore on the opportunities of governments to support health care through health financing and collaborating with social insurance scheme.

There has been notable increase in disease burden across countries for both infectious and non-infectious illnesses. This calls for a sustainable way of handling the cost of health to make it accessible to all. Governments have been able developed several strategies to invest in health. This indicated in a report by Soe-Lin, et al (2015) on the strategies that the governments were taking included taking loans, benefits associated with upsurges in GDP, as well as revolutionizing strategies related to tax and reinforcement of tax management. Despite the move and the suggested ways of health financing, increasing tax could also weigh heavily on citizens and hence other economic

burdens would still be experience. There is need to balance health financing and other basic needs of the communities such as food.

Cambodia government was supporting the poor and vulnerable due to the instability in the country. The government through Royal Government of Cambodia, (2017), developed a strategy to enrol the vulnerable into a social insurance scheme nationally through a strategic plan which focused on government support in domestic assistance. Through the social scheme, the community it was reported that community was more receptive, the coordination from grassroots level was well organise and the dependency on donor funding was reduced. The report need to however indicate the step by step to accomplish for other nations to learn from.

Most Preceding studies have focused on geographic accessibility to contraceptive commodities. It has been noted also that distance alone is not the only measure of accessibility as described by Skiles et al. (2015) that designated the significance of putting into account the impact of a reliable supply to contraceptives. The study further indicated that females need assurance that they can access a reliable family planning commodity. A reliable supply to contraceptive method of choice was noted to be a key consideration by women. Females were noted to only demands for commodities that they consider reliable. Its therefore important for the health managers to understand the women's perception on reliable commodities. According to the study, females considered inject able contraceptive more reliable than others. The study needed to explore other elements of accessibility in programming.

One way of ensuring improving access of family planning services to the community is through integrating it with other health services. This would entail capturing women seeking other services and discussing with them on the need for family planning. This was echoed by Mutisya, et al (2019) on the need to integrated FP services in the comprehensive care centres offering HIV services. This would also give the clinicians an opportunity to offer family planning products that are not affected by the anti-retro viral drugs the clients are utilising. The study need to further outline the specific anti-retroviral drugs and the method of family planning know to have lower efficacy combined with. This call for training of clinicians and nurses in the comprehensive care centre to offer family planning services

This was reverberated in another investigation by Cohen, et al, (2017) that indicated that Incorporation of family planning facilities into the comprehensive care centres for HIV results to continued upsurge in utilization of modern methods family planning in an effective way as well as reduction in incidences of unwanted pregnancies. These were outcomes of a model of integrating the two services for two years. The model however did not indicate on the requirements of such an integration as well as its replicability into other health facilities as well as other departments of health. Different levels of health facilities have different resources and need to be supported differently hence the need to consider the level of health facilities as well as capacity of staff to integrate the services.

In yet another study by Haberlen et al, (2017), women utilizing family planning are considered to be sexually active and hence in need of HIV services. The study recognised missed opportunities in detecting HIV cases while sexually active women utilizing FP services interact with heath care workers routinely. The study recommended initiation of testing services for HIV in family planning clinics and enrolment or linkage of HIV positive women to treatment. The study however needed to explore on an opportunity of not just linking women put also following up HIV positive women on FP in the FP clinics instead of refereeing them in another service delivery point. The strategy could however work if the service providers offering FP services have the capacity to offer HIV services to include HIV testing, counselling, adherence counselling, dispensation of antiretroviral therapy among other services. The FP clinic should also be well equipped with the necessary tools to include the registers, files, monitoring tools among others. This could also support women to have preconception counselling and ennoblement into HIV prevention of mother to child transmission of HIV.

This was in convergent with an inestigation done in South Africa by Church et al (2017) on assessing the benefits of assimilating birth control amenities into HIV care and treatment centres. The study indicated the benefits but equally reviewed what was necessary to have such a model work. It recommended involvement of community through community health workers to make aware residents of the communal on the important and the benefits of such services. Though the model has great impact, the

study needed to explore on how to deal with the issues of privacy considering that HIV is a condition that people hold with a lot of confidentiality. The community health workers need to be well trained to handle client's confidential information and all clients concerns protected.

In Kenya, an investigation done by McKenna et al, (2019) indicated that integration of FP into HIV clinics was performing very poorly. Only 10% of clients were counselled on family planning and given the necessary referral. The study recommended on the need to capacity build the health care providers on integrated package of HIV and FP services. Further, the study recommended change of current HIV and FP guidelines and standard operating procedures to include the integration. The study however dealt with only integrating FP into HIV while there are several other services such as maternity services, as well as outpatient funds. It's important to ensure that all services delivery is mapped in order to have a holistic approach in enhancing accessibility of FP services.

In yet another study by Keyonzo et al (2015), there is need for the administration to expand accessibility of birth control. The study which was carried out in Kenya targeting Kakamega and Machakos counties. The study indicated the need to employ a multifaceted approach and hence embracing health as a program instead of having several projects such as family planning. Integrating heath care services in a programmatic manner would ensure that clients are served better and receives integrated services. The study however needed to indicate the approach and the tools that the health sector need to employ to enhance the shift from project based approach to program based approach. There is need to have all the stakeholders in health to as develop a guideline on the holistic approach and evaluate the feasibility.

Health care provider's skills contribute significantly to usage of long acting rescindable family planning and hence improves the couple's years of protection. This was resounded in an investigation by Muthamia, et al (2016) that demonstrated a significance increase upsurge in the utilization of implants and IUCDs after intensive training of health care workers. Lack of the necessary skills is therefore a big hindrance to exploitation of some family planning approaches. The investigation however did not explore on a possibility of having a holistic approach at the community level. This would ensure that the community health workers are trained in a holistic manner.

Making family planning services accessible to women ensures availability of methods and services. This was echoed by Bintabara et al (2018) through a study carried out in Tanzania. The study revealed that clients were ready to for use of family planning and were very satisfied with the services. On the contrary, the health facilities were not ready to offer some methods of family planning either due to skills deficiency or due to lack of equipment especially for the IUCD and implants. Though the findings failed to outline the missing equipment to inform in planning, it is important for family planning programming to consider commodities as well as the necessary equipment and tools

A research by Ramirez-Rubio, et al. (2019, indicated that SDGs provided a platform for various key players to formulated workable local solutions to various health needs in collaboration through policies development. The study highlighted three major areas of policy formulation areas which included; considering health as a crosscutting issue in all sectors hence a different policy, a policy on integration of leadership in health and all stakeholders in health to include the development partners and local community based organization and a policy on a requirement for high level quality data on any health endeavor and program. The study however, recommended development of new policies as compared to strengthening the existing polices and guidelines.

An exceptional technique singled out to have prospective in declining unachieved necessity is through activism on spouse appointment in birth control approval as pronounced by Dougherty et al. (2018). The endorsement done was to have males specified messaging to champion for their participation with a understanding that if males were made to comprehend the importance of birth control , they would provide the needed support to their spouses. It was similarly learned that utmost evidence connected to reproductive healthiness solitary target females and henceforth necessity to guarantee males have access to health information. The study however failed to outline the strategies of enhancing male involvement.

Many nations are working towards addressing the unattained requirement for contraceptives. One of the nations is Uganda, which came up with a costed execution strategy to focus on barriers. The strategy was developed by Ministry of Health, Uganda (2016), which through the strategy envisioned to decrease unattained requirement for

contraceptives to 10% as well as to rise utilization of modern contraceptive occurrence to 50% by 2020.This was to be comprehended through refining access crossways entirely ages particularly amongst the teenagers aged stuck between 10-24 and also upsurging access in countryside zones and amidst the less advantaged inhabitants. The stratagem suggested that to accomplish access, there is prerequisite to motivate and advocate revolution of community actions amongst personalities, peoples, and society. This would assist in resolving ethnicities, misunderstandings, and unwanted concerns and upsurge consumption of birth control usage in inhibition of unintended conceptions.

Assimilating family planning hooked on other health amenities has been mentioned to increase the uptake and generally the performance as well as bridging the missed opportunity gap. Women need to be prepared for utilization of family planning during antenatal clinic hence the need to integrate FP counselling into antenatal services to avoid conception soon after delivery this was echoed by Odjidja, et al, (2019) in Tanzania that non-infectious conditions such as tuberculosis and HIV should have family planning counselling and services integrated. The study further recommended on the need to have the integration harmonized. The harmonization could be done through development of guidelines and standard operating procedures. The study however left out other services such as outpatient services since every opportunity a health care provider gets to be in touch with a woman should be an opportunity to offer reproductive health services.

Family panning has been cited to play a key role in ensuring inhibition of mother to child transmission of HIV especially amongst discordant couples. This was cited by Mason, et al (2017) on the requirement of having HIV positive clients integrating HIV treatment on their care package. Use of Anti-retro viral drugs needs adherence which is also applicable in use of family planning during breast feeding and hence the need to initiate counselling early. Women who are HIV positive should be prepared to have a child when the viral load is undetectable and when adherence to anti-retro viral drugs is good. This calls for use of family planning during the waiting period. To reduce transmission of HIV among children, family planning need to need embraced and integrated in care. The study however needed to explore on how men who are sexually active can be involved in prevention of pregnancy and HIV transmission.

This was also echoed by Acharya et al, (2020) on the need to integrated treatment of sexually transmitted infections with family planning. Any person whether male or female under treatment of STI indicated that he/she is sexually active and could be at risk of being pregnant if is a female or impregnating others if is a male. Some sexually transmitted infections are known to cause congenital malformation and therefore there is need to safely treat sexually transmitted infections and offer family planning services to any person on treatment of STI. The study needed to explore on how to engage male with STI on family planning counselling for their sexual partners.

2.3.4 Quality Counselling Dimension and Performance of Family Planning Program

The fourth objective guiding the research was to evaluate the influence of counselling dimension on performance of family planning program in Nakuru County. Acceptable or patient-centred means providing wellbeing care which considers the partialities and ambitions of personal service consumers as well as the principles of their societies. This comprises of; client gratification, optimal and counselling. Health care providers contribute substantially in the responsibility of counselling clients for acceptance of contraceptive essential services making the implementation of contrraceptive programs effective.

There is a present notable decrease on the quality of counselling due to upsurge in the number of carders in health care provision offering family planning amenities including informal providers. This is convergence with a study conducted in selected countries. These countries were Ethiopia, Burkina Faso, Uganda, and Kenya. Fruhauf et al. (2018) did a research on calculating contraceptive excellence as well as its connection with contraceptive usage in municipal health care facilities in the four countries. In addition, the study indicated that quality of services and contraceptive use were compromised by an upsurge in informal providers offering contraceptive amenities.

Quality of counselling is key in determining utilization of any service especially services related to reproductive health. Poor counselling could be associated with low or inadequate uptake of a service. Any client need to be given information to be able to

make informed decisions. Lack of information makes clients to decline services due to unknown fear that can be addressed through counselling. Quality of counselling is therefore key in supporting health care services. This was echoed by Dehingia et al, (2019) in a research that evaluated the quality of family planning in India. It indicated that only 4% of clients had received high quality family planning counselling. Though the study did not indicate the tools used to measure quality and the feasibility of the tools being used in other facilities, it revealed a huge gap in counselling.

For quality of services to be successful, in family planning, there is need to embrace quality of counselling. This would entail developing a counselling protocol that is client centred. Clients need to express their needs in such a way that they can make an informed decision in the use family planning. This was indicated by Jain & Hardee (2018) in a research finding indicated the need to develop a client centred approach in counselling and to develop a clear counselling framework. The approach would support in achieving the right-grounded method in the provision of quality of care. The study needed to clearly indicate how right based approach could include counselling in the protocol and the replicability of the same. Counselling is a right that every client should enjoy while receiving FP services.

Information from peers plays a fundamental starring role in exploitation of health amenities. This has made many programs in health to utilise peer counselling such as HIV peer counsellors and breastfeeding support groups as well as antenatal care support groups. The reverse can adversely affect uptake of services. Without the right information, peers can negatively influence health negatively. This was revealed by an inestigation from Malawi by Bryant et al (2015) that showed that interviewed females on the utilization of IUCD. The study however concentrated only on IUCD leaving out other methods. Women not utilizing IUCD indicated that they were fearful due to the information they got from their colleagues. There is need for health care workers to interact with women, to get the information they are having in order to address rumours and misconception.

Many reproductive health key stakeholders are working towards achieving client grounded method. Through the approach, each client is treated as an individual with unique needs of family planning. This would entail giving all the information to a client

in regards to her needs through counselling to help the client to make a decision. This was echoed by Stover, & Sonneveldt (2017) in a study that recommended client grounded implementation as a key to accomplishing FP2020. Despite the recommendation the strategy did not accomplish the objectives due to reduced global fund in Africa. The study did not also include sustainable solutions since over dependency on donor will continue to work poorly for African countries.

The point of contact with a family planning client determines retention of the client into the system. If clients receive proper counselling at the inception, they are likely to follow the return visits without failure. This was indicated by Jain et al (2019) through a study in India that evaluated quality of contraceptives in India. Though the study did not include the use of tools to guide the counselling of clients, the findings revealed opportunities for enhancing counselling at the inception of family planning. There is need to develop checklists, standards, protocols among other tools that health care workers can use to enhance counselling and ensure that clients get the information they require on family planning.

Health care workers need to be empowered to be able to link their services with results. Linking counselling and the uptake of contraceptive has been a challenge in many settings. Numerous research has established the relationship between the two. In a study that analysed 23 studies by Zapata et al. (2015) on impact of Contraceptive Counselling in Clinical Settings, an assesssement recognized a vigorous positive connotation amongst counselling and uptake of contraceptives. The study explored the impact on studies carried out on different age groups to include adolescents, and adults and all indicated a positive impact on contraceptive performance. The study however did not include all the age cohorts of women of reproductive age to guide on the strategy for each cohort.

Many programs have utilized peers to support adherence to treatment. This was informed by the notion of “expert patient” which was developed with emergence of conditions such as HIV/AIDs. It is believed that patients understand their body well, the treatment process and the outcomes. This was echoed by Boulet (2016) in the study that assessed use of peer educators amongst patients with chronic respiratory conditions. The study however evaluated only chronically ill clients and left out

reproductive health services. The concept was considered to be very successfully but had a challenge of integrating the peer educators with the large medical care team. Use of contraceptives amongst young people could borrow the concept to help in clarifying rumours myths and misconceptions.

Many patients continue to depend on health workers to manage their health needs. It's important for clients and patients to be empowered to take health under their control. This would help them manage their health needs, expectations, seek timely health interventions, and adhere to treatment for better outcome. This was echoed by Boule et al. (2015) that empowering patients through health education could result to better health outcomes as demonstrated in a case study amongst asthmatic patients. The study needed to explore other health care services such as family planning. Contraceptive programs should embrace the concept of patient education through counselling so as to make knowledgeable pronouncements and accomplish goalmouths on their health related to reproductive.

Despite the fact that young persons are a key target in offering family services, many organizations or institutions have not documented the impact of reproductive health counselling to the young persons in addition to the update of procreative health facilities including birth control. This was in convergent with an investigation by Brittain, et al (2015) that specified the importance of targeting young people in designing of reproductive health programs. The study did not however indicate some of the strategies that can enhance utilization of services especially FP by young people. There was need to explore counselling for young people.

Britain et al. (2015) endeavoured to find out whether privacy in birth control amenities for young individuals impacted on uptake of services. The study however, indicated that absences of research investigating whether discretion in birth control amenities to young person's touches reproductive healthiness results and recommended a vigorous investigation program considering the significance young people associate with confidentiality particularly regarding their reproductive health. For effective counselling of young people, health care provider perspective is very important since it

determines if the young people can take up the services. The study needed to explore on the counselling techniques for young people that could build their confidence in utilization of family planning.

This was also indicated in an asssessement by William, et al (2016) that focused on clienteles and service provider's perceptions on excellence of care. The study further revealed that family planning services both client and benefactor perceptions to be extra effective. The study further recommended for further research to scrutinize the effect of enhanced quality on benefactor practices, customer actions, and health consequences. The studies however failed to segregate the age of the young people utilising family planning services, which could be key in addressing the gaps. Targeted studies are required especially targeting counselling young people on reproductive age.

For clients to accept any family planning services, there is need to carry out a lot of social mobilization to create awareness on services and the benefits of family planning equally to males and females. In convergence with this, Shattuck et al (2016), studied on implementation of family planning targeting vasectomy uptake among men. The study indicated the need to have demand creation through social behaviour and communication component to advocate the use male family planning methods especially the permanent method. The study further recommended the use of indicated that there was need to change polices and consider social culture to address the gender issues. Implementation of family planning program therefore requires all-inclusive to be successful and involve the users in all stages of implementation. The study however did not explore on the strategies that could be effective in reaching men.

One of the key strategies in achieving client grounded is counselling. Women require as much information as possible to empower them to make informed decisions. Counselling contribute a fundamental starring role in pronouncement creation and also in removing fear from clients. In an investigation done in Kenya and India by Sudhinaraset et al (2018), good communication and unconditional positive regard through counselling contribute a most important starring role in achieving excellence of care. The investigation targeted women of procreative age utilizing FP in both countries. The study recommended improvement of the client's environment to make the clients comfortable as they seek services. It also recommended improvement on the

way health care workers communicate to clients to improve trust. In addition, the study recommended the use of the tools used to measure quality globally. The study however did not explain why in Kenya 20 points were used to measure quality and in India 22 points were used. If the tool is to be employed globally, the points to measure quality should be equal in all countries.

Counselling of women during the uptake of birth control, this is to guarantee that clienteles understands the importance of follow on visits. This was also echoed by Jain, et al (2019) that additional questions need to be added to the counselling protocol to ensure that at every visit, client understands the need for follow-up and that they can change their current FP method. Health care workers work well under guidelines and therefore the counselling guidelines and protocols for family planning should be in a position to help service providers explore more. Clients are also able to express their concerns over the current method and instead of defaulting due to some side effects, there can be an assurance or method switch depending on the stage. The study did not explore on the use of such tools in other services such as antenatal clinics to prepare women for use of family planning after delivery.

Poor quality of care has been blamed for poor performance of contraceptives utilization. Lack of standard counselling tools also results to poor excellence of birth control amenities. This was indicated by Muttreja & Singh (2018) in India who explored on the quality of care and results on performance of family planning. The study further specified that non-existence of male envelopment was due to non-existence of male specific services and tools hinders utilization of contraceptives. Further lack of political good will in countries has contributed to poor performance. There is need for governments to adequately budge for commodities of family planning and support health workers to offers services paying attention to quality of care and male involvement. The study however did not explore on different male targeted services.

Improving quality in family planning can significantly contribute to utilization of family planning. Quality would entail availability of all services including commodities and services such as counselling. This was echoed by New, et al (2017) in a study that explored on the utilization and accessibility of family planning in different parts of India. The study indicated on the need to improve the quality through improved services

such as counselling. Counselling a key strategy in improving quality and should be well defined and guided. The study however explored only health facility level. There was need to explore on community improvement and the factors hindering certain population in a different geographical area. Counselling need to be enhanced even at community level.

Married women and women in a union need to be well counselled on the usage of birth control approaches. This is to avoid planned pregnancies as well as to facilitate women to do proper child spacing. This has not been achieved however. In a research in Africa and Asia, by Cahill et al (2018), it indicated that only 45% of married women and women in union were utilizing modern family planning in India. In Africa only 28% of married women or women in union were utilizing modern contraceptives. This calls for enhancement of counselling services from community level as well as at health facility level. Women need to be reached with counselling through several medium of communication including social media, radio messaging and television and all gatherings involving women. The study failed to explore on male involvement among the few women utilizing modern FP services.

Family planning utilization requires women to be well counselled to make informed decisions. Counselling can be enhanced at community level through integrating family planning counselling into community health volunteer's routine activities. Women can be targeted in their various religious meetings. Seth, et al (2017) indicated that religion plays a key influence in women decisions. It is therefore important to influence religious leaders to embrace FP counselling and also to initiate health days. The study also indicated that community health volunteers were playing a major role in influencing health seeking behaviour. Training CHWs on family planning counselling could contribuite a key starring role in enhancing exploitation of FP. The study nonetheless did not explore on the issue of confidentiality and also use of birth control in the midst of females not married or in not in union yet they were sexually active.

Right grounded services require equitable services as well as resources. India has continued to experience inequity in giving services especially family planning services amongst the poor communities. This was revealed by Jungari et al (2017) that the caste structure that has been in place for decades has continued to deprive women from poor

backgrounds an opportunity to quality services especially in health care. Women from poor background are also not given comprehensive quality counselling on family planning which disadvantages them. The study did not however explore on ways of reaching the poor women in India with quality services. There is also need to explore how the caste structure can be neutralised for the benefit of women. This would require political good will and interventions from the topmost leadership in the country.

Postpartum family planning is very critical for women. Women would feel more confident to take up a contraceptive immediately after delivery if their childbirth experience and their relationship with the midwife would be good. It is easy for a woman who have had a smooth communication with midwife to accept postpartum family planning. Some women indicated that they were mistreatment and disrespected and even abused physically during child birth in India in a research by Diamond-Smith et al (2016). Midwifes need to be trained on respectful maternal care during childbirth to enhance a great relationship. This would result to uptake of other services post-delivery including family planning. The study however did not explore on partner involvement during childbirth. Involving partners and conducting couple counselling facilitates uptake of family planning after delivery.

Counselling is an important component in contraceptive use. It helps a client make an informed decision. It also helps the health care workers to respond to clients concerns and address issues of rumours and misconception. Counselling requires to be guided or directed through a standard operating procedure. This call for development of counselling tools. Mexica developed a counselling tool in a study by Holt et al, (2019) which was piloted among women seeking family planning services. The tool informed the information required considering the time with a client and was reviewed to contain 22 points to measure quality counselling from the initial 35 points. Counselling requires one to support the client and also take just enough time with a client considering other clients waiting for a services hence standardizing the tool. The study however did not explore on a tool for counselling at household level as well as a tool for group counselling.

Childbirth compromises a woman health and hence the need to delay conception up to two years. In a study finding from Ethiopia, by Zimmerman et al, (2019), indicated that 60% of women revealed that they would not want to conceive within two years after

child birth. That provides a great opportunity for health care providers to offer postpartum family planning. This can only be achieved through training of health care workers in maternity on post-partum family planning and providing them with skills and commodities. The study needed to explore on importance of initiating family planning counselling during the antenatal clinic to prepare women for family planning uptake after delivery

Integrating counselling on contraceptives during child birth has been indicated to upsurge uptake of contraceptives. This was revealed by Rajan, et al (2017) that contraceptive counselling should be initiated during the antenatal visits and continue during child birth. This was studied in IUttar Pradesh among women who were giving birth. The study revealed that females were enthusiastic to have a reliable technique of birth control and that they did not want have another child before two years after birth. There is need to therefore equip maternities with staff who are well trained and with the right commodities and equipment to offer immediate post-delivery contraceptives. The study did not explore on how to reach women who do not attend ANC services. All women have a right to contraceptive information a contraceptive service.

Counselling on contraceptives can be effective if women are reached in their respective households. This would entail utilization of community strategy through teaching of community health workers to integrate birth control counselling into their day to day activities. This was echoed by Basu et al (2017) in an investigation that indicated on the need of strengthening the community units to ensure that the community health workers offer more services including contraceptive counselling. The study however did not indicate on the male involvement since getting women at home would entail reaching out to her among family members and hence the need to have the husband incorporated in the family planning discussions to avoid resistance related to fear.

Counselling plays a key role in addressing myths and misconception that clients know but the health care workers may not be aware. Therefore, through counselling a health care provider is able to clarify the myths with the right information. Some contraceptive methods require insertion through the reproductive health system which makes it very uncomfortable for clients to ask questions in regards to such methods. This was revealed by Mishra et al, (2017), in a study that indicated that women were shy from

getting information on the use of intra uterine contraceptive device. Women would remain in fear and were not able to ask about the method. In a structured contraceptive counselling, one is able to give all the information in regards to all contraceptive methods and probe clients on the methods in a structures way hence dispelling rumours and misconception. The study however studied on only one method of family planning i.e. the IUCD.

In urban areas, most people are able to meet their needs and live a fair life. However, there very poor people in urban areas whose main source of income is to do casual work. In most countries, they live in slums setup. The slums are challenged by lack amenities such as health facilities and inaccessible due to poor infrastructure especially road network. There is need to reach the women in the slums with contraceptive counselling. This was echoed by Achyut, et al (2016) in study that explored on urban health. The study revealed that poor women in urban have no access to counselling and there is need to reach them. The study however did not indicate on the strategies of reaching such women. There is need to have a political good will to put up amenities in the informal set ups such as slums.

Structured counselling can be utilized to guide healthiness care providers and community health workers to carry out counselling to women of procreative age. Intensive counselling is very imperative to the facility workers to be able to offer quality counselling which can determine uptake of services such as birth control approaches. This was echoed by Dev, et al. (2019) who indicated that uptake of immediate after child birth contraceptive can be influence by the counselling technique of a health care provider. Family planning after child birth is faced with a lot of stigma and misconceptions which can only be addressed through quality counselling. The study however did not explore on various techniques of counselling. The health care providers need to know which technique or approach can be used in various circumstances. Family planning after childbirth can help in bridging the gap of the unmet family planning needs among women.

Measuring of quality has had several debates with clients and health care providers having different perceptive of what quality is. There is need to harmonize the perspective of health workforces, community health workforces and also the users of

health care. In a study carried out by Dehlendorf, et al, (2016), in San Francisco indicated that a key measure of quality by clients is the communication techniques of health care providers. Further the study revealed that good communication and counselling is the patients' measure of quality. Good counselling skills also influences clients understanding and uptake of contraceptives. It is consequently imperative to embrace proper counselling to influence acceptance of contraceptives. The study however did not explore on the different techniques of family planning counselling and the use of each technique.

For utilization of immediate after birth family planning to effective, health care workers need to handle women with dignity and respect during labour and delivery. This enhances trust contributing to effective counselling where women are supported to make informed decisions. Globally women have reported to be mishandled during child birth as other are even physically assaulted. This was revealed in an investigation by Bohren et al (2019) during an investigation that focused on verifying mistreatment of women during child birth. The study was carried out in four poor-income and medium-income republics. In all the countries women reported to have been mistreated. This becomes very hard for the same health care provider mistreating a patient to request her to take up a service or to effective counselling. The study needed to explore the cadre of health care providers. Respectful maternity care need to course trained in all training institutions of nursing and midwifery to avoid women being mistreated

2.4 Client Characteristics and Performance of Family Planning Program

The fifth objective that grounded the investigation was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. The study assessed client characteristics and its moderating impact on contraceptive program in Kuresoi North of Nakuru County. The client characteristic dimension was guided by the four indicators, which included age, culture, marital status and education status of clients. Additionally, the study assessed other non-demographic characteristics of clients such as cooperation, trust, responsive and patience.

Client characteristics in relation to performance of contraceptive related program means those personal traits in a client that enables her to adopt the desired behavior in family planning some of the character traits includes cooperation, responsive among other. The ability of a client with health care providers is very vital in achieving the overall client goals. This is in convergence with a definition by Health Care Cooperative Federation of Canada (2015) that describes cooperation as a self-determining association of persons combined readiness to meet their mutual monetary, societal, and artistic requirements and ambitions through a mutually possessed and legitimately measured innovativeness.

Client characteristics have been discovered to contribute to uptake and utilization of contraceptives. These facts are in convergence with some investigation findings by Oginni, et al (2015) that, discovered that substantial factors of un-attained want for contraceptive encompassed of belief, age, matrimonial position, level of education, present employment status, priorities on expenditure from individual incomes and family head gender. In addition, other factors that were shown included; family affluence status, total children in the house (comprising of the unborn children), rural-urban dwelling, home visit by a family planning provider and recent experience with contraceptive messages through mass media. The study however did not explore on the implication of each characteristic on outcome of family planning utilization.

Globally, women in unstable countries have challenges such as inability to access health care especially reproductive health. They also face challenges of gender based violence either sexual or physical. This was echoed by Ritchie HA. (2017) in a study that assessed conditions of women living in various refugee camps in the world. The counties assessed included Kenya, Somali, Syria, Jordan, Zarga and Irbid. Most females in the refugee camps have to accept the decisions of the men since they have no right to their own decisions. Women are therefore notin a position to make knowledagable resolutions regarding birth control. The study however assessed only the young Muslim women leaving out the others.

Young women especially girls of adolescent age lack opportunities to be offered contraceptive method of their choice. In countries that are unstable due to war, adolescents have challenges meeting their sexual reproductive healthiness privileges as

it was discovered in a study by Casey et al (2020) that indicated the young women were disadvantaged in getting contraceptives. The study further discovered that young females were extra receptive to the usage of modern birth control techniques and remained ready to use but accessing the contraceptives was the issue. In addition, during war, reproductive health services were interrupted resulting to unplanned pregnancies. Young women were also at risk of sexual abuse resulting to sexually transmitted infections and unwanted pregnancies. The study however did not asses' women of reproductive age older women above 24 years. Humanitarian organizations supporting women during way should endeavour to support women to access family planning.

This is in convergent with yet another study by Warren, et al, (2017) that indicated the vulnerability of women during war to unwanted pregnancies. The study was conducted in Congo. It further indicated that during women were also vulnerable to the decisions of their husband since reproductive health decisions are usually in the hands of husbands. Women need to be given the autonomy to make decisions regarding their reproductive health. The study did not explore on male involvement which could result to uptake of family planning. Couple counselling should be embraced to enhance male chipping in in the birth control decisions. Protocols and guidelines ought to be developed to boost couple counselling.

Women of reproductive age who are infected with HIV need to utilise family planning to avoid unwanted pregnancy. HIV is an immune compromising condition and pregnancy compromises a woman's health hence the need to boost immunity before conception. A woman with compromised immunity who is HIV positive is likely to transmit HIV to unborn child during pregnancy, after delivery during child birth or during breastfeeding. This was echoed by Alene, & Atalell, (2018) who indicated the important of offering HIV positive women contraceptives. The study further indicated that only 30% of females of procreant age with HIV were using a method of contraceptive hence risking them to unwanted pregnancies.

Developing age specific counselling tools would ensure that women irrespective of their age would feel comfortable to discuss their situation their health care providers. There is need to develop tools with clear target age group. This was echoed by Kim, et al (2017) who indicated that to get better outcomes in reproductive health, age specific

methods of counselling should be used. The study did not explore on the utilization of age appropriate health care workers to offer services for a particular cohort group she/he belongs to. This would entail a young health care provider offering services to young people and elderly service care providers offering services to elderly people. More studies need to explore on feasibility of such an approach.

Empowering women economically has been associated with better decision making especially in accessing health services. This was echoed by Ekirapa-Kiracho, et al, (2016) that indicated that women need to be enrolled in income generating groups in order to save money for health care. The study recommended good guidance to the women can be able to empower them to make savings and invest in their health. The study needed to indicate on the structures for support of women group to avoid money loss and enhance accountability. Women need to be capacity build not just on savings but also in engaging in profitable endeavors.

Patience is of paramount importance during the implementation of contraceptive programs. Patience can be defined as the dimensions to take or bear delay, hitches, or anguish without becoming angry or nervous, any of numerous forms of card. This is in convergence with a definition by Hamdy et al. (2018) who described patience as the ability to wait peacefully in the aspect of hindrances or difficulty? He further, described that hindrances and difficulties are everywhere and therefore, there is need to develop a coping mechanism.

Trust helps to build confidence in client this is in convergence with a report by General Pharmaceutical Council (2017) in Great Britain that indicated that the level of communal trust in adherence to the instruction from pharmacologists which was rated high at 87%, in the same report, a correction of the level of trust among all health care providers was done with pharmacologists scoring weakly with on 39% as compared to other healthcare providers. Health system has always defined responsive as the act of the health facility and not the act of a patient. Under this study, responsiveness is viewed as the client ability to take charge of his or her health and be fast in seeking timely health care.

A woman education status and marital status are client characteristics that stimulate the acceptance services related to health care such as contraceptive services. In as study carried out in Ghana by Apanga, &Adams (2015) showed a positive connotation between the education status of women using contraceptive services and the education levels as well as marital status with a significance majority of married women not using family planning due to their husbands will. Though the study did not highlight the connection amongst acceptance of contraceptive services and marital status, there was need to carry out a variance on the two.

Empowering females of childbearing age through formal learning offers a prospect to make up enlightened judgments on contraceptive usage. This was echoed in research findings from an inestigation discoveries in Cameroon by Ajong et al. (2016) that presented a positive association amongst utilization of contraceptive and an increase in level of education. In yet another study by Obwoya, et al (2018) in Juba, indicated that optimum acceptance of family planning is influenced by client attitudes and similarity on contraceptive practice. The recommendations of the study were for the family planning programmers to transform the community attitudes and entrenched social, economic, and political structures through advocacy. The study however did not include other demographics like culture.

Client education status and that of her sexual partner is important in determining use of contraceptives. This is affirmed by an investigation done in Parkistan by Atif, et al (2016) that designated that use of contraceptives requires a multidisciplinary tactic to attain the purposes. Some approaches include the client education, awareness and counseling as well as partner education and counseling. The study however failed to highlight other issues affecting men like culture.

In study by Jalang'o, et al (2017) indicated that family planning uptake was high among post-delivery females, who wanted to purchase family planning commodities at health care facilities. The study further indicated unattained requirement for family planning amongst females with no intention to have other children. Health facilities sponsored by the Government had experienced stock outs causing missed opportunities for clients get family planning contraceptives, especially implants, and IUCDs, to postpartum women. The study is in convergence with an additional research by Pasha et al. (2015),

which specified that most females after deliver don't have a desire to get pregnant soon, but the health facilities lack facilities to facilitate the initiation of immediate post-delivery contraceptives services. The study indicated that most health centers lacked contraceptive commodities hence there remain a significant unmet necessity for contraceptives particularly amongst youthful females under the stage of twenty years. The study needed to explore on the rate utilization of FP among women across all cohorts.

When a client or recipient of a health service is aware of a certain health service is given all the information pertaining the importance of hat service, he or she gets to own the service and utilize it. This was reverberated through investigation findings conducted by Oyo-Ita, et al (2016) in Georgia, Ghana, Honduras, India, Mali, Mexico, Nicaragu, Nepal, Pakistan, and Zimbabwe. It focused on intercessions for refining scaling up of infantile inoculation in poor- and medium-income states, discovered that enhancement of infantile immunization coverage can be governed by the information of the care giver or the mother and community. The study however did not however give the performance of the incentive-based program and information-based program and the comparison of the two.

In convergence with the study, another study carried out in London on patients' information, anticipation and involvement of radiated extracorporeal shockwave intervention used as a remedy for cure of their tendinopathies by Leung, et al (2018) revealed that patients have the basic information about the procedure they were undertaking but had no prior knowledge on how the intervention works, the undesirable effects as well as self-management related to the procedure. Dealing with effects of drugs or any medical procedure carried out to a patient depends on the knowledge the patient has on the same. The study however did not include the need to give the care givers knowledge on the procedure since they equally perform a crucial position in supporting a patient.

Clients have their own point of view on what involvement means to them as compared to what the health care providers perceive it. An assessed done by Kiselev et al. (2018) indicated a deficit amongst patients' and health care providers' opinions on patient participation amongst the elderly people. Though the study did not highlight on the convergence, there remains necessity for healthiness care benefactors to understand

what patients need to Family planning program targets women of reproductive age and men.

Client ability to positively perceive health care has remained pinpointed as an important constituent in implementation of excellence family planning programs. Clients have a world view and a way of determining quality which the health care benefactors ought to strive to achieve. This is in convergence with a study by Tessema et al. (2016) on issues influencing excellence of health care especially in contraceptive related program in Africa. The study described the client's views on what quality family planning services are which included many dimensions such as cost, access, ability to get the choice among others.

There has been concerns over influence of marital status on utilization of contraception. A study to explore socio-demographic aspects linked to contraceptive practice amongst females of procreative age who had ever been married in Bangladesh over a period of time (1993–1994 and 2004 -2014) indicated an upward trend. This assessment was carried out by Haq, et al (2017) who associated marital status with utilization of contraceptive commodities. Further the study explored the influence of education on utilization of contraceptive commodities which revealed a strong linkage between the two and recommended endeavors to upsurge the level of education especially amongst underprivileged population in Bangladesh. The findings needed to explore on the clients age.

Various study has been carried out to determine whether age can be associated to health seeking behavior and the duration of illness suffering. An assessment by Mondal et al. (2015) indicated that age was a key determinate in health seeking behavior. The elderly persons were suffering longer duration from various ailments. The assessment further explored the gender in relation to disease prevalent and revealed that men were more prone to ailments compared to women due to frequency in health seeking among females. Given these findings, there is need to have male targeted messaging as well especially on reproductive health. The department of health need to explore how to reach women as they seek other health related services with contraceptive messaging and services.

An upsurge in education rank contribute to an upsurge in awareness on contraceptives. An investigation one by Olubanke, et al (2016) on young women in the university indicated that at least 95.2% of the students were aware of contraceptives and they had leant about family planning in high school. This indicated the role the education was playing in creating awareness among young people. The study further indicated that university students were sexually active but were not yet ready for a pregnancy. It was also found out that university students were able to get information through friends and through reading literature on family planning. The foremost foundations of evidence were, social media, networks, TV and publications. The study needed to explore on programing for young people and different strategies to reach them.

Gender discrepancy has been such a challenge in programming. United nation (2017) envisioned to realize gender impartiality by 2030. This strategy endeavors to empower females both young and old to be able to make rational decision especially those involving their health. Decisions on reproduction have highly been determined by men but through implementation of 2017 SDGs, women will have more freedom to make choices. Vision 2030 equally endeavors to engage boys and men in the reproduction decisions. The strategies need to have very clear approaches that can be used in reaching boys without introducing them to early sex.

Partner support is very important in uptake of reproductive healthiness amenities. This is in convergence with a study on male involvement by Hardee, et al (2017). The study indicated that family planning program need to have important contemplations concentrating in acquiring education, materials as well as amenities that address the requirements of males comprising of youngsters. This would call for the need to address gender standards, which usually impact on the attitude of male towards the way they treat and address females. Some other factors to consider in addressing gender normal are educating young boys, which can be enhanced through making strategies and procedures with clear steps on expanding male involvement programming. This should include the contraceptive options for men. The study needed to explore the available strategies for male involvement.

Contraceptive use is a great tool in achieving the economic growth of any country and health of children and women. Some African countries have been unable to embrace family planning due to some cultural practises that encourages birth of many children. This was echoed by Kabagenyi, et al (2016) in a study that revealed that some beliefs and cultural practises in Uganda have continued to encourage child birth. Some of these practises includes marrying of many wife's, violence based on sex, the act of replacing the deceased through child birth, dependence on out-dated methods of contraceptives such as herbs, family heredities, among others. The study needed to explore how many women of the 60% not utilising family planning were utilizing the traditional contraceptives. The statistics would help in programming and addressing cultural practices.

Understanding family planning uptake hindrances would entail to explore religious and cultural barriers which are deep hidden in the society. It requires to understand the roles of men as decision makers and the authority that accompanies their roles. Some are well empowered by their religion and hence backed with religious support, they make very firm decisions in all aspects of family including the family size. This was revealed by Abdi, et al (2021) that for family planning to be successful, programmers must involve decision makers who are men. The study involved a focused group discussion with Muslim men in Wajir and Lamu counties in Kenya. Muslim men need to be engaged at the high level through their religious leaders. The study did not explore on how men could be reached. Social networks for men can be an alternative in reaching men.

Child birth and pregnancies in most African countries have been left for women to handle all that appertains the two. In yet another investigation done carried out by Massenga, et al (2021) in Tanzania, it revealed the importance of male participation in seeking of reproductive health services. The study showed that the women who had been accompanied by their partners remained extra prospective to utilise modern contraceptives paralleled to women whose partners did not accompany them. The investigation further indicated that couple counselling in all reproductive health services would result to better uptake of the services. Women who had not disclose their reproductive health goals with their partners were seen at risk of not utilizing modern methods of contraceptives. The study however did not indicate on means reaching out men to participate in reproductive health.

Certain characteristics hinders utilization of health including family planning. As a result of instability in some countries, many citizens migrate to foreign countries. Migration also take place within the same country due to rural urban migration as people move in search of job and better standard of life. As immigrants they have limited access to services such as reproductive health services. This was revealed by Bwambale, et all (2021) in Uganda that indicated that immigrants have poor access to health care. The study however studied only the immigrants within the country. There is need to study on the immigrants outside the country and understand their perspective in accessing reproductive health

Many cultural values prohibit usage of birth control techniques and other communities accept the use of its men driven. Men have to control the use of modern methods of contraceptives. Women from such cultural background normally utilize family planning hiding from their spouses. This was revealed by Hoyt, et al, (2021) in a study carried out in Benin, Malawi Uganda, Ethiopia, and Kenya. In such circumstances women are likely to miss their return date appointments since the date may not be appropriate for her to leave the house. Husbands monitor their wife's which becomes very difficult to hid and get to the health facility. Women may successes to get to health facility but if they happen to see a neighbour, they just leave without a service. The study needed to explore on ways way of engaging men.

There exist serious gaps in health care globally which calls for international organizations, governments, stakeholders and health care workers to strategize on ways of bridging the gaps. These strategies include establishment of many projects and programs in health care. Some usually succeed to achieve the objectives while others are unable to meet the objectives. Projects that involves the community from inception usually have high chances of succeeding. This was echoed by Haldane, et al (2019) that involving the community in health projects leads to good performance. The study did not indicate on ways of involving the community since each community is unique with unique way of solving their issues. It is therefore very important to involve the community in health projects and take into considerations their opinions.

Communities understands their health problems better than anyone else. They even have some resources that can be leveraged on. The communities also have opinions that can help in addressing their health problems. This was revealed by Al Siyabi, et al

(2021) in Oman on the resource the community has in response to emergencies such as COVID19. Through community involvement, Oman was able to reduce COVID19. Communities participated in enforcing COVID19 rules and regulations, mobilizing and sensitizing the communities as well as supporting with referral systems. In addition, members of the community volunteered to work in the community as community health volunteers. The study however did not quantify the community resources. There is need to involve the community's sine they do better with minimal support and own their health.

In many African cultures, men have access to money compared to women. Some cultures don't believe in a girl's education. This makes women vulnerable to men and to be depend on them. Some women lack money for transport to a health facility to seek services and even money to pay for a service. This was echoed by Potasse, et al (2021) in an investigation in Uganda that specified that women were experiencing economic barriers in accessing sexual reproductive health services especially family planning. Though the study did not explore on how women could be empowered financially, there is need for programmers to consider lifesaving programs targeting economic aspect of women empowerment.

Girl's training has remained to be quoted as a way of increasing the age of first child birth. With an increased education, a girl is sad to be in a position to make better decisions and delay first sexual encounter. In Africa, our factors hiders the delay despite education. This was revealed in a study by Grant, (2015) in Malawi that evaluated the trends of child birth among women following initiation of free primary and secondary education. The study indicated that there was no change in the age of first child birth. Other factors hindering the delay need to be explored if girls have to give birth at the right age and when they are ready. The study also indicated that girls who were performing poorly in school were at higher risk of early marriages and early sex. The study needed to explore other factors that led to early child birth since lack of education is only one factor.

In divergence with the study findings, another research that was carried out in Uganda, Ethiopia and Malawi, indicated that the more girls were retained in school the more they had low chances of early pregnancy and early marriages. The study which was

conducted by Behrman, &Andrea. (2015) revealed that educated women had fewer children. Education is a key tool in reducing the population and improving the nation's economic growth. The observation was common in all the countries under review. The study needed to explore on the school curriculum to evaluate if sex education was included in the curriculum. It would be important to have sex education incorporated in school programs in order to sensitize girls on the importance to having children when they are ready.

