DETERMINANTS OF PRECONCEPTION CARE PREPAREDNESS AMONG WOMEN SEEKING POSTNATAL AND FAMILY PLANNING SERVICES AT COAST PROVINCIAL GENERAL HOSPITAL

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DECLARATION

This research project is my original work and has not been presented in any other institution for examination purposes

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Reg. NO: H56/81357/2015.

Supervisor's declaration

This research project has been submitted for review with our approval as the university supervisors

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DEDICATION

This study is dedicated to my family especially my husband, my children for their love, support and encouragement during the entire period of the study.

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I would like to take this opportunity to thank the Almighty God for His grace in my entire study period. I acknowledge the endless efforts of my supervisors Dr. Abednego Ongeso and Theresa Odero in their effective supervision, guidance availability and advice as I developed this dissertation. I also extend my outmost gratitude to my lecturers who have taken me through this master's course thereby enriching my knowledge of study. I also sincerely thank the administration of Mombasa county facilities-Coast Provincial General Hospital, for permitting access to information. Special appreciation also goes to my family, friends and colleagues for their moral support during my entire study.

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ABBREVIATIONS

ANW : Antenatal Wing

CDC : Centre for Disease Control and Prevention

CPGH : Coast Provincial General Hospital

HBM : Health belief Model

KDHS : Kenya Demographics & Health Survey

KNH : Kenyatta National Hospital

MDGs : Millennium Development Goals

MOH : Ministry of Health

NACOSTI : National Commission for Science, Technology & Innovation

UON : University of Nairobi

WHO : World Health Organization

OPERATIONAL DEFINITIONS

Cultural factors: These are norms or practices frequently carried out or perceived to be important by a certain class or group of people. The cultural factors tend to vary based on the background, ethnicity or beliefs of individuals. Though the cultural factors may not be completely true, they are perceived to have some importance.

Demographic factors: These factors describe the characteristics of an individual such as age, marital status and parity. In this study, these factors will relate to those that affect the health of the mother to the extent of exposing her to the risk of ill-health or death.

Effectiveness: This refers to the extent to which a subjected element or action is able to achieve its intended outcomes. In this study the effectiveness of preconception preparedness will be measured by the reduction in maternal mortality and successful deliveries.

Institutional factors: These are factors relating to the institution or organization under question that largely determine how operations are undertaken. In this is study, it will be Coast Provisional General Hospital.

Parity: Parity is measured as the number of children one has including the present live birth or pregnancy which has the same risk exposure to the mother.

Postnatal Care:This refers to healthcare provided following childbirth to both mother and infant health behaviours.

Preconception care: It consists of the thorough and systematic evaluation of a non-gravid woman who intends to become pregnant.

Preparedness: This refers to be ready, both emotionally and physically pertaining to an anticipated action or event. In this study, this refers to the preparedness of the mother prior to conception.

Social economic factors: This includes age, residence, occupation, religion and level of education. They are mostly determined by the social position of the individual and the current economic status.

ABSTRACT

Interventions prior to conception can promote the health and well-being of mothers and improve subsequent pregnancy and child health outcomes. Despite pre-conception care being established to have a potential in ensuring maternal and fetal health, the concept still remains relatively new and has not been fully ventured into. The study aimed at determining the link between preconception preparedness and pregnancy outcomes among mothers seeking Postnatal and Family Planning Services at Coast Provincial General Hospital (CPGH).

Material and Methods:

The study adopted a mixed method that involved both the quantitative and the qualitative approaches. To calculate sample size for 196 for the quantitative study, Krejcie and Morgan (2016) formula was used while data saturation method was used in determination of sample size for the qualitative study. Both consecutive and purposive sampling was used in selection of the respondents. The study was conducted in the postnatal ward in CPGH.

Data collection methods:

Researcher administered structured questionnaires were used for quantitative data collection. Interview guides were used for qualitative data collection. A pretest was done in CPGH using 10% of the actual sample size a month prior to the actual study being conducted.

Data analysis and presentation:

Descriptive statistics which include measures of central tendency such as frequencies, and percentages were calculated for quantitative data and associations sought using chi-square test where p-value of 0.05 was considered statistically significant. The data was presented in tables, graphs, and charts. Qualitative data was transcribed, translated and then analyzed thematically and presented in narration.

Research Findings:

The study found out that preconception care promotes the overall reproductive planning and interventions which allow the women to enter pregnancy in the best possible health. The study revealed four major determinants influencing preconception preparedness which were demographic, socio-economic, cultural and hospital related factors. Demographic, socio-economic and hospital related factors had a positive and significant influence on preconception preparedness with p-values of 0.035, 0.000 and 0.026 respectively. However, cultural determinants had an insignificant influence on preconception preparedness with a p-value of 0.294

In conclusion, efficiency preconception preparedness initiatives made by both the hospital and the mothers are largely dependent on these four determinants.

Recommendations:

The hospital management is recommended to highly prioritize and consider these factors during the formulation and implementation of preconception care programs. The study also recommends that the government and other policy regulatory bodies to come up with measures to ensure that safe motherhood is equally protected as a human right through proper preconception. The study further recommends that the county government and other policy makers to collaborate and enhance promotion of preconception preparedness and complication readiness at different levels in the health sector by improving socio-economic and hospital related factors.

CHAPTER ONE: BACKGROUND

1.0 Introduction

This chapter describes the background information on preconception care which is an evaluation of a non-gravid woman who intends on becoming pregnant and aids in increasing the chances of successful deliveries. The chapter also constitutes the problem statement, objectives of the study and its justifications.

1.1Background of the study

For the past three decades, the scope and definition of maternity care has changed and redefined to include the period before conception (Waggoner, 2013). This has resulted in increased recognition of preconception care internationally as a key public health priority. This aims at promoting new conceptualizations of the risks which are involved in pregnancies which includes the period before the actual pregnancy occurs. Due to this, there has been immerse increase in interest on matters pertaining to preconception health and health care. Reduction of maternal and childhood mortality and morbidity requires the provision of a sequential care that spans conception, childbirth, infancy, childhood, adolescence and adulthood (Nawal, and Goli, 2013).

The basic idea of pre-pregnancy care is to advice the child bearing women about the adverse health behaviors or conditions that might affect a future pregnancy (Waggoner, 2013). By 2000, there was increased sensitization that the health of both the pregnancy and the fetus could be highly affected by the women's health and behavior before the pregnancy. In line with this, the Center for Disease Control and Prevention (CDC) initiated the Preconception Health and Health Initiative (Stephenson 2011; WHO, 2015). There is therefore rapid growing experience in initiatives aimed at promoting pre-conception care to both high income countries such as US, Netherlands and Italy and the low and middle income countries as well such as Sri Lanka, Philippines and some countries in Africa (WHO, 2015).

In Kenya as well, the benefits of preconception care are being slowly recognized as the Millennium Development Goals are slowly shifting in emphasis to Maternal and

Newborn Health (MOH, 2016). However, many women are unaware they are expectant on early days of conception therefore may miss the changes of early pregnancy. It is necessary that couples prepare for conception by adopting a healthy lifestyle and good nutrition before trying to conceive (Marcia Zimmerman, 2011). Pre-pregnancy care completes it all through ongoing close observation on health and early intervention, so that women begin pregnancy in the best health possible. This can be traced back through various international health meetings and safe motherhood initiatives Involvement that optimize women's health before pregnancy with the aim to improve maternal and newborn health outcomes, (Deanet.al 2014).

Kenya is estimated to mirror the pattern in Sub-Saharan Africa. The biggest problem in the African countries is rapid urbanization fueled by movement from rural to urban centers in search for better jobs and other means of livelihood. This is done under unstable economic condition and performance leading to formation of slum settlements. Despite all the effort put in place by the world leaders and the WHO on strategies there still gaps leading to maternal and neonatal mortalities and morbidities. Many women are still unaware they are expectant in the first weeks of conception. They therefore miss the changes that occur during early pregnancy. It is necessary that couples prepare for conception by adopting a healthy lifestyle and good nutrition before trying to conceive. This determines the future health of a baby (Marcia Zimmerman, 2011).

Preconception care preparedness reduces pregnancies that are too close, unplanned pregnancies, those that are at risk of genetic disorders and environmental exposures. It also reduces maternal and childhood mortalities. It improves maternal and child health outcomes, improve women's health and well-being such as nutrition, fertility and sub fertility, intimate partner and sexual violence and substance abuse. Preconception care improves health of babies and children as they grow into adolescence and adulthood. It contributes to social-economic development of families and communities by supporting women's decision about their fertility and health.

1.2 Problem statement

Maternal mortality is one of the indicators of reproductive health status of the population. In Kenya current Maternal Mortality Rate (MMR) per year, according to (KDHS, 2014) accounts for 362/100,000 live births. According to Coast Provincial General Hospital (CPGH) statistics maternal mortality rate is at 8.7% out of 10,094 deliveries in the year 2016. This being a true reflection of Kenyan MMR, where the country is committed to reduce these figures to less than 70/100,000 live births (Karmacharya *et al.*, 2016).

Direct causes of MMR causes in Kenya result from complications of pregnancy, labor, and puerperium and from interventions of these events. These causes include antepartum and postpartum hemorrhages, Sepsis, Hypertensive disorders, abortion and its complications and obstructed labor. Due to these conditions, there is increased trend of maternal mortalities most of which can be prevented if they are given proper monitoring and care. Therefore, preconception care is a possible solution to most of these pregnancy related health problems. This is because a woman's health is evaluated before conception, her chances of having a successful pregnancy are improved and proper health education is given to promote her with a successful pregnancy outcome.

Preconception care has the capacity to positively influence 208 million pregnancies globally, every year. Unluckily adolescent girls and women from Low and Middle Income Countries

(LMICs) do receive these services possibly due to failure of access to care or preconception care services are not offered on daily basis (Dean *et al.*, 2013). Preconception care in Kenya and at the Coast Provincial General Hospital is a people concern in spite of improved maternal and neonatal health care. Among women of child bearing age, risks related to poor conception outcomes such as smoking malnutrition and obesity which may lead to negative pregnancy outcomes.

Even though the first ANC visit is supposed to begin prior to 16 weeks, most women report when it's too late for to prevent grievous problems that may affect health of the mother the pregnancy outcome. Studies elsewhere indicate that 40% of pregnancies are

unintended whereby adolescent girls and women take time to acknowledge their pregnancy thus causing more delay to start prenatal care (World Health Organization, 2013). This is very similar to what happens at the Coast Provincial General hospital whereby there is delayed and poor access to preconception care and therefore poor pregnancy outcomes. This study addressed this by investigating preconception preparedness among mothers seeking postnatal and family planning services in the hospital's maternity unit.

1.3 Purpose of the Study

The purpose of the study was to analyze the determinants of preconception care preparedness among mothers seeking postnatal and family planning services in maternity unit, Coast Provincial General Hospital.

1.4 Justification

Maternal mortality rate still continues to be a huge challenge to most countries, especially the Low and Middle Income Countries such as Kenya. Despite pre-conception care been established to have a potential in ensuring maternal and fetal health, the concept still remains relatively new and has not been fully ventured into.

Coast Provincial maternal health indicators are poor attributed to poverty and poor health seeking behavior and therefore, this study provides an opportunity for these indicators to be examined (CPGH, 2018). Coast Provincial General Hospital is the largest referral hospital at the Coast and therefore provides a significant population for data collection and whose findings can be generalized to the entire population.

Additionally, such a study has never been carried out at the Coast before. It is relevant and beneficial to the people at the Coast as a whole. This study aimed at shedding more light into this whilst focused at Coast Provincial General Hospital which has poor maternal health indicators that are poor due to poverty and health seeking behavior.

More importantly, the study acts to greatly benefit mothers in understanding the exact role played by proper preconception care to their maternal health pregnancies. It enables

the mothers understand how exactly the outcomes of the pregnancy are influenced by undergoing preconception care. This acts to reduce the maternal mortality rates and successful deliveries.

1.5 Significance of the study

Results from this study will help inform the hospital on the best ways of improving maternal health outcomes through optimization of preconception care and factors that influence its utilization. This will enable the institution to know how best to improve the services, the hospital will also have maternal mortalities reduced and improve the spirit of its staff members who are often demotivated by facing such mortalities. Due to increased maternal mortality rates despite all the strategies put in place including free maternal health fee all with failure, the only possible solution may be preconception care preparedness. The study results will inform/benefit;

Findings from the study will also inform National and County Governments on the utilization of preconception care preparedness and its uptake. It will highlight on the factors that influence the utilization of preconception care preparedness as a strategy to help reduce maternal and neonatal mortalities, but instead prepare them by optimizing their maternal health before conception. The study will inform them on areas that they need to come in so as to make the program work for the best interest of its people. For instance poor infrastructure hindering transport and communication, imbursement of finances to buy basic supplies and necessary equipment. It will benefit the two government by improving the general health of the people who will have modified their living styles such as eating healthy and nutritious foods, Screen all women and girls for tobacco use at clinic visits provide brief cessation advice, pharmacotherapy, and nicotine replacement, treatment and control of all chronic conditions, and also encouraging positive living with those affected with social conditions like HIV/AIDS. These people will work and improve the Country's/County economy which will again save much from if its people are unhealthy.

The hospital will be informed on the best ways of improving maternal health outcomes through optimization of preconception care and factors that influence its utilization. This

will help the institution to know how best to improve the services, the hospital will also have maternal mortalities reduces and improve spirit of its staff members who become demotivated by facing mortalities often.

The general population will be informed on the utilization of preconception care preparedness and its effects on maternal and neonatal outcomes that will then will have benefit of improving general health of their loved ones and improve their chance of survival from maternal mortalities. Additionally, they will benefit from the action taken by the National and county Governments by improving infrastructures and easy access to necessary services.

The clinicians will be informed on the proper screening for and management of chronic any conditions diseases and utilization of preconception care which long before conception. The study will help them from the stress they encounter while managing chronic conditions that are way too late for any positive outcome to be felt leading to maternal and neonatal mortalities.

