

**Factors associated with utilization of postnatal care services among women in
Babati urban district in Manyara Region, Tanzania**

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**MSc (Midwifery and Women's Health) Dissertation
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**FACTORS ASSOCIATED WITH UTILIZATION OF POSTNATAL
CARE SERVICES AMONG WOMEN IN BABATI URBAN DISTRICT
AT MANYARA REGION, TANZANIA**

By

Edina Lawrence Mathayo

**A dissertation submitted in (partial) Fulfillment of the Requirements for
the Degree of Master of Science in Midwifery and Women's Health of**

Muhimbili University of Health and Allied Sciences.

November 2019

CERTIFICATION

The Undersigned certify that she has read and hereby recommends for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled “*Factors associated with utilization of postnatal care services among women in Babati urban district at Manyara region, Tanzania*” in (partial) fulfillment of the requirement for the degree of Master of Science in (Midwifery and Women’s Health) of Muhimbili University of Health and Allied Sciences.

.....

Dr. Beatrice Mwilike (Ph.D., MSc, BScN)

(Supervisor)

.....

Date

DECLARATION AND COPYRIGHT

I, **Edina Lawrence Mathayo** declare that this **dissertation** is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature Date:

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This would not be possible without my family members, especially my mother for love, guidance, and financial support. Thanks to my siblings for their continuous financial, technical and moral support.

DEDICATION

This research is dedicated to my lovely husband, Francis Stewart Francis and my four daughters Naomi, Deborah, Rebecca and Shine glory who persevered my absence and late homecoming so as to accomplish my Master's Degree Studies.

ABSTRACT

Background

Tanzania is among the countries in sub-Saharan Africa with a high rate of maternal mortality. Postpartum deaths caused by obstetric factors occur mainly due to limited access and use of maternal health care services. Postnatal care prevents the great majority of maternal and child morbidity, mortality, and this is a critical phase in the lives of mothers and their newborn babies. Regardless of its importance, this period is commonly the most neglected in developing countries and much less is known about the utilization of postnatal care.

Broad objective

The study aimed to assess factors associated with utilization of Postnatal Care services among women in Babati urban district at Manyara region, Tanzania.

Methodology

The study employed community baseddescriptive cross-sectional design andwas conducted atBabati urban district in Manyara region. The estimated sample size was 383 postnatal women who gave birth within 3 months up to 6 months prior to the period of data collection.This study used two probability sampling techniques, whereby a multistage and simple random sampling technique were used in order to reach the study participants. Data was collected by using interviewer-administered questionnaire. Data was entered, coded and cleaned and analyzed by using statistical package for social science (SPSS) version 23 software, binary logistic regression analysis was computed for each independent variable.

Results

One third (29.5%)of respondents were in the middle age group (25-29), and more than three quarter (84.7%) were married. Furthermore, the majority of respondents (62.4%) were primary school leavers, while the prominent tribe in this study was Iraq (27.4%). Moreover, the majority of respondents (84.1%) were gravida 2-5. Lastly, the majority of respondents (55.1%) were Christian.

Logistic regression results shows that those mothers who gave birth at the hospital were 3.6 times more likely to use postnatal care services than mothers who did not give birth at the hospital [AOR= 3.64, 95%CI (1.04 – 12.71), p. value 0.043]. Moreover, mothers who lived near health facility were 2 times more likely to use postnatal care services than mothers who lived more than 5km from health facility [AOR: 2.02, 95%CI (1.16 – 3.51), p. value 0.013]. Other factors such as socio-demographic factors, socio-cultural factors, and institutional factors have no influence on the utilization of postnatal care services.

Conclusion

The utilization of postnatal care services is low at Babati urban district as only 19.8% of the respondent's utilized postnatal care services. The study also showed that the most important factors influencing the use of postnatal care include the distance from the health facility and giving birth at the health facility.

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LIST OF ABBREVIATIONS

ANC	Antenatal care
DRC	Democratic Republic of Congo
HRS	Hours
MOI	Medical Officer In-charge
MUHAS	Muhimbili University of Health and Allied Sciences
PI	Principle Investigator
PNC	Postnatal care
RA	Research Assistant
RCH	Reproductive and child health
SDG	Sustainable Development Goal
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization
HCWs	Health Care Workers
MDSR	Maternal Death Surveillance Review

DEFINITION OF TERMS

Postnatal care is the care given to the woman starting one hour after childbirth up to 6 weeks after birth. In this study, the term PNC will be used to denote care related to the mother only and not to the newborn.