For a reproductive health program to be considered to offer quality family planning services targeting young girls, several factors need to be considered. One of the key measure is the age at which girls are engaging into sexual contact, the age at which girls are getting marriage and the age at which girls are giving birth to their first child. If a country achieves to increase the three age categories, then a reproductive program is said to be offering quality services targeting women. In a study carried out in 43 countries across several continents, the study indicated that education had significantly facilitated an increase in the three components a part from Latin America and the Caribbean which did not register an increase in any of the three events. The research needed to explore other factors other than education that could be contributing to the delay of the three events

Education has been cited as a key element in empowering women to be able to make better decisions in life matters. More importantly decision regarding their reproductive health. Globally women continue to experience domestic violence including physical, psychological and sexual. A study by Weitzman A. (2018) indicated that educated women and empowered women were less likely to encounter violence. Further it indicated that an educated woman was more likely to make decisions including her reproductive health decisions. The study needed to explore on how men can be empowered to protect women instead of causing violence. School curriculum should embrace violence free environment.

2.5 Theoretical Framework

The theory that the investigation was based on was the philosophy of constraint. This is for the reason that constrictions are recognized to regulate the execution and

performance of any structure. To be capable of focuing on fineness in organization, together theoretic and well-designed features should be well thought-out as pronounced by Saad & Siha (2000). Their commendation, managing fineness ought to be the director in the implementation of any assignment. They additionally designated a restraint since everything that prevents a structure from accomplishing fineness performance sensible to its goalmouth.

The model of restraints was reputable by Dr Eli Goldratt and distincted in his descriptions, considerations on realising revolutions in performance in large multidimensional situations, conquered by in elevation vagueness. He additionally pronounced bottle neck and constriction. Bottleneck was distinct as any reserve whose magnitudes is less than the directive positioned upon it: Bottlenecks emanate then goes. Some constraint restricts the entire establishments performance over an overextended duration. Every chain up upholds the bottommost connection; the strength of such a chain up is recognized by the bottommost connection. In an investigation by Lombardo & Kvålshaugen (2014) on measure constraint established that what is evaluated as a restraint in project management can be subdivided in to four. These are as politically aware restraints comprising of dynamics such as inarticulate thoughts, responsibility and opportunity of projects, mechanical restraints comprisesing of different strong point for example capabilities, talents, predominant organization and standard circumstances like environmental, locality and weather. Mutual restraints also comprising codes of conduct, structural procedures, separable associations and recognised or probable behaviour's and administrative restraints such as finances, project strategys, opportunity, engraved predetermined appointments to mention just but a few.

Theory of Constraints challenges overseers for change of direction some of their critical expectations around how to achieve the goalmouths of their establishments, about what they anticipate imaginative appointments, and about the real strength of mind of cost management. In another investigation discovery by Sabbaghi and Vaidyanathan (2004), they designated theory of restraints as an institution intelligent whereby establishments can be considered as a reciprocally reliant on categorisation of processes as a substitute of an unbiased initiative module.

Theory of restraint designates five phases consisting of; recording of the system's restraint, judgement on how to achievement the institute's restraint, reduction of every other matters to the above pronouncement, development of the organisation's restraint and finally if in the previous phases a restraint has been cleft, one ought to start all over once more from the first phase.

2.5.1 Application of the Theory in the Study

To measure Healthcare Quality Dimensions, an association need to recognize the five phases in the model of restraint to resolve any restraint that can obstruct health quality dimension.

2.5.2 Model for Measuring Quality Care

The study also applied Donabedian's prototypical for gauging excellence care. Donabedian (2005) established three appliances for computing the excellence of care. These appliances are construction, procedure and endings. To Quantity for augmentation has an additional constituent, which is discussed to as complementary processes. Donabedian believed that construction commonly control on processes while procedures in sequence impact the aftermath of any venture. The three; mechanical, procedure and result encompasses excellence. Portion of excellence ought to consequently measure the three apparatuses.

Result quantification: These duplicate the outcome on the customer and confirm the outcome of the enlargement of determination and if it has finally proficient the agreed purposes. An illustration of result quantification is expansion in the couple year of protection, upsurge in taking of birth control techniques.

Procedure Quantification: These duplicate the technique organisations and processes of workshop to convey the estimated consequences. An illustration of procedure quantification comprises the customer waiting period to obtain a contraceptive amenity.

Construction quantification: These resonances the physical characteristics of the healthiness care benefactor for example workforce to customer magnitudes and functioning spells of the amenity. They can also be mentioned to as feedback procedures.

Balancing quantifications: This reflects accidental and or broader magnitudes of the renovation that can be hopeful or unwanted. It is about recognizing these and attempting to quantity them and or decrease their outcome if essential. An instance of a harmonizing measure would be checking rates usage of birth control subsequent to starting a public promotion program for birth control.

Raleigh and Foot (2010) specified that exploitation of excellence assessment in segments such as healthiness is perceived to have opportunity of proceeding care excellence as well as exploiting the proficiency and inhibit commonplace shortcomings. Further, they showed the prerequisite to exploit the previous run-through so as to come up with an appropriate tool to evaluate excellence at all ranks of health care. The investigation regarded excellence as a fundamental in resolving financial encounters in the health subdivision.

2.6 Conceptual Framework on Healthcare Quality Dimensions, Client Characteristics, and Performance of Family Planning Program

Conceptual structure is a system, or "a plane", of intertwined thoughts or conceptions that combined deliver a complete thoughtful of an occurrence or phenomenon. The thoughts that establish a conceptual framework facilitate each other, articulate their particular phenomenon, and create an outline-explicit viewpoint. The conceptual framework in this research is more of a map that abstracts if independent variables contribute to dependent variables. It shows the link of the variables.

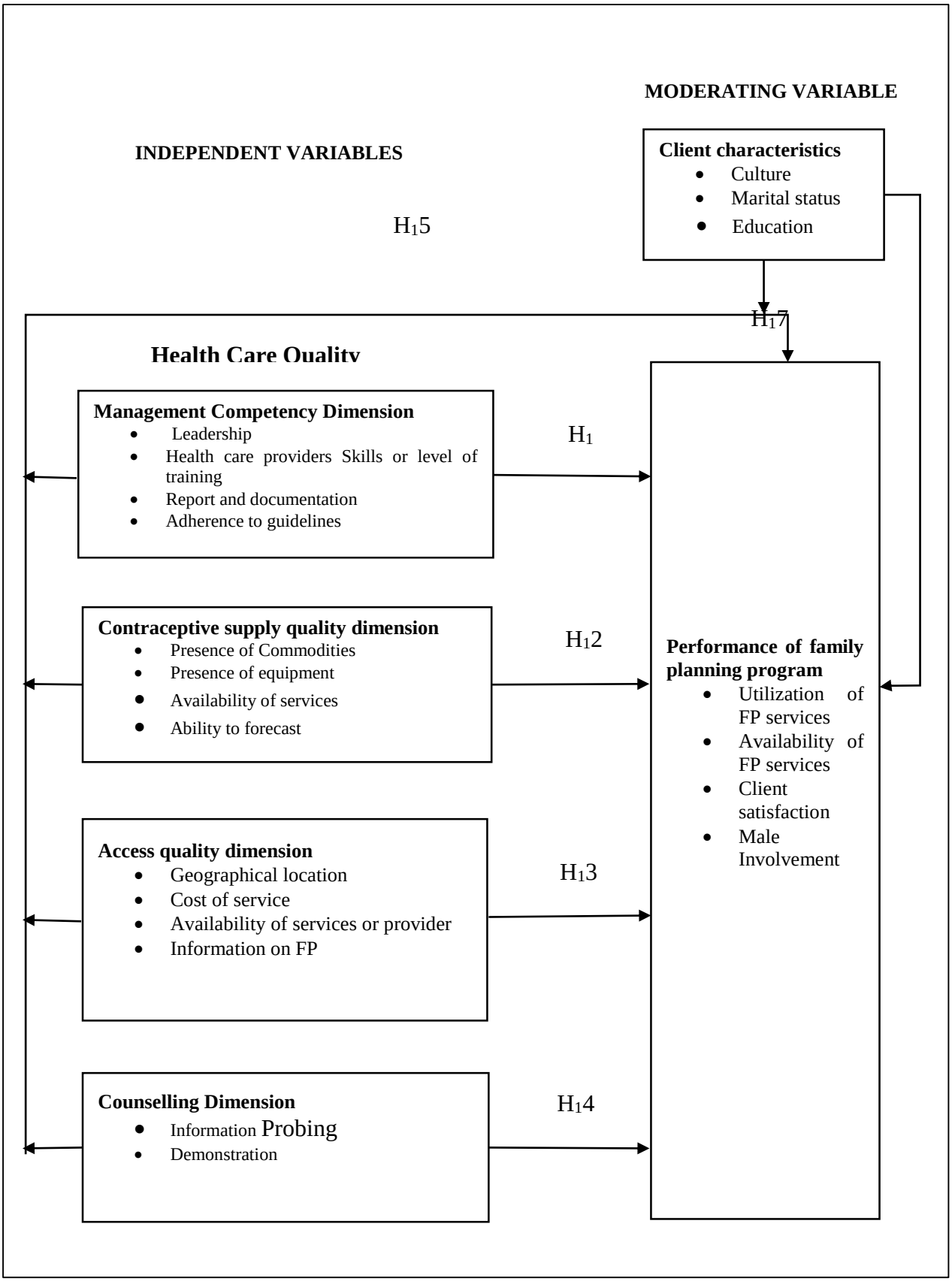

Figure 1: Conceptual Framework

2.6.1 Variables in the Conceptual Framework

A variable in an investigation is a representation or an idea that can assume any single set of standards. A Predictor Variable (explanatory) is the variable of principal attention to the investigator that need to be improved or clarified as outlined by Sekaran and Bougie (2016). Outcome variable is the variable, which the investigator is engrossed in as the main outcome and has a need to discovery of a resolution to improve. In this study, performance of family program is the dependent variable.

A predictor (explanatory variables) can be described as a variable that affects or impacts to the Dependent variable. The outcome variable is responsible for the discrepancy of the dependent variable. With every element of upsurge in the explanatory variable, there is an upsurge or reduction of the response variable. The impact of Right-hand-side variable on the Left-hand-side variable may be optimistic or undesirable. In this study there are four independent variables that the study intends to explore their relationship with dependent variable. The study will investigate each explanatory variable relationship with dependent variable separately and then the combination of all the predictor variables in association to the outcome variable. The four independent variables are; management competency dimension, Contraceptive Supply dimension, access dimension, and counselling dimension.

A moderating variable has a time dimension (a temporal quality) to the independent variable in a situation. A moderating variable can be defined as a variable that affects the influence in the middle of the response and predictor variable. In this study the Moderating variable is client characteristics. The study sought to find the relationship between the moderating variable of client characteristics and the Performance of family planning program in Nakuru County.

2.7 Knowledge Gaps

The gaps in literature review can be defined as the absent section or sections in the study literature, it can also be defined as an area that has not yet been discovered or is under-explored. This could be a populace or illustration (magnitude, category, location, among others), research method, data gathering and or scrutiny, or other investigation variables or circumstances. In the literature reviewed, there are very few studies carried

out in Kenya on health quality dimension in relation to performance of family planning. This gives this study an opportunity to inform the policy makers on the quality dimension on family planning programs. The literature reviewed looked at quality dimension on only one health facility and not concentrated on a large representation like a county. The sample size in most of the literature reviewed was small and hence with a huge sample size, it will be representative. Quality dimension has also been looked at in health program as a whole but not concentrated on a particular program like family planning. Table 2.1 Summarizes the knowledge cracks recognized in some of the literatures reviewed.

Table 2.1: Knowledge Gaps

Study Focus	Author (Year)	Gaps	Current Study Focus
Role of leadership or management in quality improvement	Ministry of Health Kenya (2020)	Quality improvement is a holistic process that is not just determined by management but also the clients, environment, counseling, counseling room among others.	Influence of Management competency Quality dimension on performance of family planning program
Role of management in maintenance of standard through, creating a positive organization culture	West et al. (2015)	The study focused on health sector in general but not specific health programs. The study did not look at the role of employees in maintain the organization culture	Influence of Management competency Quality dimension on performance of family planning program
Elements necessary for sustaining positive organization cultures	Dixon-Woods et al. (2014)	The study missed the working environment for staff and the clients as essential elements in enhancing positive organization culture	Influence of Management competency Quality dimension on performance of family planning program
Association of Leadership style with saving of life'	Wong et al. (2019)	The study failed to establish the various leadership styles in given situation since health sector experiences different challenges during program implementation. Some need emergency response while others need due to the sensitivity of the issues.	Influence of Management competency Quality dimension on performance of family planning program
Relationship of authentic leadership and employees job satisfaction and employee's characteristic	Wong et al. (2019)	The study needed to explore employee's personality, religion and other affiliations	Influence of Management competency Quality dimension on performance of family planning program
Intellectual capacity of leaders and performance in leadershipor management in health care	Arroliga et al (2014)	The study failed to explore the experience of leaders	Influence of Management competency Quality dimension on performance of family planning program
Management role in ensuring	Tafese et al (2013)	Only focused on quality control regarding resources	Influence of Management

quality control		needed but failed to include the quality in systems	competency Quality dimension on performance of family planning program
Role of managers in ensuring readiness of health facilities to offer quality services	Leslie et al (2017)	The study failed to establish the readiness of clients to receive quality health services	Influence of Management competency Quality dimension on performance of family planning program
Role of Health care workers in ensuring the clients gets the right information	Okech etal. (2011)	The study failed to explore other barriers to update of services like client characteristics, culture among others and the role of management in ensuring the right messages are given to clients	Influence of Management competency Quality dimension on performance of family planning program
Motivation of Health care providers in proving integrated services as initiated by management	FHI (2010)	The study needed to explore the program that can be integrated without interfering with schedules Influence of Management competency Quality dimension on performance of family planning program for example immunizations that are monthly cannot be missed to await another service.	Influence of Management competency Quality dimension on performance of family planning program
Staff perception and offering of integrated family planning services	Ryman et al. (2012)	The study did not explore the role of management in handling staff perception	Influence of Management competency Quality dimension on performance of family planning program
Relationship between quality services and security of contraceptives or supply of contraceptive	Julie (2011)	The study focused on contraceptive supplies only but failed to look at other supplies necessary to offer contraceptive services.	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Success of commodity security is defined by client uptake of services	Hare et al. (2004)	The study failed to describe quality in the process of commodity security to client uptake	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru

Family planning as holistic combination of services but not a single service	Starbird et al. (2016)	The study failed to explore how the combination of services, policies, information, attitudes, practices, and commodities can be integrated	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Contraceptives supply as a key component in determining the performance of family planning programs	Charurat et al. (2010)	Study did not explore on other resources necessary for offering family planning services like electricity supply, instruments.	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Description of a whole supply chain of contraceptives	Measure evaluation (2018)	The study failed to explore the quality component on good commodity forecasting, orderingor procurement and supply	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Contraceptive forecasting as a determinant to the quantities needed by each health facility	USAID (2015)	The study failed to explore how the monitoring of quantities	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Quantification of Health Commodities	USAID (2011)	The guideline needed to establish the quantification of equipment necessary for the services and their lifespan like IUCD insertion set	Influence of contraceptive supply quality dimension on Performance family planning program in Nakuru
Family planning examination room as a determinant to uptake of family planning services	Hong, et al. (2006)	The study needed to explore the location of the family planning room	Influence of access to quality dimension on performance of family planning program
Need for family planning rooms to be revamped to appropriate standards	the Ministry of Health Kenya (2004)	The study only focused on the inside the room but failed to address the surrounding environment like appropriate waiting by	Influence of access to quality dimension on performance of family planning program
Need for a checklist list on all the	Leisher et al. (2015)	The checklist needed to include the skills of health	Influence of access to quality

requirements in a family planning counselling room		care providers.	dimension on performance of family planning program
Description of family planning room dimension	Hong, et al. (2006)	The study did not explore the requirement of the room as per the level of the health facility for example	Influence of access to quality dimension on performance of family planning program
Quality of services and contraceptive and the type of health care provider	Fruhauf et al. (2018)	The study failed to explore on the formal and informal health care providers. The study was not specific to one country.	Influence of quality counseling dimension on performance of family planning program in Nakuru county.
Link between counselling and the uptake of contraceptives	Zapata et al. (2015)	The study was not specific to a specific study since it was a	Influence of quality counseling dimension on performance of family planning program in Nakuru county
Confidentiality in family planning services and uptake of services among young people.	Britain et al. (2015)	Study did not explore other hindrances to uptake of FP services by young people	Influence of quality counseling dimension on performance of family planning program in Nakuru county.
Health care provider perspective on counseling young people on family planning	Williams et al. (2015)	Study needed to explore the young people world view on family planning hence get their perspective	Influence of quality counseling dimension on performance of family planning program in Nakuru county
Education status and marital status as client characteristics that influence the uptake of health services	Apanga and Adams (2015)	Study needed to explore the age as a determinant factor to uptake of family planning services	Influence client characteristics on performance of family planning program in Nakuru county

Formal education among women, socio-cultural beliefs and spousal communication as a determinant to uptake of family planning	Eliason (2014)	The study was carried out in only one district in Ghana	Influence client characteristics on performance of family planning program in Nakuru county
Correlation between increase in education status leads and increase in use of contraceptives.	Somba et al. (2014)	The study only focused on university students but there was need to have out of school youths who were learned.	Influence client characteristics on performance of family planning program in Nakuru county
Education as an opportunity to make informed decisions on family planning.	Ajong et al. (2016)	The Study needed to explore other barriers to Family planning uptake.	Influence client characteristics on performance of family planning program in Nakuru county
Multidisciplinary approach to family planning	Atif et al. (2016)	The approach needs to be tested in African countries like Kenya to explore the practicability	Influence client characteristics on performance of family planning program in Nakuru county
Unmet family planning needs among the breastfeeding mothers	Borda and Winfrey (2008).	Study did not explore other risks to unmet family planning needs	Influence client characteristics on performance of family planning program in Nakuru county

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the investigation techniques utilized to resolve the investigation purposes. They encompassed investigation methods, investigation design, object population, sample scope and selection approaches, investigation apparatuses, information congregation approaches, information scrutiny, structures, ethical responsiveness and operative depiction of variables. It also designates the processes carried out to warrant the validity and also dependability of the exploration tools. The section similarly comprises the ethical contemplations. The section completes with the depiction of variables.

3.2 Research Paradigm

This investigation was navigated by paradigm of pragmatisms because the investigation incorporated quantifiable and non quantifiable investigation approaches by usage of mixed method of information gathering and scrutiny. The ultimate postulate of the mixed investigation procedure is that unification of mathematical and non-mathematical procedures proposals an all-inclusive information of the enquiry problem paralleled to using only solitary kind of procedures as labelled by Creswell (2014) and Molina-Azori (2016). This is in correspondence with sightings from an investigation by by Mitchell (2018) who designated double case studies that employed mixed research methods and publicized that utilization of mixed research delivered equally quantifiable and quantifiable insightful that give rise to excellent data explication and also excellent thoughtful of the exploration phenomena.

Mixed techniques exploration offered an extra consideration of the multidimensional phenomena which could not have been obtainained by means of utilizing only single technique as labelled by Creswell and Plano (2011). Pragmatism paradigm was prudently selected as the utmost suitable for this investigation subsequently the investigation intended to scrutinize the impact of healthcare quality dimensions and client characteristics on performance of family planning program in Nakuru County.

The reason of selecting the paradigm was to embrace the different methods of information collection as directed by Morgan, (2014) that pragmatism is mostly appropriate for diversified approaches. Additionally, pragmatism allowed the researcher to be unrestricted of psychosomatic and pro-active limitations implemented by the ‘‘unintentional optimum inconsistency amongst post positivism and constructivism as designated by Creswell & Clark (2007). It also empowered the researcher to be self-governing hence not gratified to a positive investigation technique or procedure as quantified by Robson (1993).

3.2.1 Research Design

Research strategy is described as a framework that demonstrates the way problems under examination will be resolved as defined by Kothari (2004). The design was selected after considering four major elements as described by Morgan (2014). These elements were: the epistemology which informed to do research, the theoretical position triggering the approach in question, the approach itself, as well as the procedures and processes applied in the study design to gather information. These elements enlighten the type of study designs selected which was descriptive investigation by means of mixed procedures approach.

Mixed method is a technique for direction-finding investigation that embraces collecting, examining and integrating measureable data for example in investigations and nonquantifiable data such as conversations and observation guide as pronounced by Creswell and Clark (2011). The high-quality of mixed technique was to propose an improved thoughtfulness of the investigation problem. The technique was carefully chosen bearing in mind that there had not been an investigation in Kuresoi North challenging the excellence element on any wellbeing program particularly birth control. It was of utmost imperative to consequently use a technique that would empower the researcher to unremittingly examine the investigation enquiry from different viewpoints and illuminate unanticipated encounters and/or feasible inconsistencies.

Usage of mixed technique process provided benefits to the investigation as termed by Morse and Niehaus (2010) whereby, by means of utilizing of the methodology, the researcher had the capacity to scrutinize equality of aftermaths gotten by numerous instruments that encompassed domiciliary examination, dialogue guide, and

observation checklist. Further, it presented information supplementation through utilization of the two techiques i.e mathematical and non-mathematical data to assess corresponding but distinguishing features of the investigation occurrence

3.3 Target Population

Populace can be well-designated as a broad organization of rudiments (persons or items) that own some ordinary distinctive defined by the sampling conditions established by the investigator. This is in convergence with a definition by Mugenda &Mugenda (2003). The authors describe population as a whole grouping of persons, happenings or items possessing common characteristics that correspond to a provided specification.

Target population can be labelled as the overall grouping of people within which a section is picked from McLeod (2019). This is in concurrence with definitions by Asiamah, et al, (2017) that labelled the target populace as the set of persons or members that possess particular characteristics of significance and that are related. This meaning was also in convergence with definition by Bartlett et al. (2001) and Creswell (2003).

The target populace utilized in the investigation was females of procreative age in 33,482 homes in Kuresoi North Sub-County in Nakuru. The quantity of homes in Kuresoi North was selected from Kenya health information system. The investigation similarly encompassed the in charges of the public health care facilities issuing birth control amenties in Kuresoi North sub-county. The in-charges were 19 nursing officers.

The target populace was beneficial in offering the prerequisite information in the subject under research, which was health quality dimensions, client characteristics, and performance of birth control program in Nakuru County. The target populace of 33,482 homes was conducted by the households represented in Kuresoi North Sub-County as per the 2009 survey and 4% assessed yearly populace development as tabularized in the Kenya health information system (2019). The females of reproductive age in Kuresoi North Sub-County of Nakuru County was correspondingly steered by 2019 populace approximations reviewed for Kuresoi North as populated in the Kenya Health Information System (2019). This approximation of populace and households is commonly calculated directed by the populace as per the census and the yearly growth

proportion per Sub-County in relative to the percentage of individually age group. Kuresoi North has a projected growth proportion of 4% per year.

The nursing leaders of public health facilities who participated were nineeeteen. They were managing the public health care facilities in Kuresoi North Sub-County. The females aged between 15 and 49 years were gotten at their household by qualified volunteer providing health services in the community. The estimated number of households in Kuresoi North sub-county were 33,482 that usually records 19.2% of the total populace spread in the four wards of Kuresoi North. The presence of the the leaders of health facilities in this investigation was to augment a consideration on the health care excellence dimensions, client characteristics and performance of family planning program.

The inclusion condition for females of reproductive age was the females in the reproductive age group in a home that were entitled for gathering information. The exclusion conditions were females of non-reproductive age as per the operating description regardless of exploiting family planning amenities. The inclusion conditions for leaders of public health care facilities was only the officers in nursing carder from the public health facilities in Kuresoi North providing family planning amenities while the exclusion conditions were leaders in nursing managing health facilities managed by the private sector regardless of proving birth control amenities.

Kuresoi North was selected due to its low performance in family planning. The District Health Information System (DHIS) 2015/2016 description indicated that family planning acceptance in Nakuru County had achieved 46%. The sub-county that was taking the lead was Naivasha Sub-County, having achieved 61%, with Kuresoi North having achieved the lowest acceptance of family planning amenities, which had only achieved 28 per cent.

3.4 Sample and Sampling Procedures

This portion describes the sample scope and the sampling technique.

3.4.1 Sample Size

The sample scope is the sampling construction, which is distinctively defined as the wide-ranging listing of all representatives of the complete population as itemised by Saunders and Lewis (2012). Sample choice that was exploited for the investigation was

done through utilizing Slovin's technique chosen by the population scope and the standard allowance error of 0.05 as quantified in the formulation underneath.

$$\textbf{Sample size (n)} = \frac{\mathbf{N}}{(\mathbf{1+Ne^2})}$$

Where:

n = Samples Number

N = Scope of populace

e = Error margin or margin of index

Determining the sample scope gives;

$$\mathbf{n} = \frac{\mathbf{33482}}{(\mathbf{1+33{,}482 \times 0.05^2})}$$

$$\mathbf{= 399.98}$$

$$\mathbf{== 400}$$

Henceforth, the scope of the sample utilised in the investigation was 400 females.

The seleced females were allotted in the four wards by means of the fisheries technique for stratified random sampling practice. The resolution of process was to exploit sample investigation exactness from the designed sample scope.

Table 3.1: Sampling Frame

N	**Number of stratum (SU1) in the population**
M_i	Total of constituents (SU2) in layer (SU1) i
$M_O = \sum_{i=1}^{N} M_i$	Collective number of constituents (SU2) in the population
$\overline{M} = \frac{M_O}{N}$	Mean number of constituents (SU2) for every layer (SU1).
Y_{ij}	Value of the nominated characteristic of constituent (SU2) j in layer (SU1) i

$Y_i = \sum_{j=1}^{M_i} Y_{ij}$	Collective value of the chosen characteristic in layer (SU1) i
$\overline{Y}_i = \frac{Y_i}{M_i}$	Mean value of the characteristic Y in the constituents (SU2) of stratum (SU1) i
$Y = \sum_{i=1}^{N} Y_i$	Collective value of the characteristic Y in the populace
$\overline{Y} = \frac{Y}{N}$	Mean value of the distinguishing Y for every layer (SU1)
$\overline{\overline{Y}} = \frac{Y}{M_O} = \frac{Y}{N\overline{M}} = \frac{\overline{Y}}{\overline{M}}$	Mean value of the peculiarity Y for every constituent (SU2)
$\overline{\overline{Y}} = \sum_{i=1}^{N} \frac{\overline{Y}_i}{N}$	Mean value of the feature Y for every constituent (SU2) if Mi= constant = M

Consequently

M_i of Kamara =7543

Mo == 33882

$\overline{M} = \frac{M_O}{N}$ = 33482

Y_{ij} =400

7543/33882X400= 90.11

Table 3.2: Allocation of Samples

Ward	**Number of House holds**	**Sample size**
Kamara	7543	90
Kiptororo	14188	170
Nyota	8568	102
Sirikwa	3183	38
Total	**33482**	**400**

3.4.2 Sampling Procedure

The populace, that was examined, was similar, the research embraced stratified random sampling system. The explanation is in conjunction with depiction by Nguyen et al. (2019) who well-demarcated stratified random selection as a procedure whereby population is separated into subsections recognized as “strata”. From which each stratum, the similar random sampling is useful in selecting for individually-stratum section. The completed individual stratum sections are thereafter combined to come up with the stratified chance section. It incorporated dividing the population into homogeneous divisions and then receiving a simple random section in each subsection.

The population of Kuresoi North is distributed in four wards. Each standardized part of the populace was designated as a stratum and simple random samples were taken from each stratum individually of each other. Kuresoi North had 33,482 homes which were disseminated in the four wards namely Kamara (7543 households), Kiptororo (14188 Households), Nyota (8568 Households), and Sirikwa ward (3183 Households) as described in the sampling structure in Table 3.2. The dissemination of sample size in the four wards was based on calculation by means of the fisheries principle for stratified random sampling technique. The total figure of households in the Sub-County was therefore split up by the aggregate number of households in every ward to get the proportion, which is then multiplied by the total sample size of 400.

3.5 Data Collection Procedure

The investigation supporters were directed by the Ward administrator, volunteers at community level in health, the national government admnistratiomn officer incharge of the ward, assistance national admistration officer and the elders in-charge of the village to distinguish a fundamental area in every Ward, that provided the primary area for selecting the homes in the individual ward. In addition, ward was further subdivided into four directions which were well-versed as the preliminary point. Each path or direction had identical number of data collecting tools in every ward. To control the beginning point of information gathering, the investigation supporters sauntered a ball-point on the ground. The way the piercing verge jagged became the primary direction utilized to begin information gathering. The investigation supporters supplementary visited the initial home and then hopped two households and visited each third home in the designated path. The investigation supporters safeguarded that they continuously

initiated from the fundamental commencing area in the four directions carefully chosen. Upon reaching to the destinied home, the study supporters familiarised themselves to the members, sought to identify if the home had a female of procreative age, and if it had, requested authorization from the home leader or corresponding to fill the domestic questionnaire with reassurance of discretion. For the homes without a female of motherhood age, the investigation assistant progressed to subsequent home without hopping then sustained with the arrangement of hopping two homes.

3.5.1 Data Collection Instruments

This investigation used household survey, important informer interview guide and observation checklist for information gathering. The investigation instrument for females aged 15 to 49 years from the wards selected was an inquiry form. The important informer interview guide was applied amongst the leaders in-charges of health care facilities. Observation checklist was exploited to evaluate the nurse leaders in the 19 public health care facilities in Kuresoi North. The selection of these apparatuses was focused by the category of information that was being collected, the dimensions, spreading of the populace, as well as the goalmouth of the investigation. The use of questionnaire in this investigation was prudently selected because it permitted the interviewer to collect a indepth and all-inclusive data since the questioner could self-control the technique henceforward probing supplementary by additional interrogations that reinforced to complement supplementary info different in a thought technique.

The questionnaire technique was chosen because of the quantifiable nature of information the research pursued to accomplish. This method was selected since it presented the respondents prospect to escalate the importance of the research since it related to healthcare quality dimensions, client characteristics, and performance of family planning program. Questionnaires amplified the opportunities of receiving straightforward answers because they warranted concealment of the woman being intervied. The questionnaireutilized equally unrestricted plus restricted enquiries. The usage of unrestricted questions offered elasticity for the women to give more information. Restricted questions were helpful in the quantitative scrutiny. This balance was useful in the wide-range analysis. The questionnaire contained Likert's scale. This consisted of a series of declarations which expressed either agreement or disagreement regarding the provided object to which women were asked to react. The women

indicated their concurrence or dispute with each declaration in the questionnaire. Every answer was given a statistical score, demonstrating agreement or disagreement, and the results were aggregated to gauge the woman's attitude. Upon conclusion, the total score implied the women's position on the range of favourable to unfavourable regarding element.

Observation checklist was similarly utilized to gather information. The utilization of observation checklist involved gathering full range of data on the availability of equipment necessary provide contraceptive services. The check list enabled the investigator to have a chance to validate availability of supplies, tool, jobaids, standard operating procedures and their use in regard to contraceptive services. The utilization was also verified through interaction with the health care providers and verification on client's cards to ensure adherence to the standard operating procedures and the laid down protocols.

Observation checklist was also utilized to check whether family planning counselling room was adequate and whether it had the all the basic supplies, equipment, reporting tools, and adequacy of the infrastructure. Observation checklist was also able to gather information on the use of contraceptive job aids, Information Education and Communication (ICE) resources necessary in any family planning setup.

The interview guide for the health care employees was used to help the interviewer to get more information from health care providers through probing. Unrestricted questions were utilized, and the interview was able to get qualitative data from, the in-charges of the health care facilities. The interview guide was very useful since it was well structured to enable a good interview as defined by Frey & Oishi, (1995) indicating that an interview is a focused conversation in which every individual is able to asks organized questions and other responses to them. This was carried out to gain information on all the variables, which were under investigation. The usage of the interview methodology was to be provide flexibility, giving indepth particulars.

The questionnaire and interview guide are shown in Appendix I and II. Section A of the questionnaire gathered data concerning women of procreative age demographic statistics. The intention of this segment was to acquire contextual information of the respondents. Section B sought to obtain statistics on the management competency

dimension. The purpose of this is to get the client characteristic in depth. Section C enquired information on the Contraceptive Supply quality dimension. The focus of this section was to get in-depth knowledge on user-friendly services. Section D collected information on the access to quality dimension. The main focus on this section was to get information pertaining meeting of the overall objective of the family planning program in a standard way. Subdivision E gathered data on the quality-counselling dimension. The main area of focus in this section was to get information on the capability of clients to receive essential services in a timely manner from a skilled health care provider.

Appendix II comprised of interview guide targeting the managers of health facilities. Section A of the interview guide gathered data about health care provider demographic statistics. The objective of this subdivision was to get contextual statistics for the women. Section B acquired statistics on the management competency Quality dimension. This section focused on getting data on capacity to deliver the services as required by clients. Section C obtained information on the Contraceptive supply quality dimension. The main objective of this section was getting information on the competence to maintain standards in the performance of family planning. Section D gathered information on the access to quality dimension. The main goal of this subdivision was to collect data on accessibility of services and qualified health care providers to the clients. Section E obtained information on the counselling quality dimension. This was information on capability of the health care providers to provide services to clients as they require in a timely manner.

3.5.2 Pilot Testing of the Instruments

The survey instrument and dialogue guide were verified in Molo Sub-County pursuing 15 females of reproductive age. The selection of Molo Sub-County in Nakuru county was since it was not an investigation location. Two public health facilities were randomly carefully chosen in Molo sub-county. The procedure of trial was intended at recognizing whether females of procreative age would comprehend the cross-examinations and information and also whether the element of enquiries was comparable to all the women. For the household inquiry form, that comprised of closed ended enquiries, trial assisted to crisscross the abundance of answer in the classifications that were obtainable. The feedback from the women who participated

was also projected to divulge presence of any discrepancies in the enquiries within the survey and capability of females to answer back to all enquiries. The trial investigation gave appropriate leadership on the instruments. The tool gathered the information, which was envisioned by the researcher and henceforth there was no need of reviewing the investigation instruments.

During the pilot test, the research instruments clarity was assessed and collected data was analyzed and reliability tested. The pilot study results were key in improving and strengthening data collection. The researcher selected 10% of the sample size selected for the study for each of the four wards, this represented 10% of the investigation sample. The respondents selected for the pilot study are members of households in Kuresoi Sub-County, Nakuru County. These respondents will however not be included in the final study. The respondents selected in each word are highlighted in Table 3.3.

Table 3.3: Pilot Study Sample Size

Ward	**Sample size**	**Pilot Study Sample Size**
Kamara	90	9
Kiptororo	170	17
Nyota	102	10
Sirikwa	38	4
Total	**400**	**40**

3.5.3 Validity of the Research Instruments

Extrapolations about the usages of the investigation tools or apparatuses was authenticated. The authentication was done to guarantee that the investigation apparatuses had an appropriate extrapolation relevant to the purpose of the investigation and that the investigation apparatus had an expressive extrapolation henceforth offering the needed significant data using the mechanism. The investigation apparatus was verified to reveal the three groupings of rationality that is; content-interconnected suggestion of validity, the criterion-interconnected suggestion of validity and the construct–interconnected suggestion of validity. Exploitation of specialists in the

speciality of reproductive healthiness was done to support in evaluating the question matter rationality. Instruments were also scrutinised by the county health management team for absence of error. A committee of a team of five comprising of County Director of Adminisration and Planning, County Director of Quality Assurance, County reproductive health coordinator, County Information and technology officer, and county human resource officer. The team was tasked to evaluate the instrument and provide opinion on content. After the evaluation, the team made a presentation to the county health management team and later authorisation to gather information was granted. The investigator put into contemplation sentimentalities of raised up by the Nakuru county health management committee. The investigator equally, cross checked the document to safeguard that the academic scopes was well presented in the conceptualized. This investigator also performed KMO and Bartlett's tests of the variables originating from the reactions from the women who participated in the pilot test to guarantee criterion validity.

3.5.4 Reliability of Research Instruments

Reliability was of great importance in this study. To guarantee reliability of the investigation instruments, they were taken through evaluation to assurance that the structures of stability and equivalency were definite. The technique used to quantity reliability of the investigation apparatuses was test re-test technique. The interview guide was verified in two health facilities in Molo Sub-County pursuing leaders of health facility whereas the questionnaire for the females of procreative age was verified in Molo subcounty interviewing 20 females of reproductive age at their respective homes. The females of reproductive age were visited in their corresponding homes, enlightened to about the investigation and upon offering their consensus, they were interviewed. They were also given a prearranged return date of one month when the investigator went back to the same homes and questioned the same females utilizing the same questionnaire. The two leaders of the health facility were interviewed employing the interview guide and the given a return date of one month after which the same interview guide was utilized to interview them.

The Cronbach alpha analysis aided to ascertain the investigation tools' reliability by displaying information assortment tool internal consistency. Cronbach's Alpha was vital for this research since we were able to know if the instrument will provide reliable

and consistent responses even if the questions are substituted with comparable ones. The Cronbach's Alpha depicts consistency by displaying a true 'base' score. A true score similarly referred to as 'Alpha' has values ranging from 0 to 1. Cronbach's Alpha is critical in safeguarding steadiness and reliability of the questionnaire even though the inquiries were exchanged with correlated ones (Valencia-GO, 2015). It can be used also to express consistency on questions regarding two possible answers (dichotomous questions) and questionnaires with rating scales. Thus, this study employed Cronbach Alpha to test for reliability. Cronbach's Alpha was established on the formula indicated below.

$$\alpha = rk / (I + (K-I)\, r)$$

Where;
k is the number of variables in the analysis
r is the mean of the inter-item correlation.

Table 3.4 gives a rule of the thumb that applies in most situations. Usually, reliabilities of 0.7 range is regarded as acceptable and over 0.8 is considered as good.

Table 3.4: Chronbach's Rule on Internal Consistency

Chronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Sekaran (2003)

3.5.5 Data Collection Procedure

Data collection can be defined as the methods by which data is attained from the designated elements of an inquiry as termed by Mugenda and Mugenda, (2003). Preceding the initiation of data compendium, permission was sought from the Nairobi University, County department of health Nakuru, and the local administration. Questionnaires and interview guides were utilized in congregation quantifiable and non quantifiable information. The investigator educated four volunteers at community level

offering community health services and four nursing students as the investigation assistants (2 per Ward) on the apparatuses and then distributed to them the household questionnaires to interview the females of reproductive age during a household visit. The investigation assistants were oriented on the investigation ethics and on the research apparatuses and the use of the study tools, questioning skills and information input and storage. A letter to introduce the investigation assistant and the permit to gather statistics on the investigator's behalf was given to the investigation assistants. The research assistants were given the interview guides to administer to the health facility in-charges of the sampled health facilities. The respondents had a one on one interaction with the research assistants hence had an oppoprtunity to explain their questions on the promptly and the investigation assistants had an opening to stimulate females to answer to enquiries. The interview days were organized in advance with the local administration to ensure that women would be available. Continuatiuous calls and emails were done to book appointments to request for authorization from workers who were to participate in the survey.

The questionnaires were picked back for scrutiny with the support of the investigation assistants. The investigation assistant through leadership of the adminstrators in-charge ofwards, volunteers at the community in health, the national government administration officer in- charge of the ward and the assistance and the selected elder in charge of a village were able to categorize a primary area as a first location for sampling the homes in respectively the ward. The research assistant divides the ward into four directions that directed the beginning point. Each bearing or direction had equivalent number of questionnaires in every respective ward. The research assistant followed the systematic sampling technique to administer household questionnaire as described in section 3.5. The research assistant introduced themselves to the household head with the help of a village elder or a community-based volunteer and explained the purpose of the visit. They inquired if the home had a female of procreative age and requested for consent to interview her. After the interview, the research assistants thanked the family and left for the next household.

3.6 Data Analysis Techniques

Data scrutiny is the procedure of gathering, developing and changing statistics in sequence to emphasize valuable knowledge, signifying inferences and supporting

verdict making as described by Sharmaa, Cooperb and Hilborn (2005). In this research, the process involved examining what had been gathered in a study which rendered to a determination and judgment. Data assessment main objective was to inform knowledge assembled from respondents during the interviews. The findings were organized, analyzed, presented, and deliberated on in aggregation with the purposes of the survey so as to handpick the most precise and quality data collected from the response by the women of procreative age.

This survey congregated mutually numerical and nonnumerical statistics to designate the influence health care quality dimension on performance of family planning program. As Soon all the completed questionnaires were acquired, they were coded and edited for completeness and equilibrium. The information was scrutinized by utilizing descriptive data and inferential assessment by means of statistical element for social science (SPSS). It was applied to offer mutually descriptive and inferential statistics which enhanced examination of the hypothesis at the amount of significance stage set at 0.05 and the Confidence intermission at 95%. The SPSS gave the modest precise regarding the sample figures and presented quantifiable explanations in a practicable method as described by Orodho (2009).

Qualitative statistics analysis involved studying, structuring, breaking data into practicable parts, coding and producing and searching for patterns as outlined by Bogdan and Biklen, (2003). The main object of searching for patterns was described and recognize the influencing associations from the data collected. Non quantifiable information was evaluated from questionnaire, detailed interviews and observation checklist and comprised scrutinizing transcripts, categorizing themes within that statistics. It also comprissed placing together comparable themes gotten from the text thus nonquantifiable information was examined by checking information, developing codes, recognizing themes and patterns and then and there summarizing the statistics and connecting them to purposes and proposition.

A multiple regression examination was conducted to investigate the effect of combined health quality dimension on the performance of family planning program. The hypothesis with linear relationship was examined by means of simple regression examination together with usage of Pearson’s Product Moment Correlation for

analysis of outcomes. The information gathered was scrutinized by means of simple graphics examination and descriptive measurements for the quantitative scrutiny to statistics, as pronounced by Kothari, (2004). Correlation scrutiny was important appropriate to conclude the impact amongst the predictor and response variables. Pearson's product moment correlation coefficient r was applied to investigation the connection amongst the predictor and response variables. Associations with standards of r = 0.7 and beyond was well-thought-out very strong while those with the value of between 0.5 and 0.69 was look upon as strong and those between 0.3 and 0.49 realistically strong. Those connections with a value of r less than 0.29 were considered to have weak or no relationship. The statistics was then displayed using frequency distribution tables to be comprehended easily.

Table 3.5: Summary of Hypothesis Testing

Objective	**Hypothesis**	**Statistical Analysis**	**Model**	**Level of Rejection or Acceptance Acceptance**
To establish how Management competency Quality dimension influence performance of family planning program in Nakuru county To examine the extent to which Contraceptive supply Quality dimension influence performance of family planning program in Nakuru county	H11: Management competency Quality dimension influences the Performance of family planning program significantly in Nakuru county H12: Contraceptive dimension influences the performance of family planning program in Nakuru county	Simple Linear regression Simple Linear regression	$Y = \beta_O + \beta 1X1 + \varepsilon$ $Y = \beta_O + \beta 2X2 + \varepsilon$	Reject Ho if $p > 0.05$ Fail to reject H1 if $p < 0.05$ Strength of relationship for r values will be $-1 \leq r \leq +1$
To determine how accessible to quality dimension, influence the performance of family planning program in Nakuru county	H13: Access to quality dimension influences the performance of family planning program in Nakuru county	Simple Linear regression	$Y = \beta_O + \beta 3X3 + \varepsilon$	Reject Ho if $p > 0.05$ Fail to reject H1 if $p < 0.05$ Strength of relationship for r values will be $-1 \leq r \leq +1$

To establish how quality counselling dimension influence performance of family planning program in Nakuru county	H14: counselling dimension influences the performance of family planning program in Nakuru county	Simple Linear regression	$Y = \beta_o + \beta_4X_4 + \boldsymbol{\varepsilon}$	Reject Ho if $p > 0.05$ Fail to reject H1 if $p < 0.05$ Strength of relationship for r values will be $-1 \leq r \leq +1$
To examine the extent to which combined healthcare quality dimensions influence performance of family planning program in Nakuru county	H15: Combined Healthcare Quality Dimensions influences the performance of family planning program in Nakuru county	Multiple regression	$Y= \beta_o +\beta_1X_1+ \beta_2X_2 + \beta_3X_3+ \beta_4X_4 + \boldsymbol{\varepsilon}$	

3.7 Ethical Considerations

Ethical consideration is utmost for each single study. Ethical concerns correlate to the entire research processes as well as every level of inquiry, from the choice of the investigation problem, information gathering, information analysis and understanding, as well as in the scripting and propagation of the research outcomes. Ethical concerns contain problems of access, discretion and privacy of the members, the members' approval as well as legal matters as intellectual proprietorship, privacy, discretion, access and acknowledgment as described by Creswell (2011).