More importantly, the study will act to greatly benefit mothers in understanding the exact role played by proper pre-conception care to their maternal health and pregnancies. Patient/clients will be made aware of the available services on preconception care and assist them to make an informed choice. They will know or improve on health therefore using less finances because their conditions are stable or improved it also empowers a couple to decide when to have a child.

The institutions of higher learning such as universities will be informed about the study and the factors that influence its uptake. These students are likely to be a representing various communities of the country who may try on how to promote the study down to community grass roots. The study will also improve on the future generation of children who have less congenital malformations, with high intelligent quotient, make it easier for lecturers while teaching and improve the university name through achieving of many awards. The study can also be included in the syllabus in various to sensitize on its importance and uptake by individuals (M'hamdi *et al.*, 2017).

1.6 Objectives of the study

1.6.1 Broad Objective:

To establish the determinants of preconception care preparedness among mothers who are seeking postnatal and family planning services in coast provincial general hospital.

1.6.2 Specific objectives:

The specific objectives of the study were to;

i. To determine the demographic determinants that influence preconception care preparedness among women seeking postnatal and family planning services at the maternity unit of Coast General Hospital.(CPGH)
ii. To establish the social determinants that influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH
iii. To establish the cultural determinants which influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH
iv. To determine the hospital determinants that influence the pre-conception care preparedness among women seeking postnatal and family planning services in maternity at CPGH

1.7 Research Questions

The study aimed to address the following research questions;

i. Which demographic determinants influence preconception care preparedness among women seeking postnatal and family planning services at the maternity unit of CPGH
ii. Which social determinants influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH
iii. Which cultural determinants influence preconception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH

iv. Which hospital determinants influence the pre-conception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH

1.8 Scope of the Study

The study was carried out among women seeking post-natal and family planning services at the maternity unit in CPGH Mombasa County. The independent variables for the study were social, cultural, demographic and hospital related factors influencing preconception care while the dependent variable was the preconception care preparedness among the mothers seeking postnatal and family planning services in maternity unit at CPGH

1.9 Chapter Summary

This chapter has described the general background information pertaining to the study, the research problem necessitating the study and the purpose of the study as well. The chapter has also described the justification, scope and significance for the study. This formed a basis through which the entire study was constructed on.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Preconception care optimizes health and pregnancy outcomes. Its aim is to improve maternal and child health, and maximize health benefits to the adolescents, women and men and whether they desire to become parents or not (World Health Organization, 2013). Studies elsewhere have shown that women of child bearing age indicate low levels of awareness on conduct related to preconception care. The national guidelines direct their attention to medical risk factors such as contamination and case lifestyles and negative conception outcomes.

2.2 Demographic determinants influence Women's perspective on preconception preparedness

2.2.1 Residence

Most women residing in certain geographical areas tend to eat various foods and adopt different lifestyles predisposing them to conditions like cardiac conditions, diabetes mellitus HIV/AIDS and therefore when introduced to preconception care, they readily accept and seek for advice, health intervention and are ready to carry out preconception care program seriously to enhance positive pregnancy outcomes (Steel, Lucke, and Adams, 2015).

2.2.2 Education

A well-educated mother may have a more positive perspective and easily embrace preconception preparedness than an illiterate (Ayalew, et al, 2017). She understands the benefits of program being to reduce maternal and child mortality, prevent unintended pregnancies, prevent pregnancy and delivery complications, prevent birth defects, still births and neonatal infections, and prevent vertical transmission of HIV/AIDS and lower risk of type 2 diabetes and cardiovascular condition. They are more empowered with knowledge which enables them make timely decisions. This is not the case to the illiterate or semi illiterate women who don't know their rights to health (World Health Organization, 2013).

2.2.3 Parity

Primi parous mothers are usually not keen on pregnancy preparation. This is due lack knowledge on preconception care and its benefits. Those who have delivered more than once are experienced with conception and delivery and may seek for more information depending with the past pregnancy outcome and her health, the multiparous may not see the relevance of preconception care because they have had enough of children and any more preparations are not necessary (Kasim, et al 2016).

2.2.4 Employment

Mothers with employment can earn their own salary and when it comes to making decisions concerning their health and that of their loved ones, they can decide very fast because it revolves around money and they do not fear or wait for anybody's permission (Steel, Lucke, and Adams, 2015).

2.2.5 Marital status

Married couples support one another in terms of finance and decision making regarding their health and when to expect a child. This promotes good pregnancy outcomes. Health workers may develop a negative attitude against un married women and may deny them the opportunity to access preconception care. This will lead to long or short term negative health/ pregnancy effects (Babalola, and Fatusi, 2009).

2.3 Social economic factors

Mothers who are employed have a monthly earning and therefore in a higher social class. They can make decisions independently, share ideas and experiences with colleagues who are knowledgeable and empowered concerning the benefits of preconception care. These mothers have small families that they comfortably cater for. With good infrastructure in urban areas access to care is very easy (Geffen, 2007).

This is the opposite of mothers who are house wives. They have little or no education at all, therefore not empowered. They live in rural areas where there is poor infrastructure. Access to preconception care is a problem (Gitonga, 2015). This usually the

government's role to ensure there is equitable distribution of resources both in town and rural area, empower her people with sufficient information through media and government public health campaigns. This is only possible if the county's economy is good (Rahman, et al., 2017).

2.4 Cultural factors

Preconception care that begins early on and continues between pregnancies will help to ensure that women have a reproductive life plan and are able to decide when to have children, the number of children they desire and methods used to prevent unintended pregnancies (Gitonga, 2015). At the Coast region, cultural norms enhance early marriage, which is a factor in high rates of adolescent pregnancy. Regulations to increase the accepted age at marriage and educating communities to change cultural norms that support early marriage may be ways to prevent adolescent pregnancy in Kenya (Reproductive Health, 2013).

2.5 Institutional factors

Most ladies report that professional health workers infrequently discuss the accessibility and need for pre-pregnancy care while others report having inadequate staff to give the proper attention. There is insufficient scope of preconception care program where health care workers lack knowledge empowerment. There is reluctance of health workers about the essence and the success of preconception care, clashing views of health care profession on conception, patient rights to reproductive health and their professional roles(Mazza, Chapman and Michie, 2013).

A preconception visit includes screening for risk identification, appropriate intervention and counselling on family planning. History of previous pregnancies is also taken into account. Particular emphasis is placed on pregnancy losses, intrauterine deaths, preterm labor, neonatal complications and infectious diseases. Private institutions need to have empowered and well informed staff with good communication skills. This will enable them impact knowledge to women and couples on preconception care and its benefits. They should commit their time and be influential as to why they believe the information at hand is of importance. This may change their attitude and accept the new knowledge (Steel, Lucke, and Adams, 2015).

2.6 Theoretical framework of Health belief Model (HBM)

The Health Belief Model which was introduced in 1950s is far the most used theory in health education and health promotions (Glanz, Rimer and Lewis, 2002).The theory is built on four main perceptions which include perceived seriousness, perceived benefits, perceived susceptibility and perceived barriers. Based on this model, health behaviour is largely determined by personal beliefs or perceptions about a medical condition and the strategies available to decrease its occurrence as shown by Figure 2.1.

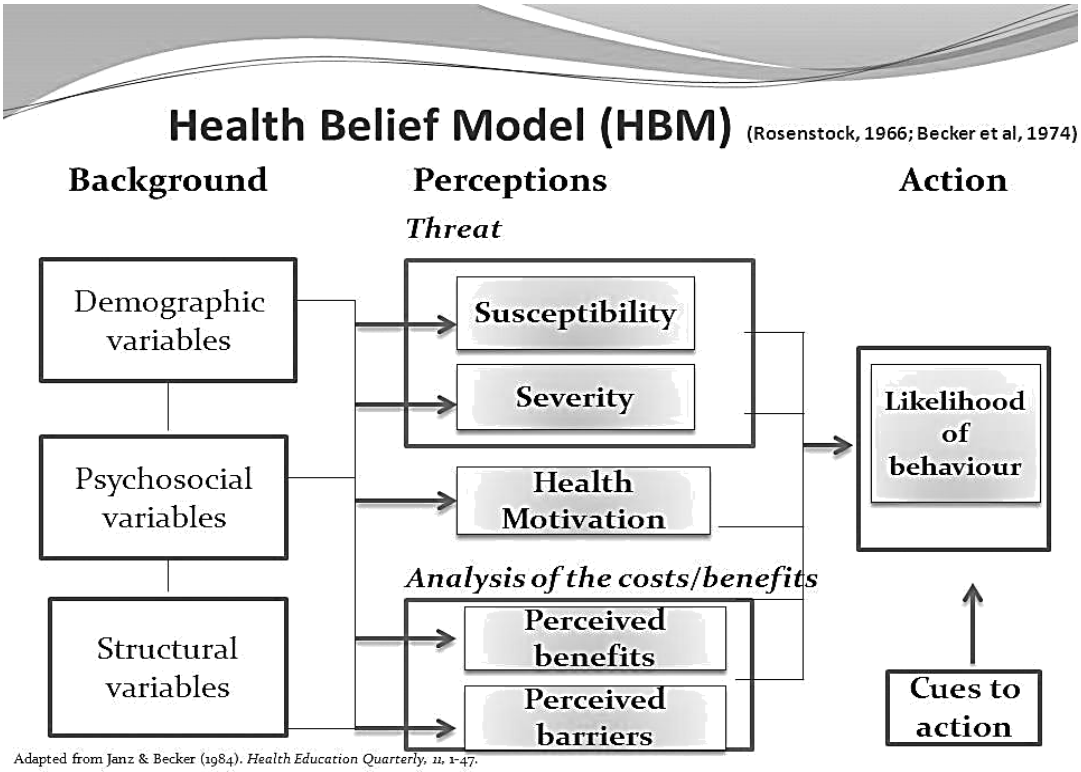

Figure 2.1 Health Belief Model adopted from (Becker et.al 1974)

2.7 Empirical Review

The concept of pre-conception preparedness among mothers is one that has received considerable interest in the recent past as evidenced by the studies conducted. To begin with, Siddaharth, et al., (2010) did a study on preconception preparedness among women in India taking the case of Indore City. According to this study, only a small proportion of the women (40%) sought preconception care services. This was determined by various factors such as delivery costs, place of delivery, transport means and availability of skilled attendance.

In a similar way, Mazza, Chapman, and Michie, (2013) investigated the main barriers towards the delivery and acceptance of preconception care measures. Thematic analysis was employed as well as theoretical domains related to the behavioral changes in the women. The study found out that the perceived barriers included time constraints, lack of qualified personnel, issues relating to cost and access to preconception care. The study was however not able to establish the enhancers towards the preconception care.

Rahman, Rahim, and Arif, (2017) studied the level of efficiency preconception care clinics. The study found the main barriers to be socio-economic constraints, attitude and perception of the health care personel and patient related factors. This concurs with Ayalew, (2017) on his study on women knowledge and preconception care in Ethiopia. The study revealed that most of the women were yet to fully accept and be aware of the preconception care.

Steel, Lucke and Adam (2015) investigated the use of preconception care in addressing issues pertaining to women with chronic health conditions. The study established significant gaps in the knowledge of preconception care awareness among the women. In a similar way, Gitonga, (2015) on an study on preconception preparedness among mothers in Tharaka sub-county found that the preconception care was relatively as the process was hindered by insufficiencies in the hospitals and working staff.

2.8 Summary of Literature Review and Research Gap

Despite there being strong evidence of the benefits of preconception interventions for improving pregnancy outcomes on the available literature, uptake of preconception care still remains relatively low. Different articles show that the women's preconception care knowledge and practice in developing countries including Africa is still insufficient. Additionally, there is scarcity of studies conducted locally as most of them have been on the developed countries. Various issues thus still need to be addressed for the improvement of the preconception services. It is against this backdrop that this study was conducted. It provides a better understanding of the prevalence and the factors influencing preconception care preparedness among mothers in post-natal ward in maternity unit of CPGH Mombasa County.

2.9 Conceptual Framework

The conceptual framework of the study is shown by Figure 2.2. The independent variables of the study are the factors influencing preconception care while the dependent variable is the extent of preconception preparedness amongst the mothers. The independent variables are depicted to have a direct influence on the dependent variable.