Postnatal visits are schedules arranged for the woman to attend PNC and receive the care within 24-48 hrs. 7th-14th, 28th and 42nd days.

A **postnatal clinic** is a place where the postnatal care services are delivered to mothers and their babies with trained health care workers such as midwives, nurses or doctor who specialized in pregnancy and birth.

Knowledge is information, understanding, and skills that one gains through education or experience

Utilization is quantification or description of the use of services by persons for the purpose of preventing and curing health problems, promoting maintenance of health and well-being, or obtaining information about one's health status and prognosis

CHAPTER ONE

INTRODUCTION

1.1 Background

It is estimated that about 289 000 of women die each year worldwide from complications related to pregnancy, childbirth and postnatal period, globally, two-thirds of all maternal deaths occur after the delivery, 99% of maternal and neonatal deaths occur in low and middle-income countries (1).

Postnatal period begins immediately after childbirth and lasts for six weeks (2). This is a critical phase in the lives of mothers and their newborn babies (3). World Health Organization (WHO) has made improvements globally on improving maternal health services. Including the 2013 newly updated global guidelines for postnatal care for mothers and newborns, this guideline addresses the timing and content for mothers and newborns with special attention on settings with low- and middle-income countries (4,5).

The 240 per 100,000 maternal mortality occurred in developing countries, whereby Sub-Saharan Africa region count for 50 percent of all maternal deaths, and the close second is South Asia with 33% of deaths(6).

WHO reported that in low-income countries, almost 40% of women experience complications after delivery and an estimated 15% develop potentially life-threatening problems (7). Most maternal and infant deaths occur in the first month after birth, whereby more than 50% of maternal and neonatal deaths occur within the first 24 hours of delivery, and 75% within the first week respectively (3,4,8).

The maternal mortality ratio (MMR) for Tanzania is 556 deaths per 100,000 live births, (9). Unfortunately, hemorrhage remains to be the leading cause of this maternal mortality (10). In line with Sustainable Developmental Goal (SDG), Tanzania has set its strategic objective of reducing maternal deaths up to 140 deaths per 100,000 live births by 2030, accesses for the uptake of PNC had improved, but remain limited (11). In Tanzania, studies show that one-third (34%) received postnatal

care within 2 days after childbirth while 63% didn't receive PNC for 42 days after delivery (9). Although postnatal care is an essential component of maternal and baby health care, yet is not very well utilized (1,12). Hence, postnatal care for the women is important in identifying and treating complications that occur during the delivery as well as providing information for the mother on her health (13).

This study assessed the utilization of PNC services in Babati urban, which this service is easily accessible, compared to other districts in Manyara region. According to DHIS (2017) report, there is a low number of PNC attendance (1,2). Nevertheless, maternal services are easily accessed and reachable.

1.2 Problem Statement

Postnatal care for the mother and her infant is crucial in the first hours and days after childbirth. It is estimated that more than 50% of maternal and neonatal deaths occur within the first 24 hours of delivery whereas 75% occur within the first week (4). Studies done in Indonesia and Kenya have reported that the prevalence of non-attendance at postnatal care services are higher in urban areas than in rural areas (1,2,11). Studies done in Tanzania have shown that only 35 % of women received a postnatal checkup and only 5.4% of women in Babati urban district had a postnatal check-up (15,16) Despite high level of awareness and positive attitude towards postnatal care services by majority of women in Tanzania, substantial proportion of women doesn't use the services (17). Therefore, the study aimed to assess factors associated with utilization of postnatal care services among women in Babati urban district at Manyara region.

1.3 Conceptual Framework

According to the review of different pieces of literature, shown that most of the factors related to each other, therefore researcher decided to formulate the conceptual framework in order to assess four factors associated with utilization of PNC at Babati urban, where the prevalence was 5.4% (15). The factors constructed this framework were socio-demographic factors, cultural factors, socio-economic factors and health institutional factors whereby these factors have a direct relation to the utilization of

PNC. There was interaction between two factors which were Socio-demographic factors which comprises; (maternal age, religion, maternal education and women decision making power, parity) and Socio-economic factors which comprise; (place of delivery, unwanted/unplanned pregnancy, marital status, family income, distance from health facility). Cultural factors which include; (cultural practices and beliefs)(16,18–22). The last factor which was Health institutional factors contains; (follow up and support to women, provider's attitude, Antenatal care attendance by women, during ANC attendance women receive health education about early PNC) may truly be associated with utilization of PNC direct (19–22).