Foremost ethical matters were well-thought-out in this study as well described by Abbot, (2011). These included the matters of informed consensus (the investigator partaking acknowledged consent from the subject beforehand information gathering commenced), the right to confidentiality (protecting the independence of the partaker from the reader) and shield from damage (which would include physical, emotive or any additional damage to the subject during the research period). Authority from the University of Nairobi and Nakuru County department of health was requested prior to performing the study through writing letters that described the objective of the study. Permission was acquired, first of all, by communicating to the leadership of the health care facilities of the selected health care facilities and the respondents who were helpful in doing the investigation to achieve their trust, authorization and assistance to perform the study on their locations. Moreover, the research assistant informed the participants, as entirely as possible of the nature and determinations of the research, the measures to be utilized, the anticipated benefits to the contributor and society, additionally the probable of practically predictable dangers, anxiety, tensions, and distresses and the way such would be resolved.

The respondents were prepared to comprehend what was anticipated and they were granted the chance to make inquiries which the researcher responded to. Finally, the participant's agreement to partake in the investigation was voluntary, free of charge of any force or pledges of profits expected to result from partaking. The data would solely be utilized for functions of accomplishing the purposes of this research.

3.8 Operationalization of Variables

Operationalization of variables has been described by Martyn, (2008) to mean the procedure of firmly describing variables into quantifiable features. The procedure outlines ambiguous impressions and permits them to be quantified, experimentally and measureablly. Operationalization is attained by exploring the interactive elements, pointers, aspects or features symbolized through the model, interpreted into noticeable and quantifiable rudiments to establish a catalogue of the impression. Processes can either be objective or subjective. It may not be probable to create a significant information congregation instrument without initial operationalizing variables in totality.

Table 3.7: Operationalization of Variables

Objectives	**Variables**	**Indicators**	**Measurement scale**	**Statistical analysis**	**Tools of analysis**
1. To establish how Management competency Quality dimension influence performance of family planning program in Nakuru county	Management competency Quality dimension	a) Leadership b) Health care providers Skills or level of training c) Report and documentation d) Adherence to guidelines	Nominal Ordinal Observation	Distribution, mean	• Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis
2. To examine the extent to which contraceptive supply quality dimension influence performance of family planning program in Nakuru county	Contraceptive supply quality dimension	a) Presence of Commodities b) Presence of equipment c) Contraceptive reporting tools d) Ability to forecast	Ordinal Interval Nominal	Correlation, distribution	• Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis

3. To determine how access to quality dimension influence performance of family planning program in Nakuru county	Access to quality dimension	a) Location b) Waiting time c) Family planning room d) Services or provider	Interval Nominal	Distribution mean, correlation	• Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis
4. To establish how quality counseling dimension influence performance of family planning program in Nakuru county	quality counseling dimension	a) Presence of trained HCW b) Organization of client information c) Detailed information on options available	Ordinal Nominal	Distribution mean, correlation	• Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis
5. To determine the moderating influence of client characteristics on the relationship between health care quality dimensions and	Client characteristics	a) Age c) Culture d) Occupation e) Marital status,	Nominal	Distribution mean, correlation	Descriptive analysis • Inferential analysis • Pearson product moment

					Correlation analysis
6.To determine the influence of healthcare quality dimensions and the moderating role of client characteristics on Performance of family planning program in Nakuru county, Kenya.	Performance of family planning program	a) Proportion of WRA utilizing FP b) FP reporting rates c) Client satisfaction	Ordinal Nominal	Distribution mean, correlation	Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis
7.To determine the moderating influence of client characteristics on the relationship between health care quality dimensions and performance of family planning program in Nakuru county			Ordinal Nominal	Distribution mean, correlation	Descriptive analysis • Inferential analysis • Pearson product moment Correlation analysis

3.9 Pilot Study Results

Data regarding the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program in Nakuru County, Kenya, was collected. Pilot testing was done to exam the reliability and validity of the instrument prior to the actual investigation. The women identified for the pilot investigation were not be recruited into the main study to avoid bias. The instrument was pilot tested on 40 respondents drawn from the study sample and who were equivalent to sample size of 10%. After the pilot test, the questionnaire was amended for comprehensiveness and uniformity.

The purpose of the investigation was to examine the influence of Healthcare quality dimension, client characteristics and performance of family planning program in Kuresoi North sub County, Nakuru County, Kenya. This was directed by seven objectives which were to find out how; Management competency quality, contraceptive supply quality, access to quality health care dimensions, quality counselling, the combined healthcare quality dimensions, and client characteristics influence performance of family planning programs in Nakuru county, and to determine the moderating influence of client characteristics on the relationship between health care quality dimensions and performance of family planning programs in Nakuru county.

The researcher selected 10% of the sample size selected for the study for each of the four wards, this represented 10% of the investigation sample. The respondents selected for the pilot study are members of households in Kuresoi Sub-County, Nakuru County. These respondents were however not included in the final study.

3.9.1 Pilot Study Response Rate

Forty questionnaires were administered to the females in the pilot investigation. However, only 34 of them were filled up and returned the questioners representing an 85% response rate.

Table 3.8: Pilot Test Response Rate

Response	Frequency	Percent
Returned	34	85%
Unreturned	06	15%
Total	40	100%

3.9.2 Validity Results

Richardson (1999) considers validity as a level to which test scores relate to a criterion outside the test. Kothari (2003) observes that the degree to which a research instrument measures at item to precision is validity, which is a measure of accurate representation of the obtained data to the theoretical concept. Experts judgment by the supervisor and Kaiser-Meyer-Olkin (KMO) test was performed to test for validity. Explanatory adjectives for the KMO Measure of Sampling Adequacy are: in the 0.90 as marvelous, in the 0.80's as meritorious, in the 0.70's as middling, in the 0.60's as mediocre, in the 0.50's as miserable, and inferior to 0.50 as undesirable. The minimum requirement for the study is 0.5. Bartlets test of sphericity must be significant at ≤ 0.05.

Table 3.9: Validity Results

Variable	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity		
		Approx. Chi-Square	Df	Sig.
Management Competency	0.601	33.79	33	0.004
Contraceptive Supply	0.712	61.758	33	0.010
Access to Quality	0.635	40.925	33	0.000
Quality Counseling	0.718	81.143	33	0.011
Client Characteristics	0.712	61.758	33	0.010
Performance	0.672	81.143	33	0.000

The KMO value for management competency was 0.601, which is greater than 0.5 indicating it is valid and was also supported by a Bartletts significance value of 0.004, which is less than 0.05. The KMO value for contraceptive supply was 0.712, which indicated that the variable performance measurement was valid since the value was above 0.5. The Bartlett's significance level was 0.010, which was less than 0.05 further supporting the validity findings.

The KMO value for the variable access to quality was 0.635, which implied that it was valid as further supported by a Bartlett's value of 0.000. The variable progress reporting had a KMO value of 0.718, which implies validity, and a Bartlett's value of 0.011 that further supports the findings.

The KMO value for client characteristics was 0.712, which indicated that the variable performance measurement was valid since the value was above 0.5. The Bartletts significance level was 0.010, which was less than 0.05 further supporting the validity findings. The variable performance of family planning programs had a KMO of 0.672 which implies validity and a Bartlett's value of 0.000 which further supports the findings.

3.9.3 Reliability Results

Reliability is the consistency or stability of scores over time or across raters (Golafshani, 2003). The research instrument is deliberated as consistent if the same study outcomes can be obtained by means of comparable approach. Cronbach's alpha $\propto$ assessed the reliability coefficient of the research apparatus as all items in the questionnaire used a Likert type scale as the measurement scale. Cronbach (1951) described coefficient alpha as a test representing questionnaire reliability estimate which is computed as: Streiner (2003) notes that Cronbach's alpha values vary in the middle of 0.7 and 0.9, with 0.8 as the most preferred, while those below 0.7 indicates low internal consistency.

Table 3.10: Reliability Results

Variables	Cronbach's Alpha	Critical Value	Conclusion
Management Competency	0.794	0.7	Reliable
Contraceptive Supply	0.725	0.7	Reliable
Access to Quality	0.712	0.7	Reliable
Quality Counseling	0.875	0.7	Reliable
Client Characteristics	0.735	0.7	Reliable
Performance	0.718	0.7	Reliable

The Cronbach's alpha value for the variable management competency was 0.794, which is above 0.7 indicating the variable is consistent. The cronbach's alpha for contraceptive supply is 0.725, which indicates that the variable is reliable. Further, a cronbach's value of 0.712 for the variable access to quality indicates that the variable access to quality if reliable

The variable quality counselling has a cronbach's alpha of 0.875 indicating that it is reliable. The cronbach's alpha for client characteristics is 0.735, which indicates that the variable is reliable. Further, the variable performance of family planning characteristics has a cronbach's alpha of 0.718 indicating that it is reliable.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, INTERPRETATION, AND DISCUSSION

4.1 Introduction

This chapter pronounces the elucidation and demonstration of investigation discoveries established from the ground. The chapter designates the contextual statistics of the questioned females and officers, outcomes of the investigation grounded on the objectives of the investigations. To discuss the outcomes, descriptive and inferential measurements were used. The information scrutiny, exhibition, elucidation, and discussion were affiliated to the investigations intentions. The broad investigation purpose was to discover the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program in Nakuru County, Kenya.

The specific objectives of the study were; to establish how management competency quality dimension influence performance of family planning program in Kuresoi North of Nakuru county, to examine the magnitude to which contraceptive supply quality dimension influence performance of family planning program in Nakuru county, to find out how access to quality dimension influence performance of family planning program in Nakuru county, to establish how quality counseling dimension influence performance of family planning program in Nakuru county, to examine the extent to which combined healthcare quality dimensions influence performance of family planning program in Nakuru county, to ascertain how client characteristics, influence performance of family planning program in Nakuru county, and to determine the influence of client characteristics and combined health care quality dimensions on performance of family planning program in Nakuru county. Thus, the information scrutiny, exhibition, elucidation, and discussion of discoveries of the investigation were grounded on the above-mentioned definite purposes.

4.2 Questionnaire Return Rate

This section designates the questionnaire return proportions and the calculation as showed in Table 4.1.

Table 4.1: Questionnaire Return Rate

	Questionnaires Administered	Questionnaires filled & Returned	Percentage
Respondents	400	400	100%

The study targeted to interview 400 women of reproductive age at household level. Entirely the 400 females were enthusiastic to be questioned and to fill the questionnaire. This made a response rate of 100%. For an investigator to pronounce a verdict from an investigation, the response percentage is of dominant significance. Jack, (2008), proposes that for an investigation research projected to represent the whole populace, a response proportion of beyond or equivalent to 80% is compulsory. Grounded on the contention, the response rate of 100% was outstanding for decision making.

4.3 Background Information

The research required to determine the contextual statistics of the females of procreative age in search of family planning amenities. The information that was sought included culture, education status, age, marital status, religion and consumption of birth control amenities.

4.3.1 Age

Different age cohorts have different views regarding use of contraceptive services in view of safeguarding that different age cohorts were fairly involved in this study, respondents were requested to specify age based on date of birth classification. Table 4.2 shows the age distribution of respondents.

Table 4.2: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12-19	52	13.0	13.0	13.0
	20-30	227	56.8	56.8	69.8
	30-49	121	30.3	30.3	100.0

	Total	400	100.0	100.0

The investigation sort to discover the age of the females. 13% of the respondent were of age in the middle of, 12-19 years, 56.8% were of age in the middle of 20-30 years while 30.3% were aged 30-49%. The study shown a high percentage of young women below 30 years at 73.8% with 13% of teenagers below 20 years. This is in line with the Kenya health information system which indicates high teenage pregnancy in Nakuru county with Kuresoi North taking the lead. Age was an indicator in the fifth objective which was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed that women across the age bracket were utilizing family planning. Family planning programming should therefore endeavor to carry out age specific advocacy for contraceptive use as indicated by Kim, et al (2017) that to get better outcomes in reproductive health age specific programming is required.

4.3.2 Education Status

Establishing the education status was key in the study to get statistics on the uptake of family planning in relation to education status. The study sort to identify the level of education of the 400 respondents. Table 4.3 displays the distribution of the education status.

Table 4.3: Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	170	42.5	42.5	42.5
	Secondary	183	45.8	45.8	88.3
	Tertiary	47	11.8	11.8	100.0
	Total	400	100.0	100.0	

42.5% of the respondent had attained primary school education, 45.8% had attained secondary school education and 11.8%.had attained education beyond secondary school. Education was an indicator in the fifth objective which was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed

that women utilized family planning irrespective of their education status. It was worth noting that only 11.8 % of women had attained education beyond secondary school disadvantaging the significant majority them from participating in careers. This is in in divergent with Olubanke, et al (2016) that indicated that an intensification in education leads to an intensification in awareness on contraceptives. Women can utilize family planning irrespective of their education status as per the findings of this study.

4.3.3 Religion

The study sort to identify the region of the 400 respondents. 95.3% were Christians, 5% were Muslim and 4.3% belonged to other religions or had no religion. Table 4.4 displays the spreading of the religion amongst the respondents.

Table 4.4: Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Christian	381	95.3	95.3	95.3
	Muslim	2	.5	.5	95.8
	Others	17	4.3	4.3	100.0
	Total	400	100.0	100.0	

The results indicated that 95.3% were Christians, 5% were Muslim and 4.3% belonged to other religions or had no religion. Table 4.4 shows the distribution of the religion among the respondents.

Religion was an indicator in the fifth objective which was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed that women utilized family planning irrespective of their religious background. This is divergent with an investigation by Abdi, et al (2021) that specified the importance of involving religious leaders and heads of families in family planning programming. Women can be empowered with knowledge on the significance of family planning irrespective of their religious background.

4.3.4 Marital Status

The marital status was a key background information for this study. It sorts to examine the marital status of the respondents. Table 4.5 shows the summary of marital status.

Table 4.5: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	323	80.8	80.8	80.8
	Single	58	14.5	14.5	95.3
	Separated// divorced	15	3.8	3.8	99.0
	Widowed	4	1.0	1.0	100.0
	Total	400	100.0	100.0	

The results indicated that 80.8 % of the respondent were married while 14.5% were single and 3.8 % separated or divorced with only 1% being widowed. Marital status was not a barrier to use of family planning.

Marital status was an indicator in the fifth objective which was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed that women were willing and ready to utilize family planning amenities. This is in divergent with a study finding by Coll et al (2019) that indicated that in most African Nations experience low utilization of contraceptives among married women due to the cultural expectation of having more children.

4.3.5 Occupation

Occupation status of the respondent was one of the critical components of background information in the study. The research therefore sorts to establish the occupation of the respondent. Table 4.6 displays the occupation of the respondent.

Table 4.6: Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Employed	125	31.3	31.3	31.3
	Informal	241	60.3	60.3	91.5
	Formal	34	8.5	8.5	100.0
	Total	400	100.0	100.0	

The outcomes revealed that among the respondent, 31.3% were not employed, 60.3% were in the informal sector while 8.5% were employed in the formal sector. Occupation status was an indicator in the fifth objective which was to evaluate the influence of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed that women were across the occupation status were utilizing family planning. However only 8.5% were employed in the former sector which was the significant minority. Women need to be economically empowered to access health care as echoed by Potasse, et al (2021) that women were experiencing economic barriers in accessing sexual reproductive health services especially family planning. It is however important to note that the study was carried out in the government facilities of which majority were not charging for family planning services.

4.3.6 Employment Sector

The industry in which the respondents operated in was an important aspect of the study hence the investigation aimed at establishing the respondent's place of employment. Table 4.7 displays the spreading of women by their sector.

Table 4.7: Employment Sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government	22	5.5	5.5	5.5
	Private sector	30	7.5	7.5	13.0
	cooperate sector	6	1.5	1.5	14.5
	Faith based Organizations	7	1.8	1.8	16.3
	Others	182	45.5	45.5	61.8
	Not employed	153	38.3	38.3	100.0
	Total	400	100.0	100.0	

The results showed that 38.3% were not employed, 45.5% of the respondents operated in other sectors. Government employees were 5.5%, private sector employees constituted 7.5%, while respondents in the co-operate and faith-based sectors constituted 1.5% and 1.8% respectively. Employment sector was an indicator in the fifth objective which was to evaluate the impact of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. The study revealed that women were across the employment sector were utilizing family planning. Despite the factor that on probing women on their occupation, 60.3% had indicated that they were not employed. Further probing on employment sector only 38.3% were unemployed 22% had not identified farming as an occupation despite earning some money from it. Woman tend to seek services they can afford hence the need for women to be empowered economically. This was indicated by Tessema et al. (2016) that client's views on what quality family planning services includes cost and hence the need to make contraceptives affordable to clients.

4.3.7 Opinion on Family Planning

The research sort to examine the opinion of the female residents of Kuresoi North community view about family planning. Table 4.8 shows the distributions of respondents by their opinions on community acceptance of family planning.

Table 4.8: Opinion on Family Planning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	384	96.0	96.0	96.0
	No	16	4.0	4.0	100.0
	Total	400	100.0	100.0	

The results indicated that 96% of the respondent tended to be of the opinion that the community of Kuresoi North accepted use of family planning while only 4% indicated that the community of Kuresoi North did not accept use of family planning. The showed that a significant popular of the respondents had an optimistic view about usage of birth control techniques. Opinion about family planning was an indicator in the fifth objective which was to evaluate the impact of client characteristics on Performance of family planning program in Nakuru County. Client characteristics was a moderating variable. Opinion of clients helps programmers to offer a service that meets the client's demands. In this research, most women interviewed (96%) indicated that the community accepted use of family planning. This was as per Haldane, et al (2019) that involving the community in health projects leads to good performance. It is therefore very important to involve the community in health projects and take into considerations their opinions.

In kuresoi North, the community is receptive the county government of Nakuru should ensure the women access family planning.

4.4 Data Analysis and Interpretation

Information examination and elucidation were conducted in alignment to the study's objectives. The statistics scrutiny methods utilized in the investrigation were descriptive statistics and inferential statistics that entailed correlation and linear regression analysis. The chi square examination of independence was also applied to assess whether several predictor variables and the response variable are independent or related.

Among the variables used were management competency, quality contraceptive supply, access to quality dimension, quality counseling, and client characteristics, which were

the predictor variables while performance of family planning program was the dependent variable. The study settled on descriptive statistics subsequently it permited discoveries simplification, scrutiny, and variables association.

Inferential measurements were utilized in making decision on trend, connection, and strong point of the connection amongst the independent variables and the dependant variable. The inferential measurements were structured according to the objectives. The features founding the numerous variables were edited in a summary form to generate a complete variable. This was accomplished through approximating the summation value the qualities present. Correlation examination recognizes if there is present connotation amongst two variables lying between (-) strong negative correlation and (+) perfect positive association. Pearson relationship was utilized to examine the level of connotation amongst competency management practices and competitive advantage. The investigation utilized a Confidence Interval of 95%, because it is the most exploited in societal sciences. A two tailed examination was applied.

The regression examination was commenced at 5% significance level. R square, being the coefficient of determination shows the nonconformities in the dependent variable that is brought about by the changes in the predictor variables. The analysis of variance was utilized to investigate whether there is a noteworthy association amongst the predictor variables utilized in the study in unison and the response variable. The model coefficients sought to measure the strong point of the relationship between each of the independent variables and the response variable.

4.4.1 Management Competency Quality Dimension and Performance of Family Planning Program in Nakuru County

4.4.1.1 Descriptive Statistics

The investigation aimed at establishing how management competency quality dimension influence performance of family planning program in Kuresoi North of Nakuru County. To achieve this, the investigation determined the mean, standard error and standard deviation of management competency. The information was examined by means of SPSS. A set of ten enquiries dispersed amongst the four pointers of the predictor variable which was management competency. Analyses of the mean, standard

error and standard deviation was done as per the outcomes displayed in Table 4.9 underneath.

Table 4.9: Management Competency Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Management Competency	400	30.69	.498	9.960
Valid N (listwise)	400			

The outcomes displayed a mean of 30.69, standard error of 0.498, and standard deviation of 9.960. Interpretation: Approximately 68% of the sample populace (assuming a normal spreading) at one standard deviation is between (30.69-0.498) =30.192 and (30.69+0.498) = 31.188 which has a middling of 30.69. This specified that the sample populace had a tendency of being neutral on the management of the health facility they were getting birtn control amenities. The opinions of the sample populace offered similar opinions with the total populace which was amid 30.69-9.960= 20.73 and 30.69+9.960= 40.65 with average of 30.69.

The investigation aimed at determining the overall feedback from thefemales interviewd on all the questions on management on management competency. Table 4.10 demonstrates the outcomes.

Table 4.10: Summary Statistics of Management Competency

	N	Mean	Std. Deviation
The health care providers are able to offer quality health care	400	3.90	1.442
There is a problem with leadership of the health facility I seek health facility have good leadership	395	1.98	1.383
The health care providers document all findings in my card	400	2.94	1.726

My card has clear return dates documented	400	3.28	1.760
Am able to get services in the shortest time possible	400	4.38	1.026
The health facility has a clearly written charter indicating services offered and cost	400	2.29	1.605
The facility adheres to the time indicated for the service	400	2.28	1.614
The health facility has a suggestion box	400	2.05	1.513
The health facility address complaint raised by clients	400	3.73	6.096
I am satisfied with the health care provider skills	400	3.91	1.387
Valid N (listwise)	395		

The results signposted that the sample populace were neutral around the management of the health facility they were getting birth control amenties in. The comparative mean of the management competency was (3.90+1.98+2.94+3.28+4.38+2.29+2.28+2.05+3.73+3.91) = 3.074.

It was, however, noted that though the women were non comital on the aspects of management of the health facility. Women however inclined to disagree on the few management issues. The management issues women tended to disagree with were that the availability of a clearly written charter, observations to the timelines specified for offering contraceptive service and availability of a place to give feedback to management. They however tended to agree that the health care benefactors are able to offer quality health care and strongly agreed that they were able to receive birth control ameneties in the fastested time possible. The results reflected poor or lack of community involvement in the management of health facilities they were getting birth control amenities in. Communities understands their health problems better than anyone else. They even have some resources that can be leveraged on. The communities also have opinions that can help in addressing their health problems as indicated by this

was revealed by Al Siyabi, et al (2021). It is therefore very important to involve communities in family planning programming.

4.4.1.2 Content Analysis

Content examination was done on enquiries enquired in the interview guide relating to management competency excellence dimensions. The outcomes are computed underneath. Leaders of nursing officers' carder managing the nineteen government health facilities in Kuresoi North were interviewed for the investigator to acquire their judgement on management and in overall governance. On the interrogation on means by which the county management safeguarded the competency and skills of workforce, 100% of the interviwed officers agreed that both the county and the sub-country management teams were continuously ensured that the health workers were mentored on the applicable skills. Further, they mentioned that management heightened skills transferswhen conducting combined outreaches through which a member of the senior management conducts coaching sessions particularly on long-term family planning techniques. Other opportunities for transfer of skills set which was beimg utilized was by means of continuous medical education sessions, on the site mentorship, use of job aids and charts with detailed information, frequent data examination conferences and individual sessions with each staff during supportive supervision.

The enquiry on how to verify on regularly updating of nurse's skills was asked. The officers discovered that management was applying diverse ways of training health care employees. 50% of the officers quantified that skill transfere was by means of filled meeting notes which were updated and kept in each facility after every update. 30% specified the best way to quantity was by means of evaluating excellence of care and enhancement of amenities which could be analyzed through utilization od data provided by Kenya health information system (KHIS). The KHIS would display an improvement of some amenities. 20% specified that enhancement of skills might be measured by means of supportive supervision through which skills are verified, and recap of the skills carried out.

The leaders in nursing carder were similarly enquired if they knew additional means that the county and sub-county leadership succeeded to guarantee that staff in nursing were regularly updated on skills and information on birth control techniques. They

specified that through utilization of nternet and platforms forums such as whatsapp groups were used to facilitate dissemination of urgent information to memberships pending an official conversation. By means of the whatapp groups, videos are uploaded, and additional job aids that informed on the latest health care workers. The leadership can gather facts on the notion of eLearning by utilizing smart phones because all the government employees possess a mobile phone and are linked to others through whatsapp groups.

On the enquiry of what ways, the health care worker's ensured the women birth control amenities in the family planning registers. The study found out that the health facilities did not have appointment cards and structured cards with details of services offered to women and henceforth used note books bought by the females. The study found out that health care workers were unable to trace females who never got an opportunity to return for their appointments. This was also evident among women of reproductive age who lacked proper documentation during the household.

4.4.1.3 Observation Chart

The investigation explored if the 19 dispensaries and health centers in Kuresoi Sub-County appropriately documented family planning information. Six considerations of filling the information were selected. The findings are obtainable in Table 4.11.

Table 4.11 Filling of Family Planning Reports

Health Unit	Number of Correctly Filled Reports	Percentage
Chepkinoiyo Dispensary	6	100
Githiriga Dispensary	5	83
Ikumbi Health Centre	5	83
Kamara Dispensary	5	83
Kewamoi Dispensary	6	100
Kimeswon Health Centre	6	100
Kiptororo Dispensary	6	100
Korabariet Dispensary	4	67
Kuresoi Health Centre	5	83

Masaita Dispensary	6	100
Molo South Dispensary	6	100
Mungetho Dispensary	6	100
Murindoku Dispensary	6	100
Ndoinet Dispensary	6	100
Sasimua Dispensary	5	83
Seguton Dispensary	4	67
Sirikwa Health Centre	6	100
Total Dispensary	4	67
Tulwet Dispensary (Kuresoi)	5	83
Total	6	100

The findings in Table 4.11 displays that 10 of the dispensaries and health centers adhered altogether to the six considerations in the right recording of the family planning information. Three dispensaries witnessed the bottommost quantity of considerations, that totaled to 4 considerations.

The investigation additionally examined if the 19 dispensaries and health centers applied tools and skills for gathering of contraceptives. One tool and one skill were chosen to asses efficient ordering of contraceptives, translating to two parameters. The results are displayed in Table 4.12.

Table 4.12: Tools and Skills for Ordering of Contraceptives

Health Unit	**Number of Parameters**	**Percentage**
Chepkinoiyo Dispensary	2	100
Githiriga Dispensary	1	50
Ikumbi Health Centre	2	100
Kamara Dispensary	2	100
Kewamoi Dispensary	2	100
Kimeswon Health Centre	2	100
Kiptororo Dispensary	2	100
Korabariet Dispensary	2	100
Kuresoi Health Centre	2	100

Masaita Dispensary	1	100
Molo South Dispensary	2	100
Mungetho Dispensary	1	100
Murindoku Dispensary	2	100
Ndoinet Dispensary	2	100
Sasimua Dispensary	1	50
Seguton Dispensary	2	100
Sirikwa Health Centre	2	100
Total Dispensary	2	100
Tulwet Dispensary (Kuresoi)	1	50
Total	2	100

The findings in Table 4.12 showcase that 14 of the dispensaries and health centers accomplished the 2 considerations in ordering of contraceptives. The balance achieved at least one of the considerations.

4.4.1.4 Chi-Square Test of Independence

The study sought to determine if management competency and performance of family planning programs are independent or related. The outcomes are demonstrated in Table 4.13.

Table 4.13: Objective 1 Chi-Square Test of Independence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3534.497[a]	783	.000
Likelihood Ratio	1487.281	783	.000
Linear-by-Linear Association	155.198	1	.000
N of Valid Cases	400		

a. 840 cells (100.0%) have expected count less than 5. The minimum expected count is .00.

The null hypothesis is that management competency is not associated with performance of family planning programs while the alternate hypothesis is that management competency is associated with performance of family planning programs. The results showcase that the Pearson's Chi-Square value is 3534.497 and the significance value is

0.000. Thus, management competency is associated with performance of family planning programs subsequently the significance value attained in the study is less than the critical value (p=0.00<0.05). The null hypothesis that management competency is not associated with performance of family planning programs is therefore rejected. thus management competency played a key role in the performance of family planning programs.

4.4.1.5 Correlation Analysis

The investigation wanted to determine the influence of management competency on performance of family planning program in Kuresoi North sub-county, Nakuru County. Leadership proficiency as a predictor variable was directed by four pointers which were; governance, skills, practice, and the level of training of HCWs, observance to government protalcs, guiding principle, information and documentation.

Further, the investigation wanted to establish the connection amongst the predictor variable of management proficiency and performance of family planning program. Table 4.14 shows the correlation.

Table 4.14: Objective 1 Correlations Analysis

		Management Competency	**Performance**
Management Competency	Pearson Correlation	1	.624**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.624**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The research recognized a robust positive relationship of 0.624 = 62.4% amongst management proficiency and performance of family planning program in Kuresoi North Sub-County (P=0.00<0.05). Therefore, there is a fundamental association amongst management proficiency and performance of family planning program. This

specified that management proficiency forecasts performance of family planning programs

4.4.1.6 Simple Linear Regression Analysis

The investiogation wanted to exam the fitness of the model on associations amongst management competency and performance of family planning program in Nakuru County. Table 4.15 demonstrations the outcomes of the model

Table 4.15: Objective 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.389	.387	5.758

a. Predictors: (Constant), Management Competency

The outcomes disclosed that R Square =0.389 X100=38.9%. When adjusted is R Square= 0.387 X100= 38.7%. Therefore, management proficiency forecasts 38.9% of performance of family planning program in Nakuru County.

The study wanted at testing hypothesis which stated that there was no significant connection amongst management proficiency quality dimension and performance of family planning program in Nakuru County. Table 4.16 expresses the outcomes.

Table 4.16: Objective 1 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8400.924	1	8400.924	253.356	.000[b]
	Residual	13197.116	398	33.159		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Management Competency

The result indicated that F (1,389) =253.356 and p=0.00<0.05. The model of management competency forecasting performance is consequently fit because P

calculated is p=0.00<0.05. The investigation therefore rejects the null hypothesis that statated that management competency does not predict performance of family planning program.

The investigation wanted to compute the strength of the relationship amid management competency and performance of family planning program. Table 4.17 illustrats the outcomes.

Table 4.17: Objective 1 Model Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.289	.934		23.867	.000
	Management Competency	.461	.029	.624	15.917	.000

a. Dependent Variable: Performance

The result indicated that p=0.00<0.05. Thus, management competency significantly affects performance since P calculated is p=0.00<0.05. The null hypothesis that management competency does not significantly affect performance of family planning program is rejected.

The model beneath was therefore established.

$$Y=22.89 + 0.461X$$

This infers that when one increases management competency by one component, it leads to an upsurge of performance of family planning program by 0.461 units.

4.4.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program in Nakuru County

4.4.2.1 Descriptive Statistics

The investigation aimed at measuring the mean and standard deviation of contraceptive supply quality dimension. This was computed by means of SPSS. Table 4.18 demonstrates the outcomes.

Table 4.18: Contraceptive Supply Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Contraceptive Supply	400	36.49	.392	7.846
Valid N (listwise)	400			

The outcomes indicated a mean of 36.49, standard error of 0.392, and standard deviation of 7.846. Explanation: Approximately 68% of the sample populace (presumptuous of a common spreading) at one standard deviation was amid (36.49-0.392) =36.098 and (36.49+0.392) = 36.882 that had a middling of 36.49. This specified that the sample population strongly agreed on the quality of contraceptive supply in the health facilities they were seeking family planning services. The views of the sample populace gave the same views with the total population which was between 36.49-7.8460= 28.644 and 36.49+7.846= 44.336 with average of 36.49. It was noted that though the women tended to strongly agree on quality of contraceptive supply in the health facilities they were getting birth control amenitis from, they were, however, non commital on the recording of the services they received on their individual cards. The study aimed at establishing the general answers from the women interviewd on all the questions on quality of contraceptive supply. Table 4.19 illustrates the outcomes

Table 4.19: Summary Statistics of Contraceptive Supply

	N	Mean	Std. Deviation
Am currently on a family planning method	400	4.51	.904
I have never conceived on family planning	400	4.21	1.336

I have always received the family planning method of my choice	400	3.27	1.620
I always get other related services like assessment of blood pressure before contraceptive is issued to me	400	3.50	1.564
I am satisfied with the current family planning method I am using	400	3.46	1.639
The health facility has all the equipment's necessary for family planning	400	3.82	1.353
Health care providers are able to purchase all the contraceptives needed	400	3.69	1.345
My card has my family planning number and indicates the method and services I am currently using	400	2.99	1.621
I can buy family planning commodities from other sources apart from the health facility	400	3.04	1.597
I can advocate the use of family planning services in health care providers	400	3.99	1.306
Valid N (listwise)	400		

The mean of all the responses was calculated using SPSS. The mean was then summed up and divided by 10 to get the comparative mean. The results were as follows; (3.27+4.51+4.21+3.50+3.46+3.82+3.69+2.99+3.04+3.99=36.48)/10=3.648. This indicted that the respondents strongly agreed on excellence of contraceptives offered in the health facilities they were seeking contraceptive services in. It was however noted that the respondent was neutral on the level of documentation on their individual family planning cards. They did not seem to understand what was expected to be written on their cards.

4.4.2.2 Content Analysis

Content analysis was computed on inquiries questioned on the interview guide concerning to contraceptive supply quality dimensions. The discoveries are discussed underneath. Nursing officers interviewed on the supply of contraceptives 100% of the health facilities had experienced a stock out of family planning commodities. 60% had a stock out of implants specifically the one rod implants (NXT), 50% had a stock out of progesterone only pills and emergency contraceptives, 30% had a stock out of male and female condoms, 10% had experienced a stock out of combined oral contraceptives, only 5% had not experience any stock out for the past six months at the time of the interview.

This was an indicator that the health facilities had not stocked all commodities at the time of the interview. In comparison to the views of the clients, during the household survey, women had trust with the contraceptive commodities. They strongly agreed on the quality of contraceptive supply in the health facilities they were receiving birth control amenites in. The health facilities should build on the trust and enhance commodity supplies.

On the source of the contraceptive supplies, all the nursing officers (100%) indicated that they received supplies from KEMSA through the government process. They also stated that they usually organize for outreaches and during these outreaches, the development partners supporting the outreaches usually supply the commodities especially those of long-term family planning methods such as implants. When asked about how they determine the supplies and if they were sure of the length that the commodity they had would last, they stated that they were not aware. There is need to have a proper training on family planning commodity forecasting at health facility level. On 30% of the nursing officers were comfortably able to forecast their commodities.

All the nineteen nursing officers indicated that the health facility ensured that monthly data was collected and submitted to for entry to Kenya health information system. They further indicated that data verification was conducted on monthly basis to ensure the right data was reported. On the method failure, 58% of the nursing officers indicated that they had not had a case reported on method failure. 26% of the nursing officers

reported that some clients on injectable contraceptives had reported cases of method failure where they had conceived while on methods. 16% indicated that clients on anti-retro viral drugs for HIV on implants (Jadele) had reported some method failure.
It is imperative to steer a comprehensive investigation to determine the causes of method failure among the clients. On the contrary, the clients reached out on household survey strongly agreed on the fact that they had never conceived while using a family planning method. The conception while on contraception could be associated with delay in clinic appointments as well outlined by the nursing officers as well as the clients.

On the question on how the nursing officers ensured that the clients were taught on proper use of family planning commodities. All the leaders of health facilties (100%) specified that they could comfortably demonstrate method use using various methods. Some were using the morning health education session to demonstrate on the use while others were demonstration during one on one session with clients. 50% of the health facilities had counseling cards and demonstration kits which facilitated the workers to keep clients informed on commodity use through teachings and return demonstrations.

4.4.2.3 Observation Chart

Nineteen dispensaries and health centers in Kuresoi Sub-County were examined on the family planning options and methods available in the respective dispensaries and health centers. Twelve family planning options were conclusively considered to be provided globally. The findings are displayed in Table 4.20.

Table 4.20 Availability of Family Planning Options Offered

Health unit	Number of options	Percentage
Chepkinoiyo Dispensary	9	75
Githiriga Dispensary	9	75
Ikumbi Health Centre	9	75
Kamara Dispensary	4	33
Kewamoi Dispensary	6	50
Kimeswon Health Centre	4	33
Kiptororo Dispensary	5	42
Korabariet Dispensary	8	67

Kuresoi Health Centre	8	67
Masaita Dispensary	9	75
Molo South Dispensary	6	50
Mungetho Dispensary	8	67
Murindoku Dispensary	10	83
Ndoinet Dispensary	5	42
Sasimua Dispensary	7	58
Seguton Dispensary	8	67
Sirikwa Health Centre	6	50
Total Dispensary	5	42
Tulwet Dispensary (Kuresoi)	7	58
Total options	12	100

The findings in Table 4.20 showcases that the dispensary or health center that offers the highest number of options provides 10 options representing 83 percent while two dispensaries and health centers offers the lowest options, offering 4 options culminating into 33 percent.

The resaerch in additional explored which of the 19 dispensaries and health centers offered the dual method of family planning. Fifteen of them offered the family planning but 4 did not offer. This translates to 77% of the dispensaries offering the dual family planning method while 23% not offering, this is exhibited in Table 4.21.

Table 4.21. Adoption of Dual Family Planning method

Method	**Frequency**	**Percentage**
Dual method offered	15	77
Dual method not offered	4	23
Total	**19**	**100**

4.4.2.4 Chi-Square Test of Independence

The study sought to determine if contraceptive supply and performance of family planning programs are independent or related. The results are displayed in Table 4.22.

Table 4.22: Objective 2 Chi-Square Test of Independence

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3075.166[a]	729	.000
Likelihood Ratio	1384.557	729	.000
Linear-by-Linear Association	228.038	1	.000
N of Valid Cases	400		

a. 782 cells (99.7%) have expected count less than 5. The minimum expected count is .00.

The null hypothesis is that contraceptive supply is not concomitant with performance of family planning programs while the alternate hypothesis is that contraceptive supply is associated with performance of family planning programs. The results showcase that the Pearson's Chi-Square value is 3075.166 and the significance value is 0.000. Thus, contraceptive supply is associated with performance of family planning programs because the significance value attained in the investigation is less than the critical value ($p=0.00<0.05$). The null hypothesis that contraceptive supply is not associated with performance of family planning programs is therefore rejected.

4.4.2.5 Correlation Analysis

The investigation aimed at establishing the inmpact of the second independent variable of contraceptive supply quality dimension on dependent variable of performance of family planning program in Nakuru County. The predictor variable was directed by four pointers which were as follows; presence of commodities, presence basic equipment, availability of services and ability to forecast contraceptive commodities. 10 questions were set all distributed across the four indicators.

The investigated aimed to establish the relationship and strong point of connection between contraceptive supply quality and performance of family planning program in Kuresoi North of Nakuru County. Table 4.23 shows the outcomes.

Table 4.23: Objective 2 Correlation Analysis

		Contraceptive Supply	Performance
Contraceptive Supply	Pearson Correlation	1	.756**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.756**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation recognized a very strong optimistic correlation of 0.756 =75.6% amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North subcounty (P=0.00<0.05). Therefore, there is an importance relationship amid contraceptive supply quality dimension and performance of family planning program. This indicate that contraceptive supply quality dimension predicts performance of family planning programs

4.4.2.6 Simple Linear Regression Analysis

The research aimed to exam the fitness of the model on relations amid contraceptive supply quality dimension and performance of family planning program in Nakuru County. Table 4.24 shows the results of the model.

Table 4.24: Objective 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756[a]	.572	.570	4.822

a. Predictors: (Constant), Contraceptive Supply

The results indicated; R Square= 0.572 X100=57.2%. When adjusted is R Square =0.570 X100= 57.2%. Contraceptive supply quality dimension predicts 57.2% of performance of family planning program in Nakuru County.

The investigation aimed to examine the hypothesis that there is no significant correlation amid contraceptive supply quality dimension and performance of family planning program in Nakuru County. Table 4.25shows the results

Table 4.25: Objective 2 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12343.820	1	12343.820	530.876	.000[b]
	Residual	9254.220	398	23.252		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Contraceptive Supply

The outcomes displayed that at F (1,389) =530.876, p=0.00<0.05. The model of Contraceptive supply quality dimension predicting performance is fit since P calculated is p=0.00<0.05. The null hypothesis that contraceptives supply does not affect performance of family planning program is rejected.

The investigation aimed to measure the strength of the relationship amid quality contraceptive supply dimension and performance of family planning program. Table 4.26 demonstrates the outcomes

Table 4.26: Objective 2 Model Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	10.564	1.148		9.201	.000
	Contraceptive Supply	.709	.031	.756	23.041	.000

a. Dependent Variable: Performance

The result indicated that p=0.00<0.05. Consequently, contraceptive supply quality significantly predicts performance since P calculated is p=0.00<0.05. The null hypothesis that contraceptive supply quality does not significantly predict performance of family planning program is therefore rejected.

The following model is thus developed;

$$Y= 10.564 + 0.709X$$

This implies that when one improves contraceptive supply quality by one unit, there is an increase in performance of family planning program by 0.709 units.

4.4.3 Access to Quality Dimension and Performance of Family Planning Program in Nakuru County

4.4.3.1 Descriptive Statistics

The investigation aimed to measure the mean and standard deviation of access to quality dimension. This was calculated by means of SPSS. Table 4.27 illustrates the results.

Table 4.27: Access to Quality Dimensions Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Access Dimension	400	33.81	.359	7.177
Valid N (listwise)	400			

The outcomes showed a mean of 33.81, standard error of 0.359, and standard deviation of 7.177. Understanding: About 68% of the sample populace (presumptuous of a normal spreading) at one standard deviation is amid (33.81-0.359) =33.441 and (33.81+0.359) = 34.169 which has a middling of 33.805. This designated that the sample populace remained non commital on access to quality dimension in the health facilities they were receiving family planning services. The views of the sample population gave the same views with the total populace which was amid 33.81-7.177= 26.633 and 33.81+7.177=40.987 with average of 33.81.

The research directed to determine the summary of mean and standard deviation as per the responses. Table 4.28 demonstrates the outcomes.

Table 4.28: Summary Statistics of Access to Quality Dimensions

	N	Mean	Std. Deviation
I spend less than KS 50 on transport to the health facility	400	3.10	1.700
I travel less than 3 KMs to the health facility	400	3.05	1.697
I don't pay for any family planning services	400	2.56	1.748
I am satisfied with information on the family planning I get from health care provider	400	3.70	1.562
I am able to read and understand the information about family planning displayed on the wall	400	3.75	1.349
The distance to the health facility is reasonable	400	3.52	1.630
I would like a health facility near my residence	400	2.87	1.644
I access contraceptive from health facility	400	4.07	1.253
My partner supports my family planning goals	400	3.89	1.461
Family planning services are offered on daily basis during weekdays	400	3.30	1.567
Valid N (listwise)	400		

The mean of the response from the ten questions was calculated and divided by 10 to get a composite mean. The results were as follows; 3.30 + 3.89 + 4.07 + 2.87 + 3.52 +

3.75 + 3.70 + 2.56 + 3.05 + 3.10 = 33.81/10 = 3.381. This indicted that the women were neutral on access to quality of family planning services. It was noted that though the women tended to be neutral on most component to access to quality services in the health facilities they were seeking reproductive services in, they, however, agreed that they could access quality contraceptives services in the health facilities they were seeking reproductive services in. Access therefore remains a challenge to the women of Kuresoi sub-county.