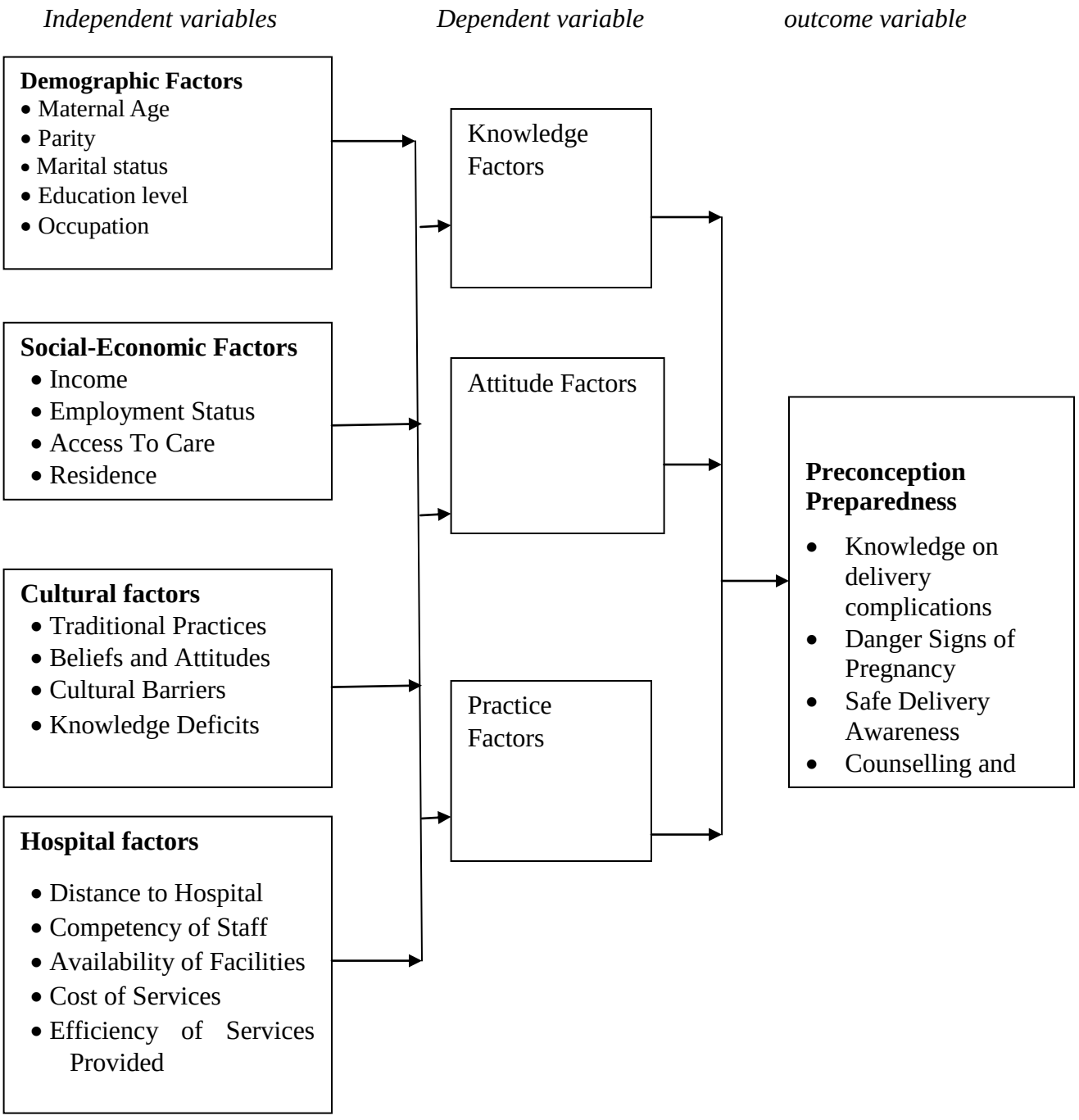

Figure 2.2 Conceptual Framework

2.10 Chapter Summary

This chapter has reviewed the existing relevant literature pertaining to the determinants of preconception care among mothers seeking postnatal and family planning services. This includes the various determinants that undermine the access to postnatal and family planning services, the theoretical framework to the study and the existing empirical literature. The chapter has concluded with an overview of the research gap and the conceptual framework for the study.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This section describes the general approach that was adopted in conducting the entire study. Specifically, the chapter entails the research design, study area, study population, sampling methods and the data collection procedure. The chapter finalises with the data analysis techniques, ethical considerations to be made by the study, study limitations and the dissemination plan.

3.2 Study Design

The research design refers to the general procedure or blue print through which the entire study was conducted in achieving its objectives (Mugenda and Mugenda, 2008). The study adopted a mixed method that employed both the quantitative and the qualitative approaches (triangulation). The quantitative study was through the analytical cross-sectional research design (Setia, 2016). Through the cross section research design, the researcher was able to measure the outcome and the exposures in the study participants at the same time and therefore the relationship between the research variables was established. The research design involved an approach of data collection through the use of questionnaires which were undertaken at CPGH postnatal wards and MCH/FP Department.

The qualitative study on the other hand was through the phenomenological research design (Husserl, 2006). This research design also provides for in depth to understanding of individual phenomena (Armstrong, 2010). Key Informant Interviews were used where respondents were given an opportunity to describe their experiences in details. The key informants for the study were health care staff working at maternity department of CPGH. These included the staff nurses as well as the nurse managers who provided an over view of postnatal and family planning services at Coast Provincial General Hospital.

3.2 Study Area

This study was carried out at the Coast Provincial General Hospital. The hospital is located approximately three kilometers from Mombasa town center. CPGH is the largest teaching and referral hospital at the Coastal region of Kenya .It serves the residents of

Mombasa in addition to referral cases from the Coast of Kenya and if the condition is beyond their scope or lack the necessary equipment and machinery, they then refer their patients to the Nairobi National Hospital.

This department was chosen because it is where triaging is done and mothers above 28 weeks gestation are reviewed, their needs are prioritized and appropriate intervention provided. If they are suspected to suffer with certain condition are admitted to Antenatal Wing where the patient is monitored until out of danger later discharged home through gynecological clinic where subsequent reviews are done until the patient delivers safely, and if in labor at term, she is allowed to deliver. It is important that CPGH nurses embrace EBP approach in providing health service to their clients.

3.3 Study Population

The study population comprised of all women receiving post-natal services at least six weeks after delivery at the hospital and those seeking family planning services. This population was deemed more appropriate as they were actively involved and were benefitting from the Family Planning services and preconception care as well. They were therefore conversant with the practices and the underlying factors undermining its effectiveness. The key informant interviewees on the other hand comprised the health care staff working at maternity department of CPGH. This population was selected so as to provide an institutional perspective of the FP and post-natal services.

3.3.1 Inclusion Criteria

The study inclusion criteria constituted all post-natal women who delivered from Coast Provincial General Hospital at least six weeks prior and were seeking postnatal care services and Family Planning services. Those seeking family planning services with an aim of delivering at the facility were also recruited. The mothers consented to take part in the study voluntarily as well.

3.3.2 Exclusion Criteria

Women seeking postnatal services after undergoing tubal ligation were excluded. The women who sought permanent FP methods were excluded as well.

3.4 Sample Size Determination

Mothers who attend post-natal services from maternity department of CPGH sum up to approximately 400per month. To calculate sample size for mothers in postnatal ward in maternity unit who undertook in the quantitative study, Krejcie and Morgan (2016) formula was used. This formula was preferred due to the fact that it enables equal representation of the study elements for full understanding of the phenomenon understudy.

$$\frac{X^2NP(1-P)}{d^2(N-1)+X^2P\,(1-P)}$$

Indicated by:

*s*is the sample size which is required.

X^2 is the table value of chi-square for 1 degree of freedom at the desired confidence level which is 3.841 for the 0.95% confidence level.

N is the size of the population.

P is the population proportion (assumed to be .50 since this would provide the maximum sample size).

*d*is the degree of accuracy expressed as a proportion (.05).

Therefore; $S = \frac{3.84(400)(0.5)(0.5)}{0.05^2(399)+0.96}$

S=196 mothers

The sample size for the qualitative study sample size from Key Informants on the other hand, was defined using data saturation whereby 14respondents were involved. The saturation is used as a criterion through which data collection/analysis is discontinued whereby failure to attain saturation impacts on the research conducted(Polit and Beck, 2012).

3.5 Sampling Technique

For quantitative data, the researcher employed consecutive sampling technique. This is a sampling technique in which every subject who met the criteria of inclusion was selected

until the required sample size was achieved. Consecutive sampling provides thus some structure and additional rigor in that it includes all patients who are accessible within the defined study time period (Mathieson, 2014). The sampling method was deemed most appropriate as the resulting sample was more likely to represent the entire target population characteristics. Therefore, the sampling technique was used till the selected sample of 196 mothers was achieved. For qualitative data, purposive sampling was used in obtaining the sample population for the interviews upon identification of the group. The sampling units which were the most appropriate were then selected.

3.6 Data Collection

Researcher administered structured questionnaires were used for quantitative data collection to obtain information from the respondents. The questionnaires comprised of items developed from the specific objectives. Questionnaires are useful for obtaining information that cannot be easily observed but can be used for description, explanation and hypothesis testing in research. Qualitative data on the other hand were obtained by key informants interview guide with the aid of a tape recorder. Interviews were important in obtaining in depth details from the respondent giving them a chance to express themselves fully. It enabled the researcher obtain information that was not captured in the questionnaires.

3.6.1 Data Collection Technique

The researcher was aided in the data collection process by two research assistants. So as to ensure efficient and smooth data collection, they were required to have at least a diploma or certificate in nursing. In addition to this, the research assistants underwent training so as to be well equipped with adequate knowledge on how to approach and handle the respondents and to ensure comprehensive data collection. The questionnaires were collected upon completion and reviewed for completeness by the researcher. While interviews were facilitated directly by the researcher and each took approximately 20-30 minutes. The responses were recorded using tape recorders which were then transcribed during the analysis process.

3.7 Pretest Study

The pre-test study constitutes a trial run prior to the actual study that allows the researcher access the process, determine the study variables, and test accuracy of research instruments and analysis parameters for proposed study (Mugenda and Mugenda, 2012). The pilot test was conducted on 19 respondents (10% of the sample) from MCH/FP department of CPGH who were excluded from taking part in the actual study. The pretest was done a month prior to commencement of the study. The pretesting helped to know the best questions to use and which ones to modify and the vague ones to be omitted or removed.

3.8 Data Quality Control

Quality research most refers to the scientific process encompassing all aspects of study design; in particular, it pertains to the judgment regarding the match between the methods and questions, selection of subjects, measurement of outcomes, and protection against systematic bias, non-systematic bias, and inferential error (Kothari, 2004). The study quality was ensured by accessing for the reliability and validity of the data collection instruments. Cronbach's alpha was used to determine the internal consistency or average correlation of items in the survey instrument to gauge its reliability and content validity was used in accessing the validity.

3.9 Data Analysis and Preparation

The data received was in both qualitative and quantitative forms since this research employed triangulation (use of both qualitative and quantitative methods). The qualitative data was analysed using transcription of the recorded information / data, verbatim. While quantitative data descriptive statistics which includes measures of central tendency such as frequencies, and percentages were calculated. Quantitative data inferential statistics, were sought through Pearsons Chi-square to test significance. The 5% level of significance was used to cut off statistical significance at 95% confidence level whereby a p-value of less than 0.05 was considered statistically significant.Quantitative data was presented in tables. The qualitative data was presented in narrations.

3.10 Operationalization of Variables

The operationalization of the study variables is presented below.

Table 3.1: Operationalization of variables

Objectives	Variable	Indicator	Measuring of Indicators	Tools of analysis	Type of analysis
To determine the demographic determinants that influence preconception care preparedness	Independent	Demographic determinants	• Maternal Age • Parity • Education level • Occupation	Percentages Frequencies	Descriptive statistics
To determine the Social determinants that influence preconception care preparedness	Independent	Social determinants	• Income • Employment Status • Access To Care • Residence	Percentages Mean score	Descriptive statistics
To determine the cultural determinants that influence preconception care preparedness	Independent	Cultural determinants	• Traditional Practices • Beliefs and Attitudes • Cultural Barriers • Knowledge Deficits	Percentages Mean score	Descriptive statistics
To determine the hospital determinants that influence preconception care preparedness	Independent	Hospital determinants	• Distance to Hospital • Competency of Staff • Cost of Services • Efficiency of Services	Percentages Mean score	Descriptive statistics

	Dependent	Preconception care preparedness	•Knowledge on delivery complications •Danger Signs of Pregnancy •Safe Delivery Awareness •Counselling and Advice	Percentages Mean score	Descriptive statistics

3.11Ethical Considerations

Before commencing the study, a written approval was sought from KNH/UON ethics and research committee. The researcher then sought permission from National Commission for Science, Technology & Innovation (NACOSTI), County offices, Coast General Hospital and the Unit in charges then ward in charges. A written informed consent form was availed to the study participants by research assistants at the time of data collection. The study participants were told the possible benefits of the study and that the study is entirely voluntary. Participants were informed that they can withdraw from the study any time they want. Special codes instead of names were used to represent the respondents. Only the researcher was allowed to access the information collected. Participants were required to give written informed consent before participating. The purpose and objectives of the study was clearly explained to them. Confidentiality, privacy and dignity was ensured.

3.12 Study Limitations

The study was limited by the cross sectional research design used whereby the exposure and outcome are simultaneously assessed, there is generally no evidence of the nature of relationship between exposure and outcome (Setia, 2016). The researcher addressed this by ensuring that the population sample size selected was adequate enough to enable generalization of the findings. The study was also limited as it was institutionalized, focusing only at Coast Provincial General Hospital. The inferences from the findings therefore were made only with reference to CPGH and generalization was not possible to other hospitals. Additionally, due to the target population being large, only a small sample was used to represent the whole. Hence, the responses obtained may not be an actual representation of the phenomenon that exists.

3.13 Dissemination Plan

The result will be disseminated to the University of Nairobi, maternity unit of CPGH and the Ministry of health. Further dissemination shall be through publications and report prints.

3.14 Chapter Summary

The chapter has described the research approach that was employed in undertaking the study. This includes the research design that enabled the provision of answers to the research questions, study site where the study was conducted, the study population and sampling methods used, the data collection procedure and data analysis technique adopted. The chapter has also described the ethical considerations met, study limitations and the dissemination plan.

CHAPTER FOUR: FINDINGS

4.1Introduction

This chapter comprised of the results of the data collected from the field that have been analysed and interpreted by the researcher. The aim of the research was to establish the determinants of preconception care preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. Specifically, the chapter presents the findings of the study as per the specific research objectives.

4.2 Response Rate

The study's target sample was total of 196 respondents who entailed women receiving post-natal services for at least six weeks after delivery at the hospital and those seeking family planning services with a future plan of conceiving. Out of the 196 questionnaires that were issued out, 129 questionnaires were duly filled and returned, translating to a response rate of 66 percent as shown by Table 4.1. This response rate was considered to be adequate to enable generalization of the study's findings as it is in line of Mugenda, and Mugenda, (2008)'s recommendation of a response rate of above 60%.

Table 4.1Response Rate

Status	Frequency	Percent
Responded	129	66%
Not Responded	67	34%
Total	196	100%

4.3 Reliability Analysis

In evaluating reliability data collection instrument, a pilot study was undertaken on 19 respondents (10% of the sample) from MCH/FP department of CPGH.Cronbach's alpha was used to determine the internal consistency of the research instruments. This aimed at establishing how sets of variables are related in the group. The results obtained are as shown by Table 4.2.