Independent variables

Dependent variables

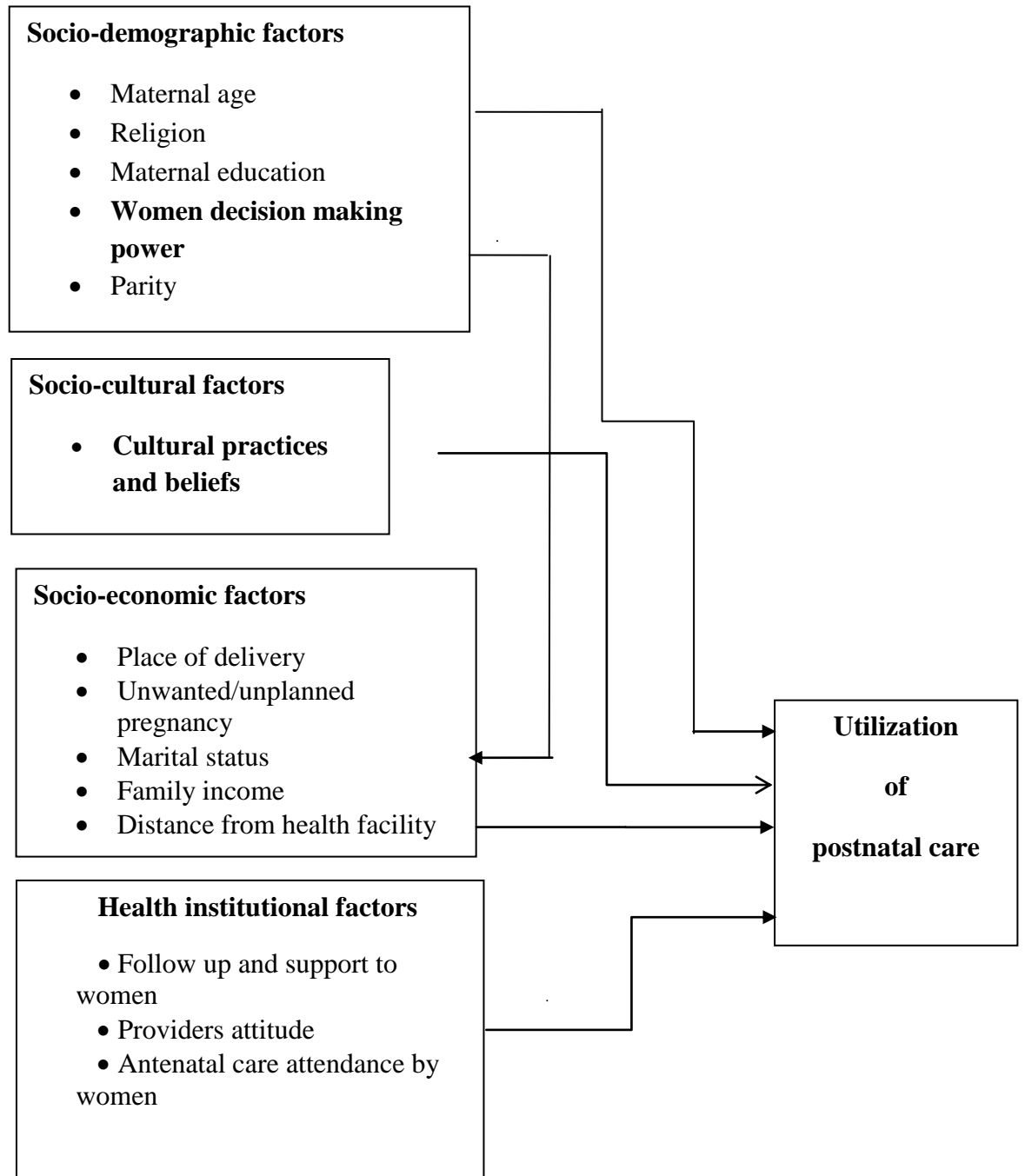


Figure 1.1: Conceptual framework on the utilization of PNC (19–22).