4.4.3.2 Content Analysis

Content examination was scrutinized on the enquiries questioned in the interview guide relating to access to quality dimensions. The discoveries are computed underneath. The interview with health care workers sought to explore the roster of offering birth control amenities in the government. The entire populace (100%) of nursing leaders interviewed specified that the birth control amenities were given on every day during the weeking days from Monday running to Friday initiating at 9.00 a.m up to 3.00 pm. It was equally distinguished that throughout the weekend and in the late afternoon the amenities were not obtainable. The investigation commended thehealth facilities to assess onposibility of giving birth control services throughout the weekends and also in the late afternoon with an aim of enhancing acceptance amongst the teeanegers and females who were in the formal sector to access amenities after work as well as ensuring keeping of the return dates.

The leaders of nursing carder interviewed on the how the way they safeguarded sterlilization of equipment's used to give birth control procedures. Some, 11% lacked an autoclave or the health facility was not connected with electricity which hindered them from offering some methods of birth control such as IUCD insertion and removal of implants. Some facilities (70%) however had autoclaving machines and hence well equipped to autoclave the equoiment. It was further realized that some facilities (19%) despite having autoclaves, they only sterilized equipment on weekly basis creating a barieer that could be avoided. The investigation commendation to the county department of health is to acertain that all the health facilities are connected to electricity and have a functional autoclave machine to expedite their birth control amenities particulary the reversible and permanent procedures with an aim of upsurging the coverage.

Regarding the price of accessing birth control techniques, (90%) of the nursing managers interviewed designated that the health facilities were offering the amenities without any charges. 5% stated that women were paying a maintance fees of 100 shillings for birth control methods though 5% specified the females were charged depending with the method of birth control selected. They gave an example of payment of 50 shilling for injectable, 200 shillings for IUCD and 50 shillings for combined oral contraceptives. The study commendation to the sub-county is to harmonize the charges and gurantee adequate distribution of commodities and wave all the costs.

In regards to topographical convenience in getting birth control amenities, a significant majority (90%) of the leaders of health facilities specified that clienteles journeyed for long approximating to over and above three kilometers (amid 3-6 KM) to the heath facility to seek services. 5% designated that women journeyed amid 2 and 3kilometers while 5% specified that women journeyed for no less than 7 kilometers. The officers suggested on the utilization of combined outreaches and requested the county government to construct more health facilities.

Regarding access to birth control amenities, the entire (100%) nursing managers who participated in the interviews designated that they were well empowered with knowledge and able to disseminated information to women on birth control techniques, usage and unpreferred effects. The offices equally quantified that they reached clienteles at the community by means of engaging volunteers workinh in health and alsi by providing health messages in sessions of community leaders meetings such as in chiefs' barazas. They also offered information to all women and patients every morning in the patients waiting bays by means of routine health messages. Additionly all the women who receive birth control amenities through the routine clinic appointments are empowered with information particulary during individual counseling with the health care provider.

The officers who participated in the interview were questioned on other gains that women would get over and above receiving birth control amenities. Majority of the officers, (68 %) specified that they also offered clienteles with HIV amenities such as testing and also counselling as well as screening then for cervical cancer. Clienteles

who were accompanied by ther spuses also benefited from couple counseling. 15% of officers designated that clienteles received additional outpatient amenities for example as management of mild ailment. 17% of the officers designated that clienteles were provided with health education on additional interrelated amenities for example the antenatal care, postnatal care and safe maternity delivery by skilled birth attendant.

The officers who participated in the interviews were questioned about client's information and on the ways they safeguarded protection of clientele personal information. 36.8% specified that all data was well documented on a client's card which was at the custody of the clients henceforth comprehensive data was not left at the health facility. 63.2% designated that women birth control data was restricted to the data gathered in the birth control register henceforth the rest the client carried since it was in her card. This showed a week point since health facilities were vulnerable to loosing client's data particularly recovering client's past.

An enquiry on if women were able to access their data if they requested for support document was done. The entire group of officers (100%) specified that it was very difficult to get such kind of data especially if it was for more than one year. The investigation commendation was to establish a system of storing client's data either electronically with a well secured data protocals or well organized structures for registers to enhance easy retrieval and usage for both the health care providers and the clienteles. It would also help in monitoring method failure.

4.4.3.3 Observation Chart

Nineteen dispensaries and health centers in Kuresoi Sub-County were examined on the presence of Tiahrt Charts in the corresponding dispensaries and health centers. The Tiahrt Charts involve requirements of the Tiahrt modification, that was endorsed in the 1999 Foreign Operations Appropriations Act, that replicates standards and values regarding voluntary family planning projects and knowledgeable choice directing United States Agency for International Development (USAID) family planning support from the time of its beginning (USAID, 1999). Availability of Tiahrt Charts specifies excellence delivery of birth control amenities. Thirteen dispensaries and health centers had Tiahrt Charts but 6 lacked the same. This is noticeably demonstrated in the Table

4.26. 68% of the dispensaries and health centers had Tiahrt Charts while 32% did not have.

Table 4.29 Availability of Tiahrt Charts

Avaialsbility of Tiahrt Charts	**Frequency**	**Percentage**
Available	13	68
Not Available	6	32
Total	**19**	**100**

The investigation further explored if birth control amenities were combined with other amenities in different departments in the 19 dispensaries and health centers. The discoveries obtainned that all the 19 dispensaries and health centers combined birth control amenities with other services in different departments, interpreting to 100% of integration of family planning in different departments.

4.4.3.4 Chi-Square Test of Independence

The research examined to establish if access to quality and performance of family planning programs are independent or related. The outcomes are exhibited in Table 4.30.

Table 4.30: Objective 3 Chi-Square Test of Independence

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3752.443[a]	864	.000
Likelihood Ratio	1441.261	864	.000
Linear-by-Linear Association	142.949	1	.000
N of Valid Cases	400		

a. 924 cells (100.0%) have expected count less than 5. The minimum expected count is .00.

The investigation was testing null hypothesis which stated that access to quality is not connected with performance of family planning programs whereas the alternate hypothesis which stateted that access to quality is connected with performance of family planning programs. The outcomes illustrate that the Pearson's Chi-Square value is 3752.443 and the significance value is 0.000. Consequently, access to quality is

connected with performance of family planning programs subsequently the significance value attained in the investigation is less than the critical value (p=0.00<0.05). The null hypothesis that access to quality is not associated with performance of family planning programs is therefore not retained.

4.4.3.5 Correlation Analysis

The research examined to establish the influence of the third independent variable of access to quality dimension on dependent variable of performance of family planning program in Nakuru County. The independent variable was directed by four pointers which were as follows: topographical setting, price of amenities, availability of amenities or health care workers and access to data on birth control. A total of 10 enquiries were set all spread transversely the four pointers.

The investigation examined to determine the connection and strength of connection amid access to quality dimension and performance of family planning program in Kuresoi North of Nakuru County. Table 4.31 expresses the outcomes.

Table 4.31: Objective 3 Correlations Analysis

		Access Dimension	Performance
Access Dimension	Pearson Correlation	1	.599**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.599**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation recognized a strong positive connection of 0.599 between access to quality dimension and performance of family planning program in Kuresoi North subcounty (P=0.00<0.05). Consequently, there exsit a significance connection between access to quality dimension and performance of family planning program. This designate that access to quality dimension affects performance of family planning programs

4.4.3.6 Simple Linear Regression Analysis

Theinvestigation examined to compute the fitness of the model on associations between access to quality dimension and performance of family planning program in Nakuru County. Table 4.32 displays the outcomes of the model.

Table 4.32: Objective 3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.358	.357	5.901

a. Predictors: (Constant), Access Dimension

The result showed that;

R Square =0.358 X100=35.8%. When adjusted is R Square= 0.357 X100= 35.7%. The results implied that access to quality predicts 35.8% of performance of family planning program in Nakuru County.

The investigation wanted to campute hypothesis which stated that there is no significant association between access to quality dimension and performance of family planning program in Nakuru County. Table 4.33 demonstrates the outcomes.

Table 4.33: Objective 3 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7737.883	1	7737.883	222.196	.000[b]
	Residual	13860.157	398	34.825		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Access Dimension

The outcomes exhibited that at F (1,399) =222.196p=0.00<0.05. The model of access to quality dimension affecting performance is consequently fit because P computed is

p=0.00<0.05. The null hypothesis which stated that access to quality dimension does not predict performance of family planning program is not retained.

The investigation examined to quantity the strength of the connection between access to quality dimension and performance of family planning program. Table 4.34 expresses the outcomes

Table 4.34: Objective 3 Model coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.685	1.423		11.025	.000
	Access Dimension	.614	.041	.599	14.906	.000

a. Dependent Variable: Performance

The outcome showed that p=0.00<0.05. Thus, access to quality dimension significantly affects performance since P calculated is p=0.00<0.05. The null hypothesis that access to quality dimension does not significantly affect performance of family planning program is rejected.

The outcomes therefore established the model below;

$$Y=15.685 + 0.614X$$

The model suggests that whenever someone increases access to quality dimension by one unit, it results to an upsurge in performance of family planning program by 0.614 units.

4.4.4 Quality Counseling Dimension and Performance of Family Planning Program in Nakuru County

4.4.4.1 Descriptive Statistics

The investigation aimed to quantity the mean and standard deviation of counseling dimension. Table 4.35 displays the outcomes.

Table 4.35: Quality Counseling Dimension Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Counseling Dimension	400	30.48	.486	9.729
Valid N (listwise)	400			

The outcomes exhibited a mean of 30.48, standard error of 0.486, and standard deviation of 9.729. Explanation: About 68% of the sample population (presumptuous of a normal spreading) at one standard deviation was amid (30.48-0.486) =29.994 and (30.48-0.486) = 30.966 which was middling at 30.48. The outcomes designated that the sample populace remained non commital quality of counselling in the health facilities they were receiving birth control amenities in. The opinions of the sample populace offered similar understandings with the total populace which was amid 30.48- 9.729= 20.751 and 30.48+9.729=40.209 and middling at 30.48.

The research wanted to establish the summary of the mean and standard deviation as per the answers provided to by women from the entire ten questions. Table 4.36 demonstrates the outcomes.

Table 4.36: Summary Statistics of Quality Counseling Dimension

	N	Mean	Std. Deviation
Am currently on a family planning method	400	4.51	.904
I have never conceived on family planning	400	4.21	1.336

I have always received the family planning method of my choice	400	3.27	1.620
I always get other related services like assessment of blood pressure before contraceptive is issued to me	400	3.50	1.564
I am satisfied with the current family planning method I am using	400	3.46	1.639
The health facility has all the equipment's necessary for family planning	400	3.82	1.353
Health care providers are able to purchase all the contraceptives needed	400	3.69	1.345
My card has my family planning number and indicates the method and services I am currently using	400	2.99	1.621
I can buy family planning commodities from other sources apart from the health facility	400	3.04	1.597
I can advocate the use of family planning services in health care providers	400	3.99	1.306
Valid N (listwise)	400		

The mean of the response from all the questions was summed and divided by 10. The results were as follows: 3.99 + 3.04 + 2.99 + 3.69 3.82 + 3.46 + 3.50 + 3.27 + 4.21 + 4.51 =29.16/10 = 2.96. This indicted that the population was neutral on quality of counseling of family planning services.

It was noted that though the women remained non commital in regards to quality of counseling services in the health facilities they were receiving reproductive amenities

in, were, however, they tended to strongly agreed that they were on family planning method and that they had never conceived on any family planning method. Though it was not part of the questions, the interviewer realized that some women were having more than one family planning methods due to peer influence in response to lack of menstruation while on certain family planning methods and took advice from their peers. The investigation commended the requirement to relook at the quality of counseling of family planning amenities and monitoring of counseling using checklists and protocols.

The study sough to establish the influence of the fourth independent variable of quality counseling dimension on dependent variable of performance of family planning program in Nakuru County. The independent variable was directed by four pointers that included; presence of trained HCW, organization of client information and detailed information on options available. 10 questions were set all distributed across the four indicators.

4.4.4.2 Content Analysis

Content examination was scrutinized on enquiries enquired in the interview guide concerning to quality counseling dimensions. The outcomes are computed beneath. Interviews were carried out to the nursing leaders managing the government health facilities on availability and adequacy of family planning rooms. 100% indicated the facilities had family planning counseling rooms. 89.5 indicated that the counseling room was adequate, well equipped, spacious well ventilated and could accommodate client and her partner while 10.5% indicated that even though they had a family planning counseling room, it was not adequate for counseling and some procedures. The further indicated that some procedures like insertion of IUCD were done in maternity.

Nursing officers were interviewed on how they got feedback from clients on family planning and how the clients felt. 47.5% indicated that they probed clients during the return visit to get feedback on the progress. 31.5% indicated that they got regular feedback from community health volunteers. 10.5% indicated that they conducted exit interviews with support from development partners such as Afya Uzazi. 10.5% stated that they got feedback through suggestion box. There is need for the community

strategy to be enhanced considering that 31.5% of the facility in-charges relied on feedback from community health volunteers.

A question on how the health care facilities ensured male involvement in contraceptive use was asked during the interview with nursing officers' in-charge of health facilities. 52.6% were enhancing male involvement by counseling clients to initiate a discussion on accompanying her to the clinic. They relied on client's ability to convince their partners to accompany them. 21.1% relied on health education give to all clients and patients every morning where men are encouraged to accompany their women to the health facilities. 15.8% enhanced male involvement by giving services to the couple's first. 10.5% enhanced male involvement by providing male services during family planning outreaches such as having a male desk, issuing condoms and vasectomy.

Mode of counseling the health facilities were using was determined during the interview with the nursing officers' in-charge of health facilities. 63.2% indicated that they carried out-group counseling to all women awaiting family planning, followed by demonstration on how each method works and the procedure required. After group counseling, women would then get into the family planning room one by one having chosen the method after counseling and the health worker recaps on that method and issues the same. 36.8% indicated that they carried out individual counseling.

While group counseling saves time and is subject to women making decision as a result of peer influence. Though it was not part of the household survey, it was noted that some women relied on their peers in decision making. At least five women reported to be using two hormonal family planning methods. They were on one method but when they missed their periods, upon consulting their friends, they tried another method. This indicated that counseling left some question unanswered raising the issue of quality. The nursing officers in-charged further indicated that they took between 5 to 10 minutes to counsel clients on family planning and that they followed WHO protocols while counseling clients**.**

4.4.4.3 Chi-Square Test of Independence

The study sought to determine if quality counselling and performance of family planning programs are independent or related. The outcomes are exhibited in Table 4.37.

Table 4.37: Objective 4 Chi-Square Test of Independence

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4047.829[a]	837	.000
Likelihood Ratio	1529.200	837	.000
Linear-by-Linear Association	201.866	1	.000
N of Valid Cases	400		

a. 896 cells (100.0%) have expected count less than 5. The minimum expected count is .00.

The null hypothesis stated that quality counselling is not connected with performance of family planning programs while the alternate hypothesis is that quality counselling is connected with performance of family planning programs. The outcomes showed that the Pearson's Chi-Square value is 4047.829 and the significance value is 0.000. Consequently, quality counselling is connected with performance of family planning programs because the significance value acquired in the study is less than the critical value ($p=0.00<0.05$). The null hypothesis that quality counselling is not associated with performance of family planning programs is therefore not sustained.

4.4.4.4 Correlation Analysis

The investigation examined to identify the relationship and strength of relationship between quality of counseling dimension and performance of family planning program in Kuresoi North of Nakuru County. Table 4.38 shows the effects.

Table 4.38: Objective 4 Correlations Analysis

		Counseling Dimension	Performance
Counseling Dimension	Pearson Correlation	1	.711**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.711**	1

	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation recognized a strong positive relationship of 0.711 between quality of counseling dimension and performance of family planning program in Kuresoi North subcounty (P=0.00<0.05). Consequently, there is an importance relationship between quality of counseling dimension and performance of family planning program. This indicate that quality of counseling dimension predicts performance of family planning programs

4.4.4.4 Simple Linear Regression Analysis

The research examined to compute the fitness of the model on relations amid quality of counseling dimension and performance of family planning program in Nakuru County. Table 4.39 illustrates the outcomes of the model.

Table 4.39: Objective 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.711[a]	.506	.505	5.178

a. Predictors: (Constant), Counseling Dimension

The results showed; R Square =0.506 X100=50.6%%. When adjusted is R Square= 0.505 X100= 50.5%. This implies that quality of counseling predicts 50.5% of performance of family planning program in Kiresoi North of Nakuru County.

The research examined to compute null hypothesis which stated that there is no significant relationship between access to quality dimension and performance of family planning program in Nakuru County. Table 4.40 displays the outcomes

Table 4.40: Objective 4 ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	10927.117	1	10927.117	407.555	.000[b]
	Residual	10670.923	398	26.811		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Counseling Dimension

The results indicated that F (1,399) =407.555, p=0.00<0.05. The model of quality of counseling dimension predicting performance of family planning program is therefore fit since P calculated is p=0.00<0.05. The null hypothesis that access to quality dimension does not predicts performance of family planning program is rejected.

The investigation examined to quantity the strength of the relationship amid quality of counseling services and performance of family planning program. Table 4.36 expresses the outcomes.

Table 4.41: Objective 4 Model Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.037	.852		23.511	.000
	Counseling Dimension	.538	.027	.711	20.188	.000

a. Dependent Variable: Performance

The result indicated that p=0.00<0.05. Thus, quality of counseling services significantly affects performance since P calculated is p=0.00<0.05. The null hypothesis that quality of counseling services does not significantly affect performance of family planning program is not sustained.

The model below was therefore established;

$$Y = 20.037 + 0.538X$$

The model infers that when somebody enhances quality of counseling services by one unit, there is an upsurge in performance of family planning program by 0.538 units.

4.4.5 Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

The investigation examined to identify the effects of the combined independent variables on dependent variable of performance of family planning program in Nakuru County. The process encompassed of uniting all the four independent variables; management competency dimension, contraceptive supply quality dimension, access quality dimension and counseling dimension and measuring their combined effect on performance of family planning program in Nakuru county.

4.4.5.1 Correlation Analysis

The research wanted to identify the connection and strength of association between combined independent variable and performance of family planning program in Kuresoi North of Nakuru County. Table 4.42 illustrates the outcomes

Table 4.42: Objective 5 Correlations Analysis

		Management Competency	**Contraceptive Supply**	**Access Dimension**	**Counseling Dimension**	**Performance**
Management Competency	Pearson Correlation	1	.536**	.482**	.595**	.624**
	Sig. (2-tailed)		.000	.000	.000	.000
Contraceptive Supply	Pearson Correlation	.536**	1	.573**	.482**	.756**
	Sig. (2-tailed)	.000		.000	.000	.000

Access Dimension	Pearson Correlation	.482**	.573**	1	.518**	.599**
	Sig. (2-tailed)	.000	.000		.000	.000
Counseling Dimension	Pearson Correlation	.595**	.482**	.518**	1	.711**
	Sig. (2-tailed)	.000	.000	.000		.000
Performance	Pearson Correlation	.624**	.756**	.599**	.711**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	400	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation discovered a strong positive association of between each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub County (P=0.0<0.05). Therefore, there is a significance association between each of the combined health quality dimension elements and performance of family planning program.

4.4.5.2 Multiple Linear Regression Analysis

The research examined to measure the fitness of the model on interactions amid combined quality of health dimension and performance of family planning program in Nakuru County. The results are showcased in Table 4.43.

Table 4.43: Objective 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.711[a]	.506	.505	5.178

a. Predictors: (Constant), Counseling Dimension, Contraceptive Supply, Access Dimension, Management Competency

The findings exhibit that the R Square statistic is 0.505. This implies that 50.5% in the variation in performance of planning program in Nakuru County is caused by the combined quality of health dimensions. Consequently, 49.5% in the variations in performance of planning program in Nakuru County is occasioned by additional which were not part of the research.

The investigation examined to compute hypothesis which stated that there is no significant relationship amid combined health quality dimension and performance of family planning program in Nakuru County. Table 4.39 demonstrates the outcomes of the model.

Table 4.44: Objective 5 ANOVAa

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	15979.227	4	3994.807	280.833	.000[b]
	Residual	5618.813	395	14.225		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Counseling Dimension, Contraceptive Supply, Access Dimension , Management Competency

The results indicated that F (1,399) =280.833, p=0.00<0.05. This implies that the model of combined quality of health dimension predicting performance of family planning program is fit because P calculated is p=0.00<0.05. The null hypothesis that combined quality of health dimension does not predict performance of family planning program is therefore rejected.

The investigation examined to quantity the strength of the association between each element of the combined quality of health dimension and performance of family planning program. Table 4.45 exhibits the outcomes

Table 4.45: Objective 5 Model coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.389	1.015		6.296	.000
	Management Competency	.079	.025	.107	3.108	.002
	Contraceptive Supply	.440	.032	.469	13.857	.000
	Access Dimension	.084	.034	.082	2.441	.015
	Counseling Dimension	.287	.026	.379	11.137	.000

a. Dependent Variable: Performance

The result indicated that ((p = 0.002, p=0.000, p = 0.015, p =0.000) <0.05). Thus, each of the variables that constitute the combined quality of health dimension significantly affects performance since P calculated is p<0.05. The null hypothesis that each of the variables that constitute the combined quality of health dimension does not significantly predict performance of family planning program is not sustained.

The outcomes therefore established the model below;

$$Y=6.389 + 0.079X_1 + 0.440X_2 + 0.084X_3 + 0.287X_4$$

The model denotes that whenever somebody enhances management competency by one unit, it results to an upsurge in performance of family planning program by 0.079 units. Whenenever somebody enhances supply of birth control commodities by one unit, there is an upsurge in performance of family planning program by 0.440 units. Whenever somebody enhances access dimension by one unit, there is an upsurge in performance of family planning program by 0.084 units. In conclusion, wheneber someone enhances

quality of counseling services by one unit, it leads an an upsurge in performance of family planning program by 0.287 units.

4.4.6 Client Characteristics and Performance of Family Planning Program in Nakuru County

4.4.6.1 Descriptive Statistics

The research examined to measure the mean and standard deviation of client characteristics. Table 4.46 exhibits the outcomes.

Table 4.46: Client Characteristics Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Client Characteristics	400	37.68	.301	6.016
Valid N (listwise)	400			

The outcomes shown a mean of 37.68, standard error of 0.301, and standard deviation of 6.016. Interpretation: About 68% of the sample populace (presumptuous of a normal spreading) at one standard deviation was amid (37.68-0.301) =37.379 and (37.68+0.301) = 37.981 which has middling of 37.68. This showed that the sample populace tended to be agree that their individual characteristics determined their utilization of family planning services. The understandings of the sample populace offered similar understandings with the total populace which was amid (37.68-6.016) = 31.664 and (37.68+6.016) =43.696 with average of 37.68.

The investigation examined to identify the mean and standard deviation of the responses from the respondents on each question. Table 4.47 exhibits the outcomes.

Table 4.47: Summary Statistics of Client Characteristics

	N	Mean	Std. Deviation
My education status has made you utilize or hinder use of family planning	400	2.17	1.588

My career has influenced use of family planning or hindered the use	400	1.83	1.391
I can read and understand all the family planning information displayed in the health facility	400	3.55	1.372
I am able to comfortably seek clarification from a health provider on family planning	400	4.49	.901
I can discuss my family planning goals with my spouse	400	4.07	1.309
I clearly understand the health implication of lack of child spacing to me	400	4.40	1.110
My religion accepts use of family planning	400	4.26	1.167
My community accept use of family planning	400	4.57	.944
I can discuss openly about family planning with my friends	400	4.33	1.153
Client Characteristics	400	4.00	.774
Valid N (listwise)	400		

The mean the response from all the questions was calculated by summing up the mean of all the questions and divided by 10. The results were as follows; 2.17 + 1.83 + 3.55 + 4.49 + 4.07 + 4.40 + 4.26 + 4.26 + 4.57 + 4.33 + 4.00 = 37.67/10 = 3.768. This indicted that the population was in agreement that their characteristics influenced seeking of family planning services. It was however, noted that they strongly disagreed on their career playing any major influence. It was noted that though the women tended to agree on all the components of client characteristics which indicated that their own attributes were key in utilization of family planning services apart from their career. It indicated that most of the clients did not have a career hence did not play any role.

4.4.6.2 Content Analysis

Content examination was carried out on enquiries questioned in the interview guide concerning to client characteristics. The outcomes are explained below. The researcher carried out an in-depth interview with the nursing officers' in-charge of nineteen government health facilities in Kuresoi North sub County of Nakuru County. A question on how the community though about family planning was asked. 89.5% of the nursing officers indicated that the community had an optimistic attitude towards birth control techniques. They equally designated that the utilization of family planning could be associated with the community and client perspective of family planning. This tallies with the client's response which recognized a strong positive correlation of 0.589 client characteristics and performance of family planning program in Kuresoi North subcounty.

Some nursing officers however noted that the community perceives family planning as a women affair with minimal or non-male involvement in decisions family planning. Further, the in-chargers perceive that the community only utilize family planning for child spacing with not much information on other benefits related to their own health. A question on the effect of religion on family planning was asked. 52% of the nursing officers agreed that religion interfere with their judgement on the use of family planning services and supports their decisions. This tallies with the client's responses which was rated at 4.26 that indicated clients agreed that religion influenced their decisions on family planning use. 10% of the nursing officers indicated that though religion agreed to the use of family planning, it advocated for natural family planning methods. 36.8% of the nursing officers indicated that there were some few mushrooming religious sects discouraging members from using family planning. They feared that all the gains towards attaining population coverage in the utilization of family planning was threatened.

The nursing officers interviewed differed in the opinion of the number of children they perceived the community to be desiring. This indicated that the health care workers have not managed to explore the community they were serving in depth. 42% indicated that the community they were serving needed children they could manage with specifying the number. 31.6% indicated that the community needs a minimum of four children. 15% said that the community desired a family size of 2-3 three while 10.5%

said that the community believes that children are God given hence the more the more blessing. Overall, there was conflict on the health worker's perception and the community perception. There is need to harmonize perceptions for the health workers to understand the actual perception of the community they are serving.

A response on the client ability to keep their clinic appointment was asked. It was noted that there were no clear records maintained in health facilities on which clients were scheduled for a date and how many turned up for an appointment. When asked, whether clients honored their appointment dates, the health care workers were not sure of how to identify the women who kept appointments. 52% said that majority of clients did not honor their appointment dates and delayed with a week or more.26.3% indicated that clients were responding to the appointments on time. 15.8% indicated that clients with short-term family planning methods responded better to appointments compared to clients on long-term methods. 5% indicated that clients were not following appointments given to them. This is in convergence with the client's response which was rated at 2.58 in Likert's scale which indicated that most client were between disagreeing and neutral on the records in their cards about the services given and the appointment return date. This is needed to improve on family planning data to this would include the data on client's card as well as the data in the register. A harmonized family planning card need to be put in place for all the clients.

It was of paramount importance to understand how the facilities got feedback from the community. 15% indicated that they got feedback through the suggestion box placed in the health facilities, 52.6% indicated they got feedback from community health volunteers and the community leadership under national government administration officers, 15.8% got feedback through interaction with patients while 15.8% indicated they had never received any feedback from the community. This emerged as a break amongst the community and the health facilities hence the need to harmonize the two.

Nursing officers were asked about the staffing. 100% cited an outcry of serious staff shortage. Most health centers are not able to provide 24 hours' services. On the challenges that the facility was facing, 50% of the nursing officers felt that the health committee at the health facility level was not sure of their role. While they are expected to be the connection amongst the health facility and the community, the play the role of

policing. The nursing officers also cited that they needed a training on long term family planning services.

4.4.6.3 Chi-Square Test of Independence

The study sought to determine if client characteristics and performance of family planning programs are independent or related. The outcomes are exhibited in Table 4.48.

Table 4.48: Objective 6 Chi-Square Test of Independence

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4167.178[a]	1107	.000
Likelihood Ratio	1560.909	1107	.000
Linear-by-Linear Association	149.308	1	.000
N of Valid Cases	400		

a. 1176 cells (100.0%) have expected count less than 5. The minimum expected count is .00.

The null hypothesis is that client characteristics are not connected with performance of family planning programs while the alternate hypothesis is that client characteristics is associated with performance of family planning programs. The results showcase that the Pearson's Chi-Square value is 4167.178 and the significance value is 0.000. Thus, client characteristics are associated with performance of family planning programs since the significance value obtained in the study is less than the critical value ($p=0.00<0.05$). The null hypothesis that client characteristics are not associated with performance of family planning programs is therefore not sustained.

4.4.6.4 Correlation Analysis

The investigation aimed to establish the influence of moderating variable (client characteristics) on dependent variable of performance of family planning program in Nakuru County. The moderating variable was directed by three indicators which were as follows; culture, marital status and education status. 10 questions were set all distributed across the three indicators. The research aimed to establish the relationship and strength of association between client characteristics and performance of family planning program in Kuresoi North of Nakuru County. Table 4.49 demonstrates the outcomes.

Table 4.49: Objective 6 Correlation Analysis

		Client Characteristics	Performance
Client Characteristics	Pearson Correlation	1	.589**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.589**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation recognized a strong positive correlation of 0.589 client characteristics and performance of family planning program in Kuresoi North subcounty (P=0.00<0.05). Consequently, there exist an importance relationship between client characteristics and performance of family planning program.

4.4.6.5 Simple Linear Regression Analysis

The research wanted to examine the fitness of the model on relations moderating variable of client characteristics and performance of family planning program in Nakuru County. The research equally wanted to measure the null hypothesis which stated that there is no significant relationship between moderating variable of client characteristics and performance of family planning program in Nakuru County. Table 4.50 expresses the outcomes.

Table 4.50: Objective 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.612[a]	.374	.373	5.827

a. Predictors: (Constant), Client Characteristics

The results were as follows: R Square= 0.374 X100=37.4%. When adjusted is R Square= 0.373 X100= 37.3%. Client characteristics predicts 37.4 % of performance of family planning program in Nakuru County.

The investigation examined to test hypothesis that there is no significant association between moderating variable of client characteristics and performance of family planning program in Nakuru County. Table 4.51 demonstrates the outcomes.

Table 4.51: Objective 6 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8082.131	1	8082.131	237.993	.000[b]
	Residual	13515.909	398	33.960		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Client Characteristics

The outcomes showed that F (1,399) =237.993, p=0.00<0.05. The model of client characteristics predicting performance of family planning program is fit becaused P calculated is p=0.00<0.05. The null hypothesis that client characteristics does not predict performance of family planning program is not sustained.

The investigation aimed to calculate the strength of the association between client characteristics and performance of family planning program. Table 4.47 displays the outcomes.

Table 4.52: Objective 6 Model Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.231	1.723		5.937	.000

Client Characteristics	.365	.024	.612	15.427	.000

a. Dependent Variable: Performance

The result indicated that p=0.00<0.05. Thus, client characteristics significantly affects performance since P calculated is p=0.00<0.05. The null hypothesis that client characteristics does not significantly affect performance of family planning program is rejected.

The outcome of the investigation therefore establahed themodel below;

$$Y=10.231 + 0.365X$$

The model infers that whenenever someone enhances client characteristics by one unit, it results to an upsurge in performance of family planning program by 0.365 units.

4.4.7 Client Characteristics, Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

4.4.7.1 Performance of Family Planning Program Descriptive Statistics

The performance of family planning program in Nakuru county predictor variable was directed by four pointers as follows; presence of commodities, presence of equipment, availability of amenities and ability to forecast. 10 questions were set all distributed across the four indicators.

The investigation wanted to quantity the mean and standard deviation of performance of family planning program in Kuresoi North of Nakuru County. Table 4.53 demonstrates the outcomes.

Table 4.53: Performance of Family Planning Program Descriptive Statistics

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Performance	400	36.43	.368	7.357
Valid N (listwise)	400			

The results shown Mean of 36.43, SE of 0.368 and SD of 7.357. This infers that 68% of the sample populace at one standard deviation is between (36.43-0.368) =36.0621 and (36.43+0.368) == 36.798 which has an average of 36.43. This specified that the sample populace tended to be in agreement on the performance of family planning program. The understandings of the sample populace gave the same understandings with the total populace which was between 36.43-7.357= 29.073 and 36.43+7.357=43.787 with average of 36.43. It was noted that though the women tended to be neutral on documentation of services given to them and their partners support in receiving family planning amenities. The description of response is indicated in table 4.54 on summary of mean and standard deviation.

Table 4.54: Performance of Family Planning Program Summary Statistics

	N	Mean	Std. Deviation
Most of my friends use family planning services	400	4.41	.865
Women in this community are satisfied with family planning services offered at the health facility I access the service	400	3.53	1.394
I am satisfied with the family planning services offered in the health facility	400	3.61	1.484
I have a family planning card that records all the services given to me	395	2.58	1.681
Most of my friends seek family planning in established health care facilities	400	3.39	1.367
I believe the Family planning provider takes into account my family planning needs	400	3.82	1.172

There are other outlets offering family planning services in this community apart from health facilities such as pharmacy	400	4.54	.900
Women in this community are aware of family planning services in the hospital	400	4.62	.676
Men in the community encourage their partners to use family planning	400	3.27	1.207
Men are satisfied with family planning services in the health facility.	400	2.70	1.168
Valid N (listwise)	395		

The mean the response from all the questions was calculated and divided by 10. The results were as follows 4.41 + 3.53 + 3.61 + 2.58 + 3.39 + 3.82 + 4.54 + 4.62 + 3.27 + 2.70 = 3.647. This indicted that the population was in agreement that their family planning programming was performing well. It was however, noted that they the women were neutral on documentation of services given to them and their partners support in seeking family planning services.

4.4.7.2 Performance of Family Planning Program Content Analysis

Content scrutiny was done on the asked enquiries as outlined on the interview guide concerning to client characteristics. The outcomes are discussed underneath. All the nursing officers (100%) interviewed on availability of family planning services indicated that the facilities do not offer family planning services over the weekend and during weekdays after 5.00 P.m. this could hinder a special group of population from accessing family planning especially the youths. A question of integrating family planning with other services was asked. The entire group of officers (100%) designated that they integrated family planning other services such as outpatient, maternity, HIV comprehensive care centres, postnatal, and during the integrated outreaches.

4.4.7.3 Correlation Analysis

The investigation aimed to establish the influence of the combined independent variables and moderating variable on dependent variable of performance of family planning program in Nakuru County. This comprised of combining all the four independent variables; management competency dimension, contraceptive supply quality dimension, access quality dimension and counselling dimension and accessing and the moderating variable (client characteristics) their combined influence of performance of family planning program in Nakuru county.

The research aimed to recognize the relationship and strength of relationship between combined independent variable, client characteristics and performance of family planning program in Kuresoi North of Nakuru County. Table 4.55 illustrates the outcomes.

Table 4.55: Objective 7 Correlations Analysis

		Client Characteristics	**Management Competency**	**Contraceptive Supply**	**Access Dimension**	**Counseling Dimension**	**Performance**
Client Characteristics	Pearson Correlation	1	.510**	.475**	.598**	.602**	.589**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
Management Competency	Pearson Correlation	.510**	1	.536**	.482**	.595**	.624**
	Sig. (2-tailed)	.000		.000	.000	.000	.000

Contraceptive Supply	Pearson Correlation	.475**	.536**	1	.573**	.482**	.756**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
Access Dimension	Pearson Correlation	.598**	.482**	.573**	1	.518**	.599**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
Counseling Dimension	Pearson Correlation	.602**	.595**	.482**	.518**	1	.711**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
Performance	Pearson Correlation	.589**	.624**	.756**	.599**	.711**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	400	400	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation acknowledged a strong positive correlation of amid both client characteristics and each of the elements of combined health quality dimension with performance of family planning program in Kuresoi North subcounty (P=0.0<0.05).

Therefore, there is a significance association between each of the combined health quality dimension elements and performance of family planning program. The correlation coefficients of the combined health quality dimension have not increased in magnitude or changed the nature of association.

4.4.7.4 Multiple Linear Regression Analysis

The investigation wanted to calculate the fitness of the model of relationships between combined quality of health dimension, client characteristics and performance of family planning program in Nakuru County. Table 4.56 shows the results.

Table 4.56: Objective 7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.862[a]	.742	.739	3.759

a. Predictors: (Constant), Client Characteristics, Contraceptive Supply, Management Competency, Access Dimension , Counseling Dimension

The results shown are; R Square=0.742 X100=74.2%. When adjusted is R Square=0 .739 X100= 73.9%. This indicates that combined health quality dimension and client characteristics predict performance of family planning program in Nakuru county by 73.9%. When client characteristics is added to the combined independent variables, it gives a further increase of 4.7% since all the independent variable combined have an influence of 69.2% on performance of family planning program.

The investigation wanted to calculate the hypothesis that stated there is a significant relationship between combined health quality dimension, client characteristics and performance of family planning program in Nakuru County. Table 4.57 shows the results.

Table 4.57: Objective 7 ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.

1	Regression	16029.961	5	3205.992	226.858	.000[b]
	Residual	5568.079	394	14.132		
	Total	21598.040	399			

a. Dependent Variable: Performance

b. Predictors: (Constant), Client Characteristics, Contraceptive Supply , Management Competency , Access Dimension , Counseling Dimension

The results indicated that F (1,399) =226.858, p=0.00<0.05. The model of combined quality of health dimension and client characteristics predicting performance of family planning program is fit since P calculated is p=0.00<0.05. The null hypothesis that combined quality of health dimension and client characteristics does not predict performance of family planning program is sustained.

The investigation aimed to measure the strength of the connection between both client characteristics and each element of the combined quality of health dimension with performance of family planning program. Table 4.58 shows the results.

Table 4.58: Objective 7 Model Coefficients[a]

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	4.891	1.284		3.810	.000
	Management Competency	.073	.026	.099	2.854	.005
	Contraceptive Supply	.436	.032	.465	13.756	.000
	Access Dimension	.060	.036	.059	1.661	.097

Counseling	.270	.027	.357	9.949	.000
Dimension					
Client	.083	.044	.068	1.895	.059
Characteristics					

a. Dependent Variable: Performance

The result indicated that ((p = 0.005, p=0.000, p = 0.097, p =0.000, p=0.59) <0.05). Thus, each of the variables that constitute the combined quality of health dimension and client characteristics significantly affects performance since P calculated is p<0.05. The null hypothesis that client characteristics and each of the variables that constitute the combined quality of health dimension do not significantly affect performance of family planning program is not sustained.

The model established out of the finds is illustrated below;

$$Y=4.891 + 0.073X_1 + 0.436X_2 + 0.060X_3 + 0.270X_4 + + 0.083X_5$$

The outcomes therefore infer that whenever someone increases management competency by one unit, it leads to an unsurge of performance of family planning program by 0.073 units. Whenever someone increases contraceptive supply by one unit, it results to an upsurge in performance of family planning program by 0.436 units. Whenever somebody enhances access dimension by one unit, it results to an escalation in performance of family planning program by 0.060 units. Whenever somebody increases quality of counseling services by one unit, it leads to an upsurge in performance of family planning program by 0.270 units. Finally, client characteristics improve by one unit, it results to an upsurge in performance of family planning program by 0.083 units. The moderating variable, client characteristics decreases the strength of the coefficients of the combined quality of health dimension but it does not change their direction.

4.5 Discussion of Findings

The investigation aimed to discover the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program in Nakuru County, Kenya.

The study specifically sought to; establish how management competency quality dimension influence performance of family planning program in Kuresoi North of Nakuru County, examine the magnitude to which contraceptive supply quality dimension influence performance of family planning program in Nakuru county, to find out how access to quality dimension influence performance of family planning program in Nakuru county, establish how quality counseling dimension influence performance of family planning program in Nakuru county, scrutinize the magnitude to which collective healthcare quality dimensions influence performance of family planning program in Nakuru county, ascertain how client characteristics, influence performance of family planning program in Nakuru county, and determine the influence of client characteristics and combined health care quality dimensions on performance of family planning program in Nakuru county. Consequently, the argument of the outcomes of the research were grounded on the above-mentioned detailed objectives.

4.5.1 Management Competency and Performance of Family Planning Program

The investigation findings from the descriptive statistics indicate that the respondents tended to be neutral about the management of the health facility they were receiving birth control amenities in. Findings from the observation chart indicate that a great proportion of the dispensaries and health centers adhered to the six considerations set out in the accurate documentation of the contraceptives data and a great proportion of them attained the two parameters set out to assess ordering of contraceptives. Thus, the results designated that there is modest management efficiency displayed concerning to family planning in the dispensaries and health centers situated in Kuresoi Sub-County in Nakuru County.

Training of health care workers to provide updated services is a key management role in health care. Management competency includes development of health care worker's skills and practice. This was echoed by Kraft, et al (2021). The global body that ensures that health care workers are up to date with information is WHO that develop guidelines for nations to adopt and adapt according to their settings. Nations develop guidelines and standard operating procedures for use by health care workers. This research revealed that Nakuru County continuously updated the health care workers through

continues medical education forums. Kuresoi North health workers in interview guide indicated that were having frequent capacity building sessions.

For health care benefactors to give the highest standard of care, they must be well trained and well equipped with knowledge and tools. Health care workers need regular sensitization and provision of tools. Some of the tools to be availed includes the guidelines, standard operating procedures, and charts. The research was in convergent with findings from Chen et al (2016) on the important of tools. In kuresoi North health facilities, all facilities had the required tools for review and reporting. The guidelines were available and 100% had FP registers. The findings however indicated that 6 health facilities did not have all the necessary tools to support ordering of contraceptives. There is need to empower all health facilities to manage family planning well.

Health care benefactors need to understand the finest way to meet clienteles through making the right decisions for each client. One of the key element is by keeping client's data for review during the revisits. The study findings were in divergent with K4Health, (2017) that described the basic tools in making decisions. In kuresoi North, all the nursing interviewed designated the impossility og getting clienteles data over the years. There is need to have a robust monitoring and evaluation system that can enhance data storage and decision making. Nakuru county need to support electronic data storage for easy retrieval of client's data in Kuresoi North and all other sub-counties.

The investigation outcomes exhibited that there existed a fundamental and strong positive connection amid management competency and performance of family planning program in Kuresoi North Sub-County. The research outcomes equally discovered an existence of a fundamental positive connection between management competency and performance of family planning program in Kuresoi North Sub-County. The investigation in addition, showed that management competency predicted and labelled to a huge magnitude the performance of family planning. Outcomes from the chi-square assessment of independence displayed that management competency is associated with performance of family planning programs.

The investigation outcome got the same suppositions as that provided in the KQMH (2020) publication which outlined that management is of utmost significance in

realizing total excellence of care. The publication postulated that management can be equippped to the procedure which offers direction and inspiration to enhance excellence care henceforth the starring role of management is strategic in reaching the total excellence of care. The model established through the publication equally labelled the foremost objective of management in total excellence management as that of preserving a favorable atmosphere that empowers workers. The employees to feel that they share the procedure of accomplishing the company's roles or goalmouth, authenticate requirement to the group or company. It also helps to support to overcome employees' regular hostility to transformation and to convince staff that excellence is important and that management role ought to be clear, accurate and well understood on how to objectively meet the threshold of guiding the total quality management.

The outcomes of the investigation are also corresponding to discoveries of the investigation done by West et al. (2015) that The study discovered that a respectable performing company or institution ordinarily has some principles that assists to contious striving to maintain standard throughout, organization culture and in health care, the culture requirements to be cultivated, and health care benefactors coached on by the organization leadership. The investigation opined that the measures would gurantee excellence enhancement, safe and compassion health care which has continued to pose a main challenge in health sector.

Stewardship in health programing is very important especially in family planning. In Kenya, the health facilities are either managed by government, Face based or private entrepreneur. There has been laxity in introducing family planning in face based health facilities. This has hindered accessibility to woman seeking services in such institutions. With good leadership, FBOs can be able to steer the family planning agenda. This was echoed by Ruark et al (2019) that leadership I the FBOs can enhance uptake of contraceptives if they are empowered. Leadership can therefore help institutions to overcome some contraceptive barriers.