Table 4.2Reliability Analysis

Variable	Cronbach's Alpha	No of Items	Decision
Demographic Determinants	0.766	6	Cronbach Alpha>0.7, acceptable
Cultural Determinants	0.712	3	Cronbach Alpha>0.7, acceptable
Social Determinants	0.707	4	Cronbach Alpha>0.7, acceptable
Hospital Determinants	0.734	4	Cronbach Alpha>0.7, acceptable

As shown, demographic determinants had Cronbach Alpha of 0.766, cultural determinants had Cronbach Alpha of 0.712, social determinants had Cronbach Alpha of 0.707 while hospital determinants had Cronbach Alpha of 0.734. This implies that all the variables had Cronbach Alpha of greater than 0.7 hence implying that the research instruments were reliable in carrying out the study.

4.4 Demographic determinants that influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH

The study sought to determine the demographic determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The demographic factors refer to those that affect the health of the mother to the extent of exposing her to the risk of ill-health or utilization of the preconception care. Specifically, the demographic determinants investigated by the study included; age, religion, residence, education, marital status, parity and deliveries of the respondents.

4.4.1 Age of the respondents

This section aimed at determining the ages of the respondents. The results obtained revealed that most of the respondents 44 (34%) were between 26-30 years while only 8(6%) were below 20 years as shown by Figure 4.1. The youngest respondent was found out to be 19 years while the oldest was 43 years. The findings imply that majority of the respondents 82 (64%) were above 26 years hence mature and able to provide accurate and

reliable information about the study. The older women were established to be more prepared, compared to their younger counter parts which could be possibly due to their past experiences. The younger women seemed more cautious and indicated to attend the clinic visits more often.

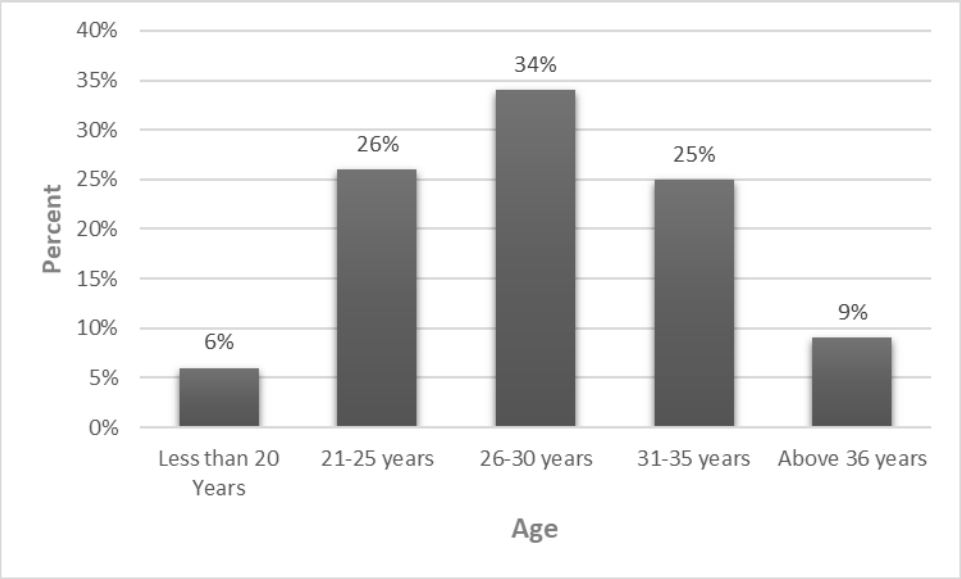

Figure 4. 1 Age of the respondents

4.4.2 Religion of the Respondents

The section sought to find out the religion of the respondents. As shown by Table 4.4, the predominant religion was Islam 57(44%), followed by Christianity 42(33%). Other religions also established included Hindu and Traditionalists 30(23%). This shows almost equal representation of all religions which is important as most women participate in religious beliefs and practices during the preconception period which is perceived to influence the outcomes of the pregnancy. Some of these religious practices indicated by the respondents included praying, special prayers, anointments, emotional support and thanksgiving.

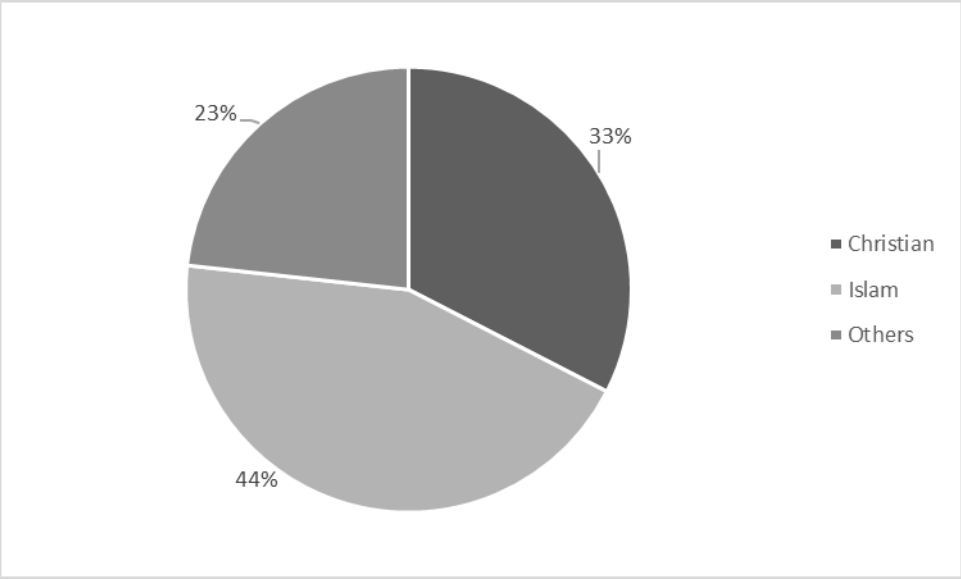

Figure 4. 2 Religion of the Respondents

4.4.3 Residence of the respondents

On the residence of the respondents, the study found out that majority 71 (55%) of the respondents came from the urban areas while a minority 58 (45%) of the respondents came from the rural areas as shown by Figure 4.3. This indicates a slight majority were from the urban areas and therefore more informed and accessible to the preconception care services. Those who lived in the rural areas indicated that access to preconception care services was a challenge due to poor infrastructure and difference in lifestyle.

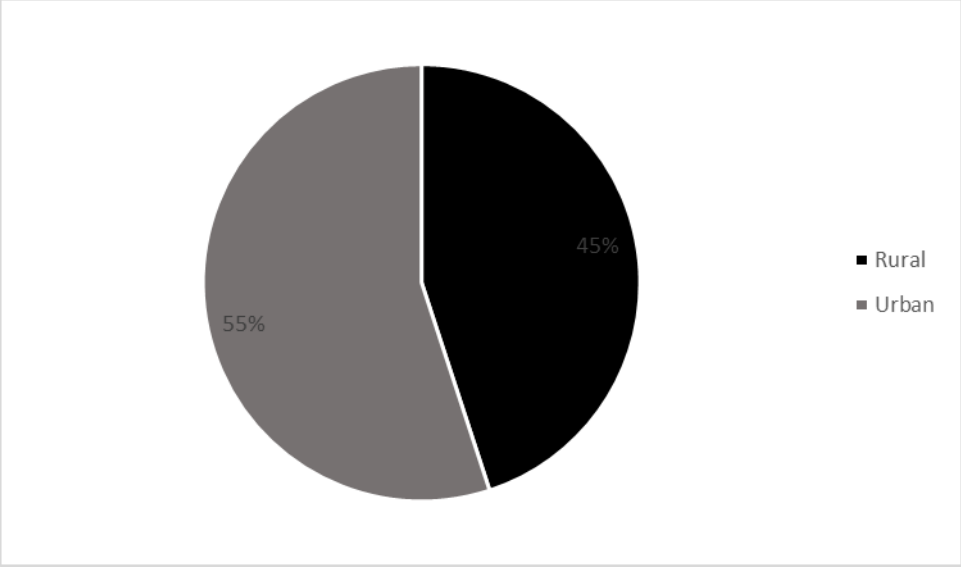

Figure 4. 3 Residence of the respondents

4.4.4 Education of the respondents

On the education of the respondents, the study results revealed that most 59(46%) of the respondents had reached up to secondary level, and only 3(2%) were uneducated as shown by Figure 4.4below. This implies that majority of the respondents 81(79%) were well educated and therefore well conversant with the concept of preconception preparedness. Education is also an important factor in determination of the most efficient preconception services to utilize.

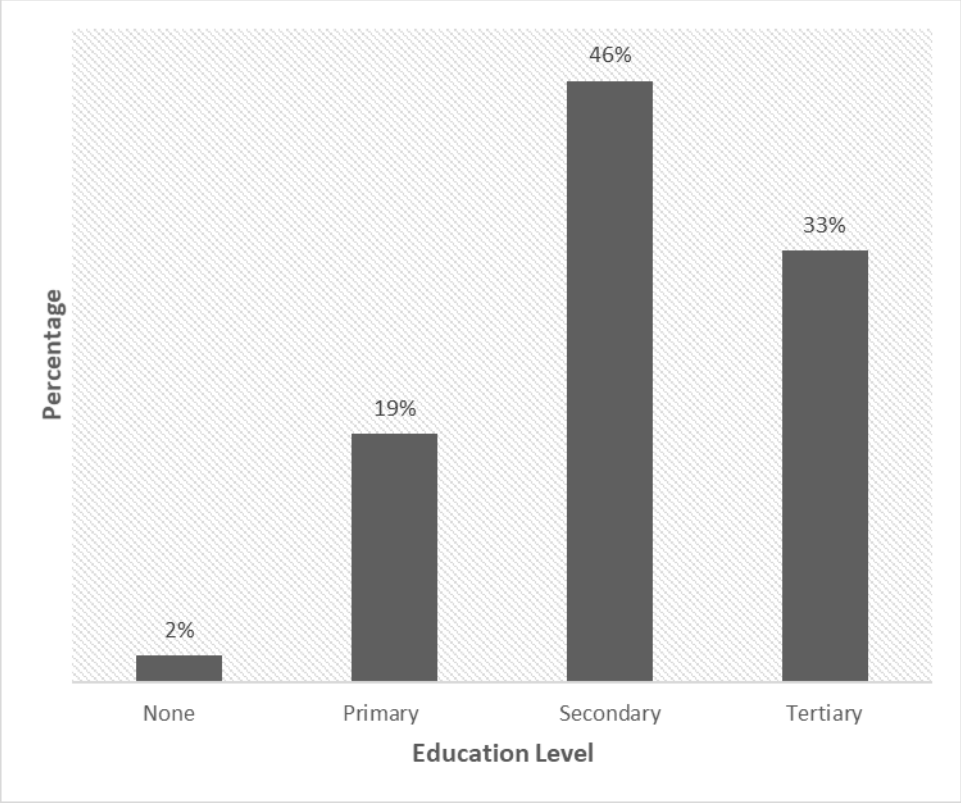

Figure 4. 4Education of the respondents

4.4.5 Marital status of the respondents

On the marital status of the respondents, the study found out that 87(68%) were married while only 4 (3%) were divorced as shown by Table 4.3. This shows that majority of the respondents 87(over 68%) were either married or in stable relationships. The married respondents were further established to be the most likely to undergo for preconception care services due to the emotional support and advices provided by their partners.

Table 4. 3Marital Status

Marital Status	Frequency	Percent
Single	26	20%
Married	87	68%
Divorced	4	3%
Unspecified	12	9%
Total	**129**	**100%**

4.4.6 Parity of the respondents

The parity of the respondents was measured by the number of children the respondents had. The findings of the study as shown by Table 4.4, Majority of the respondents 67(52%) had less than 2 children while only 2 (1%) had more than 6 children. This shows that the mothers were still in their early pregnancies.

Table 4.4Number of children

Number of children	Frequency	Percent
Less than 2	67	52%
3-4 Children	49	38%
5-6 Children	11	9%
More than 6	2	1%
Total	**129**	**100%**

4.4.7 Number of pregnancies

The study also sought to determine the number of pregnancies the respondents had. As shown by Table 4.5, Almost half of the respondents 61(47%) had 3-4 pregnancies and only 32(25%) had less than 2 pregnancies.

Table 4.5 Number of pregnancies

Pregnancies	Frequency	Percent
Less than 2	32	25%
3-4 Pregnancies	61	47%
More than 4	36	28%
Total	**129**	**100%**

4.4.8 Successful deliveries

The study further investigated the successful deliveries which the respondents had. As per Table 4.6, Majority of the respondents 69(53%) had less than 2 successful deliveries implying that the number of successful deliveries was still relatively low. This is an indication that comprehensive preconception preparedness was yet to be realized.

Table 4.6Successful deliveries

Deliveries	**Frequency**	**Percent**
Less than 2	69	53%
3-4 deliveries	51	40%
More than 4	9	7%
Total	**129**	**100%**

4.4.9 Theme: Demographic Determinants

Based on the responses from the interview, the main demographic determinants which influenced preconception preparedness were organized into five sub-themes which included education level, marital status, parity of the women, number of deliveries and history of birth complications.

Sub-theme 1: Education:

The researcher found out that the education of the mother influenced their perspective and awareness levels concerning preconception care. An interviewee noted,

"Well educated women are more compliant and easily embrace preconception care from a positive perspective as compared to those who were illiterate. They will also enquire and be willing to try out additional preconception preparedness measures .Educated women understand the essence of the preconception preparedness and its importance in reducing maternal and child mortality, prevent unintended pregnancies and complications during delivery"(Respondent 1).

Sub-theme 2: Marital status:

The interviewees also argued that the marital status of the women seeking postnatal and family planning services highly influenced their extent of preconception preparedness. As such, those having the support of their spouses will tend to be more encouraged and

motivated to seek preconception care as compared to those who are single or divorced. Additionally, an interviewee further stated that,

> *"Some of our hospital staff may develop a negative attitude towards the unmarried women which tends to discourage them from accessing the preconception care. This will in turn lead to negative health/pregnancies effects in the long run that could be avoided." (Respondent 2)*

Sub-theme 3: Number of Deliveries:

On the number of deliveries, it was established from the interviews that those mothers who had delivered more than once were deemed more experienced in terms of the kind of preconception care they perceived to be important. Specifically, an interviewee stated,

> *"The mothers who have had a delivery or two will seek information depending mostly on their past pregnancy outcomes and health during the preconception period."*

She further added that,

> *"Those who are at their first delivery will tend to be more cautious and will yearn to know almost everything concerning their pregnancy and will tend to visit the hospital more frequently throughout the perinatal period."(Respondent 8).*

This shows that the number of deliveries highly determined the extent of preconception preparedness.