1.4 Study Rationale

The findings of this study will help Babati urban district and other stakeholders on designing intervention, strategies and developing policies, which will promote early and increased utilization of PNC. In addition, the study will be used by future researches and facilitate the planning and implementation on the efforts of utilizing PNC services in Babati urban district and Manyara region. Also, the results of this study will be used in the provision of evidence of the gaps found in an area for relevant stakeholders; therefore improve quality of PNC services related with the ongoing international programmed such as SDGs goals and targets.

1.5 Research Question

1. How socio-economic factors influence utilization of postnatal care among women in Babati urban district?
2. To what extent socio-cultural factors influence the utilization of PNC among postnatal women in Babati urban district?
3. In what ways health institutional factors influencing utilization of PNC among postnatal women in Babati urban district?

1.6 Objectives

1.6.1 Broad objective

To assess factors associated with utilization of Postnatal Care among women in Babati urban district at Manyara region.

1.6.2 Specific objectives

- i. To describe socio-cultural factors that influence the utilization of PNC among postnatal women in Babati urban district
- ii. To determine socio-economic factors that influence the utilization of PNC among postnatal women in Babati urban district
- iii. To describe health institutional factors influencing utilization of PNC among postnatal women in Babati urban district

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review guided by the conceptual framework to assess socio-economic factors, social-cultural factors, socio-demographic factors and health institutional factors which studies shown have a contribution to low utilization of postnatal care services.

Low utilization of PNC can result in maternal death and missing opportunity to sensitize health behavior which can help mothers and their children (23). The decline of maternal complication which can result in long term complication goes together with effective utilization of PNC (23). The maternal mortality which reported higher in Tanzania (9), bystrengthening of postnatal care, will benefits both mother and newborn (24).

2.2 Socio-Demographic Factors

Studies shows that older and younger women have dissimilar experience and influence, their behavior on seeking postnatal care also differ, commonly, younger women are more likely to utilize current health facilities than older women as they are likely to have better exposure and knowledge to modem health care and also contact to health education (16,25).

Older women are probable depend on experience thus fail to utilize health care services. One study done in Benin gave a result that women under the age of 35 years utilized postnatal more than those above 35 years(26).

Certain norms and features of religious groups may encourage negative attitudes on postnatal care utilization (27). evidence from African country suggests that teamwork between religious leaders and health officials are vital for changes in health (28,29). A study done in Kenya shows that religion can promote or hinder the utilization of

PNC service in one way or another (1). Mothers had some associated religious and magical practices which hinder them from moving around during three months after childbirth the purpose is to help and protect mothers and their babies against dangers likely to be affected by supernatural powers (1).

Non-utilization of PNC has a significant relationship with education as a determinant. It has been seen that postnatal care services are used better by educated women due to understanding capacity and are more likely to know where to get it, compared to those who are less educated women (30). Education empowers an individual to advance access to health promotion message, information to attain services and importance of the available services (16,31).

A study done at Ethiopia revealed that the final decision maker on PNC service utilization, mothers who decided by themselves utilized PNC services more as compared to those whose health care decision is made by others (27). This influences the autonomy of the women and makes the decision on any action concerning their health issues. Autonomy gives them the freedom to make contact to the health professional easier and attend maternal conferences without any interferences which help to develop a level of awareness about maternal health services and make them use it (27,32,33).

Parity is important predictors in explaining the utilization of postnatal care services due to the uncertainty and the insight of risks related with first pregnancy (16). Primipara women are more likely to seek medical consideration for first-order births than for subsequent(1). A study done at Malawi revealed that, adolescent women with a high parity (birth order 2/3) had a lower possibility in utilizing postnatal services compared to adolescent women with a first parity(16,28,31,34).

2.3 Socio-Cultural Factors

The study done by Rwabufigiri in Rwanda reported that there is cultural practice known as *kwitaizina* stands as PNC barrier (22). This cultural practice discourages both the mother and new-born from leaving the house until the new-born is named at eight days (22). Also, cultural practices isolate mother to stay away from her husband

until the umbilical cord falls off, this cause delays for mothers to start PNC on time or not to attend at all (35). In this technological era, findings have shown that in the postnatal period mothers still following certain cultural beliefs and practices while other is beneficial to the mother and newborn and some are unbeneficial to both (36,37). Maternal complications, which may occur during the postnatal period, in many cultures, people relate with supernatural power, therefore, individual's attempt to solve their health problems using traditional practices learned from their families (38). When it reach's to the point that all measures failed, bring the woman to the hospital latewhenthe chance for survival is less (39–41). In some cultures, husbands must give permission to their wife in order to seek maternal healthcare (27,39).