The understanding of quality is important in since it enhances good practice of quality and understanding quality control measures. Kenya Quality Model for Health (2020) defines quality as entirety of structures and features of the Kenyan health care structure

that relates to its capability to content a quantified or implied health need the description converges with ISO 8402-1986 which describes quality as the entirety of structures and appearances of a product or amenity that stands its capability to content quantified or oblique needs.

4.5.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program

The investigation findings from the descriptive statistics indicate that the respondents tended to be neutral about the contraceptives supply quality dimensions of the health facility they were sreceiving birth control amenitis in. Findings from the content analysis indicated that 60% of the dispensaries and health centers in Kuresoi Sub-County, Nakuru County had a stockout of implants specifically the one rod implants (NXT), 50% had a stock out of progesterone only pills and emergency contraceptives, 30% had a stock out of male and female condoms, 10% had experienced a stock out of combined oral contraceptives, and only 5% had not experience any stock out for the past six months at the time of the interview. Findings from the observation chart indicate that the dispensary or health centers offer numerous options of contraceptives while all the dispensaries and health centers offered the dual method of family planning.

The study indicated that all the health facilities had experienced stock out of family planning commodities within the past three months prior to the study. Various health facilities had not received some commodities over one year such as implants. This was in convergent with a research finding by Muhoza, et al 2021 that specified that, unavailability of family planning commodities in health facilities ids the biggest contributor to unattained need for females of procreative age. Nakuru county need to ensure that all commodities for family planning are available in all health facilities.

The study findings indicated that only 36.9% of females of aged 15 to 49 years could access family planning from other sources other than health facilities. This indicated that many women do not have the capacity to get contraceptives from other service delivery points. This outcome is in convergent with investigation findings by Ahmed et al (2019) that indicated that countries were way below achieving FP2020 mission of ensuring that additional 120 million were enrolled into family planning. The progress

remained very low across the globe. Nakuru county need to support Kuresoi North to achieve contraceptive supply security in all commodities.

The study finding indicated that only 38.2 % of women of reproductive age indicated that the health facilities had the supplies and equipment necessary to offer all the contraceptives. Contraceptives goes hand in hand with supplies that are necessary to offer the contraceptives to clients. Some of the supplies includes the consumables and no consumables. This is in convergent with a research finding by Ali, M., et al (2018) that indicated that most countries experience contraceptive stock outs as well as other supplies and have inadequate management in logistics causing unavailability of contraceptives to women when they need.

The guide requires to be used in concurrence with the main guide, forecasting of Health products or Commodities: A Guide to help in Calculating and an ordering Plan for supplies. The contraceptive companion guide describes the estimating steps in the complete quantification procedure for estimating the quantities of birth control supplies and additional purchases desirable to deliver the short-acting methods (SAM) and the long-acting and permanent methods of contraception (LAPM). It includes specific guidance on the facts gathering and examination required when staff are making expectations about the request for contraceptive approaches and the quantities of contraceptive supplies that will be needed to meet that demand.

The research outcomes exhibited an existence of a fundamental and strong positive connection between contraceptive supply quality dimension and performance of family planning program in Kuresoi North subcounty. The investigation outcomes equally displayed existence of a fundamental positive relationship between contraceptive supply quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation in addition demonstrated that contraceptive supply quality dimension predicted and described to a large extent the performance of family planning. Results from the chi-square examination of independence demonstrated that contraceptive supply is associated with performance of family planning programs.

The investigation outcomes are in agreement with the discoveries of the study carried out by Kwete et al. (2018), that established that family planning programs are required to make certain quality amenities are offered in all health care facilities, security of contraceptives or supply of contraceptive need to be assured and in any health program, commodity security is of paramount importance. The study was on contraceptive security and stipulated that contraceptive commodity security can be defined as the ability of any facilities offering contraceptive services to stock the appropriate family planning commodities within appropriate place, in the appropriate time and in the appropriate cost. The study further described that family planning commodity security is said to occur only when each individual is able to select, find, and use high-quality Family planning including utilization of condoms used for child spacing as well as to inhibit HIV/AIDS and further sexually conveyed diseases.

The present research outcomes are concurring to those of a report by WHO (2018) that stipulated that to enhance effectiveness there has been proposition of integrating numerous disease-targeted supply chains, such as vaccines, mother and baby health supplies including medicines, and contraceptive products, into one combined supply chain. The study further established that commodity security of reproductive health is essential of the unattained family planning requirements amongst females will be addressed.

The current study is congruent to a study done by Rutstein & Winter (2015) which stipulated that use of contraceptive among the young people and the elderly women has been determined to decrease maternal and infant deaths and suggested that such deaths would be effectively reduced if women were offered contraceptives. The research outcomes are also dissimilar to research outcomes by Starbird, Norton, et al (2016) which established that devoting resources in contraceptive programs is crucial to accomplishing the sustainable development goals and that contraceptives are pronounced as a integration of the services, strategies, evidence, attitudes, practices, and products and contraceptives as well offer females, males, couples, and youths the capability to circumvent unintentional pregnancy and select whether and or when to have a baby. The study concluded that contraceptives are a crucial component in determining the performance of Contraceptive related programs hence the need to have all facilities well stocked.

The present investigation outcomes are in convergence with the USAID vision for Health Systems Strengthening 2015-2019 report. The report itemised that accessibility exceeds an amenity and comprise excessive-quality, life expectancy-safeguarding, restriction, improvement, medication, as well as the entire set of amenities associated to care for societies. Therefore, quality has a role of health care and at the community and at health facility engagement. The present research outcomes are also in agreement with the investigation conducted by Skiles et al. (2015) that indicated the importance of putting into account the impact of a reliable supply to contraceptives that a reliable supply to contraceptive method of choice was noted to be a key consideration by women.

4.5.3 Access to Quality Dimension and Performance of Family Planning Program

The investigation findings from the descriptive statistics indicate that the respondents who were seeking contraceptive services tended to be neutral on access to quality of family planning services of the health facilities in Kuresoi Sub-County, Nairobi County. Findings from the content analysis indicated that the entire group of nurse leaders (100%) designated that the birth control amenities were normally given every day during the week days commencing from 9.00 am.and ending at 3.000 pm. It was however observed that on Saturdays and Sundays, and also in the late afternoon the amenities were not being given. Futher, of the nurse leaders interviewed, (90%) specified that the amenities were given without any form of charges, whereas 5% specified that clients were charged a fee of KES 100 per visit for any contraceptive utilized. Other 5% designated the payment was done by women according to the specific birth control method being utilized since various methods had different charges. On the issue of distance covered by women, 90% of nurse leaders questioned specified that women journeyed more than three kilometers (between 3-6 KM) to the heath facility to seek services, 5% specified that women journeyed between 2 and 3 kilometers, whereas 5% designated that women were traveling for at least 7 kilometers. This indicated a moderate to a great extent access to quality family planning services. Findings from the observation chart indicate that all the health facilities combined family planning with other amenities provided in various departments.

The investigation discoveries exhibited an existentence of a fundamental and strong positive connection amid access to quality dimension and performance of family planning program in Kuresoi North Sub-County. The research outcomes further displayed existence of a fundamental positive connection amid access to quality dimension and performance of family planning program in Kuresoi North sub-county. The investigation further displayed that access to quality dimension predicted and labelled to a huge magnitude the performance of family planning. Outcomes from the chi-square test of independence demonstrated that access to quality is connected with performance of family planning programs.

The present investigation outcomes are in junction with a research done by Bhatt and Bathija (2018) from America which denoted that the pathway to improve the health care of all health users and all communities is through provision of well outlined guideline. The present investigation outcomes are consistent with the outcomes from a research done by Daniel and Sulmas (2015) that discovered utilization of innovations in health particularry use of Telemedicine, where the health practictioners apply innovative through utilization of technology to offer outstanding health amenities. The investigation commended on the need of utilizing telemedicine to be able to reach out to more clientles resulting to expanded access for patients. The innovation has proven the ability to help many clientles particullarry those who does not need a physical contact with a clinician or a nurse. The end result work be overall enhancement in health outcomes and suside the all the medical related prices. The investigation opined that utilization of technology can play a major role in reducing many barriers and enhance a great partnership with clients and every one receiving health care amenities. It is also viewed to enhance health ownership by clients and reduction of the prices.

The Universal Health Coverage structure for republics in Africa by Wang, et al, (2018) designated access as a major support strategy in achieving the universal health coverage. This is concurring with the current investigation outcomes. In an attempt to comprehend access perspective of maternal health care, the investigation assessed access as in maternal hospitals in Bangladesh and Uganda and designated that health outcomes are reliant on established arrangements to empower females undergoing health emergencies to get appropriate health facilities for the amenities they reguire.

The community was equally viewd to affect accessibility owed to insights of acceptable danger and of what institutes suitable care.

These present investigation outcomes are also in aggregation with WHO (2018) statement that outlined the standing of unmet birth control requirements midst females aged between 15 to 49 years and numerous others globally with unmet requirement for birth control owed to various rationalisations such as access to amenities of contraceptive. The discoveries also delineated that in Bangladesh and Uganda, women were experiencing high fees and transportation barricades to access to family planning amenities. The two contries were addressing the barriers through use of social networks.

Current investigation outcomes are concurrently the analyses by USAID (2018) through a program entitled Knowledge for Health that hosted a Communal-Grounded Access to Injectable Birth Control Toolkit as a podium for augmenting the capability of organizations in the planning, implementation, monitoring, evaluating developing community-grounded family planning programs as well as a tool for to championing for modifications to national policy and amenity delivery guidelines in family planning to include the community deports and delivery points. The program recognised that the use of community-grounded volunteers similarly as an alternative to trained nurses to provide birth control would reinforce access.

The investigation outcomes designated that an average of 33.8% of women remained non commital on access to quality dimension in the health facilities they were receiving birth control amenities. Which was an indicator that women were not able to access what the method of family planning of their optimal constantly. The outcomes are similar to outcomes from an investigation by Babazadeh, et al, (2018) that health facilities continued to experience stock out of contraceptives especially implants which hinders women from accessing their favoured technique of birth control. Nakuru county need to empower all health facilities with commodities to allow clients to choose from a wide range of commodities.

The study revealed no accessibility of some long-term family planning methods such as implants and dual method of protection. 77% of health facilities were not offering dual method of protection. This revealed a huge gap in the fight against HIV especially mother to child transmission against HIV. The study was in convergent with a study

by Bertrand, et al (2020) that indicated that most countries had not been able to accomplish the method mix. The distribution of all family planning methods within a health setting was missing in many countries. Nakuru county need to support health facilities to offer wide range of birth control.

The investigation revealed that from all the 12 options of family planning available in Kenya government hospitals, the health facility that had the highest number of options provided 10 options while two dispensaries and health centres with the lowest options were offering 4 options. This was in concurrent Hasselback, et al (2017) that providing a wide range of contraceptives can increase application of birth control and bridging the gap of the unmet requirement of family planning amongst females of reproductive age.

The study revealed that only 12 out of 19 health facilities had emergency contraceptive. This meant that females were unable to access emergency contraceptives from some health facilities. On interviewing women whether they could purchase family planning commodities from other sources apart from the health facility only 38.2% felt comfortable to procure contraceptives hence a gap in reaching women on family planning. This was in convergent with an investigation by Hernandez, et al (2018) that indicated that indicated a gap in accessing family planning from other service delivery points such as private chemists, and private health facilities. Women should be able to access family planning when they need. Nakuru county need to enhance accessibility of family planning

The conclusions of the present investigation gave similar report with a Kenya Service Provision evaluation study by the ministry of health Kenya (2017) that outlined that health centres, clinics, and dispensaries required to be renovated to offer appropriate standards. They should also support all basic rudiments of amenities delivery connected to birth control and that in absence of such important tools, it brings a challenges in receiving amenities. The present investigation outcomes are also in agreement with a study by Leisher, et al (2016) on a paper presented in the Bellagio Meeting on element in family planning which designated the requirement to have a checklist on all the requirements in a family planning counselling rooms to safeguard and quantity

excellence and that a checklist would act as a respectable director to all the health care workers to guarantee and uphold excellence.

4.5.4 Quality Counselling Dimension and Performance of Family Planning Program

The research outcomes from the descriptive statistics indicate that the respondents who were seeking contraceptive services remained non commital on quality of counseling of birth control amenities of the health facilities in Kuresoi Sub-County, Nairobi County. Findings from the content analysis indicated that 100% of the health facilities had family planning counseling rooms. 89.5% indicated that the counseling room was adequate, well equipped, spacious well ventilated and could accommodate client and her partner while 10.5% indicated that even though they had a family planning counseling room, it was not adequate for counseling and some procedures. 63.2% of the health facilities indicated that they carried out-group counseling to all women awaiting family planning, followed by demonstration on how each method works and the procedure required. After group counseling, women would then get into the family planning room one by one having chosen the method after counseling and the health worker recaps on that method and issues the same. 36.8% indicated that they carried out individual counseling.

The investigation discoveries demonstrated existence of a fundamental and strong positive connection between quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The research discoveries equally displayed an existence of a fundamental positive connection between quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The research findings in addition showed that quality of counseling dimension predicted and described to a huge magnitude the performance of family planning. Outcomes from the chi-square examination of independence displayed that quality counselling is associated with performance of family planning programs.

The present investigation outcomes are congruent to an investigation by Zapata et al. (2015) on impact of Contraceptive Counselling in Clinical Settings, the study recognized a robust positive association between counselling and uptake of

contraceptives. The study explored the impact on studies carried out on different age groups to include adolescents, and adults and all indicated a positive impact on contraceptive performance.

The research outcomes are parallel to the discoveries of an investigation done by Boulet (2016), which assessed use of peer educators amongst patients with chronic respiratory conditions. The concept was considered to be very successfully but had a challenge of integrating the peer educators with the large medical care team and use of contraceptives amongst young people could borrow the concept to help in clarifying rumours myths and misconceptions.

The study discoveries are equally in tandem with an investigation finding by Puri et al (2020) that indicated that women were ready and eager to learn about family planning during attendance of antenatal clinic but the health care workers did not give them information. Women had not received any information on family planning during ANC attendance and hence were not ready to take up family planning immediately after delivery. This study indicated that women were rated quality of family planning counselling as low. Counselling need to be improved and all women targeted. Nakuru county department of health should support Kuresoi North to enhance counselling.

The present research outcomes are in similar those from a study conducted by Wang et al (2016) that indicated that at times clients are not able to receive quality counselling due to service provider's prejudices. Some of the clients who don't receive quality counselling services especially as a result of provider's prejudices are clients following post abortion care. Counselling of a client following post abortion care requires privacy and the study indicated that 89.5% of health facilities in Kuresoi North had family planning room adequate for couple counselling and some procedures such as insertion of IUCD. The further indicated that some procedures like insertion of IUCD were done in maternity.

The study indicated that only 30% of women indicated that they could advocate the use of family planning services to other women, the type of counselling they received was not adequate to empower them to counsel their peers. This was intadem with a study Sensoy et al (2018), that women need to be given information that is adequate to make decisions. With adequate information, someone can comfortably convey the same to

others. Peer counselling can be effective if women are given adequate and right information.

The study indicated that 63.2% of health care workers were carrying out group counselling to all women awaiting family planning, followed by demonstration on how each method works and the procedure required. After group counselling, women would then get into the family planning room one by one having chosen the method after counselling and the health worker recaps on that method and issues the same. This was in convergent with recommendation from a study by Rajan, et al (2016) that encouraged group counselling of women postnatally to encourage them to utilize birth control techniques.

The investigation outlined that 68% of females were contented with the birth control technique they had received. Provision of family planning need to ensure that clients are satisfied with the commodity and the information. This was in tadem with research recommendations from by Hardee et al (2019), which indicated the need of establishing client's confidentiality. The study recommended that through proper counselling, client is able to take up family planning and have confidence on the selected method of chosen. It is very important for Nakuru County to enhance counselling women for utilization of family planning.

The present investigation outcomes echo the study conducted by Boule et al. (2015), which outlined that empowering patients through health education could result to better health outcomes as demonstrated by a case study it conducted amongst asthmatic patients. It further enumerated that contraceptive programs should embrace the concept of patient education through counselling to enhance their ability make knowledgeable decisions and manage their goals relared to reproductive wellbeing.

The present investigation outcomes are similar to those from an investigation by Shattuck et al. (2016), which focused on implementation of family planning targeting vasectomy uptake among men. The study specified that there was need to have demand creation through social behaviour and communication component to advocate the use male family planning methods especially the permanent method. The study further recommended the use of indicated that there was need to change polices and consider

social culture to address the gender issues. The conclusion of the study was that implementation of family planning program therefore requires all-inclusive to be successful and involve the users in all stages of implementation.

4.5.5 Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

The the research outcomes oulined that there existed a fundamental and strong positive association between each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation further displayed that there existed a fundamental positive relationship between each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. Additionally, the investigation displayed that the elements of combined health quality dimension in unison predicted and designated to a huge magnitude the performance of birth control program.

The present investigation outcomes are in tandem to an investigation done by Ritchie HA. (2017) which revealed that women in unstable countries have challenges such as inability to access health care especially reproductive health. They also face challenges of gender based violence either sexual or physical. The study recommended the need of females to be empowered to make decisions regarding birth control. The study however assessed only the young Muslim women leaving out the others.

The current study is in tandem with an investigation done by Dev, et al. (2019) that indicated the importance of structured counselling to guide health care providers and community health workers to carry out counselling to women of procreative age. Intensive counselling is very important to the service providers to be able to offer quality counselling which can determine uptake of services such as family planning. The study indicated that for uptake of immediate after child birth contraceptive can be influenced by the counselling technique of a health care provider. Family planning after child birth is faced with a lot of stigma and misconceptions which can only be addressed through quality counselling. Family planning after childbirth can help in bridging the gap of the unmet family planning needs among women.

The current studyoutcomes are similar to the findings of Mason, et al (2017) on the need of integrating dual protection in family planning. Family panning play a key role in ensuring prevention of mother to child transmission of HIV especially amongst discordant couples. The study indicated the requirement of having HIV positive clients integrating HIV treatment on their care package. Use of Anti-retro viral drugs needs adherence which is also applicable in use of family planning during breast feeding and hence the need to initiate counselling early. Women who are HIV positive should be prepared to have a child when the viral load is undetectable and when adherence to anti-retro viral drugs is good. This calls for use of family planning during the waiting period. To reduce transmission of HIV among children, family planning need to need embraced and integrated in care.

The study findings echo Mosher et al (2017) that designated that majority of Africa republics were facing challenges of access to proper data concerning health in the over-all populace and also inappropriate usage of messages. The region has been reported to face significant challenges in procurement and distribution of health product. It was observed that some nations had an upsurge of health products which were substandard resulting to bad performance in protecting the countries and administering the rules and regulations. Deprived health excellence access encompasses many elements such as price of care, wastes, and utilization of limited resources. Access to health care should to benefit the requirements of the whole populace. This contains inclusion of the populace living with infirmity since they lack opportunities as outlined an assessment that revealed that females living with any form of disability had lesser chances of receiving FP facilities in comparison to females without infirmities. It is therefore important for programmers in health to consider women living with disabilities.

4.5.6 Client Characteristics and Performance of Family Planning Program

The investigations findings from the descriptive statistics indicate that the respondents who we're seeking contraceptive services were in agreement that their characteristics influenced seeking of family planning services. Findings from the content analysis indicated that 89.5% of the nursing officers interviewed indicated that the community had a positive attitude concerning birth control techniques. Similarly, they designated that the utilization of family planning could be associated with the community and

client perspective of family planning. This tallied with the client's response, which acknowledged a strong positive connection of client characteristics and performance of family planning program in Kuresoi North Sub-County.

The research outcomes exhibited existence of a fundamental and strong positive association between client characteristics and performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation similarly revealed existence of a fundamental positive connection between client characteristics and performance of family planning program in Kuresoi North Sub-County. The investigation in addition outlined that client characteristics predicted and labelled to a huge magnitude the performance of family planning. The outcomes from the chi-square examination of independence presented that client characteristics are is connected with performance of family planning programs.

The present investigation outcomes are in similar to the outcomes from an investigation conducted by Oginni, et al (2015), which found out that client characteristics have been discovered to contribute to uptake and exploitation of birth control. The investigation in addition discovered that substantial factors of un-attained want for contraceptive encompassed of belief, age, matrimonial position, level of education, present employment status, priorities on expenditure from individual incomes and family head gender. In addition, other factors that were shown included; family affluence status, total children in the house (comprising of the unborn children), rural-urban dwelling, home visit by a family planning provider and recent experience with contraceptive messages through mass media.

The present investigation outcomes are in conjuction with the report by General Pharmaceutical Council (2017) in Great Britain that indicated that trust helps to build confidence in client and the level of communal trust in adherence to the instruction from pharmacologists. The report further classified responsiveness as the client ability to take charge of his or her health and be fast in seeking timely health care.

The present investigation outcomes are similar with outcomes from an investigation carried out in Ghana by Apanga & Adams (2015), which showed a positive connotation between the education status of women using contraceptive services and the education

levels as well as marital status with a significance majority of married women not using family planning due to their husbands will.

This presentinvestigation outcomes are similar to investigation outcomes on male involvement by Hardee, et al (2017). The study indicated that family planning program need to have important contemplations concentrating in acquiring education, materials as well as amenities that address the requirements of males comprising of youngsters. This would call for the need to address gender standards, which usually impact on the attitude of male towards the way they treat and address females. Some other factors to consider in addressing gender normal are educating young boys, which can be enhanced through making strategies and procedures with clear steps on expanding male involvement programming. This should include the contraceptive options for men.

The current study findings echo the research findings from an investigation from Cameroon by Ajong et al. (2016), which showed a positive association amongst utilization of contraceptive and an increase in level of education. The present research outcomes are equally similar with yet another study by Obwoya, et al (2018) in Juba, which indicated that optimum acceptance of family planning is influenced by client attitudes and similarity on contraceptive practice.

The present investigation discoveries are in similar with the findings of an investigation carried out in by Kabagenyi, et al (2016) in a study that revealed that some beliefs and cultural practices in Uganda have continued to encourage child birth. Some of these practices includes marrying of many wife's, violence based on sex, the act of replacing the deceased through child birth, dependence on out-dated methods of contraceptives such as herbs, family heredities, among others. The study needed to explore how many women of the 60% not utilizing family planning were utilizing the traditional contraceptives. The statistics would help in programming and addressing cultural practices.

The present research outcomes are parallel to the ones in an investigation done by Jalang'o, et al (2017), which established that family planning uptake was high among post-delivery females, who wanted to purchase family planning commodities at health

care facilities. The study further indicated unattained requirement for family planning amongst females with no intention to have other children.

Outcomes of the present research are in conjuction with an investigation outcomes done in Georgia, Ghana, Honduras, India, Mali, Mexico, Nicaragu, Nepal, Pakistan, and Zimbabwe, on intercessions for refining scaling up of infantile vaccination in poor- and medium-income republics by Oyo-Ita, et al (2016). The study discovered that enhancement of infantile immunization coverage can be governed by the information of the care giver or the mother and community. The study further indicated that client is more powerful than any giving incentives to women to take children for immunization.

The present investigation outcomes are similar with those from an investigation by Olubanke, et al (2016) on young women in the university indicated that at least 95.2% of the students were aware of contraceptives and they had leant about family planning in high school. This indicated the role the education was playing in creating awareness among young people. The study further indicated that university students were sexually active but were not yet ready for a pregnancy. It was also found out that university students were able to get information through friends and through reading literature on family planning. The major sources of information were, social media, networks, TV and publications.

The present investigation outcomes are matching to those from an investigation carried out in London on patients' information, anticipation and involvement of radiated extracorporeal shockwave intervention used as a remedy for cure of their tendinopathies by Leung, et al (2018). The study revealed that patients had the basic information about the procedure they were undertaking but had no prior knowledge on how the intervention works, the undesirable effects as well as self-management related to the procedure. The study outlined that dealing with effects of drugs or any medical procedure carried out to a patient depends on the knowledge the patient has on the same.

The current study is in tandem to the study conducted by Kiselev et al. (2018), which indicated a deficit amongst patients' and health care providers' opinions on patient participation amongst the elderly people and that there exists a requirement for health

care benefactors to comprehend what patients need to Family planning program targets women of reproductive age and men.

The current study is in congruence to a study to explore socio-demographic aspects linked to contraceptive practice amongst females of procreative age who had ever been married in Bangladesh over a period of time (1993–1994 and 2004 -2014) by Haq, et al (2017) which indicated an upward trend. The assessment was carried out who associated marital status with utilization of contraceptive commodities. Further, the study explored the influence of education on utilization of contraceptive commodities which revealed a strong linkage between the two.

The present investigation outcomes are in tandem with an investigation outcome by Hoyt, et al, (2021) that indicated that women are likely to miss their return date appointments as a result of lack of male involvement. Women continue to hide while seeking family planning. Husbands monitor their wife's which becomes very difficult to hid and get to the health facility. Women may successes to get to health facility but if they happen to see a neighbor, they just leave without a service. The study needed to explore on ways way of engaging men.

The present investigation outcomes are congruent to an investigation carried out by Olubanke, et al (2016) on young women in the university, which indicated that at least 95.2% of the students were aware of contraceptives and they had leant about family planning in high school. This indicated the role the education was playing in creating awareness among young people. The study further established that university students were able to get information through friends and through reading literature on family planning and that the major sources of information was, social media, networks, TV and publications.

The outcomes of the present investigations are similar to a United Nation (2017) report that observed that gender discrepancy has been such a challenge in programming envisioned to realize gender impartiality by 2030. It further observed that the strategy endeavors to empower females both young and old to be able to make rational decision especially those involving their health. The report further noted that decisions on reproduction have highly been determined by men but through implementation of 2017

SDGs, women will have more freedom to make choices. Vision 2030 equally endeavors to engage boys and men in the reproduction decisions.

The current study findings are convergent to Bangladesh Demographic and Health Survey (2014), which considered a strategy of expanding accessing to excellence services related to parental, newborn, as well as under five wellbeing informed by the gaps identified by which were mostly age related in accessibility of the targeted health services. The outcomes of the present investigation are in conjuction with those from an investigation on male involvement by Hardee, Galis, & Gay (2017). The study indicated that family planning program need to have important contemplations concentrating in acquiring education, materials as well as amenities that address the requirements of males comprising of youngsters. This would call for the need to address gender standards, which usually impact on the attitude of male towards the way they treat and address females. The study also considered some other factors to consider in addressing gender normal like educating young boys, which can be enhanced through making strategies and procedures with clear steps on expanding male involvement programming and also including the contraceptive options for men.

The current study findings are commensurate with the Kenya Quality Model for Health (2020), which designates that organizations rely on their clienteles and consequently, must; comprehend the present and upcoming requirements, meet client requirements, endeavor to surpass prospects, build up a connection and demonstrate commitment, deliver feedback, monitor and evaluate, and exhibit and communicate client's rights.

4.5.7 Client Characteristics, Combined Healthcare Quality Dimensions and Performance of Family Planning Program

The study findings from the descriptive statistics indicate that the respondents who were seeking contraceptive services in agreement that their family planning programming was performing well. Findings from the content analysis indicated that all the nursing officers interviewed on availability of birth control amenities indicated that the facilities birth control amenities were not being given during the weekends and during weekdays after 5.00 PM., this could hinder a special group of population from accessing family planning especially the youths. A question of integrating family planning with other services was asked. All the staff interviwed, (100%) outlined that they integrated family

planning other services such as outpatient, maternity, HIV comprehensive care centres, postnatal, and during the integrated outreaches.

The investigation outcomes exhibited existence of a fundamental and strong positive association of each of the elements of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The investigation outcome equally showed existence of a fundamental positive association of each of the elements of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation in addition outlined that the elements of combined health quality dimension and client characteristics in harmony predicted and designated to a huge magnitude the performance of family planning.

The current study is congruent to the study carried by Mpunga et al. (2017), the results indicated the need for continued improvement of family planning programs to include all the four health care quality dimensions. Quality should therefore be continuously improved. Improvement of quality is very important since it ensures that control measures are put in place. The study however did not give guidance on measures of quality improvement.

The present investigation findings are in tandem with a study done in Parkistan by Atif, et al (2016) that indicated that use of contraceptives requires a multidisciplinary tactic to attain the purposes and some approaches include the client education, awareness and counseling as well as partner education and counseling.

The present investigation outcomes are divergent to an investigation conducted by Pasha et al. (2015). The study determined that health facilities sponsored by the Government had experienced stock outs causing missed opportunities for clients get family planning contraceptives, especially implants, and IUCDs, to postpartum women. The study also specified that most females after deliver do not have a desire to get pregnant soon, but the health facilities lack facilities to facilitate the initiation of immediate post-delivery contraceptives services. The study indicated that most health centers lacked contraceptive commodities hence there remain a significant unmet

necessity for contraceptives particularly amongst youthful females under the stage of twenty years.

The present investigation outcomes are in convergent with those from an investigation done by Tessema et al. (2016) on issues influencing excellence of health care especially in contraceptive related program in Africa. The study established described that client's views on what quality family planning services are which included many dimensions such as cost, access, ability to get the choice among others.

The present research outcomes are similar to an investigation by Berkowitz (2016) that investigated on the experience of patients and their satisfaction. The study directly or indirectly linked patients experience with their satisfaction. This is grounded on the patient's expectation which client uses to judge quality for example, if a client expects to have arthromeres measurements before being seen by a clinician that becomes the first measure of quality from her or his perspectives.

The current study outcomes are comparable to those of a study done by Bennett, et al (2020) that indicated that in order to accomplish the SDGs, the top leadership in health especial at the policy decision making level should be engaged in a continuous way to ensure that key areas that would result to quality care are improved continuously. Further, the investigation outcomes discovered that numerous establishments were encountering a challenge of lack of a culture of quality delivery and continuous improvement making many organizations to deteriorate in excellence of care particularly in health care. The investigation outcomes further outlined that management had a role of enhancing existence of a workplace with refining extreme excellence, safe and considerate healthcare amenities. The foremost influence of management in any establishment is very fundamental. Management consequently has a staring role in ensuring compliance to the institution standards, approaches and dreams.

The current investigation findings are similar to the findings by the study by McGuire, A. et al. (2019) that had a similarity in the staring role of management in ensuring collaboration through co-financing of health programs, 81 models of co-financing health programs were reviewed in 81 countries. The models were high in the developed

nations at 93% while 6 inventive models had been established in Africa, Asia and South America. These countries included Brazil, Uganda, Mozambique, El Salvador, Kenya and Zambia. The models reviewed that the concept of co-financing was effective in integrating programs and giving better outcome in health indicators. Leadership is therefore key in ensuring integration of services.

The present investigation discoveries are similar to oucomes from an investigation by Alilyyani, et al, (2018) who reviewed the relationship between the patient's outcomes and the nursing leadership. The review checked on the states of psychosocial of care givers and patients, the gratification related to the job, factors related to working environment, as well as healthiness of caregivers and patient outcomes. The investigation discovered a great correlation between the type of leadership and the overall outcomes of patients. There is therefore need to review leadership styles and their impact on health.

The current study is comparable to an investigation done by Riley et al. (2018) that revealed that across all the three countries, both private and public health facilities had experienced stock out for family planning commodities. This indicated that women could not access certain commodities hence not able to receive their method of choice. It is important for the national mechanisms of various countries to ensure that missed chances are reduced. Birth control techniques contribute to a huge magnitude in dropping maternal and children death since women are able to have an opportunity to space their children. Though the study did not explore on how family planning commodity security could be ensured, it provided key information on the contraceptive status in the three countries

The current study discoveries are comparable to the outcomes of an investigation done by William, et al (2016), the findings stipulated that for effective counselling of young people, health care provider perspective is very important since it determines if the young people can take up the services. This study was on customer and service provider perceptions on quality of care. The study further revealed that family planning services both client and benefactor perceptions to be extra effective

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter displays the summary of the investigations outcomes, the deductions given, and commendations on the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program in Kuresoi North of Nakuru County, Kenya. In addition, it outlines the investigation limitations and further investigation suggestions and commendations are also outlined.

5.2 Summary

This investigation aimed at; establishing how management competency quality dimension influence performance of family planning program in Kuresoi North, Nakuru county, examining the magnitude to which contraceptive supply quality dimension influence performance of family planning program in Kuresoi North , Nakuru county, finding out how access to quality dimension influence performance of family planning program in Kuresoi North, Nakuru county, establishing how quality counseling dimension influence performance of family planning program in Kuresoi North Sub County, Nakuru County, examining the extent to which combined healthcare quality dimensions influence performance of family planning program in Nakuru county, ascertaining how client characteristics, influence performance of family planning program in Kuresoi North, Nakuru County, and determining the influence of client characteristics and combined health care quality dimensions on performance of family planning program in Kuresoi North Sub County, Nakuru County. Therefore, the statistics examination, exhibition, understanding, and argument of outcome of the investigation were grounded on the specific objectives. The investigation utilized the usage of descriptive, content, observation, correlation, and regression examination.

5.2.1 Management Competency and Performance of Family Planning Program

The study findings from the descriptive statistics indicate that the respondents remained non commital about the management of the health facility they were receiving birth control amenities from. Findings from the observation chart indicate that a great proportion of the dispensaries and health centers adhered to all the six elements set out

in the accurate documentation of the birth control reports and a great proportion of them attained the two parameters set out to assess ordering of contraceptives. Thus, the findings indicated that there was modest management competence displayed relating to birth control in the dispensaries and health centers located in Kuresoi North Sub-County in Nakuru County.

The investigation outcomes exhibited an existence of a fundamental and strong positive correlation amid management competency and performance of family planning program in Kuresoi North Sub-County. The investigation discoveries equally displayed existentence of a fundamental positive relationship between management competency and performance of family planning program in Kuresoi North Sub-County. The investigation in addition outlined that management competency predicted and labelled to a huge magnitude the performance of family planning. Outcomes from the chi-square examination of independence displayed that management competency is associated with performance of family planning programs.

5.2.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program

The outcomes of the current investigation from the descriptive statistics designated that the remained non commital about the contraceptives supply quality dimensions of the health facility they were receiving birth control amenities in. Findings from the content analysis indicated that 60% of the dispensaries and health centers in Kuresoi North Sub-County, Nakuru County had a stock out of implants specifically the one rod implants (NXT), 50% had a stock out of progesterone only pills and emergency contraceptives, 30% had a stock out of male and female condoms, 10% had experienced a stock out of combined oral contraceptives, and only 5% had not experience any stock out for the past six months at the time of the interview. Findings from the observation chart indicated that the dispensary or health centers offer numerous options of contraceptives while all the dispensaries and health centers offered the dual method of family planning.

Theoutcomes of the investigations showed an existence of a fundamental and strong positive association amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North subcounty. The investigation outcomes equally outlined an existence of a fundamental positive association amid contraceptive

supply quality dimension and performance of family planning program in Kuresoi North Sub-County. The outcomes of the present investigation in addition showed that contraceptive supply quality dimension predicted and labelled to a great magnitude the performance of family planning. Outcomes from the chi-square examination of independence demonstrated that contraceptive supply is connected with performance of family planning programs.

5.2.3 Access to Quality Dimension and Performance of Family Planning Program

The investigation findings from the descriptive statistics indicate that the respondents who were seeking contraceptive services tended to be neutral on access to quality of family planning services of the health facilities in Kuresoi North Sub-County, Nairobi County. Findings from the content analysis designated that the entire group of nurses interviewed (100%) designated that the birth control amenities were normally given every day during the weekdays commencing from 9.00 am to 3.00 pm. Further, it was recognized that birth control amenities were not being given on Saturdays, Sundays, during, public holidays and in the evening. Additionally, from the nurses interviwed, majority (90%) designated that birth control aamenities were offered withiout any charges whereas 5% specified that clienteles were being charge one hundred shillings for any contraceptive used whereas 5% designated the clienteles were charged according to the birth control technique. Lastly, majority of nurses interviwed (90%) designated that clienteles journeyed more than three kilometers (between 3-6 kilometers) to the heath facility to receive contraceptive amenities, 5% specified that women journeyed between 2 and 3 kilometers, whereas 5% specified that women were traveling for at least 7 kilometers. This designated that there could be a geographical barrier to access quality family planning services. Findings from the observation chart indicated that all the health facilities combined birth control in their various provision points.

The outcomes of the investigation demonstrated existence of a fundamental and strong positive association amid access to quality dimension and performance of family planning program in Kuresoi North Sub-County. The discoveries of the investigation equally unveiled existence of a fundamental positive association amid access to quality dimension and performance of family planning program in Kuresoi North subcounty. The investigation in addition outlined that access to quality dimension predicted and

labelled to a great magnitude the performance of family planning. Outcomes from the chi-square examination of independence presented that access to quality is connected with performance of family planning programs.

5.2.4 Quality Counselling Dimension and Performance of Family Planning Program

The investigations findings from the descriptive statistics indicated that the respondents seeking contraceptive services remained non commital on quality of counseling of birth control services of the health facilities in Kuresoi Sub-County, Nairobi County. Findings from the content analysis indicated that 100% of the health facilities had family planning counseling rooms. 89.5% indicated that the counseling room was adequate, well equipped, spacious well ventilated and could accommodate client and her partner while 10.5% indicated that even though they had a family planning counseling room, it was not adequate for counseling and some procedures. 63.2% of the health facilities indicated that they carried out-group counseling to all women awaiting family planning, followed by demonstration on how each method works and the procedure required. After group counseling, women would then get into the family planning room one by one having chosen the method after counseling and the health worker recaps on that method and issues the same. 36.8% indicated that they carried out individual counseling.

The investigation outcomes demonstrated an existence of a fundamental and strong positive association amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The investigations outcomes equally outlined existence of a fundamental positive connection amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The investigation in addition displayed that quality of counseling dimension predicted and described to a large extent the performance of family planning. Outcomes from the chi-square examination of independence demonstrated that quality counselling is connected with performance of family planning programs.

5.2.5 Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

The investigation outcomes demonstrated presence of a fundamental and strong positive association amid each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation outcomes equally demonstrated existence of a fundamental positive correlation amid each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation in addition presented that the elements of combined health quality dimension in unison predicted and designated to a huge magnitude the performance of family planning.

5.2.6 Client Characteristics and Performance of Family Planning Program

The study findings from the descriptive statistics indicated that the respondents seeking contraceptive services were in agreement that their characteristics influenced seeking of family planning services. Findings from the content analysis indicated that 89.5% of the nursing officers interviewed indicated that the community had a positive attitude towards family planning. They also indicated that the utilization of family planning could be associated with the community and client perspective of family planning. This tallied with the client's response, which identified a strong positive correlation of client characteristics and performance of family planning program in Kuresoi North Sub-County.

The outcomes of the investigations outlined existence of a fundamental and strong positive connection amid client characteristics and performance of family planning program in Kuresoi North Sub-County. The outcomes of the research displayed presence of a fundamental positive connection amid client characteristics and performance of family planning program in Kuresoi North Sub-County. The outcome of the investigation in addition demonstrated that client characteristics predicted and labelled to a huge magnitude the performance of family planning. The discoveries from the chi-square examination of independence demonstrated that client characteristics are connected with performance of family planning programs.

5.2.7 Client Characteristics, Combined Healthcare Quality Dimensions and Performance of Family Planning Program

The study findings from the descriptive statistics indicated that the respondents seeking contraceptive services agreed that family planning programming was performing well. Findings from the content analysis indicated that the nursing officers interviewed on availability of family planning services indicated that the facilities did not offer family planning services over the weekend, during public holidays and during weekdays after 5.00 P.M, which could hinder a special group of population from accessing family planning especially the youths. A question of integrating family planning with other services was asked. All the nurses interviewed (100%) specified presence of integration of contraceptives with other amenities such as outpatient, maternity, HIV comprehensive care centres, postnatal, and during the integrated outreaches.

The investigations outcomes demonstrated existence of a fundamental and strong positive association of each of the fundamentals of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The investigation outcomes equally presented existence of a fundamental positive relationship of each of the fundamentals of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The outcme of the study in addition presented that the fundamentals of combined health quality dimension and client characteristics in harmony predicted and labelled to a great magnitude the performance of family planning.

5.3 Conclusion

This chapter presents the conclusions from the investigations; the conclusions were aligned to the investigation objectives. The broad study objective was to explore the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program in Nakuru County, Kenya.

The specific objectives of the study were; to establish how management competency quality dimension influence performance of family planning program in Kuresoi North Sub County, Nakuru County, to examine the magnitude to which contraceptive supply quality dimension influence performance of family planning program in Kuresoi North

Sub County, Nakuru county, to find out how access to quality dimension influence performance of family planning program in Nakuru County, to establish how quality counseling dimension influence performance of family planning program in Kuresoi North Sub County, Nakuru County, to examine the extent to which combined healthcare quality dimensions influence performance of family planning program in Kuresoi North Sub County, Nakuru County, to ascertain how client characteristics, influence performance of family planning program in Nakuru county, and to determine the influence of client characteristics and combined health care quality dimensions on performance of family planning program in Kuresoi North, Nakuru county. Therefore, the data examination, exhibition, explanation, and argument of outcomes of the investigations were grounded on the above-mentioned specific objectives.

5.3.1 Management Competency and Performance of Family Planning Program

The investigation outcome resolved that there existed a fundamental and strong positive association amid management competency and performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation equally determined existence of a fundamental positive connection amid management competency and performance of family planning program in Kuresoi North Sub-County. The investigation outcomes further established that management competency predicted and labelled to a great magnitude the performance of family planning. Lastly, the investigation determined that management competency is linked with performance of family planning programs.

The investigation deductions are concurrently with the deductions of the KQMH (2020) description that management is of supreme significance in accomplishing total quality of care. The description specified that management is a procedure which delivers leadership and inspiration to increase excellence care henceforth the starring role of management is important in realizing the total excellence of care. The model established in the report further described the main objective of leadership in total excellence management as that of upholding a favorable environment that empowers staff to be part of the procedure towards realizing the establishment's purposes or goals. Leadership also plays a starring role in validating the mandate of the organization group or organization and support to overcome employee's normal conflicts to changes as well as to encourage workers on the importance of pursuing excellence. Management

staring role ought to be well spelt out, detailed and properly distinct on by what means the objectives of the company are meet the verge of supervisory the total quality management.

The outcomes of the investigation deductions are equally corresponding to outcomes of an investigation done by West, et al. (2015) that recognized that a respectable performing organization generally has a way of life that supports the employees to sustain policies throught, organization way of doing things, and in well-being care, Organization culture requires to be cultivated, and health care benefactors trained on by the organization management. The investigation pronounced that this would safeguard excellence improvement, harmless and empathy health care that has continued to pose a major barrier in health sector.

5.3.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program

The investigation outcomes determined existence of a fundamental and strong positive association amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North Sub County, Nakuru County. The outcomes of the investigations equally concluded the existence of a fundamental positive association amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation outcomes in addition determined that contraceptive supply quality dimension predicted and labelled to a huge magnitude the performance of family planning. Lastly, the investigation determined that contraceptive supply is associated with performance of family planning programs.

The investigation deductions are concurrently with the findings of the study carried out by Kwete et al. (2018), that established that family Planning Program are required to make certain quality amenities are offered in all health care facilities, security of contraceptives or supply of contraceptive need to be assured and in any health program, commodity security is of paramount importance. The study was on contraceptive security and stipulated that contraceptive commodity security can be defined as the ability of any facilities offering contraceptive services to stock the appropriate family

planning commodities within appropriate place, in the appropriate time and in the appropriate cost. The study further described that family planning commodity security is said to occur only when each individual is able to select, find, and use high-quality Family planning including utilization of condoms used for child spacing as well as to inhibit HIV/AIDS and further sexually conveyed diseases.