Sub-theme 4: Number of deliveries:

In a similar way, the number of deliveries of the mother was also established to determine whether the mother will perceive any importance in the preconception care. An interviewee informed that,

"Women on their first delivery will tend to be more prepared as compared to those who have had many previous deliveries. This is because the ones who have had previous deliveries will not see any relevance of the preconception care as they have had enough children in the past and therefore to them, preparations are not absolutely without it.

Hence women who of a parity ranging 2-4 are more likely to prepare for birth and its complications as compared to the grand multiparous ones (more than 4 deliveries).”(Respondent 3)

Sub-theme 5: Delivery History:

It was found out that the women who have had an history of birth complications such as still births, pregnancy loss, preterm birth or preeclampsia were more likely to seek preconception care as compared to those who had normal pregnancies. It was specified that:

> “*Women who have had an history of birth complications tend to be more cautious and scared of the birth complication from occurring. They will therefore strictly follow the preconception care to the later, and even at times feel they are still not prepared enough after the process,”(Respondent 5).*

This shows that the birth risk perception was a great influence to the need of preconception preparedness perception among the women.

4.4.10 Test of Significance of Demographic Determinants on preconception care preparedness

The results of the Chi square test of significance as shown by Appendix 10 indicated that demographic determinants had a p-value of 0.035 <0.05 which implies it had a positive and significant influence on preconception preparedness among the women seeking MHC/FP services at CPGH.

4.5 Social determinants that influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH

The study sought to determine the socio-economic determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The socio-economic factors refer to social position of the individual and the current economic status based on their source of livelihood. Specifically, the socio-economic determinants investigated by the study included; employment status, monthly income, additional sources of income and the

employment status of the spouses'. This was important so as to establish their lifestyle types and affordability to the preconception care services.

4.5.1 Employment status

On the employment status of the respondents, the study found out that 56 (43%) had formal employment, 30(23%) were self-employed and 43(33%) were unemployed as shown by Table 4.7. This implies that majority of the respondents 86(66%) were employed whereby, they were established to perceive preconception care preparedness more positively as compared to those who were unemployed.

Table 4. 7Employment status of the respondents

Employment status	**Frequency**	**Percent**
Formal Employment	56	43%
Self Employed	30	23%
Unemployed	43	33%
Total	**129**	**100%**

4.5.2 Monthly income

On the monthly income of the respondents, as shown by Figure 4.5 majority of the respondents 63(50%) were earning more than Ksh. 10, 000 per month. This is considered to above the poverty line of $57.00(Ksh. 5,700) per month hence implying that they were financially stable. Those earning less than Ksh. 5, 000 per month were found out to shun away from preconception care services and the least preconceptionally prepared with lack of affordability and financial constraints being stated as the major challenge.

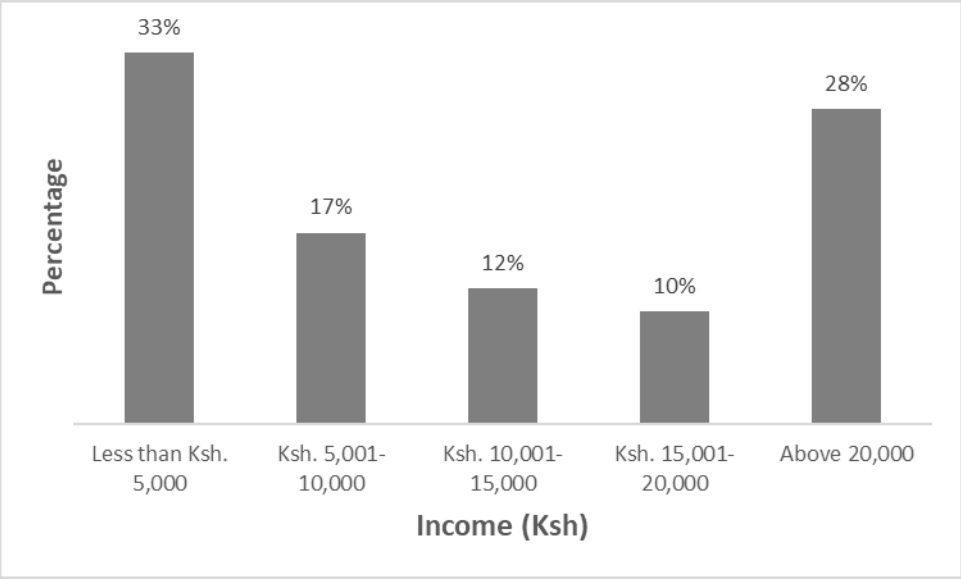

Figure 4. 5Monthly income for the respondents

4.5.3 Additional source of income

The study also aimed to ascertain whether the respondents had any additional sources of income. Majority of the respondents 81(63%) were established to have no additional sources of income with only 48(37%) being affirmative as shown by Figure 4.6. The findings reveal that only a very small proposition of the respondents was able to supplement their monthly incomes.

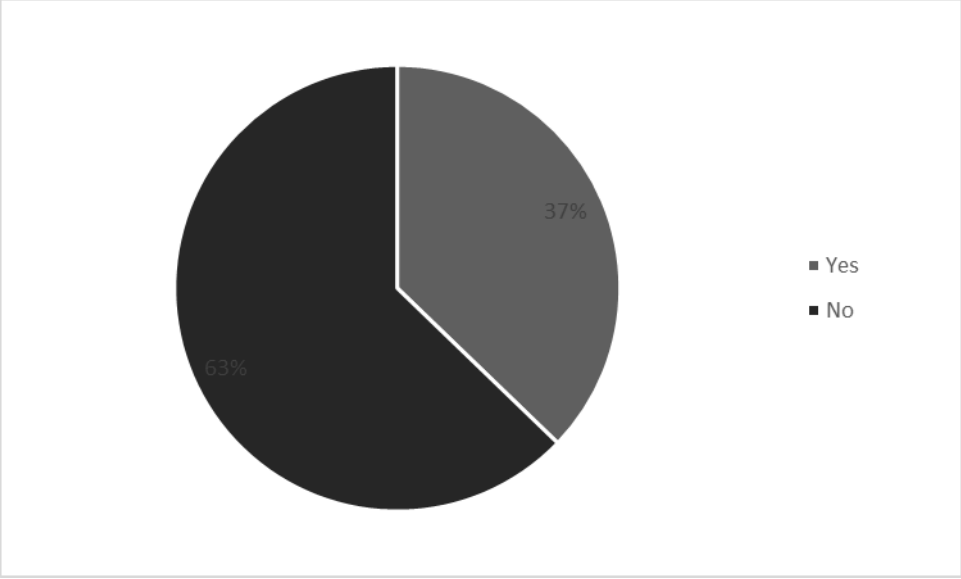

Figure 4. 6Additional source of income

4.5.4 Spouse's (if married) employment status

On the employment status of the married respondents, majority 34(64%) were established to have spouses who were formally employed as per Table 4.8 and were in a position to be supported financially by their spouses which was established to be a huge incentive towards the attendance of preconception care services.

Table 4. 8Spouse's (if married) employment status of the respondents

Employment status	Frequency	Percent
Formal Employment	34	64%
Self Employed	14	27%
Unemployment	5	9%
Total	**53**	**100%**

4.5.5 Spouse's (if married) income status

The study further investigated the income of the married respondents' spouses. The results obtained as shown by Table 4.9 revealed that majority of the spouses 35(66%) were earning more than Ksh. 12, 000 which is an indication that they were financially stable as per the World Banks estimates of $1.25-$1.9 per day (Ksh 125-Ksh 190).

Table 4.9Spouse's (if married) income status

Income	Frequency	Percent
< 3000 Ksh.	1	2%
3000 – 6000 Ksh.	2	6%
6000-9000 Ksh.	5	9%
9000-12000 Ksh.	9	17%
12000-15000 Ksh.	12	23%
15000-18000 Ksh.	9	17%
Above 18000 Ksh	14	26%
Total	**53**	**100%**

4.5.6 Affordability to attend MCH/FP care

On the affordability of the respondents to affordability to attend MCH/FP care, the study found out that majority 98(76%) found the services while affordable while 31(24%) found affordability of the services to be a challenge as shown by Figure 4.7 implying they afforded to attend the MCH/FP care which was largely attributed to them and/or their

spouses having stable sources of adequate income. However those who termed the MCH/FP care not to be unaffordable were mostly unemployed and this resulted in them attending the attend MCH/FP care once or twice throughout the pregnancy period. Some of the respondents even admitted to not attending any pregnancy planning services giving financial constraints as the major reason. This is despite initiatives by the hospital and county government to provide certain MCH/FP care free or for very low costs.

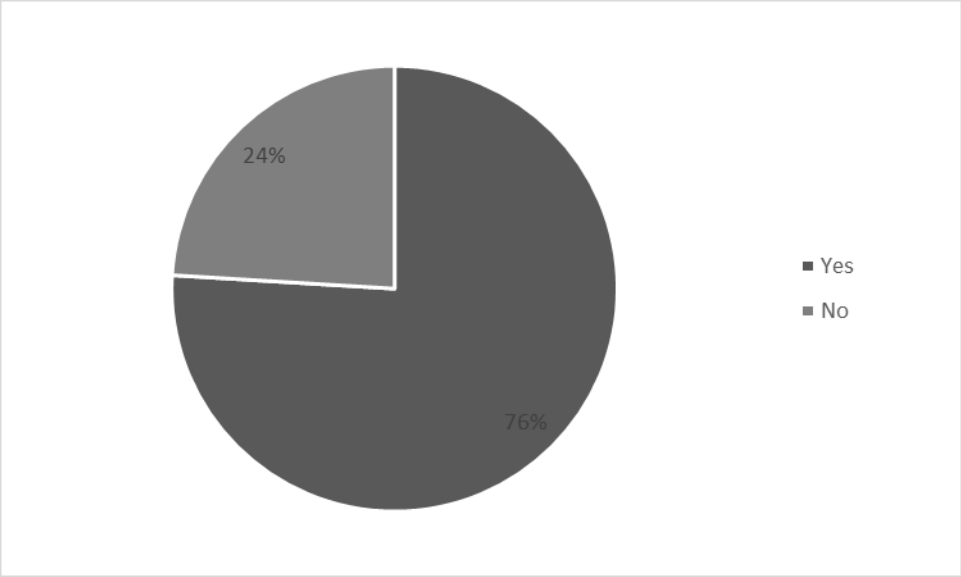

Figure 4. 7Affordability to attend MCH/FP care

4.5.7 Theme: Social-economic Determinants

Based on the responses from the interview, the main social determinants which influenced preconception preparedness were organized into three sub-themes which included their employment and income levels, marital status and perceived social class highly determine their preconception preparedness.

Sub-theme 1: Employment and Income Levels:

It was indicated that the income of the women highly influence the frequency and extent of utilization of the preconception preparedness services. Specifically, an interviewee noted that,

> *"Those women who are employed and can earn their own salary are better placed decision wise on matters regarding their health, pregnancies and preconception care preparedness. They make these*

decisions fast without the need to consult or request for permission."

She further added that,

> *"They can make decisions independently, share ideas and experiences with colleagues who are knowledgeable and empowered concerning the benefits of preconception care. Hence in most cases are they are well prepared for their pregnancies."(Respondent 3).*

Sub-theme 2: Marital Status:

Marital status was also agreed by the interviewees to also determine the extent of preconception preparedness among the women. An interviewee noted;

> *"Married couples tend to support each other in term of finance and making decisions regarding their health and expected children through preconception preparedness. This in turn promotes good pregnancy outcomes in the long run, "(Respondent 4)*

The same sentiments were supported by other interviewees who argued that women were often seen accompanied by their partners for the family planning sessions and other MCH services in the facilities which highly boosted their attendances.

Another interviewee further stated,

> *"Most of the expectant women tend to rely on the husbands or other guardians to settling the hospital bill and other expenses. Only few make prior savings or utilize the National Hospital Insurance Fund (NHIF). They therefore attend the maternity services more frequently compared those who have no spouses. On the contrary, women who are single or having marital difficulties or lacking adequate social support during the pregnancy were indicated to rarely seek the MHC and FP services and are often not fully prepared for their pregnancies." (Respondent 6)*

Sub-theme 3: Perceived Social Class:

The researcher also found out from the interviews that the perceived social class of the

women also influenced their preconception preparedness. The odds of being prepared for birth were therefore indicated to be relatively higher among those women from a high economic class as compared to those from the middle and low social classes. The interviewees also argued that the woman's attitude towards the pregnancy, child birth, life style, resources during pregnancy and expected behaviour from the community also contribute to the preconception preparedness. Also, those women having conflict about their personal identity and esteem were noted to experience challenges during preparations for pregnancies.

4.5.8 Test of Significance of Social-economic Determinants on preconception care preparedness

The results of the Chi square test of significance as shown by Appendix 10 indicated that social-economic determinants had a positive and significant influence on preconception preparedness among the women seeking MHC/FP services at CPGH with a p-value of $0.000<0.05$.

4.6 Cultural Determinants that influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH

The study sought to determine the cultural determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. These are norms or practices frequently carried out or perceived to be important by a certain class or group of people. The cultural factors tend to vary based on the background, ethnicity or beliefs of individuals. Though the cultural factors may not be completely true, they are perceived to have some importance. Specifically, the study investigated cultural beliefs or taboos that either encouraged or discouraged preconception preparedness.

4.6.1 Pre-conception preparedness cultural limitations

On the presence of any cultural limitation towards preconception practices, close to half of the respondents 63(49%) disagreed with the notion that that there were no cultural limitations towards preconception preparedness while only 17% agreed as shown by Table 4.10.