2.4 Socioeconomic Factors

Majority of Mothers who give birth at home have low access to utilize postnatal care services compared to those who delivered in health facilities(30). Also, those who delivered at health facilities have a greater opportunity for health education related to PNC services at the time of discharge, its benefits, and availability (32). Hence, place of delivery, presence of qualified healthcare personnel at the time of birth, as well as the use of PNC services shows a close relationship (42).

The highest rate of unplanned pregnancy occurs in Sub-Saharan Africa counts about 86 of unplanned pregnancies occur for every 1000 women of reproductive age (40). The magnitude of unplanned pregnancies in developing countries ranged from 14% to 62% of all births (43). Most of the studies revealed that unplanned pregnancy is connected with late initiation and insufficient use of postnatal care services (40). Additionally, more studies revealed that women with unplanned pregnancies are less likely to consume the recommended amount of folic acid during the postnatal period, also they are less likely to breastfeed their babies, and are more likely to present with postpartum depression (44).

A study was done in Zambia shown that married women in monogamous marriages used postnatal care more than women who were single or divorced or in polygamous marriages, women in polygamous marriages, who lacked the financial, collaborate and support from partner had difficulties in attending postnatal care services (45).

According to the study done in China, women with so-called white-collar occupations were more likely to use postnatal care than other women (4,46). Women married to men with works, technical or managerial occupations were more likely to use postnatal care than women married to manual laborers. Women who have access to income can increase awareness and modify a person's behavior, through social and community interactions (47). In low- and middle-income countries, there is no clear and constant association between a woman's income-generating employment and her use for postnatal care services, therefore sometimes only seasonal or relatively poorly salaried increase challenges on PNC utilization (2).

A study was done in Nigeria shown that lower utilization of PNC services among mothers contributed by the long-distance whereby mothers walk to find the service, most of the mothers failed to access the PNC because this has a connection with their socio-economic status (48). The popularity of women in rural areas may not have enough money to access the cost of transport to reach health facilities. Nevertheless, improved electricity, transportation, water, and sanitation services are, on average, more commonly available in urban areas, and could enhance a mother's utilization of PNC services (25,31). In addition, greater responsiveness of health promotion programs and access to services among urban women could have a positive influence on the utilization of healthcare services (34,46).

2.5 Health Institutional Factors

Less complication during the postpartum period can be maintained by HCWs by doing a follow-up and support to the women through promotion and prevention of health, mothers were satisfied when receives support from midwives, but missed that opportunity(30). A study done in Scandinavia shows almost half of the mothers observed to have inadequate follow-up and support from the HCWs lacking continuing chain of care and support for mothers' physical and emotional health is insufficient (,28,46,47).

A study conducted in Kenya showed that staff's attitude was poor which led to the poor rapport between health providers and patients (30). On the usage of PNC services, poorly equipped health facilities contribute to poor service utilization as

most providers only attentive on immunization of the babies leaving the mother apart as reported by the mothers, this lead to mothers not receiving services as required (3).

Studies show that successful PNC services depend on ANC attendance (30). For those women who had antenatal follow up were aware of postpartum care than those who did not attend ANC at all, they know nothing about the continuum of care after delivery (51,52)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Design

The study was a descriptive cross-sectional design which allows the collection, at one point in time, of information on the frequency and distribution of health-related variables from the study population (50).

This study designed to assess the prevalence of utilization of PNC services among women in Babati urban.

The descriptive cross-sectional study used for obtaining appropriate information about what was the utilization of PNC services in Babati urban. Through the assessment from the community, the solution on improving utilization of PNC was addressed.

3.2 Study Setting

Manyara region is one of the 33 administrative regions in Tanzania located at Northern Zone part of Tanzania; the capital city of the region is Babati urban district. According to the national census conducted in 2012 had a population of 1.4 million, whereby 50.3% are males and 49.3% female (53).

The study was conducted at Babati urban district, which is one of seven districts in Manyara Region. Other districts are Babati rural district, Hanang, Kiteto, Simanjiro, Mbulu urban district and Mbulu rural district. Babati urban district bordered by Babati Rural District on the eastern part, Mbulu District on the Northern part, Hanang District on the western area and Kiteto District on the southern part.