The present investigation conclusions are concurring to those of a report by WHO (2018) that stipulated that to enhance effectiveness there has been proposition of integrating numerous disease-targeted supply chains, such as vaccines, mother and baby health supplies including medicines, and contraceptive products, into one combined supply chain. The current study findings are also in convergence with an assessement done by Hare et al. (2004) that recognized that information is needed on feasibility of integrating supply chain of vaccines and family planning commodities since vaccines are transported through cold chain equipment. The study further established that commodity security of reproductive health is essential in reducing unattained family planning requirements amongst females.

5.3.3 Access to Quality Dimension and Performance of Family Planning Program

The investigation outcomes determined an existence of a fundamental and strong positive association amid access to quality dimension and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation outcomes equally determined existence of a fundamental positive association amid access to quality dimension and performance of family planning program in Kuresoi North subcounty, Nakuru County. The outcomes of the current investigation further resolved that access to quality dimension predicted and labelled to a huge magnitude the performance of family planning. The investigation outcomes lastly determined that access to excellence is associated with performance of family planning programs.

The present investigation outcomes deductions are in conjunction with those from an investigation done by Bhatt and Bathija, (2018) in America which designated that the trend to progress in the health care of all clienteles and all humanities is the ability to put in place the right polices and guideline. The outcomes of the present investigation are corresponding to the outcomes of an investigation done by Daniel and Sulmas (2015). The investigation recognised that revolutionise methods such as application of

Telemedicine, through which use of innovative technology is utilised in providion of prompt excellent health amenities. The investigation advocated on the usage of telemedicine which could play a major role in expanding access for patients. This would support many clienteles that don't require a physical contact with a clinician or nurse and would also expand health outcomes while reducing medical costs. The investigation pronounced that usage of technology could decrease numerous barricades and facilitate a good partnership with clienteles resulting to clienteles holding and prioritizing their own health.

In the Universal Health Coverage structure for Africa by Wang, et al (2018) designated access as a key support structure in the universal health coverage. This is concurring with the preset investigation assumptions. The present investigation deductions are parallel to the investigation outcomes by Parkhurst, et al (2006) that recognized that access to health care services may have dissimilar situation and encounters. In an effort to comprehend access context in providing maternal health care, the investigation assessed access as in maternal facilities in Bangladesh and Uganda and specified that health outcomes are reliant on on having arrangements to empower women experiencing health emergencies to reach appropriate health facilities for the amenities they require. The community was also designated to influence accessibility due to perceptions of acceptable risk and of what institutes suitable care.

5.3.4 Quality Counselling Dimension and Performance of Family Planning Program

The investigation determines existence of a fundamental and strong positive association amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation outcomes also determine existence of a positive association amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation equally determined that quality of counseling dimension predicted and labelled to a great magnitude the performance of family planning. The investigation lastly established that quality counselling is connected with performance of family planning programs.

The present investigation conclusions are congruent to an investigation by Zapata et al. (2015) on impact of Contraceptive Counselling in Clinical Settings, the study recognised a robust positive relationship amid counselling and uptake of contraceptives. The study explored the impact on studies carried out on different age groups to include adolescents, and adults and all indicated a positive impact on contraceptive performance.

The investigation deductions are parallel to the discoveries of an investigation done by Boulet (2016), which assessed use of peer educators amongst patients with chronic respiratory conditions. The concept was considered to be very successfully but had a challenge of integrating the peer educators with the large medical care team and use of contraceptives amongst young people could borrow the concept to help in clarifying rumours myths and misconceptions.

The study conclusions are also in tandem with Lawn and School's (2010) study, which discovered that different cases require targeted counselling process. The study enumerated that a combination of strategies could be employed for instance, use of a counsellor, and use of a peer counsellor and the most important outcome of counselling should be the ability of a client to manage the condition. Thus, this could be utilized in family planning where different strategies of counselling can be employed with an optimal goal of client ability to make long-term decisions appertaining recreation with an informed consent and ability to adhere to these decisions.

5.3.5 Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

The investigation established existence of a fundamental and strong positive correlation amid each of the fundamentals of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation equally determined existence of a fundamental positive relationship amid each of the elements of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The research outcome lastly determined that the fundamentals of combined health quality dimension in harmony predicted and labelled to a huge magnitude the performance of family planning.

The present investigation conclusion is in tandem with an investigation done in Ghana and Zambia by USAID (2013). The study endorsed health providers' motivation in giving the integrated service since it saves time and resources and health care workers need to be encouraged to integrate family planning with immunization since it makes work easy, and safes time. The study further established that giving contraceptives amenities to post-delivery females during child vaccination interactions is a unique strategy among the numerous strategies that are assumed to bring extreme-influence on performance of contraceptives amenities as recognized by a team of technical advice-giving global specialists.

The current study conclusions are parallel to the findings of an investigation done by Målqvist et al. (2010), that established that a pregnant woman should stay near a well equipped health facility that can provide delivery amenities and to be reviewed when she develops any emergency condition. There is a requirement from the county and sub-county department of health to advocate for utilization of birth control amenities such that women only conceive when they are ready. The investigation established the starring role of contraceptive in reduction of infant death. In additional, the investigation restated the need for females to be organized psychologically by means of counseling and physically by means of proper nutrition interventions in order to carry a healthy pregnancy to term and deliver a healthy baby.

5.3.6 Client Characteristics and Performance of Family Planning Program

The investigation established existence of a fundamental and strong positive association amid client characteristics and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation outcomes equally established existence of a fundamental positive association amid client characteristics and performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigation similarly determined that client characteristics predicted and labelled to a great magnitude the performance of family planning. The investigation lastly determined that client characteristics is associated with performance of family planning programs.

The present investigation deductions are in conjunction with an investigation conducted by Oginni, et al (2015), which found out that client characteristics have been discovered

to contribute to uptake and exploitation of birth control. The investigation also discovered that substantial factors of un-attained want for contraceptive encompassed of belief, age, matrimonial position, level of education, present employment status, priorities on expenditure from individual incomes and family head gender. In addition, other factors that were shown included; family affluence status, total children in the house (comprising of the unborn children), rural-urban dwelling, home visit by a family planning provider and recent experience with contraceptive messages through mass media.

The present investigation deductions are concurrently with the report by General Pharmaceutical Council (2017) in Great Britain that indicated that trust helps to build confidence in client and the level of communal trust in adherence to the instruction from pharmacologists. The report further classified responsiveness as the client ability to take charge of his or her health and be fast in seeking timely health care.

5.3.7 Client Characteristics, Combined Healthcare Quality Dimensions and Performance of Family Planning Program

The investigation outcomes determined existence of a fundamental and strong positive association of each of the elements of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County, Nakuru County. The investigations discoveries equally determined existence of a fundamental positive connection of each of the fundamentals of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The investigation lastly, resolved that the elements of combined health quality dimension and client characteristics in harmony predicted and labelled to a great magnitude the performance of family planning.

The present investigation conclusions is congruent to the study carried out in East Africa counties and Ghana by Hutchinson et al. (2011) on both private and government health facilities which revealed that private health facilities seemed to be advanced in the way they handled interpersonal relationships with clients as well as in the procedures in the aspects of quality and implementation of health program than public facilities.

The present investigation assumptions are in tandem with an investigation done in Parkistan by Atif, et al (2016) that indicated that use of contraceptives requires a multidisciplinary tactic to attain the purposes and some approaches include the client education, awareness and counseling as well as partner education and counseling. The study however failed to highlight other issues affecting men like culture.

The current study conclusions are divergent to a research conducted by Pasha et al. (2015). The study determined that health facilities sponsored by the Government had experienced stock outs causing missed opportunities for clients get family planning contraceptives, especially implants, and IUCDs, to postpartum women. The study also specified that most females after deliver do not have a desire to get pregnant soon, but the health facilities lack facilities to facilitate the initiation of immediate post-delivery contraceptives services. The study indicated that most health centers lacked contraceptive commodities hence there remain a significant unmet necessity for contraceptives particularly amongst youthful females under the stage of twenty years.

5.4 Recommendations

The commendations of the investigation were conducted in accordance with the study objectives, the recommendations are enumerated in this section.

5.4.1 Management Competency and Performance of Family Planning Program

The outcomes of the present investigation from the descriptive statistics indicate that the respondents remained non commital about the management of the health facility they were receiving birth control amenities in. Findings from the observation chart indicate that a great proportion of the dispensaries and health centers complied to all the six considerations set out in the accurate documentation of the family planning reports and a great proportion of them attained the two parameters set out to assess ordering of contraceptives. Consequently, the discoveries designate existence of a modest management competence demonstrated concerning to family planning in the dispensaries and health centers situated in Kuresoi Sub-County in Nakuru County. Commendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to enhance accurate documentstion of family planning reports. Commendations are made to the health facilities in Kuresoi Sub-County Nakuru County to increase their management competencies.

The outcomes of the investigation demonstratedexistence of a fundamental and strong positive association amid management competency and performance of family planning program in Kuresoi North Sub-County. Theoutcomes of the investigation equally presented existence of a fundamental positive association amid management competency and performance of family planning program in Kuresoi North Sub-County. The investigation equally demonstrated that management competency predicted and labelled to a great magnitude the performance of family planning. The investigation equally recognized that management competency is related to performance of family planning programs.

Consequently, commendations are done targeting the governing establishments and health facilities to upsurge their management proficiencies so as to intensify the performance of family planning programs. For one to upsurge management competency, the players in health need to; give excellence health care, advance management of the health facility, file all client's findings and appropriately store all records, provide amenities within the designated timelines ion the service charter, ensure every health facility has a well labelled charter outlining all the amenities available and the charges, compliance with the time designated for the amenity, ability to get feedback from clients and the ability to resolve issues raised by clients through a feedback mechanism.

5.4.2 Contraceptive Supply Quality Dimension and Performance of Family Planning Program

The outcomes of the investigation from the descriptive statistics indicate that the respondents tended to be neutral about the contraceptives supply quality dimensions of the health facility they were receiving birth control amenities from. Findings from the content analysis indicated that 60% of the dispensaries and health centers in Kuresoi Sub-County, Nakuru County had a stockout of implants specifically the one rod implants (NXT), 50% had a stock out of progesterone only pills and emergency contraceptives, 30% had a stock out of male and female condoms, 10% had experienced a stock out of combined oral contraceptives, and only 5% had not experience any stock out for the past six months at the time of the interview. Findings from the observation chart indicate that the dispensary or health centers offer numerous options of

contraceptives while all the dispensaries and health centers offered the dual method of family planning. Recommendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to increase their contraceptive supply quality dimensions.

The outcomes of the investigation showed existence of a fundamental and strong positive association amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North Sub County. The investigation discoveries equally presented existence of a fundamental positive association amid contraceptive supply quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation outcome in addition demonstrated that contraceptive supply quality dimension predicted and labelled to a big magnitude the performance of family planning. The research outcome also recognized that contraceptive supply is linked with performance of family planning programs.

Therefore, references are done to the governing and supervisory establishments and health facilities to intensify contraceptive supply quality dimensions which would result to upsurge the performance of family planning programs. For someone to upsurge contraceptive supply, the health care workforce need to; give women with their family planning method of choice, offer other related services like assessment of blood pressure before contraceptive is issued, have all the apparatus's needed to provide birth control amenities, purchase all the contraceptives needed, and keep record of the method and services clients are currently using.

5.4.3 Access to Quality Dimension and Performance of Family Planning Program

The investigation outcomes from the descriptive statistics indicate that the respondents seeking contraceptive services tended to be neutral on access to quality of family planning services of the health facilities in Kuresoi Sub-County, Nakuru County. Findings from the content analysis indicated that all the nurses interviwed (100%) designated that the birth control amenities were normally given every day during the weekdays commencing from 9.00 am to 3.00 pm. Further, it was recognized that birth control amenities were not being given on Saturdays, Sundays, during, public holidays and in the evening. Additionally, from the nurses interviwed, majority (90%) designated that birth control aamenities were offered withiout any charges whereas 5% specified that clienteles were being charge one hundred shillings for any contraceptive

used whereas 5% designated the clienteles were charged according to the birth control technique. Lastly, majority of nurses interviwed (90%) designated that clienteles journeyed more than three kilometers (between 3-6 kilometers) to the heath facility to receive contraceptive amenities, 5% specified that women journeyed between 2 and 3 kilometers, whereas 5% specified that women were traveling for at least 7 kilometers. This designated that there could be a geographical barrier to access quality family planning services. Findings from the observation chart indicated that all the health facilities combined birth control in their various provision points. Findings from the observation chart indicate that all the health facilities integrated family planning in their various departments. Recommendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to increase access to quality dimensions.

The investigation outcomes demonstrated a fundamental and strong positive association amid access to quality dimension and performance of family planning program in Kuresoi North Sub-County. The outcomes of the present investigation equally presented existence of a fundamental positive association amid access to quality dimension and performance of family planning program in Kuresoi North subcounty. The outcomes of the present investigation in addition demonstrated that access to quality dimension predicted and described to a large extent the performance of family planning. The investigation also recognized that access to quality is connected with performance of family planning programs.

Therefore, commendations are done to the governing and guiding establishments and health facilities to upsurge access to quality dimensions so as to upsurge the performance of family planning programs. For someone to advance access to quality services, regulatory authorities ought to establish health facilities in close vicinity to the general population so as to reduce the cost of accessing amenities and reduce the time taken to access the amenities. The governing authorities also reduce the cost of birth control commodities and if possible give it without charges. Reduction in cost would help in enhancing access to excellence amenities, the health facilities ought to; provide adequate information on the birth control and ensure that the information is accessible and easy to comprehend, safeguard suitable supply of birth control commodities and other family planning medication, give gender sensitive information about family

planning, and give family planning amenities regularly preferably every day from Monday to Friday.

5.4.4 Quality Counselling Dimension and Performance of Family Planning Program

The outcomes of the investigation from the descriptive statistics indicate that the respondents seeking contraceptive services remained non commital on quality of counseling of family planning services of the health facilities in Kuresoi Sub-County, Nakuru County. Findings from the content analysis indicated that 100% of the health facilities had family planning counseling rooms. 89.5% indicated that the counseling room was adequate, well equipped, spacious well ventilated and could accommodate client and her partner while 10.5% indicated that even though they had a family planning counseling room, it was not adequate for counseling and some procedures. 63.2% of the health facilities indicated that they carried out-group counseling to all women awaiting family planning, followed by demonstration on how each method works and the procedure required. After group counseling, women would then get into the family planning room one by one having chosen the method after counseling and the health worker recaps on that method and issues the same. 36.8% indicated that they carried out individual counseling. Recommendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to increase quality counseling dimensions.

The outcomes of the investigation demonstrated existence of a fundamental and strong positive association amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation also presented an existence of a fundamental positive correlation amid quality of counseling dimension and performance of family planning program in Kuresoi North Sub-County. The investigation outcome in addition demonstrated that quality of counseling dimension predicted and labelled to a great magnitude the performance of family planning. The investigation equally recognized that quality counselling is connected with performance of family planning programs.

Therefore, references are done to the governing and supervisory establishments and health facilities to upsurge quality-counseling dimensions so as to upsurge the performance of family planning programs. For someone to upsurge quality counseling,

the health care providers ought to; have cordial relationships with their clients, enquire about clients medical history, ask clients about their contraceptive goals, advise clients about the contraceptive methods available and discuss reasons that some methods may not be appropriate to them, demonstrate how to use the methods and explain how to deal with possible problems related to its use, use any visual aid to help explain the method, and enquire about partner's attitude towards use of family planning

5.4.5 Combined Healthcare Quality Dimensions and Performance of Family Planning Program in Nakuru County

The outcomes of the investigation demonstrated existence of a fundamental and strong positive connection amid each of the fundamentals of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation outcomes also presented existence of a fundamental positive connection amid each of the fundamentals of combined health quality dimension and performance of family planning program in Kuresoi North Sub-County. The investigation in addition outlined that the fundamentals of combined health quality dimension in unison predicted and labelled to a big magnitude the performance of family planning. Consequently, references are done to the governing and supervisory establishments and health facilities to upsurge the combined healthcare quality dimensions so as to upsurge the performance of family planning programs.

5.4.6 Client Characteristics and Performance of Family Planning Program

The outcomes of the present investigation from the descriptive statistics indicate that the respondents seeking contraceptive services were in agreement that their characteristics influenced seeking of family planning services. Findings from the content analysis indicated that 89.5% of the nursing officers interviewed indicated that the community had a positive attitude concerning birth control. Equally, they specified that the utilization of birth control techniques could be associated with the community and client perspective of family planning. This tallied with the client's response, which recognized a strong positive association of client characteristics and performance of family planning program in Kuresoi North Sub-County. Recommendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to consider their client characteristics and try to tailor make their services to suit their clients.

The outcoes of the investigation demonstrated existence of a fundamental and strong positive association amid client characteristics and performance of family planning program in Kuresoi North Sub-County. Equally the outcome of the investigation presented a fundamental positive connection between client characteristics and performance of family planning program in Kuresoi North Sub-County. The research in addition discovered that client characteristics predicted and labelled to a big range the performance of family planning. The outcomes of the investion further determined that client characteristics is associated with performance of family planning programs. Therefore, references are made to the the governing and supervisory establishments and health facilities to try to tailor make their family planning services to suit their clients so as to escalate the performance of family planning programs.

5.4.7 Client Characteristics, Combined Healthcare Quality Dimensions and Performance of Family Planning Program

The study findings from the descriptive statistics indicate that the respondents seeking contraceptive services in agreement that their family planning programming was performing well. Findings from the content analysis indicated that all the nursing officers interviewed on availability of birth control amenities indicated that the facilities were not giving contraceptives amenities over the weekend and during weekdays after 5.00 P.M, this could hinder a special group of population from accessing family planning especially the youths. A question of integrating family planning with other services was asked. All the nurse leaders interviewed (100%) specified that they combined birth control amenities with other amenities such as outpatient, maternity, HIV comprehensive care centres, postnatal, and during the integrated outreaches. Recommendations are made to the health facilities in Kuresoi Sub-County in Nakuru County to increase their performance of health family planning services by extending their service time.

The outcomes of the investigations demonstrated exisitence of and strong positive connection of each of the fundamentals of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North Sub-County. The outcomes of the investigation further displayed existence of a fundamental positive association of each of the fundamentals of combined health quality dimension and client characteristics to performance of family planning program in Kuresoi North

Sub-County. The outcomes of the study further presented that the elements of combined health quality dimension and client characteristics in unison predicted and labelled to a big level the performance of family planning. Consequently, references are made to the governing and supervisory establishments and health facilities to intensify the combined healthcare quality dimensions and tailor make their family planning services to suit their clients so as to upsurge the performance of family planning programs.

5.5 Recommendations for Further Study

Discovering the effect of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning program is very fundamemental to strategy developers in health and bith county and country health stakeholders. Despite the fact that the present investigation was only done in Kuresoi Sub-County, Nakuru County, it could be extended to other subcounties in Nakuru County as well as other counties in Kenya in order to enhance family planning in Kenya. The investigation only done in Kenya, additional investigations ought to be done outside Kenyan context such as in the East African, African, or global authorities to determine if the investigation discoveries would hold.

The investigation only measured the management competency, contraceptives supply, access to quality dimensions, and quality counselling dimensions as the only health quality dimensions, an investigation ought to be carried out to establish if there are other health quality dimensions. The investigation explored the influence of healthcare quality dimensions and the moderating role of client characteristics on the performance of family planning programs. Additional investigations should be done discover presence of other contributors fmoderating role of client characteristics on the performance of family planning programs. Numerous features were determined in the investigation as establishing the healthcare quality dimensions, client characteristics, and the performance of family planning programs. Additional investigations require o be done to determine if other features can characterize them.

Primary data was exclusively exploited in the investigation; alternative study method can be utilized through use of secondary sources of data for the numerous health facilities. These can then approve or disapprove the present outcomes of the investigation. Multiple linear regression and correlation analysis were used in this

research; further research can incorporate other analysis methods like factor analysis, cluster analysis, granger causality, and discriminant analysis.

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APPENDICES

Appendix I: Introduction Letter

Jenifer Wambugu,
P.O BOX 591
Othaya

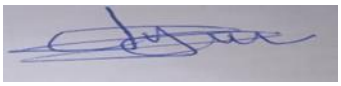
TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST FOR PARTICIPATION IN A RESEARCH STUDY

I am a student currently pursuing a PHD degree in Project Planning and Management with speciality in project planning, design and implementation at the School of Open and Distance Learning of the University of Nairobi. I am currently undertaking a research on healthcare quality dimensions, client characteristics, and performance of family planning program in Nakuru county, Kenya. This is part of the requirements for the fulfilment of the course. The findings of this study will be useful in helping to design messages on family planning projects.

The attached questionnaire is therefore intended to seek your views on the various aspects of Family planning among women of reproductive age. Please fill it with all sincerity and honesty. The information you provide will be utilized purely for academic purposes and will be treated with utmost confidentiality.



Jenifer Wambugu,
Student (PHD) – L83/51586/2017
University of Nairobi
Nairobi.

Appendix II: Research Licence

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 403501

Date of Issue: 09/September/2019

RESEARCH LICENSE

This is to Certify that Miss.. JENIFER WAMBUGU of University of Nairobi, has been licensed to conduct research in Nakuru on the topic: HEALTH CARE QUALITY DIMENSIONS, CLIENT CHARACTERISTICS, AND PERFORMANCE OF FAMILY PLANNING PROGRAM IN NAKURU COUNTY, KENYA for the period ending : 09/September/2020.

License No: NACOSTI/P/19/1271

403501

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

Appendix III: Letter of Admission to Post Graduate Studies

UNIVERSITY OF NAIROBI
GRADUATE SCHOOL

Ref: UoN/GS/MBA/2017

1st August, 2019

Ms. Jennifer Wekesa Wanjiagu
P.O. Box 001 -00100
OTHAYA

Dear Ms. Wanjiagu,

FULL ADMISSION TO POSTGRADUATE STUDIES (DOCTORATE)

Following your application for a higher degree at this University, I am pleased to inform you that the Director, Graduate School has approved your application for full registration for the degree of Doctor of Philosophy in **Project Planning and Management** in the School of Open and Distance Learning. He has also approved **Prof. Dorothy Ndunge Kyalo, Dr. John Mbugua** and **Dr. Regina Mutave** as the supervisors of your thesis entitled **"Health Care Quality Dimensions, Client Characteristics and Performance of Family Planning Program in Sahara County, Kenya"**. The Guidelines on Postgraduate Supervision can be accessed on our website (gs.uonbi.ac.ke) while the Research Notebook is available at the University Bookstore.

Your registration is governed by the common regulations for the degree of Doctor of Philosophy in all Faculties and the School of Open and Distance Learning. **You will be expected to carry out supervised thesis research in your chosen area of study for a minimum period of four (4) semesters, with effect from date of this letter, culminating in a doctoral thesis. You shall be required to file quarterly progress reports to Graduate School to confirm the progress in your research work.**

You will also be expected to submit two (2) publications jointly published with all supervisors or acceptance letter of the two (2) publications from a peer reviewed journal from your PhD work during your oral defense.

The fees structure for the degree of Doctor of Philosophy is as indicated below:

	KENYAN STUDENTS (KSHS)	FOREIGN STUDENTS (US$)
Tuition fees	50,000 per sem	1,400
Examination	3,000 per sem	100
Thesis Examination Fees [once]	50,000	900
Fees for subsequent years	153,000 p.a.	4,000

OTHER CHARGES		
Registration	2,000 per sem	60
ID card	1,000 p.a	35
Activity	2,000 p.a	60
Computer facilities	6,000 p.a	160
Medical (Emergency)	5,000 p.a	150
Library	6,000 per sem	160
Caution money [refundable]	5,000 once	130

Page 1 of 2

Additional Charges	
Extension of Registration period	5,000/= per annum
Extension of Correction period	2,000/= per month
Extension of Revision period	2,000/= per month
Extension of supervision	12,000/=
Examination for Revised Thesis/Project Report	15,000/=

NOTE:
1. **All fees due should be paid before registration is effected**
2. **Appropriate Field work fees shall be charged separately**
3. **The above fees are subject to change without any prior notice**
4. **Total number of units required for the programme is 7**
5. **The guidelines for research money are as follows:**

Arts Based /Research **Kshs. 150,000/=**

Book Allowance **Kshs. 40,000/=**

Foreign students from outside the partner states of the Northern Corridor Integration Project (Republics of Burundi, Rwanda, Uganda and South Sudan) to add 25% on all charges

Please note that all fees and other charges due shall be paid by **Direct Cash Deposits, EFT (Swift Code is "BARCKENX") or RTGS** transfer to **9DE CESSP Collection Account No. 2032771202** at Barclays Bank of Kenya, Barclays Plaza, Nairobi, Kenya or at any Barclays Bank Branch countrywide using the Reference Number quoted above. Personal Cheques, Bankers Cheques or Institutional Cheques are **NOT acceptable.** The student account will be updated the next working day and can be accessed through the student online portal (https://sasa.uonbi.ac.ke) available in the University website (www.uonbi.ac.ke). Once you have paid fees, kindly report to the Graduate School with a copy of the fee statement for registration.

You are advised that all fees and other charges may be subject to change without prior notice.

Yours sincerely,

PHILIP M. MUSOLA (MR)
FOR: DIRECTOR, GRADUATE SCHOOL

Copy to: Dean, School of Open and Distance Learning
Prof. Dorothy N. Kyalo, (Supervisor) – School of Open & Distance Learning
Dr. John Mbugua, (Supervisor) – School of Open & Distance Learning
Dr. Regina Mutave, (Supervisor) – Dept. of Psychiatry, Community and Preventive Medicine

PMM/lmg

Page 2 of 2

Appendix IV: Letter to Nakuru County

Jenifer Wothaya Wambugu
wothayaj@yahoo.com/ wothayajen@gmail.com
+254713429066

Director Planning and Administration
Nakuru County Department of Health
P.O Box, 2060,
Nakuru

Dear Sir,

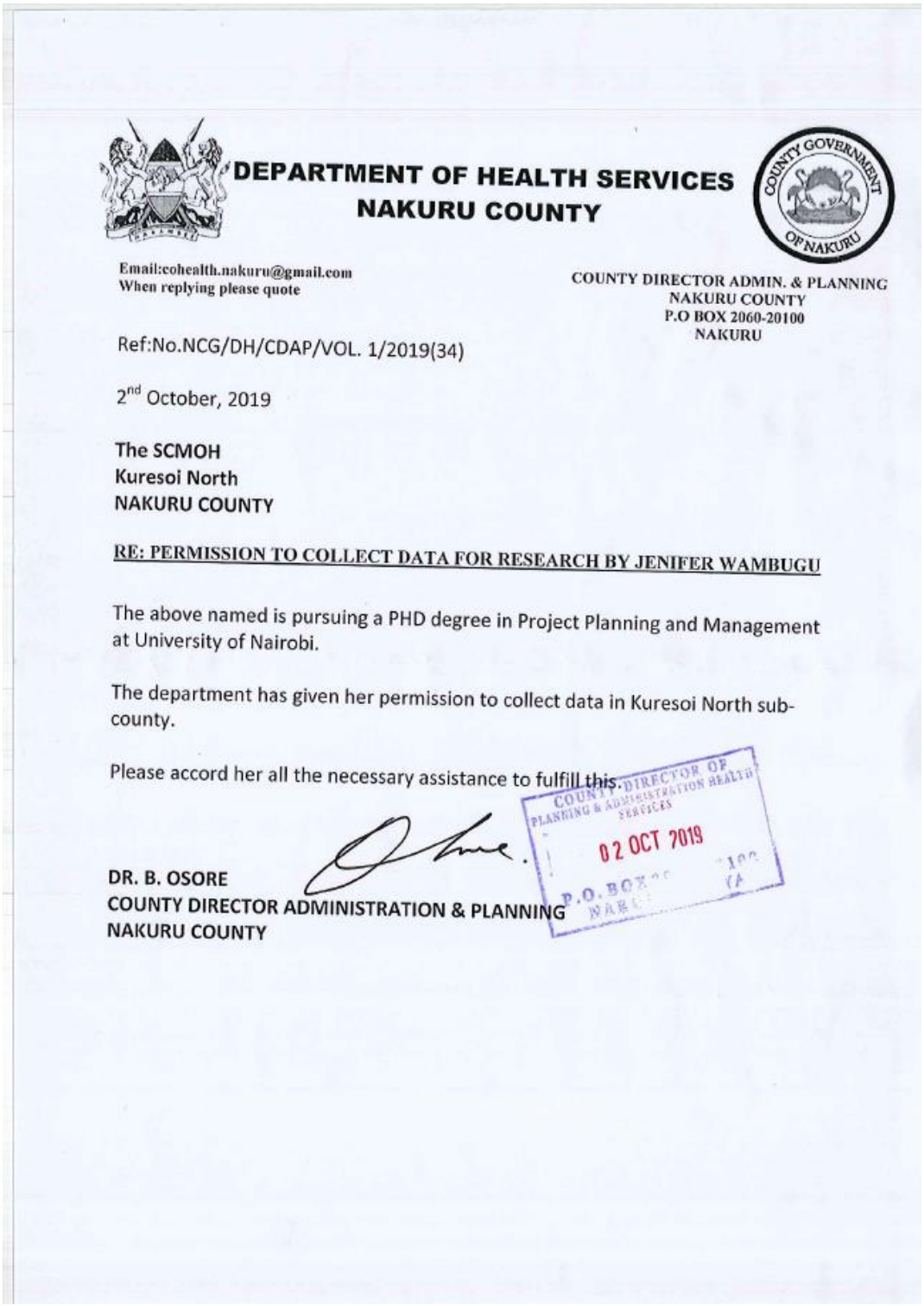
R**EF: Request for Data Collection for a Research Study**

I am a student currently pursuing a PHD degree in Project Planning and Management with speciality in project planning, design and implementation at the School of Open and Distance Learning of the University of Nairobi. I am currently undertaking a research on healthcare quality dimensions, client characteristics, and performance of family planning program in Nakuru county, Kenya. This is part of the requirements for the fulfilment of the course. The findings of this study will be useful in helping to design messages on family planning projects.

The purpose of this letter is to request for permission to collect data for tool testing followed by actual data collection. Attached find the tools for data collection which are questionnaire for women of reproductive age, interview guide for key informant and observation charts to be used in health facilities.

Jenifer Wambugu,
Student (PHD) – L83/51586/2017
University of Nairobi
Nairobi.

Appendix V: Permit from Nakuru County



DEPARTMENT OF HEALTH SERVICES
NAKURU COUNTY

Email:cohealth.nakuru@gmail.com
When replying please quote

COUNTY DIRECTOR ADMIN. & PLANNING
NAKURU COUNTY
P.O BOX 2060-20100
NAKURU

Ref:No.NCG/DH/CDAP/VOL. 1/2019(34)

2nd October, 2019

The SCMOH
Kuresoi North
NAKURU COUNTY

RE: PERMISSION TO COLLECT DATA FOR RESEARCH BY JENIFER WAMBUGU

The above named is pursuing a PHD degree in Project Planning and Management at University of Nairobi.

The department has given her permission to collect data in Kuresoi North sub-county.

Please accord her all the necessary assistance to fulfill this.

COUNTY DIRECTOR OF PLANNING & ADMINISTRATION HEALTH SERVICES
02 OCT 2019
P.O. BOX
NAKURU

DR. B. OSORE
COUNTY DIRECTOR ADMINISTRATION & PLANNING
NAKURU COUNTY

Appendix VI: Coverage of Women of Reproductive Age receiving family planning commodities

SUB-COUNTY	Clients	Total women population of reproductive age	Coverage(2017)	Clients	Total women population of reproductive age	Coverage (2020)	Annual growth rate
Gilgil	22049	47315.45	47	37373	55864	67	21
Kuresoi North	12771	40287.07	32	23139	49761	47	15
Kuresoi South	11675	37540.19	31	17526	46861	37	12
Molo	12376	39539.94	31	27547	46297	60	20
Naivasha	43024	72922.03	59	38230	121365	32	-0.9
Nakuru East	21729	49496.58	44	29398	71528	41	-0.7
Nakuru North	17845	45407.12	39	32157	67699	48	16
Nakuru West	19565	48070.02	41	25489	66900	38	-0.7
Njoro	23117	60834.21	38	39427	66825	59	19
Rongai	11625	25271.74	46	29390	60473	49	16
Subukia	7493	29734.13	25	9133	24161	38	12

Appendix VII: Household Questionnaire

Kindly respond to all questions freely and honestly your response will be kept confidential. Your name will not be required.

Section A: Demographic Information/ Client characteristics (Tick appropriately)

This section seeks to establish the client characteristics

1. How old are you?

12-19	20-30	30-49

2. What is your highest level of education?

No Education	Primary school	Secondary school	Tertiary Institution	Degree and above

3. What is your religion if any?

Christian	Muslim	Hindu	Others

4. What is your marital status?

Married	Single	Separated or Divorced	Widowed

5. What do you do to earn your living?

Not employed	Informal	Formal

6. Who is your Employer?

Civil servant	Private sector	Cooperate sector	Faith based organization	Others	Not employed

7. Does this community accept the use of family planning?

a) Yes

b) No

Client characteristics (Tick appropriately)

This section seeks to establish the client characteristics. The responses are rated as Agree(A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Questions	**SA**	**A**	**N**	**D**	**SD**
My education status has made me utilise or hinder use of family planning					
My career has influenced use of family planning or hindered the use?					
I can you read and understand all the family planning information displayed in the health facility					
I am able to comfortably seek clarification from a health provider on family planning					
I can discuss my family planning goals with my spouse					
I clearly understand the health implication of lack of child spacing to me					
My religion accepts use of family planning					
My community accept use of family planning					
I can discuss openly about family planning with my friends					
I have been adhering to all instructions given to me by the health care provider					

Section B: Management competency Quality dimension

This section seeks to establish the management competency quality dimension. The responses are rated as Agree(A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Question	SA	A	N	D	SD
The health care providers are able to offer quality health care					
There is a problem with leadership of the health facility I seek health services					
The health care providers document all findings in my card					
My card has clear return dates documented					
Am able to get services in the shortest time possible					
The health facility has a clearly written charter indicating services offered and cost?					
The facility adheres to the time indicated for the service.					
The health facility has a suggestion box					
The health facility address complaint raised by clients					
I am satisfied with the health care provider skills					

Section C: Contraceptive Supply Quality dimension

This section seeks to establish the Contraceptive Supply Quality dimension. The responses are rated as Agree (A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Question	SA	A	N	D	SD
Am currently on a family planning method					
I have never conceived on family planning					
I have always received the family planning method of my choice					
I always get other related services like assessment of blood pressure before contraceptive is issued to me					
I am satisfied with the current family planning method I am using					

The health facility has all the equipment's necessary for family planning					
Health care providers are able to purchase all the contraceptives needed					
My card has my family planning number and indicates the method and services I am currently using					
I can buy family planning commodities from other sources apart from the health facility					
I can advocate the use of family planning services in health care providers					

Section D: Access to Quality Health Care dimension

This section seeks to establish the Access to Quality Health Care dimension. The responses are rated as Agree(A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Question	**SA**	**A**	**N**	**D**	**SD**
I spend less than KS 50 on transport to the health facility					
I travel less than 3 KMs to the health facility					
I don't pay for any family planning services					
I am satisfied with information on the family planning I get from health care provider					
I am able to read and understand the information about family planning displayed on the wall					
The distance to the health facility is reasonable					
I would like a health facility near my residence					
I access contraceptive from health facility					
My partner supports my family planning goals					
Family planning services are offered on daily basis during weekdays					

Section E: Counselling Quality Dimension

This section seeks to establish the Counselling Quality Dimension. The woman reflects the last family planning clinic visit. The responses are rated as Agree(A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Question	SA	A	N	D	SD
The health care provider greeted me with respect					
The health care provider asked me about my previous illness					
The health care provider asked me about contraceptive goals					
The health care provider told me about the contraceptive methods available such as: Pill injectables, Condom, Implants, tubal ligation, vasectomy, foam, diaphragm, natural family planning, lactational amenorrhea					
I was familiar with all the family planning methods mentioned before going to the clinic					
The health care provider asked me questions to find out about my partner's attitude towards use of family planning					
The health care provider discussed reasons that some methods may not be appropriate to me					
The health care provider demonstrated how to use the method					
The health care provider explained how to deal with possible problems related to its use					
The health care provider used any visual aid to help explain the method?					

Section F: Performance of Family planning program

This section seeks to establish the Performance of Family planning program. The responses are rated as Agree(A), Strongly Agree (SA), Don't Agree (DA), Strongly Disagree (SD), & Not Sure (N),

Tick appropriately

Items	**SA**	**A**	**N**	**D**	**SD**
Most of my friends use family planning services					
Women in this community are satisfied with family planning services offered at the health facility I access the service					
I am satisfied with the family planning services offered in the health facility					
I have a family planning card that records all the services given to me					
Most of my friends seek family planning in established health care facilities					
I believe the Family planning provider takes into account my family planning needs					
There are other outlets offering family planning services in this community apart from health facilities such as pharmacy					
Women in this community are aware of family planning services in the hospital					
Men in the community encourage their partners to use family planning					
Men are satisfied with family planning services in the health facility.					

Appendix VIII: Interview Guide for Health Facility In-charges

Kindly respond to all questions freely and honestly your response will be kept confidential. Your name will not be required.

Section A: Demographic Information /Client Characteristics

This section seeks to establish the Client characteristics.

1. What is your age?
2. What is your specialization?
3. What is your religion if any?

Section B: This section seeks to establish the Client characteristics.

This section seeks to establish the Client characteristics.

1) How does community being served by this facility think of family planning

2)How does religion in the community being served by this facility affect family planning use

3)What is the general believe of community being served by this facility believe on the number of children per family?

4)How does client respond to family planning clinic dates or appointments?

5)How do client respond to side effects of family planning methods if any

6)How do client give feedback to the health facility leadership?

7)What leadership challenges face this health facility?

8)How do you think about the level of staffing in this facility?

Section C: Management competency Quality dimension

This section seeks to establish management competency quality dimension

1. How does the management ensure staff are updated on family planning?
2. What evidence can management show for continuous update to staff?
3. How does the facility leadership ensure follow-up of action points needed to improve the health facility?
4. Other than structured institution/ hotel-based training, how else do staff of this facility get updates and how often?
5. How does the health facility ensure quality documentation and quality reporting of all family planning services?

Section D: Contraceptive Supply Quality Dimension

This section seeks to establish the Contraceptive Supply Quality dimension.

1. Which contraceptives supplies had had a stock out in the last three months and for how long has there being a stock out?
2. How does the health facility get contraceptive commodities?
3. How does the facility determine the contraceptive commodity requirement?
4. Are you able to determine how long the current stock of all commodity will take?

5. Does the facility ensure that the report in the DHIS mirror the report in the family planning register?
6. Tell us about cases of family planning method failure experience in this facility if any?
7. Describe the about availability and use of basic equipment such as BP machine, autoclave, examination light among others
8. How do health care providers demonstrate the use of family planning?

Section E: Access to quality dimension

This section seeks to establish the Access to Quality Health Care dimension.

1. Describe the days and time of operation of family planning clinic
2. How does the health facility sterilize equipment for family planning and how often?
3. How much does family planning services cost?
4. Describe the distance that clients travel to seek family planning services
5. How does the family give information about family planning to clients and other users.
6. What other services does this facility offer to family planning clients?
7. How does the facility store client's information?
8. How can a client access her information over a period of time?

Section F: Counselling dimension

This section seeks to establish the Counselling Quality Dimension. The woman reflects the last

1. Describe the family planning counseling room privacy adequacy?
2. How does the facility get feedback from clients?
3. Describe how the facility involve men in family planning
4. How is family planning counseling done for clients?

5. How staff health care provider that he/she follows family planning protocol of counseling?
6. How does one clarify the information the clients has on family planning?
7. How long does one take with one client?

Section G: Performance of Family planning program

This section seeks to establish the Performance of Family planning program

1. How many times in a month is this facility closed due to lack of a staff?
2. Other than in MCH, where else does which other departments is family planning offered?
3. How does the facility get feedback from clients?
4. What challenges does this health facility experience in offering family planning services?
5. How does the health facility enhance ensure timely and quality reporting to KDHIS?
6. How can you rate the utilization of family planning as per the target population in the last three complete months?