Table 4. 10Pre-conception preparedness cultural limitations for the respondents

Status	Frequency	Percent
Yes	22	17%
No	63	49%
Uncertain	44	34%
Total	**129**	**100%**

4.6.2 Preconception care preparedness taboos

As pertaining to the presence of any preconception preparedness taboos, half of the respondents 65 (50%) disagreed with the notion that they did not follow any preconception care preparedness taboos as shown by Table 4.11.However, of those who agreed, the main taboo stated during the preconception period was on food and nutrition of the mother 18 (14%). Specifically, according to the respondents, the expectant women were restricted from taking certain foods such as organ meat, oily food and eggs but recommended to increase intake of fruits and traditional vegetables. It was also stated to be a taboo for the women to come out and discuss about by their pregnancies. These acted as a precautionary measure to prevent miscarriages, low blood count, big foetus, maternal deaths and poor conditions after birth.

Table 4.11Preconception care preparedness taboos

Status	Frequency	Percent
Yes	18	14%
No	65	50%
Uncertain	46	36%
Total	**129**	**100%**

4.6.3 Cultural practices about preconception care preparedness

Regarding cultural practices about preconception care preparedness, 52(40%) disagreed, 41 (32%) agreed while 36 (28%) were uncertain as shown by Table 4.12.

Table 4.12Cultural practices about preconception care preparedness

Cultural Practices	Frequency	Percent
Yes	41	32%
No	52	40%
Uncertain	36	28%
Total	**129**	**100%**

4.6.4 Traditional practices that encourage/discourage pre-conception care

On the presence of traditional practices that encourage/discourage pre-conception care, majority 67 (52%) disagreed, with the idea of no existence of any traditional practice which discouraged preconception care as all of them were aimed at ensuring that the mother is fully prepared prior to conception as shown by Table 4.13.

Table 4.13Traditional practices that encourage/discourage pre-conception care

Status	**Frequency**	**Percent**
Yes	14	11%
No	67	52%
Uncertain	48	37%
Total	**129**	**100%**

4.6.5 Pre-conception preparedness norms and practices

Regarding the existence preconception preparedness norms and practices in the respondents' communities, majority of the respondents 69(53%) agreed, indicating that these norms and practices helped to minimize the occurrences on any risks during delivery as shown by Table 4.14 below. Additionally, majority of the women agreed that it was a cultural norm for the un married women not be allowed to undertake in FP and preconception preparedness.

Table 4. 14 Pre-conception preparedness norms and practices

Status	**Frequency**	**Percent**
Yes	69	53%
No	29	22%
Uncertain	31	24%
Total	**129**	**100%**

4.6.6 General attitude and perception of your cultural beliefs on pre-conception preparedness

The study further sought to determine the general attitude and perception of your cultural beliefs on pre-conception preparedness. Majority of the respondents were in consensus

that the cultural beliefs were beneficial in promoting the general being of the mother and the baby. In addition they ensured that the expectant mother refrained from certain activities and practices that were perceived to endanger the outcomes of the pregnancy. Combining of the cultural belief and the MCH/FP maternity services from the hospital was unanimously agreed to result in reduced maternal and fetal mortality. However, some respondents further indicated that though the cultural belief on preconception preparedness may be beneficial to some extent, those which had negative effects ought to be discouraged. Specifically, those beliefs which discouraged the attendance to medical facilities were termed to be outdated and should be completely forgotten such as FGM, polygamy and early marriages.

4.6.7 Theme: Cultural Determinants

Based on the responses from the interview, the main cultural determinants which influenced preconception preparedness were organized into three sub-themes which included cultural norms and practices on preconception care preparedness, those discouraging and the perceived benefits.

Sub-theme 1: Cultural norms and practices on Preconception Care Preparedness

Based on the interview responses, other cultural norms and practices that were noted to be done by the women in the surrounding communities included;

> *"Self-help groups that supported each other both pre and post conception in terms of food, cleaning, financial support and other forms of aid required by the expectant mother. Tribal rituals for ancestral protection and safe delivery done mostly be the older women in the community, use of herbs during pregnancy, behavior of the pregnant women during this period such as refraining from normal daily routines, refraining from intercourse in the last trimester of pregnancy till after resumption of menstruation and having sufficient rest throughout. All these are believed to promote the general wellbeing of the baby and the mother." (Respondents, 2, 3, 9 and 11).*

Sub-theme 2: Cultural norms and practices hindering Preconception Care Preparedness

Regarding to the cultural practices which hindered the women from preparing from birth and its complications, an interviewee noted,

> *"Some women usually indicate that their cultures do not allow them to expose their bodies to any male even the health care staff. Also elaborate preconception preparedness was against the taboos, myths and beliefs of some cultures. This is because you simply cannot prepare for what you have not seen or unsure of. What if the baby actually is never successfully delivered?" Hence most of the women were reported not to seek the preconception services till the last minute."(Respondent 4)*

Sub-theme 3: Perceived Benefit of Cultural Preconception Practices

The respondents affirmed that several cultural practices done during the preconception period which aim at improving the outcomes of the pregnancy. All these were believed to promote the general wellbeing of the baby and the mother. This means that preconception care was a traditionally a general accepted concept. However, some respondents stated that preparations were traditionally discouraged from being made directly related to the baby for fear of "something bad" happening to the unborn baby. While others argued that children were traditional perceived to be a sign of wealth and therefore no need of FP and other preconception preparedness measures.

4.6.8 Test of Significance of Cultural Determinants

The results of the Chi square test of significance as shown by Appendix 10 indicated that cultural determinants had a p-value of 0.294>0.05 which implies it had a positive but insignificant influence on preconception preparedness among the women seeking MHC/FP services at CPGH.

4.7 Hospital-Related Determinants that influence preconception care preparedness among women seeking postnatal and family planning services in maternity at CPGH

The study sought to determine the hospital related determinants influencing preconception preparedness among mothers who are seeking postnatal and family

planning services in Coast Provincial General Hospital. These are factors relating to the institution or organization that largely determine how operations are undertaken. Specifically the study investigated the distance and cost to reach the hospital, waiting duration at the maternity clinic, attitude of the staff and accessibility of the preconception services.

4.7.1 Distance to reach hospital

On the distance covered by the respondents to reach the hospital facilities, the results of the study revealed that majority 72 (56%) covered less than 1Km, while only 11 (9%) covered more than 6Km as shown by Figure 4.8. The short distance was indicated to by the respondents to highly encourage more individuals to seek the preconception services.

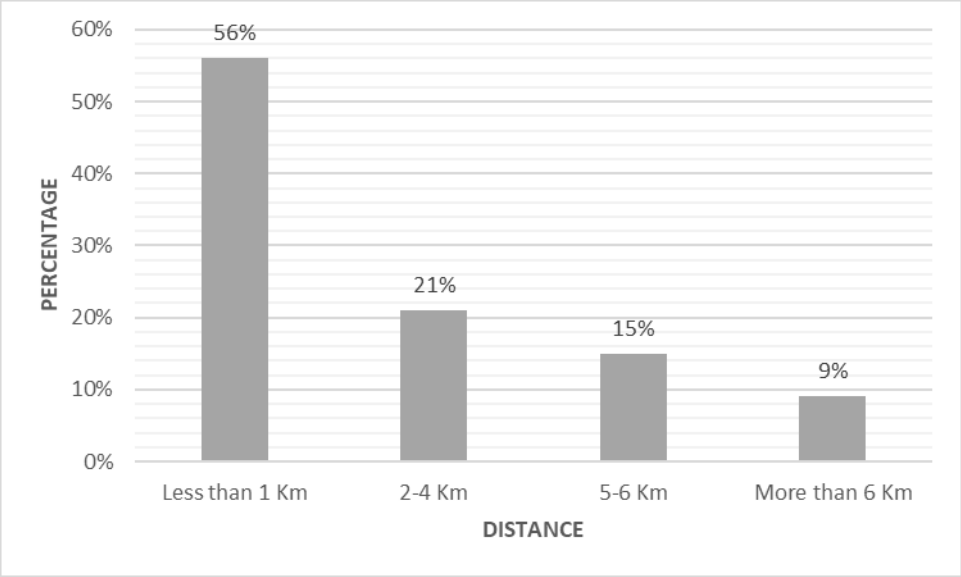

Figure 4. 8Distance to reach hospital

4.7.2 Waiting duration at maternity clinic

The study also aimed at establishing the duration that the respondents waited at the maternity clinic before being attended to. As shown by Table 4.15, majority 66 (51%) of the respondents waited for a long duration of more than half an hour. The long waiting period acted a source of inconvenience for most women seeking the preconception services as so that they could not resume to their normal routine activities.

Table 4. 15Waiting duration at maternity clinic

Duration	Frequency	Percent

Less than 10 minutes	22	18%
10-30 minutes	41	33%
30-60 Minutes	35	25%
More than 1 hour	31	24%
Total	**129**	**100%**

4.7.3 Cost to reach maternity clinic

On the cost incurred to reach the maternity clinic by the respondents, the study found out that majority of the respondents 95(74%) spent less than Ksh. 100 as shown by Figure 4.9. This was deemed to be very affordable thus translating in increased frequency in attending the preconception care services.

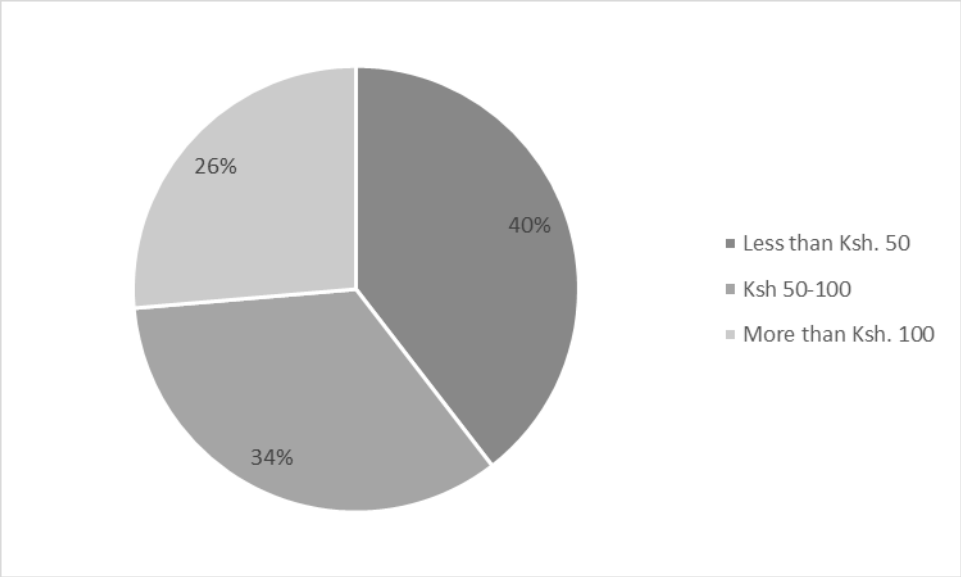

Figure 4. 9Cost to reach facility

4.7.4 Staff attitude

Regarding the attitude of the staff at the hospital, the results obtained revealed that most of the respondents 64(53%) perceived that the staff were friendly which encouraged them to be open and trust them as shown by Table 4.16 below. The unfriendly staff were further noted to be disliked by the respondents 24(19%) and they tended to shun away from being served by them.

Table 4. 16Staff attitude

Attitude	**Frequency**	**Percent**

Very friendly	24	19%
Friendly	44	34%
Indifferent	37	29%
Un Friendly	14	11%
Very un-friendly	10	8%
Total	**129**	**100%**

4.7.5 Pre conception services fee

The study further sought to ascertain whether there was any preconception service fee charged to those attending the MCH/FP services. The findings obtained as shown by Figure 4.10, more than half of the respondents 69(53%) disagreed while 60(47%) agreed. However, despite the presence of the preconception service fee, the respondents noted that it was relatively low and subsidized. Therefore, most of the respondents were in consensus that preconception services fee were affordable.

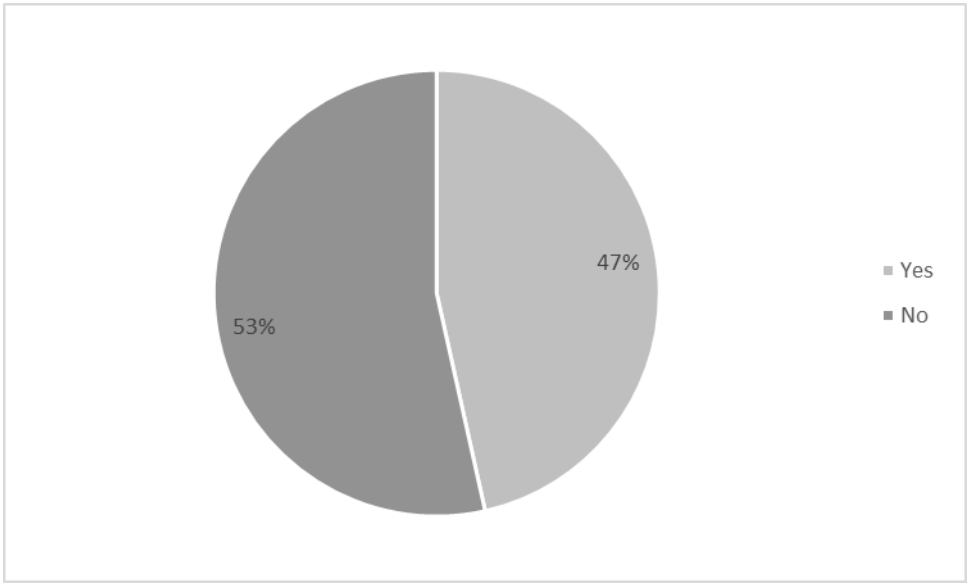

Figure 4. 10Pre conception services fee

4.7.6 Difficulty in accessing preconception services

Regarding the difficulty in accessing preconception services, the study found out that according to majority of the respondents 88 (68%) accessing preconception services was not difficult at all which was due to the availability of well qualified staff and simplified procedures as per Table 4.17. However those who experienced difficulties gave reasons to

be mainly financial and time constraints.