The Babati urban district covers a total area of 6,069 km² (2,343 sq. mi). The total population in the district is 93,108 (National Census, 2012) (53). Babati urban district has 19 health facilities, including a regional referral hospital, with the following categorization: 2 hospitals, 2 health centers, 14 dispensaries, and 1 maternity home.

The district was selected as an area of study because there are health facilities, which offer PNC to mothers and their newborn. The district was convenient because in 2017 data from the District Health Information System (54) indicated that few mothers attended PNC, but they brought their infants to the under-five clinic.

3.3 Population

Women who gave birth within 3 months up to 6 months prior to the period of data collection.

3.4 Sample Size

The sample size was determined by the prevalence in a study from Tanzania in 2017. The prevalence of Tanzania postnatal care was 34.2% (18). The sample size estimated by using

Cochran's formula (1975) as follows:

$$n = \frac{z^2 p(1-p)}{\varepsilon^2}$$

Where

Z = level of confidence (1.96 for 95% confidence level)

p = expected proportion (previous or pilot study) 34.2% =0.34

ε = margin of error or denote d in some text 5%=0.05

$$n = \frac{1.96^2 \times 0.34(1-0.34)}{0.05^2} = 345$$

$$0.05^2$$

Adjusting for non-response

Non-response 10%

R =90%

$n \times 1/R$

$$345 \times 1/0.90 = 383$$

Therefore, the sample size will be 383 respondents

3.5 Variables

In this study, the two types of the variable were used:-

3.5.1 Independent variables

The independent variables in this research were-

- Maternal age
- Religion
- Cultural practices and beliefs
- Marital status
- Maternal education
- Women decision making power
- Place of delivery
- Parity
- Unwanted/unplanned pregnancy
- Family income
- Distance from the health facility
- Follow up and support to women
- Provider's attitude
- Antenatal care attendance by women

3.5.2 Dependent variable

In this study, the research dependent variable was the utilization of postnatal care.

3.6 Sampling Procedure

The study used multistage and simple random sampling technique. Babati Urban District had administratively divided into eight wards. First, all wards were named into a piece of paper. Then, four wards were randomly selected by lottery method, the number of mothers attended PNC reviewed in DHIS 2 according to the selected wards in all streets. Then total sample size of 383 was distributed to each street. The participants were selected by simple random sampling using a lottery from the

existing sampling frame of the household. Finally, frames of households were prepared for each ward in consultation from the local administrators. Households with a woman who gave birth within three months up to six months prior to the period of data collection prior to this study were selected using simple random sampling from the existing sampling frame of households. For selecting the study, participant's different sampling intervals were used for each ward. Whenever more than one qualified respondent was founded in the same selected household, all respondents were chosen to participate in the study. For households with no qualified woman the immediate next household was selected and then, the following households were selected according to the already prearranged order.

3.7 Inclusion Criteria

In this study, inclusion criteria were those women who -:

- Gave birth within three (3) months up to six (6) months prior to the period of data collection
- Speaking the Swahili language

3.8 Exclusion Criteria

The exclusion criteria in this study were:-

- Sick mothers and babies
- Postnatal mother with mental problems

3.9 Data Collection Tools

In this study, data were collected by using interviewer-administered questionnaire. The main contents of the questionnaire were socio-demographic factors, socio-cultural factors, socio-economic factors and health institutional, whereby interviewee was asked questions from the questionnaires and respondent via face to face at their homes. The questionnaires first prepared in English and then translated into Swahili and back to English to ensure consistency. Four diploma nurse-midwives were invited

in the data collection process and the principal investigator has supervised the data collection process. One day for training for data collectors was arranged by the principal investigator. Thus training session included the general objective of the study, the content of the questionnaire, ethical principles, and mechanisms of how to resolve a problem when arises.

3.9.1 Data analysis

Data was entered, coded, cleaned and analyzed by using statistical package for social science (IBM SPSS Statistics version 23) software. Binary logistic regression analysis was computed for each independent variable.

Frequency distributions were used to describe the population. Adjusted multivariate logistic regression models were used to determine factors that are associated with the use or non-use of PNC services and to control the confounders. The results were interpreted at a significance level of 5%.

Finally, by selecting eligible variables using forward logistic regression, the independent effect of predictors on the utilization of postnatal care service was examined. The 95% CI used to measure the statistical association. P-value 0.05 used to determine the statistical significance of the tests. Finally, the results were presented in texts and tables.