Appendix IX: Observation Check list e for Health Facility

Observation	**Available**	**Not Available**	**Inadequate**
The room has adequate space			
Location of Family planning room supports privacy			
There is a dedicated service provider to offer family planning in services delivery points			
The room has privacy			
The room has adequate ventilation			
Room has counselling cards or Flip Book for family planning demonstration for information			
Room has FP charts demonstrating FP methods			
Presence of two Chairs for client and partner			
The client service charter is available and indicating patient waiting time which is adhered to?			
Family planning register well filled			

Access to Quality Observation Guide

Observe for the presence of	**Available in use**	**Available not in use**	**Not available**
There is a Curtain or screen in the room for privacy			
Equipment: IUCD insertion kit, IUCD Removal kit,			
Spacious room			
Adequate Lighting and presence of spotlight			

Contraceptive Supply Quality Dimension Observation Guide

Commodity	If available Tick or if not available cross
DMPA	
COCs	
POPs	
IUCD	
Jadele	
Implanon	
Nxt	
Condoms	
Vaginal Rings	
Emergency contraceptive pills (ECP)	

Appendix X: Observation Check list e for Health Facility Scoring

SERVICES	TICK AS APPROPRIATE	Scoring
Observe if the facility has a Tiahrt Wall Chart	Yes; No	**Y=1** **N=0**
Observe for availability and use of the following guidelines, posters and job aids	☐ National FP Guideline, 2016 ☐ MEC Wheel/chart ☐ FP Choices Chart (Tiahrt) ☐ Family Planning Demonstration Tray ☐ Counselling chart for FP ☐ Others (Specify)	**Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0**
Observe family planning options currently being provided in the facility?	☐ Male condoms ☐ Female condoms ☐ COCs ☐ POPs ☐ Injectable ☐ IUCDs ☐ ECPs ☐ Implants ☐ LAM ☐ Natural (specify) ☐ TL ☐ Vasectomy ☐ Others	**LAPM=2; LARCs=1; Short-Term=0**
Check if dual method use is promoted in this facility	☐ YES ☐ NO	**Y=1; N=0**
Observe and ask how the facility promote male/ partner involvement in FP services?	☐ Give men priority ☐ Group counselling for men ☐ Special FP clinic days for men ☐ Other, specify	**Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0**
Are Family Planning services integrated into HIV Services?	☐ YES ☐ NO	**Y=1; N=0**
Observe and ask which other service areas /units offering FP	☐ MCH ☐ PNC ☐ Female Ward ☐ Surgical Ward	**Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0**

counseling/commodities offered?	☐ Gynae Ward ☐ PNC ☐ CCC /ART centres ☐ VCT ☐ PAC ☐ ASRH ☐ Maternity ☐ OPD Others-specify;	**Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0**
Check for the following records (Comment if correctly filled and up to date) Review for the last 3 months.	☐ Daily Activity Register ☐ Monthly Reporting Form ☐ Client Card/Mother/Baby Handbook ☐ Display of service statistics ☐ Contraceptive Ordering Form ☐ Performance charts	**Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0** **Y=1; N=0**
Observe the ordering of contraceptives	☐ Are ordering form available? ☐ Provider aware of commodity ordering/reporting process	**Y=1; N=0** **Y=1; N=0**
	Total score	

Appendix XI: Observation Check list e for Health Facility Findings

Tihart Chart

Organisation unit	Tihart Chart Available	Tiahrt chat Not Available
Chepkinoiyo Dispensary	1	0
Githiriga Dispensary	1	0
Ikumbi Health Centre	1	0
Kamara Dispensary	1	0
Kewamoi Dispensary	1	0
Kimeswon Health Centre	0	1
Kiptororo Dispensary	1	0
Korabariet Dispensary	0	1
Kuresoi Health Centre	1	0
Masaita Dispensary	1	0
Molo South Dispensary	0	0
Mungetho Dispensary	1	0
Murindoku Dispensary	1	0
Ndoinet Dispensary	0	1
Sasimua Dispensary	1	0
Seguton Dispensary	1	0
Sirikwa Health Centre	0	1
Total Dispensary	0	1
Tulwet Dispensary (Kuresoi)	1	0
Total	**13**	**5**

Family Planning Options

Organisation unit	Options Available	Total Options
Chepkinoiyo Dispensary	9	12
Githiriga Dispensary	9	12
Ikumbi Health Centre	9	12
Kamara Dispensary	4	12
Kewamoi Dispensary	6	12
Kimeswon Health Centre	4	12
Kiptororo Dispensary	5	12
Korabariet Dispensary	8	12
Kuresoi Health Centre	8	12
Masaita Dispensary	9	12
Molo South Dispensary	6	12
Mungetho Dispensary	8	12
Murindoku Dispensary	10	12
Ndoinet Dispensary	5	12
Sasimua Dispensary	7	12
Seguton Dispensary	8	12
Sirikwa Health Centre	6	12
Total Dispensary	5	12
Tulwet Dispensary (Kuresoi)	7	12

Dual Method

Organisation Unit	Dual Method Available	Dual Method not Available
Chepkinoiyo Dispensary	1	0
Githiriga Dispensary	1	0
Ikumbi Health Centre	1	0
Kamara Dispensary	0	1
Kewamoi Dispensary	1	0
Kimeswon Health Centre	1	0
Kiptororo Dispensary	1	0
Korabariet Dispensary	0	1
Kuresoi Health Centre	1	0
Masaita Dispensary	1	0
Molo South Dispensary	1	0
Mungetho Dispensary	1	0
Murindoku Dispensary	1	0
Ndoinet Dispensary	1	0
Sasimua Dispensary	0	1
Seguton Dispensary	1	0
Sirikwa Health Centre	1	0
Total Dispensary	1	0
Tulwet Dispensary (Kuresoi)	1	0
	16	**3**

Family Planning Integration

Organisation unit	FP integrated in other Dept	FP Not integrated in other Dept
Chepkinoiyo Dispensary	1	0
Githiriga Dispensary	1	0
Ikumbi Health Centre	1	0
Kamara Dispensary	1	0
Kewamoi Dispensary	1	0
Kimeswon Health Centre	1	0
Kiptororo Dispensary	1	0
Korabariet Dispensary	1	0
Kuresoi Health Centre	1	0
Masaita Dispensary	1	0
Molo South Dispensary	1	0
Mungetho Dispensary	1	0
Murindoku Dispensary	1	0
Ndoinet Dispensary	1	0
Sasimua Dispensary	1	0
Seguton Dispensary	1	0
Sirikwa Health Centre	1	0
Total Dispensary	1	0
Tulwet Dispensary (Kuresoi)	1	0

Family Planning Report

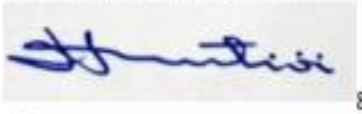
Organisation unit	Reports Correctly filled	Total Reports
Chepkinoiyo Dispensary	6	6
Githiriga Dispensary	5	6
Ikumbi Health Centre	5	6
Kamara Dispensary	5	6
Kewamoi Dispensary	6	6
Kimeswon Health Centre	6	6
Kiptororo Dispensary	6	6
Korabariet Dispensary	4	6
Kuresoi Health Centre	5	6
Masaita Dispensary	6	6
Molo South Dispensary	6	6
Mungetho Dispensary	6	6
Murindoku Dispensary	6	6
Ndoinet Dispensary	6	6
Sasimua Dispensary	5	6
Seguton Dispensary	4	6
Sirikwa Health Centre	6	6
Total Dispensary	4	6
Tulwet Dispensary (Kuresoi)	5	6

Ordering of Contraceptives

Organisation unit	Tool and Skills Available	Availability of Tools and Skills
Chepkinoiyo Dispensary	2	2
Githiriga Dispensary	1	2
Ikumbi Health Centre	2	2
Kamara Dispensary	2	2
Kewamoi Dispensary	2	2
Kimeswon Health Centre	2	2
Kiptororo Dispensary	2	2
Korabariet Dispensary	2	2
Kuresoi Health Centre	2	2
Masaita Dispensary	1	2
Molo South Dispensary	2	2
Mungetho Dispensary	1	2
Murindoku Dispensary	2	2
Ndoinet Dispensary	2	2
Sasimua Dispensary	1	2
Seguton Dispensary	2	2
Sirikwa Health Centre	2	2
Total Dispensary	2	2
Tulwet Dispensary (Kuresoi)	1	2

Appendix XII: Plagiarism report

DEAN : SCHOOL OF PROJECT MANAGEMNT AND CONTINUING STUDIES



8/7/2021

HEALTH CARE QUALITY DIMENSIONS, CLIENT CHARACTERISTICS, AND PERFORMANCE OF FAMILY PLANNING PROGRAMME IN NAKURU COUNTY KENYA

ORIGINALITY REPORT

15%	5%	13%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Jenifer Wothaya Wambugu, Dorothy Kyalo, John Mbugua, Regina Mutave. "Influence of Access to Quality Services on Performance of Family Planning Programs in Kuresoi North Sub-County, Nakuru County, Kenya", European Journal of Business and Management Research, 2020 Publication	8%
2	Jenifer Wothaya Wambugu, Dorothy Ndunge Kyalo, John Mbugua, Regina Mutave. "Influence of Management Competency on Performance of Family Planning Programs in Kuresoi North Sub-County, Nakuru County, Kenya", European Journal of Business and Management Research, 2020 Publication	3%
3	erepository.uonbi.ac.ke:8080 Internet Source	<1%
4	erepository.uonbi.ac.ke Internet Source	

Appendix XIII: Research Budget

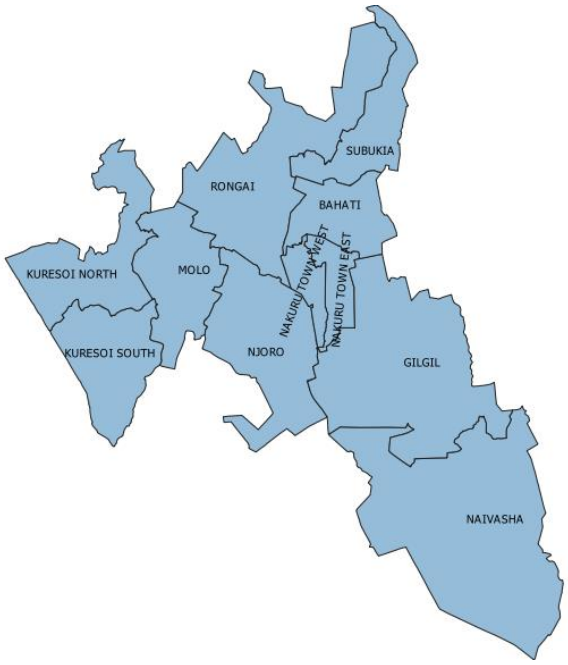
COST	**AMOUNT (KES)**
Transport for research assistants	50,000.00
Stationery and Printing of research instruments	20,000.00
Lunch for research assistants	20,000.00
Data Collection	50,000.00
Co-ordination and communication Expenses	10,000.00
TOTAL	**150,000.00**

Appendix XIV: Work Plan for 2017 or 2020

Activities	Period in Months					
	April 2017		March 2019	April 2019- July 2019	August 2019– Sept 2020	
Literature Review • Problem Identification • Consultation with Supervisor • Proposal Writing						
Proposal Defence • Oral Examination at the Departmental level						
Proposal Corrections and School defence						
Data Collection • Letter of authority from the University to conduct research • Administration of research instrument						
Data Analysis						
Thesis Writing • Preparation of the Thesis report • Submission for						

Appendix XV: Map of Nakuru County and Kuresoi North Subcounty

Map Of Nakuru Counrty



Map of Kuresoi North wit the four sub counties.

UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDOES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF OPEN LEARNING

From: Prof. Dorothy N.Kyalo **Date: July, 8th 2021**

To: The Director
Graduate School
University of Nairobi

Through: Dean, SCDE : **forwarded with support** 8/7/2021

CERTICATE OF CORRECTION

NAME OF STUDENT **JENIFER WOTHAYA WAMBUGU**

REGISTRATION NUMBER **L83/51586/2017**

This is to confirm that the above named student has successfully defended her Thesis in Project Planning and Management and done the suggested corrections: '**Health Care Quality Dimensions, Client Characteristics, and Performance of Family Planning Programme in Nakuru County, Kenya**'

I hereby certify that the corrections have been made as per the suggestions of the defense panel.

NAME OF SUPERVISOR Prof. Dorothy N.Kyalo

SIGNATURE

INSTITUTION **UoN**

Cc
Dean, SCDE

Appendix XVI: Published Journal Articles

Wambugu, J., Kyalo, D., Mbugua, J., & Mutave, R. (2020). Influence of Management Competency on Performance of Family Planning Programs in Kuresoi North Sub-County, Nakuru County, Kenya. *European Journal of Business and Management Research*, *5*(3).

Influence of Management Competency on Performance of Family Planning Programs in Kuresoi North Sub-County, Nakuru County, Kenya

Jenifer Wothaya Wambugu, Dorothy Ndunge Kyalo, John Mbugua, and Regina Mutave

Abstract - This study investigated management competency influence on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The study was founded on the theory of constraint and adopted a pragmatism paradigm. It applied descriptive research method using mixed method approach to investigate the influence of management competency on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The target population in the study was women of reproductive age in 33,482 households distributed in the four Wards of Kuresoi North Sub-County and 19 health management leaders in-charge of all government health facilities offering family planning services in the Sub-County. A sample size of 400 of women of reproductive age and 19 nursing officers in-charge of government health facilities was utilized. The data collection tools used were questionnaire, interview guide, and observation checklist for women of reproductive age and the interview guide for the health facility managers. The research study adopted stratified sampling method. Qualitative data was analyzed according to themes and patterns and then summarizing the data and linking it to objectives and hypothesis. The study findings indicate that there is moderate management efficiency, exhibited pertaining to family planning in the dispensaries and health centers located in Kuresoi North Sub-County. Further findings exhibited that there was a significant and strong positive individual correlation between management competency and performance of family planning program in Kuresoi North Sub-County. Finally, the study findings also exhibited that there is a significant positive relationship between management competency and performance of family planning program in Kuresoi North Sub-County and it predicted the performance of family planning programmes. in Kuresoi North Sub-County.

Index Terms – management competency, family planning program, reproductive age.

I. INTRODUCTION

Family planning programs make a key starring role in prevention of maternal and infant mortality. Despite the benefits associated with family planning, many women continue to encounter unattained family planning needs leading to unwanted pregnancies and compromised health for women and children. The World Health Organization (WHO) in a 2018 report indicated that globally, two hundred and fourteen million females of procreative age from underdeveloped nations would like to use a family planning method for child spacing but continue to face challenges and barriers to accessibility.

A quality family planning service should ensure adherence, persistent, and positive referral of individual users as well as contribute to the overall improvement of health indicators especially maternal as well as neonatal health [1].

Efficiency is a performance of family planning program dimension which entails offering health care amenities in a technique that it is able to maximize the limited resource use and

avoiding wastage. Accessibility is yet another performance of family planning program aspect, which comprises of offering health services that are opportune, physically reasonable, and offered in an atmosphere where knowledge, capacities and resources are suitable to health necessity and client counseling. Another performance of family planning program dimension identified was patient-centered which entails offering health care services, which considers individual or client predilections and goals, and the cultural setup of their societies. Another aspect is unbiassed, which is providing health care services that do not discriminate a person due to individual features like sex, race, culture, topographical setting, or financial standing. In addition, safety was considered as a performance of family planning program aspect. It entails providing health care services, which lessens jeopardies and damage to service consumers.

Achievement in programs related to family planning has been associated with key benefits to countries and the population. The major benefits as described by the WHO 2018 report are averting pregnancy-linked health dangers in women, dropping new-born mortality, supporting to avert HIV/AIDS, empowering individuals and improving education, as well as dropping adolescent pregnancies and decelerating population advance. Performance of programs related to contraceptives remains significant in attaining the United Nations Sustainable Development Goals. USAID through knowledge for health program revealed that there exists a gap in implementation of family planning worldwide.

Kenya made a great milestone in addressing quality in health by launching Kenya Quality Model of Health (KQMH) care by [2], which provided a conceptual framework for offering holistic and scientific services through addressing a variety of structural quality matters with the key purpose of delivering health effects that are positive.

Management competency encompasses the overall effectiveness of a program and it entails offering health care that is in line with the evidence generated through studies and results in better-quality health results for persons and societies. Further management competency indicates that the program should be based on requirements such as commodity supply.

Thus, management competency in family planning programs comprises of providing family planning services that are in line with an indication base and outcomes in better-quality family planning results for persons and societies and are aligned to the need. There are several components of management competency dimension. These include leadership, accurate report documentation, and adherence to guidelines.

Management competency in family planning involves combining many strategies that can be effective in a program. This is in convergence with a study by [3] that described offering superior family planning facilities in disaster-affected locations, described strategies that could be borrowed from successful countries on family planning programs. Some of the strategies that had worked in other program included capability-founded training, structured support supervision, modest quality enhancement tools, communal mobilization, as well as execution of quality development and clinical management through the government health structure and building nationwide capacity. Management competency therefore requires managers to view the program in a holistic way.

Despite the launch of the KQMH care document, there is no study conducted on the implementation of KQMH and the influence on performance of family planning program in Nakuru County. Family planning services are very critical services in preventive health especially at primary health care level. This study has utilized the healthcare quality dimensions of management competency in relation to performance of family planning program in Nakuru County, focusing on Kuresoi North Sub-County.

The remaining part of this paper is arranged as follows. Section two discusses about literature reviews. Section three deals with data and research methodology. The last two sections focus on empirical analysis and conclusions respectively.

II. LITERATURE REVIEW

Management competency in family planning comprises of delivering of family planning amenities that are devoted to an indication gained through research and outcomes in better-quality health results for persons and societies, built on requirement. Access to quality health care is a human right, which calls for leadership to adhere to the legal and moral obligation in providing the care. Leadership is of paramount importance in achieving total quality of care. KQMH describes leadership as a process that

provides guidance and motivation to improve quality care hence the role of leadership is key in achieving the total quality of care.

The model furthers described leadership in total quality management as that of maintaining a conducive environment that enables staff to be part of the process towards achieving the organization's purposes or goals, validate obligation to the group or organization, and support employees to overcome ordinary confrontation to transformation and to persuade staff that quality is vital. Leadership role should be clear, precise and well defined on how to objectively meet the threshold of guiding the total quality management.

A good performing organization usually has a culture that helps to maintain standard all through, organization culture. In health care, the culture needs to be nurtured, and health care providers mentored on by the organization leadership. This would ensure quality improvement, safe and compassion health care, which has remained a key challenge in health sector. There are numerous researches steered on the position of leadership in enhancing a culture of continual improvement. Leaders have a great role in sustaining a culture as revealed by [4] in a research on leadership development in England.

The study indicated that many institutions were encountering a challenge of lack of a culture of quality delivery and continuous improvement making many organizations to stagnate in quality of care especially in health care. The study also added that it was the role of management to enhance a workplace with refining extreme quality, harmless, and empathetic healthcare services. The dominant impact of leadership in any institution is very important. Leadership therefore has a great role to ensure adherence to the organization values, strategies, and vision. The study however failed to provide a guideline on how leaders can provide the mentorship.

A study carried out by [5] had convergence in the responsibilities of leadership in building and maintaining organization principles and sought to investigate organization philosophy in the English National Health Service (NHS). The study identified some key components, which were of paramount importance towards sustaining values that ensure excellence and compassionate care for clients. The study outlined some elements of excellence. These include inspirational dreams operationalized at all levels of leadership in health facilities and community primary care. Leaders aligned objectives for all players with inclusion of stakeholders, branches, and specific staff, which are helpful and empowering individual's administration. The objectives were; elevated staff assignation level, leaders engrossed to affirming education especially eLearning, invention to get new way of addressing quality and quality enhancement as a culture by all workers, as well as actual teamwork. The study did not consider the working environment as part of leadership role in ensuring quality.

Leadership style in health care has been associated with saving of life's, which was also revealed in a study by [6] on patients' outcome and leadership style. The discoveries suggested that there is a correlation between nursing leadership style and the numbers of mortality in the hospital as well as medication errors, while the leadership style plays a key part in health upkeep. The study however failed to establish the specific style of leadership in relation to various context of giving medical care.

In divergence with the results, another extensive assessment of therapeutic management model carried out by [7] established that various leadership styles vary according to the medical or clinical site. Leadership style may therefore not be used uniformly in all health sector setups. Selection of the right manager with the right skills to manage a health facility is very important in determining the overall performance in health care, patient satisfaction, and morbidity rates. The finding further indicated that leadership required support from the political angle in order to practice the strategies that work for an institution as well for the users of the health facility. The leaders therefore need to have a background on the issues affecting institutions and hence advocacy remains a key tool in sensitizing leaders.

This is in convergence with a study on National Health Service hospital trusts by [8], which established that the health facilities with clinicians governing the boards had greater performance. The study however failed to establish whether the clinicians governing the health facilities had undertaken a management course since managerial skill are important in health sector management.

Job satisfaction can be derived from the type of leadership. In a study by [9], on leadership and work life, found that reliable management is associated with job satisfaction and employees portraying characteristics of leadership like trustworthiness, unselfishness, compassion, justice, responsibility, and hopefulness and this legitimacy indicates steadiness with morals of

offering excellence and empathetic client care. The intellectual capacity of leaders determines how well leaders take up their roles in health care. The findings were also noted by [10] in a study that outlined that a front-runner within the health segment must understand the factors behind good performance. Some of the factors include; understanding on performance matters, value aspect of care, as well as formation of performance improvements require teamwork. The study brought about a new concept of value for service which is key for leaders to evaluate whether the clients get value for their cost in relation of the services they receive in health.

Health care workers plays a crucial part in advocating and promoting for any service. Providing knowledge regarding family planning can improve uptake of family planning. Health service providers need to give well-structured information to clients during visits on health facilities since lack of information affects a woman's ability to make an informed decision on uptake of family planning [11]. Programs need to identify the strength and level of trust on health care providers and build on that trust to advocate for family planning.

A. Theoretical Review

The theory that the study was grounded on was the theory of constraint. This is because constraints are known to determine the implementation and performance of any system. In order to focus on excellence in management, together theoretical and functional aspects must be considered as described by [12]. In their recommendation, handling excellence should be the guide in the execution of any project. They further described a constraint as everything that averts a system from attaining excellence performance reasonable to its goal.

The Theory of Constraints was established by Dr Eli Goldratt and pronounced in his narratives, attentions on accomplishing breakthroughs in performance in big multifaceted settings, subjugated by high ambiguity. He further described bottleneck and contract. Bottleneck was defined as any resource whose dimensions is less than the mandate placed upon it: Bottlenecks come and go. A constraint limits the whole organizations performance over a stretched period. Each chain up maintains the lowest link, the intensity of such a chain up is established by the lowest link. In a study by [13] on measure contract found that what is measured as a constraint in project management can be patented in to four. These are as party-political constraints which include factors such as indistinct dreams, undertaking and scope of projects, mechanical constraints which includes individual strengths such as competences, skills, prevailing structure and normal conditions like geology, location and climate, communal constraints which includes codes of behaviour, organizational protocols, individual relationships, acknowledged or predictable behaviour's, and managerial constraints like budgets, project plans, scope, inscribed contractual arrangements, among others.

Theory of Constraints contests administrators to volte-face some of their essential assumptions about how to accomplish the goals of their organizations, about what they contemplate creative actions, and about the actual determination of cost administration. In another research finding, by [14], they described theory of Constraints as an organization thinking whereby companies can be deemed as a mutually dependent sequence of procedures instead of an impartial enterprise component.

Theory of constraint describes five steps which includes; Documentation of the scheme's constraint, verdict on how to exploit the organisation's constraint, subordination of all other issues to the above decision, advancement of the system's constraint and lastly if in the preceding steps a constraint has been cracked, one should start all over again from step one.

The theory applies to the current study to the extent that in order to measure management competency, an organization needs to identify the five steps in the theory of constraint to address any constraint that can hinder management competency.

The study also will also apply the Donabedian's model for measuring quality care. [15] developed three mechanisms for measuring the quality of care. These mechanisms are structure, process, and outcomes. Measurement for enhancement has an added component which is referred to as balancing measures. [15] thought that structure usually impact on processes while processes in turn affect the outcome of any project. The three; structural, process, and outcome, comprises quality. Measure of quality should therefore assess the three components.

Outcome measures: These replicate the effect on the client and validate the result of the development of effort and if it has lastly accomplished the set objectives. An example of result measures is upsurge in the couple year of protection, increase in acceptance of contraceptives procedures.

Process measures: These replicate the way a systems and procedures lab to bring the anticipated results. An example of process measures includes the client waiting time to receive a contraceptive service. Structure measures: These echo the characteristics of the health care provider for instance staff to client proportions and functioning spells of the service. They can also be referred to as input measures.

Balancing measures: This mirror unintentional and/or wider consequence of the transformation that can be optimistic or undesirable. It is about identifying these and endeavouring to measure them and or reduce their effect if necessary. An example of a balancing measure would be monitoring rates use of family planning after initiating a community advocacy program for family planning.

Utilization of quality assessment in sectors such as health is seen to have possibility of advancing care quality as well as maximizing the capability and prevent ordinary drawbacks. In addition, they indicated the need to utilize the past practice in order to come up with a proper tool to assess quality at all levels of health care. In this study, management competency is viewed as a key to addressing challenges in the health sector , particularly family planning programs, and how to improve the programs [16].

III. DATA AND RESEARCH METHODOLOGY

This section profiles the research procedures that were applied to address the research objective. These included research model, research strategy, target populace, sample size, and sampling methods, research tools, data gathering methods, data analysis systems, ethical attention and operational description of variables. It also describes the procedures undertaken to guarantee the validity as well as the reliability of the investigation instruments. The section equally includes the ethical concerns. The section concludes with the description of variables.

A. Research Paradigm

This study was steered by pragmatisms paradigm since the study integrated quantitative and qualitative research strategies by use of mixed technique of data collection and examination. The fundamental hypothesis of the mixed study methodology is that blending numerical and non-numerical techniques offers a comprehensive knowledge of the investigation problem compared to applying only single kind of techniques as described by [17] and [18]. This is in concurrence with discoveries from a study by [19] who described dual case studies that utilized mixed study approaches and revealed that use of mixed study delivered both quantitative as well as qualitative perceptive which resulted to superlative data elucidation as well as the superlative understanding of the investigation phenomena.

Mixed approaches research provided additional thoughtful of the multifaceted phenomena that was likely to otherwise not be available through using single method only as described by [20]. Pragmatism paradigm was carefully chosen as the most appropriate for this survey since the survey aimed to examine the influence of healthcare quality dimensions and client characteristics on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya.

The choice of the paradigm was to accommodate the diverse approaches of data gathering as indicated by [21] that pragmatism is predominantly suitable for mixed methods. In addition, pragmatism permitted the investigator to be free of psychological and hands-on constrictions executed by the ‘‘involuntary optimal contradiction amid post positivism and constructivism as described by [20]. It also enabled the investigator to be independent hence not obliged to a certain research method or technique as stated by [20].

B. Research Design

The study utilized the descriptive survey using mixed techniques research design. Mixed method is a procedure for steering research that encompasses gathering, scrutinizing and assimilating quantifiable statistics such as surveys and qualitative statistics such as interviews and observation guide as described by [20]. The choice of mixed method was to offer a better consideration of the research problem. The method was selected considering that there had not been a study in Kuresoi North Sub-County testing the effect of management competence on any health program especially family planning. It was of paramount important to therefore use a method that would enable the investigator to continuously review the research question from diverse angles and elucidate unforeseen discoveries and/or probable contradictions.

Use of mixed method approach gave advantage to the study as described by [23] whereby,

through use of the approach, the investigator was able to examine uniformity of outcomes obtained by various tools which included; household survey, interview guide, and observation checklist. It also offered data complementation by using both numerical and non-numerical statistics to evaluate overlapping but distinctive aspects of the research phenomenon.

C. Target Population

The target population in this study was 33,482 households in Kuresoi North Sub-County, Nakuru County. This number of households in Kuresoi North Sub-County was drawn from the Kenya health information system. The study also targeted the 19 nursing officers in-charge of all government health care facilities offering contraceptive services in Kuresoi North Sub-County.

This target population was useful in providing the required data in the topic under investigation, which was management competency and performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The target population of 33,482 households was guided by the households mapped in Kuresoi North Sub-County as per the 2009 Census and 4% estimated annual population growth as tabulated in the Kenya health information system 2019. The women of procreative age in Kuresoi North Sub-County was equally guided by 2019 Population Estimates revised for Kuresoi North Sub-County as populated in the Kenya Health Information system developed in 2019. This estimate of population and households is usually calculated guided by the population as per the census and the annual growth rate per Sub-County in relation to the proportion of each age cohort. Kuresoi North Sub-County has an estimated growth rate of 4% per year.

The health care facility in-charges comprised of all 19 officers of government health care facilities in Kuresoi North Sub-County. The women of procreative age were reached at the household level by trained community health volunteers. The estimated number of households in Kuresoi Sub-County were 33,482 which accounts 19.2% of the total population distributed in the four wards of the Sub-County. The inclusion of the health facility managers in this study was to enhance an understanding on management competency and performance of the family planning program.

The inclusion criterion for women of procreative age was the women within the procreative age cohort in a household that were eligible for collecting data from. The exclusion criteria were women of non-procreative age as per the operational definition irrespective of utilizing family planning services. The inclusion criteria for health care facility in-charges was only the nursing officers in-charge of all the government health facilities in Kuresoi North offering family planning services while the exclusion criteria were private health care facility nursing officers in-charge irrespective of offering family planning.

D. Sample and Sampling Procedures

Sample scope that was utilized for the survey was taken by applying Slovin's method designated by the populace size and the standard allowance error of 0.05 as specified in the equation below.

$$Sample\ size\ (n) = \frac{N}{/(1+Ne^2)} \quad \text{.....eq (1)}$$

Where; n = number of samples, N = population scope, e = margin of index or error margin. The error margin employed in the study was 5% as the confidence interval utilized for social sciences is 95% and the consequent error margin is 5%. Hence, the sample size obtained for the study was 400 respondents.

The sample was allocated in the four wards using the fisheries method for stratified random sampling procedure. The purpose of this method was to maximize sample survey precision from the calculated sample size. This is enumerated in Table I.

The population, which was being investigated, was homogenous, the study adopted stratified random sampling technique. The definition is in convergence with description by [24] who defined stratified random sampling as a process by which populace is segregated into subcategories known as "strata". Out of which every stratum, the same random sampling is applied in choosing for each-stratum sample. The overall each-stratum samples are thereafter joined to come up with the stratified random sample. It encompassed dividing the populace into standardised subdivisions and then getting a simple random sample in each subcategory.

TABLE I: SAMPLING FRAME

N	**Number of stratum (SU1) in the population**
M_i	Total of components (SU2) in stratum (SU1) i

$M_O = \sum_{i=1}^{N} M_i$	Aggregate number of components (SU2) in the populace
$\overline{M} = \frac{M_O}{N}$	Mean number of components (SU2) for every stratum (SU1).
Y_{ij}	Value of the selected trait of component (SU2) j in stratum (SU1) i
$Y_j = \sum_{j=1}^{M_j} Y_{ij}$	Aggregate value of the preferred attribute in stratum (SU1) i
$\overline{Y_j} = \frac{Y_j}{M_j}$	Mean value of the distinctive Y in the components (SU2) of stratum (SU1) i
$Y = \sum_{i=1}^{N} Y_j$	Aggregate value of the distinctive Y in the populace
$\overline{Y} = \frac{Y}{N}$	Mean value of the distinctive Y for every stratum (SU1)
$\overline{\overline{Y}} = \frac{Y}{M_O} = \frac{Y}{N\overline{M}} = \frac{\overline{Y}}{\overline{M}}$	Mean value of the trait Y for every component (SU2)
$\overline{\overline{Y}} = \sum_{i=1}^{N} \frac{\overline{Y_j}}{N}$	Mean value of the feature Y for every component (SU2) if Mi = constant = M

E. Data Collection Procedures

The research assistants were guided by the Ward administrator, community health volunteer, the area chief, area assistant chief, and the village elder to identify a central point in each Ward, which was to be the initial point for sampling the households in each ward. The ward was further dived into four routes which informed the starting point. Each direction or route had equal number of questionnaires per the ward. To determine the starting point of data collection, the research assistant rolled a pen on the ground. The direction the sharp edge pointed was the initial route used to commence data collection. The research assistants further visited the first household and then skipped two households and visited every third household in the selected direction.

The research assistants ensured that they always started from the central starting point in the four routes selected. Upon getting to the household, the research assistants introduced her/himself, sought to know if the household had a woman of reproductive age, and if present, and sought permission from the household head or equivalent to administer the household questionnaire with assurance of confidentiality. For the households that did not have a woman of childbearing age, the research assistant moved to next household without skipping then continued with the pattern of skipping two households.

This study utilized a household questionnaire, key informant interview guide, and observation checklist for data collection. The survey tool for women of procreative age in the designate wards was a questionnaire. The key informant interview guide was utilized among the in-charges of health care facilities. Observation checklist was utilized to assess the nineteen health care facilities in Kuresoi North Sub-County. The choice of these instruments was directed by the type of data to be gathered, the dimensions and distribution of the population and also the goal of the research. The use of questionnaire in this study was carefully chosen since it allowed the questioner to gather a more deep and comprehensive information since the interviewer could self-control the procedure henceforth searching additional by adding questions that aided to add additional information dissimilar in an observation method The questionnaire and interview guide were tested in Molo Sub-County, Nakuru County, Kenya. The pilot test targeted 15 women of procreative age. The choice of Molo Sub-County in Nakuru county was because it was not a study site. The two health facilities were randomly selected in Molo sub-county. The process of piloting was aimed at identifying whether women of reproductive age would understand the interrogations and instructions as well as whether the substance of questions was the similar for all respondents. For the household questionnaire, which had closed ended questions, piloting helped to check the sufficiency of response in the categories that were available. The responses from the participants was also expected to reveal presence of any inconsistencies in the questions within the questionnaire and ability of respondent to respond to all questions. The pilot study gave proper guidance on the tools. The tool collected the data which was intended hence they was no need of revising the tools.

F. Research Instruments Validity and Reliability

Inferences around the uses of the research apparatuses or instruments was validated. The validation was carried out to ensure that the research instruments had a suitable inference relevant to the purpose of the study and that the research instrument had a meaningful inference hence giving meaningful information using the instrument. The research instrument was tested to divulge the three categories of validity, which were; content-interrelated indication of validity,

the criterion-interrelated indication of validity and the construct interrelated indication of validity. Utilization of experts in the area of reproductive health was done to help in assessing the subject matter validity. The tool was reviewed by the county health management team for any error. A small team that comprised of County Director of Strategic Planning, County Director of Quality Assurance and County reproductive health coordinator were tasked to review and give feedback on content. The review was followed by a presentation to the county health management team and later permit to collect data was given. The researcher put into consideration sentiments of raised by the Nakuru County Health Management Committee.

To ensure reliability of the research tools, they were exposed to testing to guarantee that the features of steadiness and equivalency were certain. The method used to measure reliability of the study tools was test re-test method. The interview guide was tested in two health facilities in Molo Sub-County targeting health facility in-charges while the questionnaire for the women of procreative age was tested in Kuresoi North Sub-County interviewing 20 women of procreative age at house level. The women of procreative age were visited in their respective households, explained to about the survey and upon giving consent, they were interviewed. They were given an appointment of one month when the researcher returned to the same households and interviewed the same women using the same questionnaire. The two-health facilities in-charge were interviewed utilizing the interview manual and the given an appointment of one month after which the same interview manual was utilized to interview them. The results of the two sets of were calculated for correlation using SPSS.

G. Data Analysis Techniques

This survey produced both quantitative and qualitative data to describe the influence of management competency on performance of family planning program. The filled questionnaires were obtained, coded, and edited for comprehensiveness and steadiness. The data was examined by applying descriptive and inferential statistics using the Statistical Package for Social Science (SPSS). This was utilized to give both descriptive and inferential statistics which enhanced examination of the hypothesis at the significance level of 0.05 and the confidence interval of 95%.

Qualitative data was analyzed from the in-depth interviews and observation checklist and involved analyzing transcripts and identifying themes within that data. This also involved putting together themes that were alike from the text thus qualitative data was analyzed by checking data, developing codes, identifying themes and patterns, and then summarizing the data and linking them to objectives and hypothesis.

A simple linear regression analysis was carried out to analyze the influence of management competency on the performance of family planning program. The hypothesis was also analyzed using Pearson's Product Moment Correlation for interpretation of results. Correlation analysis was key in order to determine the association between the independent and dependent variables. Finally, the data was analyzed descriptive statistics for the quantitative analysis of data. The data was then be presented using frequency distribution tables for easier understanding.

IV. EMPIRICAL ANALYSIS

The empirical analysis section contains four parts which include, descriptive statistics, content analysis, observation chart, correlation analysis, simple linear regression analysis, and discussion of empirical findings.

A. Descriptive Statistics

The study sought to determine the mean, standard error and standard deviation of management competency. This was analyzed using SPSS. There were ten questions distributed among the four indicators of the independent variable (management competency). The mean, standard error and standard deviation was analyzed as per as the results in the in Table II below.

TABLE II: MANAGEMENT COMPETENCY DESCRIPTIVE STATISTICS

	N	**Mean**		**Std. Deviation**
	Statistic	**Statistic**	**Std. Error**	**Statistic**
Management Competency	400	30.69	.498	9.960
Valid N (listwise)	400			

The results exhibit a mean of 30.69, standard error of 0.498, and standard deviation of 9.960. The interpretation is that; about 68% of the sample population, with an assumption of normal distribution, at one standard deviation is between (30.69 - 0.498) = 30.192 and (30.69 + 0.498) = 31.188 which has an average of 30.69. This indicated that the sample population

tended to be neutral on the management of the health facility they were seeking contraceptive services. The views of the sample population gave the same views with the total population which was between 30.69 - 9.960 = 20.73 and 30.69 + 9.960 = 40.65 with average of 30.69.

The study also sought to measure the mean and standard deviation of performance of family planning program. Table III shows the results.

TABLE III: PERFORMANCE OF FAMILY PLANNING PROGRAM DESCRIPTIVE STATISTICS

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Performance	400	36.43	.368	7.357
Valid N (listwise)	400			

The results display a mean of 36.43, SE of 0.368 and SD of 7.357. This implies that 68% of the sample population at one standard deviation is between (36.43 - 0.368) = 36.0621 and (36.43 + 0.368) = 36.798, which has an average of 36.43. This indicated that the sample population tended to agree on the performance of family planning program. The views of the sample population gave the same views with the total population, which was between 36.43 - 7.357 = 29.073 and 36.43 + 7.357 = 43.787 with average of 36.43.

B. Content Analysis

Content analysis was conducted on questions asked in the interview guide pertaining to management competency. The findings are enumerated below. Nursing officers in-charge of nineteen government health facilities in Kuresoi North were interviewed to get their opinion on management and the general leadership. On the question on how the county leadership ensured that the staff were updated in their skills, 100% of the nursing officers were in agreement that the county and the sub-country leadership was able to ensure that they remained updated with all the relevant skill. They cited that leadership enhanced skills transfers through integrated outreaches whereby a senior officer carries out mentorship especially on long-term family planning procedures. Other avenues for skills transfer that that the county was using was using continuous medical education sessions, on the job training, through the job aids and information charts, through review meeting and one on one sessions during supportive supervision.

The question on evidence that staff are regularly updated was asked. Nursing officers had different ways that is used to measure update of health care workers. 50% of the nursing officers stated that the measure of updates was through the minutes of the records kept by the facility after every update. 30% felt that the best measure was through assessing quality of care and improvement of services, which could be checked through Kenya Health Information System (KHIS). The KHIS would show an upsurge of some services. 20% indicated that improvement of skills could be measured through supportive supervision where skills are tested, and recap of the skills is done.

The nursing officers were also asked on other ways that the county and sub-county leadership managed to ensure that nursing officers were up to date with skills and knowledge on family planning. They indicated that social media forum like a WhatsApp group were utilized where some urgent information is given to members awaiting a formal discussion. Through the group, videos are shared, and other job aids that facilitated the health care workers to learn more. The management can explore the idea of eLearning through mobile phones since all the nursing officers own a smart phone and are connected to others through what up group.

On the question of how the health care workers client documentation was asked. The health care workers stated that they were documented family planning services in the family planning registers. They said that the hospitals lacked the family planning card for mothers and hence use exercise books that clients buy. They also indicated that they were not able to trace the women who missed family planning appointments. This was also the case with the women of reproductive age who indicated a gap in documentation during the household survey that showed that women tended to disagree on the few management issues especially on documentation.

C. Observation Chart

The study investigated whether the 19 dispensaries and health centers in Kuresoi North Sub-County correctly filed family planning reports. Six parameters of filing the reports were chosen. The findings are presented in Fig 1.

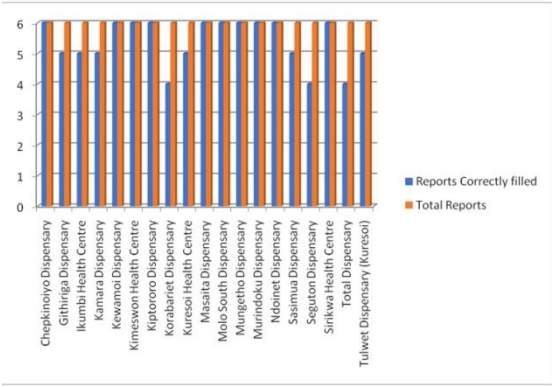


Fig. 1. Filing of family planning reports.

The findings showcased that 10 of the dispensaries and health centers observed all the six parameters in the correct filing of the family planning reports. Three dispensaries observed the lowest number of parameters, which were 4 parameters.

The study further investigated whether the 19 dispensaries and health centers implemented tools and skills for ordering of contraceptives. One tool and one skill were chosen to asses efficient ordering of contraceptives, translating to two parameters. The results are displayed in Fig 2.

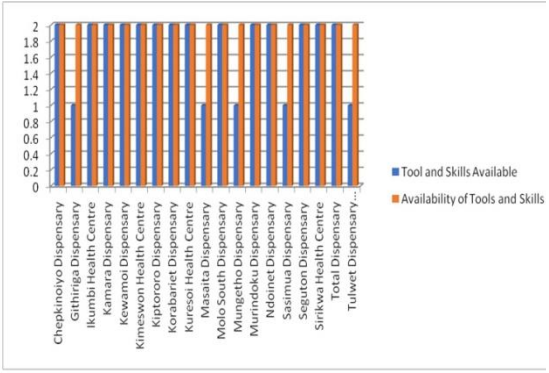


Fig. 2. Tools and skills for ordering of contraceptives.

The findings highlight that 14 of the dispensaries and health centers attained the 2 parameters in ordering of contraceptives. The balance attained at least one of the parameters.

D. Correlation Analysis

The study sought to establish the influence of management competency on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. Management competency as an independent variable was guided by four indicators which were; leadership, health care providers skills and level of training, adherence to guidelines, and report and documentation. Table IV shows the correlation.

The study identified a strong positive correlation of 0.624 (62.4%) between management competency and performance of family planning program in Kuresoi North Sub-County and a significance level of 0.00 which is less than the significance level of 0.05. Thus, there is a significance association between management competency and performance of family planning program.

TABLE IV: CORRELATIONS ANALYSIS

		Management Competency	Performance
Management Competency	Pearson Correlation	1	.624**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.624**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

E. Simple Linear Regression Analysis

The study sought to test the fitness of the model on relationships between management competency and performance of family planning programs. The study also sought to test hypothesis that there is no significant relationship between management competency and performance of family planning program. Finally, the study sought to measure the strength of the relationship between management competency and performance of family planning program. Tables 4.12 shows the results of the model.

TABLE V: SIMPLE LINEAR REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.389	.387	5.758

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8400.924	1	8400.924	253.356	.000[b]
	Residual	13197.116	398	33.159		
	Total	21598.040	399			

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	22.289	.934		23.867	.000
	Management Competency	.461	.029	.624	15.917	.000

a. Dependent Variable: Performance
b. Predictors: (Constant), Management Competency

The results showed that R Square value was 0.389. Thus, management competency predicts 38.9% of performance of the family planning program in Kuresoi North Sub-County, Nakuru County, Kenya.

The result also indicated that significance value obtained in the analysis of variance is 0.00, which is less than the critical of 0.05. Thus, the null hypothesis that management competency does not predict performance of family planning program is rejected. Hence, the model of management competency predicting performance is therefore fit.

The result indicated that significance value obtained from the model coefficients is 0.00 which is less than the critical value of 0.05. Thus, management competency significantly affects performance, the null hypothesis that management competency does not significantly affect performance of family planning program is rejected. The following model is thus developed;

$$Y= 22.89 + 0.461X \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots eq\ (2)$$

This implies that when one improves management competency by one unit, there is an increase in performance of family planning program by 0.461 units.

F. Discussion of Findings

The study findings displayed that there was a significant and strong positive correlation between management competency and performance of family planning program in Kuresoi North Sub-County. The study findings also exhibited that there is a significant positive relationship between management competency and performance of family planning program in Kuresoi North Sub-County. The study further exhibited that management competency predicted and described to a large extent the performance of family planning.

The study findings are in tandem with the conclusions of [2] that leadership is of paramount importance in achieving total quality of care. The report stipulated that leadership is a process that provides guidance and motivation to improve quality care hence the role of leadership is key in achieving the total quality of care. The model developed in the report further described the main objective of leadership in total quality management as that of maintaining a conducive environment that enables staff to be part of the process towards achieving the organization's purposes or goals, validate obligation to the group or organization and support to overcome employees ordinary confrontation to transformation and to persuade staff that quality is vital and that leadership role should be clear, precise and well defined on how to objectively meet the threshold of guiding the total quality management.

The study findings are also congruent to findings of the study conducted by [5], which established that a good performing organization usually has a culture that helps to maintain standard all through, organization culture and in health care, the culture needs to be nurtured, and health care providers mentored on by the organization leadership. The study opined that this would ensure quality improvement, safe and compassion health care which has remained a key challenge in health sector.

The study findings are parallel to findings of a report of English National Health Service (NHS), carried out by [3] which sought to investigate organization philosophy in the institution. The study identified some key components which were of paramount importance towards sustaining values that ensure excellence and compassionate care for clients which included; inspirational dreams operationalized at all levels of leadership in health facilities and community primary care, leaders aligned objectives for all players with inclusion of stakeholders, branches and specific staff, helpful and empowering individual's administration, elevated staff assignation level, leaders engrossed to affirming education especially eLearning, and invention to get new way of addressing quality and quality enhancement as a culture by all workers, as well as actual teamwork.

The study findings are in agreement with a study conducted by [6] on patients' outcome and leadership style which outlined that leadership style in health care has been associated with saving of lives and suggested that there is a correlation between nursing leadership style and the numbers of mortality in the hospital as well as medication errors.

The study findings are in tandem with those of a study carried out by [7], which was another extensive assessment of therapeutic management model that established that various leadership styles vary according to the medical or clinical site. Leadership style may therefore not be used uniformly in all health sector setups. Selection of the right manager with the right skills to manage a health facility is very important in determining the overall performance in health care, patient satisfaction and morbidity rates. The finding further indicated that leadership required support from the political angle in order to practice the

strategies that work for an institution as well for the users of the health facility. The leaders therefore need to have a background on the issues affecting institutions and hence advocacy remains a key tool in sensitizing leaders.