Table 4. 17Difficulty in accessing preconception services

Extent	Frequency	Percent
Very difficult	17	13%
Quite difficult	24	19%
Not difficult	88	68%
Total	**129**	**100%**

4.7.7 Effectiveness of the preconception care services

The study also aimed to establish the respondents' perception of the effectiveness of the preconception care services. The findings obtained by the study as per Table 4.18 revealed that majority of the respondents 60 (64%) perceived the preconception care services to be effective at the CPGH which was linked majorly to the increased sensitization of the preconception care. The respondents further stated the efficiency in the preconception care services had seen most of them successful plan for their pregnancies and achieve better outcomes after the delivery.

Table 4.18Preconception care services effectiveness

Extent	Frequency	Percent
Very Effective	29	22%
Effective	31	24%
Moderate	38	29%
Slightly Effective	23	18%
Not Effective	8	6%
Total	**129**	**100%**

4.7.8 Theme: Hospital-Related Determinants

Based on the responses from the interview, the main hospital related determinants which influenced preconception preparedness were organized into two sub-themes which included competency of the staff and hospital related barriers.

Sub-theme: Competency of Staff:

The responses obtained showed the need for ensuring the hospital staff are well competent and well dedicated in promoting preconception preparedness. Specifically, an interviewee argued:

"Most women attending the hospital report that some of the professional health workers do not discuss the accessibility and importance of preconception care in details while others complain of there being inadequate staff to give them proper attention. This tends to discourage them while others remain unaware on the importance of the preconception care." (Respondent 9)

Another other interviewees further supported this sentiment arguing:

"It is not something to be proud of, but some of our health care staff portray negligence and reluctance towards ensuring that the women attending MHC and FP are well prepared during the preconception period. There is also insufficient scope of preconception care programs where the health care workers may lack proper knowledge empowerment." (Respondent 5,6, 7 and 8)

Sub-theme: Hospital-related Barriers

It was further noted from the interviews that the facility has inadequate antenatal screening programs due to the lack of the required equipment, funding difficulties and the common misconception that pregnant women rarely avail themselves for the preconception services. Additionally, lack of privacy and respect in health facilities was also mentioned as one of the barriers to women's commitment in preparing for the birth. Similarly, the distance from the hospital and cost of the services in the facility were also listed some of the other hospital related factors that influence the preconception preparedness

4.7.9 Test of Significance of Hospital-Related Determinants

The results of the Chi square test of significance as shown by Appendix 10 indicated that hospital-related determinants had a p-value of $0.026<0.05$ which implies it had a positive and significant influence on preconception preparedness among the women seeking MHC/FP services at CPGH.

CHAPTER FIVE: DISCUSSION

5.1 Demographic determinants influence on preconception care preparedness among women seeking postnatal and family planning services

The study sought to determine the demographic determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The demographic determinants investigated by the study namely residence, education, marital status, parity and deliveries of the respondents were established to have an effect on the preconception preparedness.

Regarding the residence of the respondents, only slight majority were from the urban areas and therefore more informed and accessible to the preconception care services. Those who lived in the rural areas indicated that access to preconception care services was a challenge due to poor infrastructure and difference in lifestyle. This concurs with Steel, Lucke, and Adams, (2015) who found out that the residence influenced the women's readiness and ability to seek for advice concerning preconception care programs

Education was established to be an important factor in determination of the most efficient preconception services to utilize. The positive relationship coincides with Dean et, al (2014) who found that more educated the woman was, the more likely they will seek and fully attend the preconception care services. This compares with Ayalew, et al, (2017) who established that a well-educated mother may have a more positive perspective and easily embrace preconception preparedness than an illiterate

On the marital status of the respondents, majority of the respondents were married. The married respondents were further established to be the most likely to undergo for preconception care services due to the emotional support and advices provided by their partners. This compares with Babalola, and Fatusi, (2009) who in their study established that the preconception preparedness levels were relatively higher among the married women as compared to the single ones.

Parity of the women found out to both positively and negatively influence the preconception care levels. This is attributed by the fact that mothers who have had more than one child in the past may be sensitized on the importance and need to undergo

preconception care. While on the other hand, due to their past experience, they may ignore and assume any need preconception preparedness. These findings are similar to those by Kasim, et al (2016) who established that the women may seek for more information on preconception care depending with the past pregnancy outcome and her health, the multiparous may not see the relevance of preconception care because they have had enough of children and any more preparations are not necessary

The interview responses further revealed that found out that the women who have had a history of birth complications such as still births, pregnancy loss, preterm birth or preeclampsia were more likely to prepare as compared to those who had normal pregnancies. In a similar way, Gitonga, (2015) who conducted a study on the determinants of birth preparedness among women attending maternal and child health in Tharaka sub-county found out that women with history of birth complications were three fold more likely to want preconception care as compare to those with no complications in the recent past.

It was established from the interviews that those mothers who had delivered more than once were deemed more experienced in terms of the kind of preconception care they perceived to be important. Therefore showing that the demographic characteristics, though they could not be controlled, influenced the preconception preparedness of the mothers to a great extent. This was supported by the test of significance which indicated that demographic determinants had a significant positive effect on preconception preparedness. However, this contradicts Dean et, al (2014) who investigated the possible impact of preconception care for adolescents, women and couples of reproductive age on MNCH outcomes and established that the demographic determinants had a minimal and insignificant effect on the preconception care preparedness. According to this study, demographic factors are already a predetermined state hence should not hinder the rate of access of the preconception care services in hospitals.

5.2 Social determinants influence on preconception care preparedness among women seeking postnatal and family planning services

The study sought to determine the socio-economic determinants influencing

preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that employment status, monthly income, additional sources of income and the employment status of the spouses' influenced the preconception preparedness of the mothers seeking MCH and FP. Majority of the respondents afforded to attend the MCH/FP care which was largely attributed to them and/or their spouses having stable sources of adequate income. Similarly, Steel, Lucke, and Adams, (2015) found out that mothers' with employment can earn their own salary and when it comes to making decisions concerning their health and that of their loved ones, they can decide very fast because it revolves around money and they do not fear or wait for anybody's permission.

However those who termed the MCH/FP care not to be unaffordable were mostly unemployed and this resulted in them attending the MCH/FP care once or twice throughout the pregnancy period. Based on the interview responses, women were often seen accompanied by their partners for the family planning sessions and other MCH services in the facilities which highly boosted their attendances. On the contrary, women who are single or having marital difficulties or lacking adequate social support during the pregnancy were indicated to rarely seek the MHC and FP services and are often not fully prepared for their pregnancies. This coincides with Gitonga, (2015) who found out that preconception care was a major problem among single women and those with low income levels.

The researcher also found out from the interviews that the perceived social class of the women also influenced their preconception preparedness. The odds of being prepared for birth were therefore indicated to be relatively higher among those women from a high economic class as compared to those from the middle and low social classes. This implies that socio-economic determinants played a crucial role in the capability of the mother to prepare during the preconception period. The positive influence was supported by the test of significance which revealed that the socio-economic determinants had a significant positive influence on preconception care. This finding is similar to that by Markos and Bogale, (2014) who conducted a study on birth preparedness and complication readiness among women of child bearing age group in Goba woreda, Oromia region in Ethiopia and

found out that the socio economic conditions of the women highly influenced their preconception preparedness.

5.3 Cultural determinants influence on preconception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH.

The study sought to determine the cultural determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that most cultural beliefs were stated to ensure that the expectant mother was fully prepared prior to the conception. The respondents indicated that pregnancy was considered to have certain risks and they had herbal remedies for various pregnancy related ailments. However, some respondents stated that preparations were traditionally discouraged from being made directly related to the baby for fear of "something bad" happening to the unborn baby. This tends to contradict Nawal, and Goli, (2013) who found out that cultural intervention prior to conception can promote the health and well-being of adolescents, adult women and men, and improve subsequent pregnancy and child health outcomes.

According to the respondents, some of the norms and practices include secrecy surrounding pregnancy and childbirth; believe in supernatural powers, nutritional behavior and practices and behavior conduct of the expectant mother. Majority of the respondents were in consensus that the cultural beliefs were beneficial in promoting the general being of the mother and the baby. In addition they ensured that the expectant mother refrained from certain activities and practices that were perceived to endanger the outcomes of the pregnancy. Combining of the cultural belief and the MCH/FP maternity services from the hospital was unanimously agreed to result in reduced maternal and fetal mortality. A similar agreement was established by a new WHO which showed that integration of the traditional preconception care practices into the modern preconception care has a positive impact on maternal and child health outcomes (WHO, 2015).

The interviewees further indicated that that there were no strong culture and religious ground which prevents women from preparing for health facility delivery or giving birth in the health facilities. Based on the interview responses, other cultural norms and

practices that were noted to be done by the women in the surrounding communities included; self-help groups that supported each other both pre and post conception in terms of food, cleaning, financial support and other forms of aid required by the expectant mother. However, most of these cultural practices or norms are slowly getting outdated and therefore, their effects are gradually reducing. This finding is similar to that by Obi and Okojie, (2016) who investigated preconception preparedness and complication readiness: knowledge and practices among pregnant women in Benin City Edo state, Nigeria and found out the cultural determinants had a minimal influence on the preconception preparedness.

5.4 Hospital determinants influence on the preconception care preparedness on mothers seeking postnatal and family planning services

The study required to determine the hospital related determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that certain aspects of hospital related factors namely the distance and cost to reach the hospital, waiting duration at the maternity clinic and attitude of the staff greatly influenced the accessibility and preference of the women in attending the preconception care. Majority of the respondents waited for a long duration of more than half an hour. The long waiting period acted a source of inconvenience for most women seeking the preconception services as so that they could not resume to their normal routine activities. This compares with Mazza, Chapman, and Michie, (2013) who conducted a study on the barriers and enablers to the delivery and uptake of preconception care guidelines from general practitioners' perspective using theoretical domains related to behaviour change and found the long service and waiting time to be a major challenge.

Also, most of the respondents perceived that the staff were unfriendly which discouraged them to be open and trust them. However, majority of the respondents perceived the preconception care services to be effective at the CPGH. The interview responses further revealed that the hospital itself and certain characteristics attributed to it also played a huge role on how the mothers seeking postnatal and family planning services. In a similar manner, Rahman, Rahim, and Arif, (2017) investigated the Barrier, weakness and

utilization of pre-pregnancy clinic services and identified themes for perceived barriers for utilization of pre-pregnancy care were perception, attitude and acceptance of PPC services, socio-economic issues, services and client factors.

It was further noted from the interviews that the facility has inadequate antenatal screening programs due to the lack of the required equipment, funding difficulties and the common misconception that pregnant women rarely avail themselves for the preconception services. Similarly, the distance from the hospital and cost of the services in the facility were also listed some of the other hospital related factors that influence the preconception preparedness. In similar a way, Hudson, et al, (2016) established that hospital related factors highly influenced the preconception preparedness and pregnancy outcome on their study done at Lurambi Sub County, Kakamega County.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 Demographic determinants influence on preconception care preparedness among women seeking postnatal and family planning services

The study aimed to establish the demographic determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that the main demographic determinants having an influence on the preconception care preparedness included residence, education, marital status, parity and deliveries of the respondents. Therefore, the study concludes that efficiency preconception preparedness initiatives made by both the hospital and the mothers is largely dependent on these demographic determinants. The study further concludes that demographic characteristics of the women seeking postnatal and family planning services poses a predetermining effect as to whether the women will be willing to be preconception prepared.

6.1.2 Social determinants influence on preconception care preparedness among women seeking postnatal and family planning services

The study sought to determine the socio-economic determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that employment status, monthly income, additional sources of income and the employment status of the spouses' influenced the preconception preparedness of the mothers seeking MCH and FP. The study therefore makes the conclusion that the social status and economic position of the women influence not only the women's willingness but also capability of accessing preconception care preparedness services. It also concluded that women having a stable source of income and employment are more likely to be preconception prepared as compared to those having financial constraints.

6.1.3 Cultural determinants influence on preconception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH

On the cultural determinants influencing preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital, the study found out that most cultural beliefs were stated to ensure that the expectant mother was fully prepared prior to the conception. However, the most of the respondents argues that these cultural practices were outdated and had very minimal impact. The study therefore concludes that the influence of the cultural determinants is based majorly on the specific practice as well as the intended outcomes. Hence, the perceived benefit of the cultural determinant is concluded to affect its usability and application in preconception care.

6.1.4 Hospital determinants influence on the pre-conception care preparedness on mothers seeking postnatal and family planning services

The study also aimed to identify the various hospital related determinants that influence preconception preparedness among mothers who are seeking postnatal and family planning services in Coast Provincial General Hospital. The study found out that certain aspects of hospital related factors namely the distance and cost to reach the hospital, waiting duration at the maternity clinic and attitude of the staff greatly influenced the accessibility and preference of the women in attending the preconception care. The study however established that the preconception preparedness among the mothers seeking postnatal and family planning services in maternity unit at Coast General Hospital still remain relatively low. The study therefore concludes that the poor maternal health indicators at Coast Provincial General Hospital could be due to the barriers related to the facility including inadequate equipment and expertise of the staff. The study also makes the conclusion that for best possible health and chance of giving birth to health babies it is essential for the women to be well prepared prior to the conception period.

6.2 Recommendations

6.2.1 Recommendation for Practice

The study therefore recommends that the management and those in charge at the facility to highly prioritize and consider these factors during the formulation and implementation of preconception care programs. Also the already existing programs should be tailored and improved to ensure that these determinants are fully catered for. The study further recommends that the health personnel and staff to constantly discourage in any preconception cultural practices that are harmful or of no benefit to the mother or the child. This will act to greatly reduce the existence of cultural practices, norms and taboos that are only myths and play no significant role on the actual preconception preparedness of the mother.

The study recommends that health promoters and health educators need to introduce a sense of urgency to engage in preconception care. During information process, data on factors causing adverse birth outcomes and the rate of adverse birth outcomes should be made available specific to age, culture, and religiosity. The study recommends that initiatives be enhanced on community-based education not only around the Coast Region, but also other parts of the country. This will act to promote and strengthen preconception preparedness among women on sustainable basis. The antenatal care clinics are also recommended to strengthen their advices on the various components of preconception care, its importance and risks factors associated with the pregnancies.

6.2.2 Recommendation for Policy

In Kenya as well, the benefits of preconception care are being slowly recognized as the Millennium Development Goals are slowly shifting in emphasis to Maternal and Newborn Health. The study therefore recommends that the government and other policy regulatory bodies to come up with measures to ensure that safe motherhood is equally protected as a human right through proper preconception. This will ensure that the preconception services are available in all maternity hospital facilities and not only Coast

Provincial General Hospital. This will ensure that the women are readily accessible to the MHC/FP services at a low and convenient cost.

The study also recommends that the Ministry of Health in collaboration of other agencies such as regional health bureau, zonal health desks and other Non-Governmental partners to should ensure that the institutions are well empowered and have well informed and competent staff. This will ensure that women seeking the FP and MCH are well impacted with knowledge on preconception care and its benefits. The study further recommends that the county government and other policy makers to collaborate and enhance promotion of preconception preparedness and complication readiness at different levels in the health sector by improving socio-economic and hospital related factors.

6.3Suggestion for further research

The study has provided a starting point for further research on the importance of preconception preparedness and the underlying determinants. To begin with, the study was as institutionalized as it only focused at Coast Provision General Hospital, which may not be an actual representation of other facilities. The study therefore suggests that further studies be conducted on other hospitals so that the findings may be compared. The study focused majorly on four factors influencing the preconception preparedness, namely socio-economic, demographic, hospital related and cultural. To enable generalization of the findings of the study, it is recommended that further studies be conducted on other determinants other than those covered by this study. In addition, the study recommends that further studies to be done on preconception preparedness beyond the individual level (pregnant, postnatal or those seeking family planning) to family, health facility and community level. This will enable bringing forth further evidence which will act to prevent maternal death and promote better pregnancy outcomes.

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APPENDICES

Appendix 1: Coast Provincial General Hospital Map

Source; Google Maps 2018

Appendix 2: Time Frame (Gantt Chart)

Duration in Weeks / Activity	April	May	June	July	Aug	Sept	Oct	Nov
Problem Identification	■							
Proposal Writing		■						
Seeking consent from Ethical committees			■					
Recruitment and training of research assistants				■				
Pre-testing and administration of tools					■			
Data cleaning and analysis						■		
Report writing and presentation							■	
Compilation of final report and dissemination								■

Appendix 3: Budget

ITEM	**UNIT COST**	**QUANTITY**	**COST**	**TOTAL COST (Ksh)**
HUMAN RESOURCE				
Training of research assistants	5000	2*5000	10,000	
Research assistants allowance(2)	500	2*500*30 days	30,000	
a) Pretesting of questionnaire				
Research assistants (2)	500	2*2*500	2000	
Principal researcher	1000	1*2*1000	2000	
b)Data collection				
Research assistants (2)	1000	2*1000*30 days	60000	
Principal researcher	2000	1*2000*30 days	60000	
Sub total				164,000
MATERIALS AND RESOURCES				
Biro pens (one dozen)	180	180*25	4500	
Pencils (one dozen)	60	60*10	600	
Rubbers (5)	25	25*5	125	
Folders (5)	100	100*5	500	
Field books	100	100*3	300	
Flash disks	3	3*1500	4500	
Sub-total				10,525
PROPOSAL AND THESIS				

Proposal typing and printing (30 pages)	3	3*300	900	
Photocopying final report (3copies)	3	3*800	2400	
Proposal paper binding	4	4*50	200	
Ethics committee fee	1	1*500	500	
Data analysis	1	1*20000	20000	
Sub-total				9,000
TOTAL				183,525
Contingency (10%)				18,352.5
Grand Total				**201,877.5**

Appendix 4: Informed Consent

PATIENT CONSENT FORM

Study Title: Determinants Of Preconception Care Preparedness Among Women Seeking Postnatal And Family Planning Services At Coast Provincial General Hospital

Dear Sir/Madam,

I am Joyce Bonareri Ombacho, a master of science in nursing student (Midwifery and Obstetric Nursing) at The University of Nairobi. I am conducting a study on "**Determinants Of Preconception Care Preparedness Among Women Seeking Postnatal And Family Planning Services At Coast Provincial General Hospital".** The purpose of the research study is to assess what exact determines the extent to which the mothers are prepared and their level of awareness prior to conception. I am requesting for your voluntary and honest participation, in completing the provided questionnaire.

This study is purely academic and thus responses given will be strictly confidential and used only for research purposes. There are no risks or consequences involved in your participation to the study.

Your participation in this study is purely voluntary and you may with draw your participation to the study in case you feel the need to. I therefore request you to assist with answering the questions in this questionnaire. The information you may give us today could help us achieve our goal. If you agree to this interview, you may sign below but if you do not agree, you can let me know at this point and I will proceed with the study.

Signature/Thump print of respondent ……..……. Date …….

Yours,

Joyce Bonareri Ombacho

In case of concerns pertaining to the study, please feel free to contact;

Secretary,

University of Nairobi- Kenyatta National Hospital Ethics and Research Committee

P.O BOX 19676 Code 00202 Tel :(+254-020)-2726300 Ext 44355

Email**: uonKNH_erc@uonbi.ac.ke**

Appendix 5: Letter to Ethics Review Committee

University of Nairobi

College of Health Sciences

School of Nursing Sciences

P.O. Box, 19676-00200

Nairobi

To:

The chairman

Ethical and research committee

K.N.H./University of Nairobi

P.O. box 20723

Nairobi.

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

I'm a student at the University of Nairobi, School of Nursing Sciences.

I hereby request your permission to carry out a research on Determinants of Preconception Care Preparedness among Women Seeking Postnatal and Family Planning Services at Coast Provincial General Hospital. This is a requirement in partial fulfillment of the award of Master's Degree of Science in Nursing (Midwifery/Obstetric Nursing).

Find attached is the introductory letter from the University.

I look forward to a positive respond from you.

Thanks in advance.

Yours faithfully,

Joyce Bonareri Ombacho

Appendix 6: Letter to the County Government seeking permission to carry out the study

University of Nairobi

College of Health Sciences

School of Nursing Sciences

P.O. Box, 19676-00200

Nairobi

To,

Mombasa County Office

P.O. BOX 81599-80100.

Mombasa.

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

I'm a student at the University of Nairobi, School of Nursing Sciences.

I hereby request your permission to carry out a research onDeterminants of Preconception Care Preparedness among Women Seeking Postnatal and Family Planning Services at Coast Provincial General Hospital. This is a requirement in partial fulfillment of the award of Master's Degree of Science in Nursing (Midwifery/Obstetric Nursing).

Find attached is the introductory letter from the University.

I look forward to a positive respond from you.

Thanks in advance.

Yours faithfully,

Joyce Bonareri Ombacho

Appendix 7: Letter to the Coast Provincial General Hospital Seeking permission to carry out the study

University of Nairobi

College of Health Sciences

School of Nursing Sciences

P.O. Box, 19676-00200

Nairobi

To

Management,

Coast Provincial General Hospital

P.O BOX 90231

Mombasa

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

I'm a student at the University of Nairobi, School of Nursing Sciences.

I hereby request your permission to carry out a research on Determinants of Preconception Care Preparedness among Women Seeking Postnatal and Family Planning Services at Coast Provincial General Hospital. This is a requirement in partial fulfillment of the award of Master's Degree of Science in Nursing (Midwifery/Obstetric Nursing).

Find attached is the introductory letter from the University.

I look forward to a positive respond from you.

Thanks in advance.

Yours faithfully,

Joyce Bonareri Ombacho

Appendix 8: Respondents' Questionnaire

Questionnaire on: Determinants Of Preconception Care Preparedness Among Women Seeking Postnatal And Family Planning Services At Coast Provincial General Hospital

Individual patient's questionnaire number | | |

Date of Interview ……

SECTION A: BACKGROUND INFORMATION

1. Age in years……....
2. Religion a) Christian [ ] b) Islam [ ]
   c) Others ……
3. Are you aware of pre-conception care?
   a) No [ ] b) Yes [ ]

If yes, what is preconception care? …….

How is it done?.....

When is it done? …….

4. Ever planned for pregnancy
   a) No [ ] b) Yes [ ]
5. How often do you attend maternity center services at Coast Provincial General Hospital?
   a) Weekly [ ] c) Twice a month [ ]
   b) Monthly [ ] d) Other please specify……

PART B: DETERMINANTS OF PRECONCEPTION CARE PREPAREDNESS AMONG WOMEN SEEKING POSTNATAL AND FAMILY PLANNING SERVICES AT COAST PROVINCIAL GENERAL HOSPITAL

i) Demographic Determinants

This section aims at determining the influence of demographic determinants on pre-conception care preparedness; please respond to the following questions as most appropriate

6. Please indicate your residence:

   a) Urban [ ] b) Rural [ ]

7. Education: a) None [ ] b) Primary [ ]

   c) Secondary [ ] d) Tertiary [ ]

8. Marital status:……

9. How many live children do you have? ……

10. How many pregnancies have you had? ……..

11. How many successful deliveries have you had? …….

ii) Social-Economic Determinants

This section aims at determining the influence of socio-economic determinants on pre-conception care preparedness; please respond to the following questions as most appropriate

12. Employment status

    a) Formal Employment [ ] b) Self Employed [ ]

    c) Unemployment [ ]

13. What's your monthly income…….

    Do you have any additional source of income?

    a) Yes [ ] b) No [ ]

If yes please specify

……

……

14. What is your spouse's (if married) employment status

a) Formal Employment [ ] b) Self Employed [ ]

c) Unemployment [ ]

15. What is your spouse's (if married) income status

a) < 3000 Ksh. [ ] b) 3000 – 6000 Ksh. [ ] c)> 6000 Ksh. [ ]

16. Are you able to afford and attend MCH/FP care easily?

b) Yes [ ] b) No [ ]

If No Please indicate financial constraints faced

……

……

iii) Cultural Determinants

For cultural data, please respond to the following questions as most appropriate

17. Ethnicity? (State)……..

18. Does your cultural beliefs have any limitations towards pre-conception preparedness?

a) Yes [ ] b) No [ ] c) I don't know [ ]

If yes how? (Specify)……

19. Do you have cultural beliefs, taboos and practices about preconception care preparedness? a) cultural beliefs Yes [ ] b) No [ ] c) I don't know [ ]

If yes, in which way? (Specify) ……..

b) Taboos Yes [ ] b) No [ ] c) I don't know [ ]

If yes, in which way? (Specify) ……..

c) Cultural practices Yes [ ] b) No [ ] c) I don't know [ ]

If yes, in which way? (Specify) ……..

20. Do you have traditional practices encourage/discourage pre-conception care?

a) Yes [ ] b) No [ ] c) I don't know [ ]

If yes, in which way? (Specify) ……..

21. Are there any norms or practices practiced as part of the pre-conception preparedness in your community?

    a) Yes [ ] b) No [ ] c) I don't know [ ]

    If yes, in which way? (Specify) ……..

22. What is the general attitude and perception of your cultural beliefs on matters pertaining to being prepared prior to conception?

……

……

iv) Hospital-Related Determinants

This section aims at determining the influence of hospital related determinants on pre-conception care preparedness, please respond to the following questions as most appropriate

23. How long (distance) do you travel to reach the hospital? (kms)……

24. How long do you wait at the maternity clinic before being attended to?
    .....

25. How much does it cost to reach the facility (Kshs?)…….

26. How do you rate the staff attitude at the maternity unit?

    a) Very friendly [ ] b) Friendly [ ] c) Indifferent [ ]

    d) Unfriendly [ ] e) Very unfriendly [ ]

27. Did you have to pay any fee for the pre conception services that you were provided in the hospital?

Yes [ ] No [ ]

If yes what are the services you were charged and how much did they cost?

……

28. How difficult was it for you access the preconception services?

a) Very difficult [ ] c) Quite difficult [ ]

b) Not difficult [ ] d) I did not try [ ]

29. How would you rate the effectiveness of the preconception care services which were provided?

Very Effective [ ] Effective [ ]

Moderate [ ] Slightly Effective [ ]

Not Effective [ ]

30. In your opinion, which other factors influence preconception care preparedness?

……
……
……
……

End

Thank you for your cooperation

Appendix 9: Key Informant Interviews guide

Dear participant,

You are hereby invited to participate in a Key Informant Interview for a study on 'determinants of preconception care preparedness among mothers who are seeking postnatal and family planning services in coast provincial general hospital. Be honest, free and active in your participation in responding to the questions given for due response. Participation will be guided by use of Key Informant Interviews Guide. There will be an observer, moderator and note taker for your Key Informant Interview information. Recordings will also be made by use of tape recorders to store information as presented. All information gathered will be held under strict confidentiality and will be used only for purposes of the research.

Questions

1. Which demographic determinants influence preconception care preparedness among women seeking postnatal and family planning services at the maternity unit of Coast General Hospital (CPGH)?
2. Which social determinants influence preconception care preparedness among women seeking postnatal and family planning services in maternity at Coast General Hospital?

3. Which cultural determinants influence preconception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH?
4. What are the hospital determinants that influence the pre-conception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH?
5. Are there any other factors that influence preconception care preparedness on mothers seeking postnatal and family planning services in maternity unit at CPGH?

Appendix 10: Pearson's Chi-square Test

	FP_preconception preparedness	Demographic_det	Socio-economic_det	Cultural_det.	Hospital-related det.
Chi-Square	8.000[a]	45.469[b]	61.937[c]	17.429[d]	30.000[e]
Df	34	30	25	15	20
Asymp. Sig.	**1.000**	**.035**	**.000**	**.294**	**.026**

a. 35 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.2.

b. 31 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.1.

c. 26 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.5.

d. 18 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 2.3.

e. 21 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 3.0.