The study findings are in convergence with a study on National Health Service hospital trusts by [8], which established that the health facilities with clinicians governing the boards had greater performance. The study findings are also in agreement with a study by [9] on leadership and work life which found that reliable management is associated with job satisfaction and employees portraying characteristics of leadership like trustworthiness, unselfishness, compassion, justice, responsibility, and hopefulness legitimacy indicates steadiness with morals of offering excellence and empathetic client care and that the intellectual capacity of leaders determines how well leaders take up their roles in health care.

The current study findings are congruent to the study done by [10], which noted that a front-runner within the health segment must understand the factors behind good as performance. Some of the factors outlined included understanding on performance matters, value aspect of care as well as formation of performance improvements require teamwork. The study also brought about a new concept of value for service which is key for leaders to evaluate whether the clients get value for their cost in relation of the services they receive in health.

V. CONCLUSIONS

The study concluded that there was a significant and strong positive correlation between management competency and performance of family planning program in Kuresoi North Sub-County.

The study also concluded that there is a significant positive relationship between management competency and performance of family planning program in Kuresoi North Sub-County. The study finally concluded that management competency predicted and described to a large extent the performance of family planning.

Thus, recommendations can be made to the health regulatory authorities and health facilities to increase their management competencies in order to increase the performance of family planning programs. In order to increase management competency the health care providers should; offer quality health care, improve leadership of the health facility, document all findings and properly file all records, offer services in the shortest time possible, have a clearly written charter indicating services offered and cost, adheres to the time indicated for the service, have a suggestion box to obtain customer feedback, and address complaint raised by clients

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Influence of Access to Quality Services on Performance of Family Planning Programs in Kuresoi North Sub-County, Nakuru County, Kenya

Jenifer Wothaya Wambugu, Dorothy Ndunge Kyalo, John Mbugua, and Regina Mutave

Abstract - This study investigated access to quality services influence on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The study was founded on the theory of constraint and adopted a pragmatism paradigm. It applied descriptive research method using mixed method approach to investigate the influence of access to quality services on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The target population in the study was women of reproductive age in 33,482 households distributed in the four Wards of Kuresoi North Sub-County and 19 health management leaders in-charge of all government health facilities offering family planning services in the Sub-County. A sample size of 400 of women of reproductive age and 19 nursing officers in-charge of government health facilities was utilized. The data collection tools used were questionnaire, interview guide, and observation checklist for women of reproductive age and the interview guide for the health facility managers. The research study adopted stratified sampling method. Qualitative data was analyzed according to themes and patterns, and then summarizing the data and linking it to objectives and hypothesis. The study findings exhibited that there was a significant and strong positive individual correlation between access to quality services and performance of family planning program in Kuresoi North Sub-County. The study findings also displayed that there is a significant positive relationship between access to quality services and performance of family planning program in Kuresoi North Sub-County and it predicted the performance of family planning programmes. in Kuresoi North Sub-County.

Index Terms – access to quality services, family planning program, reproductive age.

I. INTRODUCTION

Family planning programs make a key starring role in prevention of maternal and infant mortality. Despite the benefits associated with family planning, many women continue to encounter unattained family planning needs leading to unwanted pregnancies and compromised health for women and children. A report by [1] indicated that globally, two hundred and fourteen million females of procreative age from underdeveloped nations would like to use a family planning method for child spacing but continue to face challenges and barriers to accessibility.

A quality family planning service should ensure adherence, persistent, and positive referral of individual users as well as contribute to the overall improvement of health indicators especially maternal as well as neonatal health [2].

Efficiency is a performance of family planning program dimension which entails offering health care amenities in a technique that it is able to maximize the limited resource use and avoiding wastage. Accessibility is yet another performance of family planning program aspect, which comprises of offering health services that are opportune, physically reasonable, and offered in an atmosphere where knowledge, capacities and resources are suitable to health necessity and client counseling. Another performance of family planning program dimension identified was patient-centered which entails offering health care services, which considers individual or client predilections and goals, and the cultural setup of their societies. Another aspect is unbiassed, which is providing health care services that do not discriminate a person due to individual features like sex, race, culture, topographical setting, or financial standing. In addition, safety was considered as a performance of family planning program aspect. It entails providing health care services, which lessens jeopardies and damage to service consumers.

Achievement in programs related to family planning has been associated with key benefits

to countries and the population. The major benefits as described by [1] are; averting pregnancy-linked health dangers in women, dropping new-born mortality, supporting to avert HIV/AIDS, empowering individuals and improving education, as well as dropping adolescent pregnancies and decelerating population advance. Performance of programs related to contraceptives remains significant in attaining the United Nations Sustainable Development Goals. USAID through knowledge for health program revealed that there exists a gap in implementation of family planning worldwide.

Kenya made a great milestone in addressing quality in health by launching Kenya Quality Model of Health (KQMH) care by [3], which provided a conceptual framework for offering holistic and scientific services through addressing a variety of structural quality matters with the key purpose of delivering health effects that are positive.

Access to quality services in family planning entails providing family planning services that are opportune, geographically sensible, and offered within an atmosphere where capacities and resources are suitable to health necessity. It comprises of location of the contraceptives service delivery points, opportune delivery of contraceptives services, and family planning counseling room. A good family planning room is important to ensure that clients access the services without barriers such as fear hence ensuring accessibility of the services. Some countries have ensured family planning rooms are well equipped, located in a friendly environment as a way of increasing accessibility.

Ninety-eight percent of health centers examined in Nepal were offering up-to-date contraceptives such as the oral pill, injectable contraceptives, long acting and reversible contraceptives; implants, IUCD, and also both male and female condoms and permanent family planning (voluntary sterilization). The study further outlined that hospitals categorized as zonal that provided contraceptive services on daily basis were only 83% while those categorized as district hospitals were at 76%, and the private sector at a lower level of 96%. Quality counseling dimension in family planning program means offering family planning services through an interpersonal relationship that help a client to make an informed decision as well as taking into consideration clients or individuals' favorite services and goals and the beliefs of their societies [4].

Access to quality service comprises of components such as client satisfaction, client choice, as well as counseling. Family planning counseling has been outlined by WHO to have six fundamentals which are; Greet consumers, Ask consumers what brought them to the health facility, Tell them about Contraceptive options, Help them to choose a contraceptive that fit them, Explain and demonstrate to a client how to use a the contraceptive methods he/she chooses, how it works, and give a Return or referee the client for addition reviews. The fundamentals are described by an acronym referred to as "GATHER". Patient health care provider interface implies to the interactive conversations amongst a patient receiving knowledge and services in a health care facility or outreach providers for health care offering the essential services.

Despite the launch of the KQMH care document, there is no study conducted on the implementation of KQMH and the influence on performance of family planning program in Nakuru County. Family planning services are very critical services in preventive health especially at primary health care level. This study has utilized the healthcare quality dimensions of access to quality services in relation to performance of family planning program in Nakuru County, focusing on Kuresoi North Sub-County.

The remaining part of this paper is arranged as follows. Section two discusses about literature reviews. Section three deals with data and research methodology. The last two sections focus on empirical analysis and conclusions respectively.

II. LITERATURE REVIEW

This study sought to determine the influence of access to quality services on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. Access to excellence wellbeing care to susceptible populations is a strategy that need to be embraced by many programs. This is in convergence with a study carried out by [5] in America that indicated that the direction to advance the health care of all clients and all societies is to have a clear guideline. In line with this, American Hospital Association developed a path forward, with an obligation in five areas of quality health care which are; access, value, partners, well-being, and coordination. These

components are key to achieving quality of health care.

As a way of accessing quality health care, scholars have established ways of clients and patients assessing health services without a physical contact to a clinician. Such innovate ways include the utilization of Telemedicine, which is described by [6] as the utilization of innovation through technology to give wellbeing services from far. The use of telemedicine is suggested to expand access for patients. This would be very helpful to clients who may not need a physical contact with a doctor and will improve health outcomes while reducing medical costs. The use of technology can also reduce many barriers and support good collaboration with patients as well as client owning and taking charge of their health.

An evaluation of 63 studies was done by [7]. The results indicated programmatic gaps and recommended restructuring of family planning programs to target the population irrespective of area of residence and age as way of enhancing accessibility.

Most of the service delivery programs working on family planning have not been keen in reviewing accessibility of family planning in at various ages. In a study carried out in Uganda by [8] indicated that various groups within the population experience different challenges while trying to access contraceptives. These groups included young people and men who continue to face challenges in accessing information related to family planning as well as accessing family planning commodities.

Unattained requirement for contraceptives has been associated with lack of access. Geographical accessibility has remained a major hindrance especially amongst females in rural areas. This is in convergence with a report by [9] that indicated that married men in rural areas had higher unattained need for family planning (30%) compared to married females in urban areas (23%). It was also noted that there was a strong relationship between increased level of unattained requirement for contraceptives and the wealth status. It was noted that as wealth increases, the unattained need for family planning reduces.

Many studies have been conducted to assess the contribution that partners' engagement can bring in female decision making on reproductive health. A research by [10] acknowledged that male engagement can upsurge the access gained in reproductive health services especially contraceptives. The research recommended male participation in all stages of life in order to embrace reproductive well-being of their partners as part of them. This would call for a change in programming to have men targeted messages. This is in convergence with a study by [11] who noted a gap in family planning programming, researchering, as well as in development of policy guidelines. The gap was lack of targeted strategy for male involvement. The recommendation was to have men targeted approaches from family planning, preconception, pregnancy and childbirth as well as childcare.

A family planning examination room is important in determining whether clients would take up family planning services as described by [12], who conducted a study on contraceptives services that sought to investigate quality as an element of usage of IUCD in Egypt. The study established that excellence of contraceptive amenities in relationship to counselling and assessment room had robust positive impact on uptake of IUD. Considering the sensitivity of IUD insertion procedure, privacy in examination rooms should be considered in any facility offering family planning services. The indicators for access to quality services in this study will be location, waiting time, counselling room, and services or provider.

Access to harmless, reasonably priced, and quality vital medications and technologies remains a contest in many African countries. In the Universal Health Coverage framework for Africa by [13] indicated access as a pillar to the universal health coverage. The framework further describes the main barriers to accessing quality health care, which included high fees, insufficient funding, frail pharmacological guidelines, insufficient purchasing, and supply systems.

The framework also indicated that most Africa countries had limited access to information regarding health by the general population as well as unsuitable use of information. Africa region has also faced a major challenge in health product with a notable increase of substandard health products as a result of poor performance in enforcing the rules and regulations. Poor health quality access comprises of the cost of care, wastes, and scarce resources. Access to health care ought to accommodate the needs of the entire population. This includes persons living with disability as indicated by a study by [14] that there was need to have a clear definition of people with disability and have it as an access indicator in health care and part of standards.

Access to health care services may have different context and challenges. In an attempt to understand access context in providing maternal health care, [15] evaluated access as in maternal facilities in Bangladesh and Uganda and indicated that health results are dependent on having structures to empower women undergoing health crises to reach suitable health facilities for the services they need. The study observed that the two countries had similar challenges of low utilization of maternal health services which included skilled birth attendance and explicit home-grown structures. The community was also indicated to influence accessibility due to perceptions of acceptable risk and of what constitutes appropriate care.

This is in convergence with a World Health Organization [WHO] report that indicates the status of unattained contraceptive needs amongst females of procreative age. Many clients in the world have unmet family planning requirements owing to numerous justifications like access to the contraceptive amenities. The finding of the research gave more understandings into the decision-making procedures and overwhelming access barricades. Partners were considered to be predominantly significant in Uganda, though, in Bangladesh, various features were found to determine care-seeking which included unqualified resident healers as well as traditional birth attendants. In the two countries, charge and transport barricades were being overcome through use of social networks.

Internationally, about 214 million females of childbearing era from evolving countries wish to have a family planning method but have no access to the contraceptives. Further, Africa was leading with the number of females with unsatisfied contraceptive requirements of 24.2%. Some of the continents which had high contraceptive acceptance included Asia, Latin America and Caribbean which had 10.2% and 10.7%, levels of unmet family planning requirements [1]. There is need for nations across the globe ton have a strategic plan aimed at addressing the access to quality dimension of family planning.

To improve access, many family planning programs have tried different strategies of implementing family planning. Knowledge for health, which is a USAID program, introduced a Communal-Based Access to Injectable Contraceptives Toolkit as a platform for enhancing the ability of organizations in the designing, operationalising monitoring, evaluating, and rolling out of community-based family planning programs. As well as a tool for to advocacy for changes to national policy and service delivery guidelines in family planning to include the community deports and delivery points. The use of community-based volunteers equally instead of trained nurses to offer family planning occurs [16].

Access can be divided into several components' poverty being a key component as describe by [17] in the study on abject poverty in relation to gaining access to wellbeing services among the growing countries split access into Geographic access and Financial Accessibility. The geographic access described the distance a client travels to seek health services as a significant obstacle to gaining access to health services since there exist a relationship between mileage to healthcare facilities and usage of wellbeing services. Geographical accessibility included the infrastructure since good roads supports the supply of various medical commodities to health facilities as well as appropriate referral mechanisms in case of emergencies. Good in fracture equally promotes mentorship and support supervision for health care workers. Communication is also part of geographical access since lack or inadequate also limits access to health care. Financial Accessibility entails the funding mechanism in the care, which ensures availability of commodities and supplies as well as the cost of health care services since affordability has remained a major barrier in accessing health care.

This is in convergence with a WHO report that indicated that every individual irrespective of gender, age, and race has a right to all health components hence accessibility of health should be guaranteed to all. The report described the need of to have health services accessible, friendly, satisfactory and of great quality. The fact sheet further stated that the health facilities should not just be present but should be functional and offering standard services. In addition, it described that accessibility is not just physically accessibility but also financial and the right to pursue, obtain and convey wellbeing-associated knowledge in a reachable set-up [1].

The outcomes of the study were convergent with result of a valuation of contraceptive services carried out in the republic of Kenya. The evidence from Kenya Service Provision evaluation study by the ministry of health Kenya in 2009, which indicated that health centres, clinics, and dispensaries needed to be refurbished to suitable values to support all

rudimentary fundamentals of service delivery related to family planning. This was in convergence with findings of a study that indicated that family planning room should have all the equipment's necessary to offer all the family planning including the documentation and reporting tools.

Health financing is one of the biggest components in any country since it indicated the government commitment to supporting health. The USAID, which has been a major donor in financing health programs, envisions a situation where countries would take care of their health status this is well which is outlined in the USAID vision for Health systems strengthening, 2015-2019. In the document, the key to accessing health care services was financial protection, which entailed the cost of accessing quality, wellbeing essential services which normally affect the utilization of the essential services related to health. USAID indicated that accessibility go beyond a service to include great-excellence, life expectancy-conserving, restraint, advancement, medication, and all services related to care for communities hence the role of health care at community and at health facility level.

Research has also indicated that acceptance of reproductive and sexual health services can be associated with better health results. A study by [18] showed that some better health results can be experienced as a result of utilization of reproductive health services. These indicators include pregnancy outcome, delivery outcome, perinatal, and newborn mortality, maternal illness and deaths as well as spread conditions from mother to child such as HIV/AIDS. The study further highlighted the importance of improving access for contraceptive services to targeted groups such as young people. It further recommended different models for different target populations.

Distance to the health care facility contributes to accessibility of services. A research by [19] in Kenya showed that an increase in distance contributed to a decrease in accessibility of reproductive health services. The report of the study showed that an increment in every one-kilometer lead to a 34% decreased in accessing services. It is therefore important for health programmers to ensure that no woman travels more than 3 Kilometers to access reproductive health amenities. This would facilitate achievement of Universal Health Care (UHC).

Health departments globally have increased efforts in reducing neonatal mortality and morbidity. These efforts include several strategies such as prevention of unwanted pregnancies especially teenage pregnancies as described by [20], who recognized the role of family planning in reduction of infant mortality. Women need to live within proximity to a health facility to be attended to incase of any emergency. This calls for health departments to advocate for family planning until women are ready to carry a pregnancy and improve distance to health care facilities.

Additionally, accessing reproductive health services among the youths has been a challenge globally. Despite the fact that nations have seen the reality of unattained requirement for family planning, not much efforts have been done to establish strategies of reaching young people with family planning services. Some programs continue to be hindered by the fact that teenagers are not of age and hence parents have to give consent, yet the teenagers are sexually active. This barrier is experienced in many countries, which face a dilemma on offering teenagers family planning commodities [21].

Access to quality service in health care has been broadened to include other components, which are client led. This was discussed in study by [22], which indicated that access goes beyond topographical and monetary access, to the real requirement for services from the client. Client enablement to take lead in his or her health can be considered a significant component in access dimension hence advocacy is key to achieving accessibility. This is in convergence with another study carried out in Canada with an intention of addressing the access barrier to health care, clients were engaged, and they reported harassment by nurses, anxiety, humiliation, and absence of social understanding as the main causes of access barrier. The study recommended the need to urgently address the issues surrounding culturally suitable services [23].

Access to quality service in quality health care has been defined in various context by different scholars [24], defined access to quality service as the ability to have a chance to acquire and suitably use quality health care services. The study equally defined it as the "degree of fit" or compatibility amongst the health structure on one hand and client acceptance to use the services on the other hand. It was therefore divided into various dimensions, which included the availability (geographical access), cost effectiveness (economic access) and suitability (social access) to services related to health.

The study further well-defined excellence in health as well described by Institute of Medicine (IOM) which defines it as the grade at which services related to health care for persons and populaces upsurge the probability of anticipated results in health and that they are dependable beside present specialized information. In addition, the IOM further indicates that excellence essential in health should be efficient, cost-effective, equitable, client centred, safe and timely.

Many countries and continents have developed strategic plan with an aim of addressing the health care quality. One of such initiatives is the European Patient Forum Strategic plan 2014-2020, which aimed at giving direction in health care. The strategic plan defined accessible health care from the clients' perception, as that health service is available all through in the periods of provision of care, starting with protection normally referred to as promotion of health care as well as initial analysis all the way to treatments, comprising of non-therapeutic provision. The strategic plan further stated that topographical situations ought not to bring obstacles in accessing health related care amenities as well as access to knowledge. Access to the right knowledge is a component of quality that needs to be taken into account in health care.

A unique method that was determined to have potential in lessening unattained requirement is through campaigning on partner engagement in contraceptive acceptance [25]. The recommendation made was to have men targeted messaging to advocate for their involvement with a view that if men were made to understand the significance of child spacing, they would support their partners. It was also discovered that most information related to reproductive health only target women and hence need to ensure men have access to health messaging.

In summary, many nations are working towards addressing access to quality family planning services. According to a strategy developed by [26], this was to be realized through improving access across all ages especially among the teens aged between 10-24 as well as increasing access in rural areas and amongst the less privileged populaces. The strategy recommended that to achieve access, there is need to stimulate and advocate transformation of social behaviours among individuals, families, and society. This would help in addressing traditions, misapprehensions, and undesirable consequences and increase utilization of contraceptive use in prevention of unintentional gestations.

III. DATA AND RESEARCH METHODOLOGY

This section profiles the research procedures that were applied to address the research objective. These included research model, research strategy, target populace, sample size, and sampling methods, research tools, data gathering methods, data analysis systems, ethical attention and operational description of variables. It also describes the procedures undertaken to guarantee the validity as well as the reliability of the investigation instruments. The section equally includes the ethical concerns. The section concludes with the description of variables.

A. Research Paradigm

This study was steered by pragmatisms paradigm since the study integrated quantitative and qualitative research strategies by use of mixed technique of data collection and examination. The fundamental hypothesis of the mixed study methodology is that blending numerical and non-numerical techniques offers a comprehensive knowledge of the investigation problem compared to applying only single kind of techniques as described by [27] and [28]. This is in concurrence with discoveries from a study by [29] who described dual case studies that utilized mixed study approaches and revealed that use of mixed study delivered both quantitative as well as qualitative perceptive which resulted to superlative data elucidation as well as the superlative understanding of the investigation phenomena.

Mixed approaches research provided additional thoughtful of the multifaceted phenomena that was likely to otherwise not be available through using single method only as described by [30]. Pragmatism paradigm was carefully chosen as the most appropriate for this survey since the survey aimed to examine the influence of healthcare quality dimensions and client characteristics on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya.

The choice of the paradigm was to accommodate the diverse approaches of data gathering as indicated by [31] that pragmatism is predominantly suitable for mixed methods. In addition, pragmatism permitted the investigator to be free of psychological and

hands-on constrictions executed by the ‘‘involuntary optimal contradiction amid post positivism and constructivism as described by [30]. It also enabled the investigator to be independent hence not obliged to a certain research method or technique as stated by [32].

B. Research Design

The study utilized the descriptive survey using mixed techniques research design. Mixed method is a procedure for steering research that encompasses gathering, scrutinizing and assimilating quantifiable statistics such as surveys and qualitative statistics such as interviews and observation guide as described by [30]. The choice of mixed method was to offer a better consideration of the research problem. The method was selected considering that there had not been a study in Kuresoi North Sub-County testing the effect of management competence on any health program especially family planning. It was of paramount important to therefore use a method that would enable the investigator to continuously review the research question from diverse angles and elucidate unforeseen discoveries and/or probable contradictions.

Use of mixed method approach gave advantage to the study as described by [33] whereby, through use of the approach, the investigator was able to examine uniformity of outcomes obtained by various tools which included; household survey, interview guide, and observation checklist. It also offered data complementation by using both numerical and non-numerical statistics to evaluate overlapping but distinctive aspects of the research phenomenon.

C. Target Population

The target population in this study was 33,482 households in Kuresoi North Sub-County, Nakuru County. This number of households in Kuresoi North Sub-County was drawn from the Kenya health information system. The study also targeted the 19 nursing officers in-charge of all government health care facilities offering contraceptive services in Kuresoi North Sub-County.

This target population was useful in providing the required data in the topic under investigation, which was access to quality services and performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. The target population of 33,482 households was guided by the households mapped in Kuresoi North Sub-County as per the 2009 Census and 4% estimated annual population growth as tabulated in the Kenya health information system 2019. The women of procreative age in Kuresoi North Sub-County was equally guided by 2019 Population Estimates revised for Kuresoi North Sub-County as populated in the Kenya Health Information system developed in 2019. This estimate of population and households is usually calculated guided by the population as per the census and the annual growth rate per Sub-County in relation to the proportion of each age cohort. Kuresoi North Sub-County has an estimated growth rate of 4% per year.

The health care facility in-charges comprised of all 19 officers of government health care facilities in Kuresoi North Sub-County. The women of procreative age were reached at the household level by trained community health volunteers. The estimated number of households in Kuresoi Sub-County were 33,482 which accounts 19.2% of the total population distributed in the four wards of the Sub-County. The inclusion of the health facility managers in this study was to enhance an understanding on access to quality services and performance of the family planning program.

The inclusion criterion for women of procreative age was the women within the procreative age cohort in a household that were eligible for collecting data from. The exclusion criteria were women of non-procreative age as per the operational definition irrespective of utilizing family planning services. The inclusion criteria for health care facility in-charges was only the nursing officers in-charge of all the government health facilities in Kuresoi North offering family planning services while the exclusion criteria were private health care facility nursing officers in-charge irrespective of offering family planning.

D. Sample and Sampling Procedures

Sample scope that was utilized for the survey was taken by applying Slovin’s method designated by the populace size and the standard allowance error of 0.05 as specified in the equation below.

$$\text{Sample size } (n) = \frac{N}{/(1+Ne^2)} \quad \text{.....eq (1)}$$

Where; n = number of samples, N = population scope, e = margin of index or error margin. The error margin employed in the study was 5% as the confidence interval utilized for social sciences is 95% and the consequent error margin is 5%. Hence, the sample size obtained for the study was 400 respondents.

The sample was allocated in the four wards using the fisheries method for stratified random sampling procedure. The purpose of this method was to maximize sample survey precision from the calculated sample size. This is enumerated in Table I.

The population which was being investigation was homogenous, the study adopted stratified random sampling technique. The definition is in convergence with description by [34] who defined stratified random sampling as a process by which populace is segregated into subcategories known as "strata". Out of which every stratum, the same random sampling is applied in choosing for each-stratum sample. The overall each-stratum samples are thereafter joined to come up with the stratified random sample. It encompassed dividing the populace into standardised subdivisions and then getting a simple random sample in each subcategory.

TABLE I: SAMPLING FRAME

N	**Number of stratum (SU1) in the population**
M_i	Total of components (SU2) in stratum (SU1) i
$M_O = \sum_{i=1}^{N} M_i$	Aggregate number of components (SU2) in the populace
$\overline{M} = \frac{M_O}{N}$	Mean number of components (SU2) for every stratum (SU1).
Y_{ij}	Value of the selected trait of component (SU2) j in stratum (SU1) i
$Y_i = \sum_{j=1}^{M_i} Y_{ij}$	Aggregate value of the preferred attribute in stratum (SU1) i
$\overline{Y_i} = \frac{Y_i}{M_i}$	Mean value of the distinctive Y in the components (SU2) of stratum (SU1) i
$Y = \sum_{i=1}^{N} Y_i$	Aggregate value of the distinctive Y in the populace
$\overline{Y} = \frac{Y}{N}$	Mean value of the distinctive Y for every stratum (SU1)
$\overline{\overline{Y}} = \frac{Y}{M_O} = \frac{Y}{N\overline{M}} = \frac{\overline{Y}}{\overline{M}}$	Mean value of the trait Y for for every component (SU2)
$\overline{\overline{Y}} = \sum_{i=1}^{N} \frac{\overline{Y_i}}{N}$	Mean value of the feature Y for every component (SU2) if Mi = constant = M

E. Data Collection Procedures

The research assistants were guided by the Ward administrator, community health volunteer, the area chief, area assistant chief, and the village elder to identify a central point in each Ward, which was to be the initial point for sampling the households in each ward. The ward was further dived into four routes which informed the starting point. Each direction or route had equal number of questionnaires per the ward. To determine the starting point of data collection, the research assistant rolled a pen on the ground. The direction the sharp edge pointed was the initial route used to commence data collection. The research assistants further visited the first household and then skipped two households and visited every third household in the selected direction.

The research assistants ensured that they always started from the central starting point in the four routes selected. Upon getting to the household, the research assistants introduced her/himself, sought to know if the household had a woman of reproductive age, and if present, and sought permission from the household head or equivalent to administer the household questionnaire with assurance of confidentiality. For the households that did not have a woman of childbearing age, the research assistant moved to next household without skipping then continued with the pattern of skipping two households.

This study utilized a household questionnaire, key informant interview guide, and observation checklist for data collection. The survey tool for women of procreative age in the designate wards was a questionnaire. The key informant interview guide was utilized among the in-charges of health care facilities. Observation checklist was utilized to assess the nineteen health care facilities in Kuresoi North Sub-County. The choice of these instruments was directed by the type of data to be gathered, the dimensions and distribution of the population and also the goal of the research. The use of questionnaire in this study was carefully chosen since it allowed the questioner to gather a more deep and comprehensive information since the interviewer could self-control the procedure henceforth searching additional by adding

questions that aided to add additional information dissimilar in an observation method The questionnaire and interview guide were tested in Molo Sub-County, Nakuru County, Kenya. The pilot test targeted 15 women of procreative age. The choice of Molo Sub-County in Nakuru county was because it was not a study site. The two health facilities were randomly selected in Molo sub-county. The process of piloting was aimed at identifying whether women of reproductive age would understand the interrogations and instructions as well as whether the substance of questions was the similar for all respondents. For the household questionnaire, which had closed ended questions, piloting helped to check the sufficiency of response in the categories that were available. The responses from the participants was also expected to reveal presence of any inconsistencies in the questions within the questionnaire and ability of respondent to respond to all questions. The pilot study gave proper guidance on the tools. The tool collected the data which was intended hence they was no need of revising the tools.

F. Research Instruments Validity and Reliability

Inferences around the uses of the research apparatuses or instruments was validated. The validation was carried out to ensure that the research instruments had a suitable inference relevant to the purpose of the study and that the research instrument had a meaningful inference hence giving meaningful information using the instrument. The research instrument was tested to divulge the three categories of validity, which were; content-interrelated indication of validity, the criterion-interrelated indication of validity and the construct interrelated indication of validity. Utilization of experts in the area of reproductive health was done to help in assessing the subject matter validity. The tool was reviewed by the county health management team for any error. A small team that comprised of County Director of Strategic Planning, County Director of Quality Assurance and County reproductive health coordinator were tasked to review and give feedback on content. The review was followed by a presentation to the county health management team and later permit to collect data was given. The researcher put into consideration sentiments of raised by the Nakuru County Health Management Committee.

To ensure reliability of the research tools, they were exposed to testing to guarantee that the features of steadiness and equivalency were certain. The method used to measure reliability of the study tools was test re-test method. The interview guide was tested in two health facilities in Molo Sub-County targeting health facility in-charges while the questionnaire for the women of procreative age was tested in Kuresoi North Sub-County interviewing 20 women of procreative age at house level. The women of procreative age were visited in their respective households, explained to about the survey and upon giving consent, they were interviewed. They were given an appointment of one month when the researcher returned to the same households and interviewed the same women using the same questionnaire. The two-health facilities in-charge were interviewed utilizing the interview manual and the given an appointment of one month after which the same interview manual was utilized to interview them. The results of the two sets of were calculated for correlation using SPSS.

G. Data Analysis Techniques

This survey produced both quantitative and qualitative data to describe the influence of access to quality services on performance of family planning program. The filled questionnaires were obtained, coded, and edited for comprehensiveness and steadiness. The data was examined by applying descriptive and inferential statistics using the Statistical Package for Social Science (SPSS). This was utilized to give both descriptive and inferential statistics which enhanced examination of the hypothesis at the significance level of 0.05 and the confidence interval of 95%.

Qualitative data was analyzed from the in-depth interviews and observation checklist and involved analyzing transcripts and identifying themes within that data. This also involved putting together themes that were alike from the text thus qualitative data was analyzed by checking data, developing codes, identifying themes and patterns, and then summarizing the data and linking them to objectives and hypothesis.

A simple linear regression analysis was carried out to analyze the influence of access to quality services on the performance of family planning program. The hypothesis was also analyzed using Pearson's Product Moment Correlation for interpretation of results. Correlation analysis was key in order to determine the association between the independent and dependent variables. Finally, the data was analyzed descriptive statistics for the quantitative analysis of data. The data was then be presented

using frequency distribution tables for easier understanding.

IV. EMPIRICAL ANALYSIS

The empirical analysis section contains four parts which include, descriptive statistics, content analysis, observation chart, correlation analysis, simple linear regression analysis, and discussion of empirical findings.

A. Descriptive Statistics

The study sought to determine the mean, standard error and standard deviation of access to quality services. This was analyzed using SPSS. There were ten questions distributed among the four indicators of the independent variable (access to quality services). The mean, standard error and standard deviation was analyzed as per as the results in the in Table II below.

TABLE II: MANAGEMENT COMPETENCY DESCRIPTIVE STATISTICS

	N	**Mean**		**Std. Deviation**
	Statistic	**Statistic**	**Std. Error**	**Statistic**
Access Dimension	400	33.81	.359	7.177
Valid (listwise)	N400			

The results exhibit a mean of 33.81, standard error of 0.359, and standard deviation of 7.177. Interpretation: About 68% of the sample population (assuming a normal distribution) at one standard deviation is between (33.81 - 0.359) = 33.441 and (33.81 + 0.359) = 34.169, which has an average of 33.805. This indicated that the sample population tended to be neutral on access to quality dimension in the health facilities they were seeking family planning services. The views of the sample population gave the same views with the total population, which was between 33.81 - 7.177 = 26.633 and 33.81 + 7.177 = 40.987 with average of 33.81.

The study also sought to measure the mean and standard deviation of performance of family planning program. Table III shows the results.

TABLE III: PERFORMANCE OF FAMILY PLANNING PROGRAM DESCRIPTIVE STATISTICS

	N	**Mean**		**Std. Deviation**
	Statistic	**Statistic**	**Std. Error**	**Statistic**
Performance	400	36.43	.368	7.357
Valid (listwise)	N	400		

The results display a mean of 36.43, SE of 0.368 and SD of 7.357. This implies that 68% of the sample population at one standard deviation is between (36.43 - 0.368) = 36.0621 and (36.43 + 0.368) = 36.798, which has an average of 36.43. This indicated that the sample population tended to agree on the performance of family planning program. The views of the sample population gave the same views with the total population, which was between 36.43 - 7.357 = 29.073 and 36.43 + 7.357 = 43.787 with average of 36.43.

B. Content Analysis

Content analysis was conducted on questions asked in the interview guide pertaining to access to quality services. The findings are enumerated below. The interview with health care providers explored to establish the schedule of family planning services in the government. 100% of the nursing officers interviewed indicated that the family planning services were offered on daily basis from Monday to Friday starting at 8.00 am. to 5.000 pm. It was noted that during the weekend and in the evening the services not offered. The hospitals need to explore offering the services during the weekends and evening in order to enhance uptake among the youth and the working class and encourage adherence to the appointment dates.

Nursing officers were interviewed on how they ensured that the equipments used in family planning were sterilized. 11% indicated that they did not have an autoclave or electricity hence they were not able to offer methods like IUCD insertion or removal as well as removal of implants. 70% of the health facilities had autoclave and were able to autoclave when there was need, while 19% had autoclave but only sterilized equipment once per week. The county department of health needs to ensure that all the health facilities related to electricity had had autoclave to facilitate their functions in enhance family planning coverage.

On the cost of family planning services, 90% of the nursing officers interviewed indicated that the services were free, while 5% indicated that client were paying Kenya Shillings (KES) one hundred for family planning. Additionally, 5% indicated the clients were paying as a per the family planning method chosen. For instance, they paid KES fifty for injectable, KES two hundred for IUCD, and KES fifty for combined oral contraceptives. The Sub-county needs to

ensure adequate supplies of commodities and wave all the costs.

On the geographical accessibility, 90% of the nursing officers interviewed indicated that clients travelled more than 3 KM, between 3 - 6 KM, to the heath facility to seek services. 5% indicated that clients traveled between 2 and 3 KM, while 5% indicated that clients were traveling for at least 7 KM. They recommended use of outreaches and appealed to the county government to establish more health facilities.

On the access to family planning, 100% of the nursing officers interviewed indicated that they were able to give information to clients on contraceptives use and side effects. They stated that they reached clients at the community level through Community Health Volunteers (CHVs) and through giving health messages during the village briefings. They also gave information to all clients and patients by routine health messages, which are normally carried out every morning. The clients who also attend family planning services, and are given information during one on one counseling with the health care workers.

The nursing officers were also interviewed on other benefits that the clients using family planning services got, in form of extra services. 68% of the nursing officers indicated that they provided clients with HIV counseling and testing, as well as routine cervical cancer screening and couple counseling. 15% indicated that clients got other outpatient services such as treatment of minor illness, while 17% indicated that clients were able to get health education on other related services such as antenatal care, postnatal care, and safe maternity delivery by skilled birth attendant.

Nursing officers were interviewed regarding client's information and how they ensured safety of client confidential information. 36.8% indicated that all information was indicated in the client's card and clients went home with the cards hence detailed information was not left at the health facility. 63.2% indicated that client information was only limited to the information collected in the family planning register, which was very limited. However, this indicated that it was very easy to lose the clients data especially retrieving client's history.

A question on whether client was able to get her information upon request was asked, and 100% of the nursing officers indicated that it was not possible to get clients information. Thus, there is need to have all client's information stored electronically for easy retrieval and use for both the health care workers and the client to aid in monitoring method failure.

C. Observation Chart

Nineteen dispensaries and health centers in Kuresoi North Sub-County were investigated on the availability of Tiahrt Charts in the respective dispensaries and health centers. The Tiahrt Charts entail provisions of the Tiahrt amendment, which was enacted in the 1999 Foreign Operations Appropriations Act, which reflects values and principles concerning voluntary family planning projects and informed choice guiding United States Agency for International Development (USAID) family planning assistance. Presence of Tiahrt Charts indicates quality provision of family planning services. Thirteen dispensaries and health centers had Tiahrt Charts while 6 did not. This is clearly illustrated in the Fig 1. 68% of the dispensaries and health centers had Tiahrt Charts while 32% did not have.

Fig. 1. Availability of tiahrt charts.

The study further investigated whether family planning is integrated in other departments in the 19 dispensaries and health centers. The findings presented that all the 19 dispensaries and health centers integrated family planning in their other departments, translating to 100% of integration of family planning in various departments.

D. Correlation Analysis

The study sought to establish the influence of access to quality services on performance of family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. Access to quality services as an independent variable was guided by four indicators which were; geographical location, cost of service, availability of services or health care provider and access to information on family planning. Table IV shows the correlation.

The study identified a strong positive correlation of 0.599 between access to quality

services and performance of family planning program in Kuresoi North Sub-County and a significance level of 0.00 which is less than the significance level of 0.05. Thus, there is a significance association between access to quality services and performance of family planning program.

TABLE IV: CORRELATIONS ANALYSIS

		Access Dimension	Performance
Access Dimension	Pearson Correlation	1	.599**
	Sig. (2-tailed)		.000
	N	400	400
Performance	Pearson Correlation	.599**	1
	Sig. (2-tailed)	.000	
	N	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

E. Simple Linear Regression Analysis

The study sought to test the fitness of the model on relationships between access to quality services and performance of family planning programs. The study also sought to test hypothesis that there is no significant relationship between access to quality services and performance of family planning program. Finally, the study sought to measure the strength of the relationship between access to quality services and performance of family planning program. Tables V shows the results of the model.

The results showed that R Square value was 0.358. Thus, access to quality services predicts 38.9% of performance of the family planning program in Kuresoi North Sub-County, Nakuru County, Kenya. Consequently, 61.1% of the deviations in family planning are explained by the other factors not included in the study.

The result also indicated that significance value obtained in the analysis of variance is 0.00, which is less than the critical of 0.05. Thus, the null hypothesis that access to quality services does not predict performance of family planning program is rejected. Hence, the model of access to quality services predicting performance is therefore fit.

The result indicated that significance value obtained from the model coefficients is 0.00 which is less than the critical value of 0.05. Thus, access to quality services significantly affects performance, the null hypothesis that access to quality services does not significantly affect performance of family planning program is rejected.

TABLE V: SIMPLE LINEAR REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.358	.357	5.901

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7737.883	1	7737.883	222.196	.000[b]
	Residual	13860.157	398	34.825		
	Total	21598.040	399			

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.685	1.423		11.025	.000
	Access Dimension	.614	.041	.599	14.906	.000

a. Dependent Variable: Performance

b. Predictors: (Constant), Access Dimension

The following model is thus developed;

$$Y = 15.685 + 0.614X \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots eq\ (2)$$

This implies that when one improves access to quality services by one unit, there is an increase in performance of family planning program by 0.614 units.

F. Discussion of Findings

The study findings displayed that there was a significant and strong positive correlation between access to quality services and performance of family planning program in Kuresoi North Sub-County. The study findings also exhibited that there is a significant positive relationship between access to quality services and performance of family planning program in Kuresoi North Sub-County. The study further exhibited that access to quality services predicted and described to a large extent the performance of family planning.

The current study findings are in convergence with a study carried out by [5] in America that indicated that the direction to advance the health care of all clients and all societies is to have a clear guideline. The current study findings are congruent to the findings of a study carried out by [6], which established that innovate ways like utilization of Telemedicine, which is the utilization of innovation through technology,

provide excellent wellbeing services. The study suggested that use of telemedicine is suggested to expand access for patients and this would be very helpful to clients who may not need a physical contact with a doctor and will improve health outcomes while reducing medical costs. The study opined that use of technology can also reduce many barriers and support good collaboration with patients as well as client owning and taking charge of their health.

In the Universal Health Coverage framework for Africa by [13] indicated access as a pillar to the universal health coverage. This is in agreement with the current study findings. The current study findings are also parallel to the study findings by [15], which established that access to health care services may have different context and challenges. In an attempt to understand access context in providing maternal health care, the study evaluated access as in maternal facilities in Bangladesh and Uganda and indicated that health results are dependent on having structures to empower women undergoing health crises to reach suitable health facilities for the services they need. The community was also indicated to influence accessibility due to perceptions of acceptable risk and of what constitutes appropriate care.

This current study findings are also in convergence a report by [1] that indicates the status of unattained contraceptive needs amongst females of procreative age and many clients in the world have unmet family planning requirements owing to numerous justifications like access to the contraceptive amenities. The findings also outlined that in Bangladesh and Uganda, high charges and transport barriers to access to family planning services were being overcome through use of social networks.

Current study findings are in tandem with the USAID program called Knowledge for Health which introduced a Communal-Based Access to Injectable Contraceptives Toolkit as a platform for enhancing the ability of organizations in the designing, operationalising monitoring, evaluating rolling out of community-based family planning programs as well as a tool for to advocacy for changes to national policy and service delivery guidelines in family planning to include the community deports and delivery points. The program established that the use of community-based volunteers equally instead of trained nurses to offer family planning will bolster access [16].

The current study findings are in convergence with a research by [12] that focused on excellence component of family planning as a contributing factor in consumption of IUD in Egypt. The research indicated that excellence of services in relationship to counselling and room used to offer the contraceptive services contributed to a strong positive result in the uptake of IUD.

The outcomes of the current study are convergent with a Kenya Service Provision evaluation study by the ministry of health Kenya in 2009, which indicated that health centres, clinics, and dispensaries needed to be refurbished to suitable values to support all rudimentary fundamentals of services delivery related to family planning and that in absence of such essential tools, it is difficult to offer quality services. The current study findings are also in tandem with a study by [35] on a paper from the Bellagio Meeting on dimension in family planning which indicated the necessity to have a checklist on all the necessities in a family planning counselling rooms to ensure and measure quality and that a checklist would act as a good guide to all the health care providers to ensure and maintain quality.

The current study findings are in agreement with those of a study by [18], which exhibited that some better health results can be experienced as a result of utilization of reproductive health services. The study further highlighted the importance of improving access for contraceptive services to targeted groups such as young people. It further recommended different models for different target populations.

The current study finding is also in convergence with another study carried out in Canada by [23] with an intention of addressing the access barrier to health care. The study reported that clients were engaged, and they reported harassment by nurses, anxiety, humiliation, and absence of social understanding as the main causes of access barrier.

Finally, the current study findings are congruent to the findings of a report by IOM, which stated that access to quality dimension in quality health care is the grade at which services related to health care for persons and population upsurge results in the probability of anticipated results in health which are dependable beside presenting specialized information. In addition, the IOM further indicates that excellence essential in health should be efficient, cost-effective, equitable, client centred, safe and timely.

V. CONCLUSIONS

The study findings concluded that there was a significant and strong positive correlation between access to quality services and performance of family planning program in Kuresoi North Sub-County. The study findings also concluded that there is a significant positive relationship between access to quality . The study finally concluded that access to quality services predicted and described to a large extent the performance of family planning.

Thus, recommendations can be made to the health regulatory authorities and health facilities to increase access to quality services in order to increase the performance of family planning programs. In order to improve access to quality services, regulatory authorities should set up health facilities in close proximity to the populace in order to minimize the cost and time of accessing family planning services. They should also subsidize family planning services in order to minimize their cost. In order to improve access to quality services, the health facilities should; offer sufficient information on the family planning and make the information accessible and easy to understand, ensure adequate supply of contraceptives and other family planning medication, sensitize the male gender about family planning, and offer family planning services frequently preferably on daily basis during weekdays

The current study conclusions are in convergence with a study carried out by [5] in America that indicated that the direction to advance the health care of all clients and all societies is to have a clear guideline. The current study findings are also congruent to the findings of a study carried out by [6], which established that innovate ways like utilization of Telemedicine, which is the utilization of innovation through technology, provide excellent wellbeing services. The study suggested that use of telemedicine is suggested to expand access for patients and this would be very helpful to clients who may not need a physical contact with a doctor and will improve health outcomes while reducing medical costs. The study opined that use of technology can also reduce many barriers and support good collaboration with patients as well as client owning and taking charge of their health.

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