3.10 Validity and Reliability

The research instrument was given to supervisors for acceptance and to check whether it was sufficiently comprehensive in seeking the proper range of responses, appropriate in terms of space and length, the flow of questions, and whether the questions have validity. There two types of validity used in this study: - external and internal validity.

3.10.1 Internal validity

This research, the instrument for data collection used is a questionnaire, whereby was reviewed by a midwife specialist, obstetrician, and statistician experts to check for content validity of the tool. The experts were requested to review each question to measure if it answered the research questions. The feedback from each expert was analyzed, compared to determine the degree of content validity from each question. The modifications suggestion was considered before pre-testing and data collection.

3.10.2 External validity

The sample size for this study comprises a total of 383 women who gave birth within the three month's up to six months prior the period of data collection, which indicate that the findings can be generalized to a wider population of rural settings in Manyara region.

3.10.3 Reliability of the instrument

In order to identify the precision and consistency of the questionnaire, it was pretested on 10% of the sample in a similar population in one of the ward in Babati rural district outside the selected study area and necessary modifications such clarity and consistency of the questions and evidence-based time allocation for each respondent was made accordingly. All data was collected from each respondent was checked for completeness, clarity, and consistency by the principal investigator and the supervisor immediately at the end of each data collection day.

3.11 Ethical Considerations

Permission to carry out this study was obtained through ethical clearance by the Muhimbili University of Health and Allied Sciences Research Ethical Committee. A letter to seek permission to conduct the study was presented to the District Executive Director (DED)/ Town Medical Officer (TMO) and permission to conduct the study was obtained from the TMO of Babati urban district. Participants were asked to provide written informed consent before the interview. For those who would not be able to read or write the researcher, research assistants or witness was read the consent for them; if they agreed to participate in the study, they would put a

thumbprint. No penalty or mistreatment would be directed to the participants who choose not to participate or decide to withdraw somewhere in the middle of the study. The consent would contain a full explanation about the benefits and risks of the study to participants and assurance of voluntary participation (participants can refuse to participate at any time during the interview), questionnaires would be coded instead of using names as identification, and hence, confidentiality would be assured throughout the study.

3.12 Dissemination of Findings

The final report of this study was disseminated to Director of Post Graduate Studies, MUHAS as partial fulfillment for the award of the degree of Masters of Science in Midwifery and Women's Health. In addition, relevant copies of the report would be disseminated to Dean School of Nursing, at MUHAS, Director of Library at MUHAS, Midwifery academic journal for publication and DMO at Babati district. **Also these findings can be presented during MDSR meetings and international maternal conference.**

CHAPTER FOUR

RESULTS

The study aimed at assessing the utilization of PNC services among women who gave birth in Babati urban district. Total participants of 383 postnatal mothers inclusive from four different urban wards of Babati district were interviewed as a representative sample.

4.1 Socio-Demographic Characteristics of Respondents

As shown in Table 1, one third (**29.5%**) of respondents were in the middle age group (**25-29**), more than three quarter (**84.7%**) were married. Furthermore, the majority of respondents (**62.4%**) were primary school leavers, while the prominent tribe in this study was Iraq (**27.4%**). Moreover, the majority of respondents (**84.1%**) were gravida 2-5. Lastly, the majority of respondents (**55.1%**) were Christian.

Table 4.1: Social demographic characteristics of study participants (N=383)

Variable	Frequency (n)	Percentage (%)
Age group: 15 – 19	24	6.3
20 – 24	110	28.7
25 – 29	113	29.5
30 – 34	75	19.6
≥ 35	61	15.9
Marital status:		
Married	325	84.7
Not married	58	15.1
Education: No formal education	35	9.1
Primary	239	62.4
Secondary	99	25.8
Higher	10	2.6
Tribe: Iraq	105	27.4
Mbulu	54	14.1
Barbaig	27	7.0
Other	197	51.4
Gravidity: ≥6	18	4.7
2-5	322	84.1
1	1	0.3
Religion		
Christians	211	55.1
Muslims	171	44.6

4.2 Socioeconomics Characteristics of Study Participants

In this section, the researcher aimed to assess the socio-economic characteristics of the respondents. As shown in Table 2, the majority of postnatal mothers (**68.1%**) decision for seeking PNC is made by husband/partner. With regard to the place of giving birth majority (**82.0%**) of postnatal mother's reported that they gave birth at the hospital. Furthermore, the majority of mother's (**35.5%**) had only one PNC visit. Moreover, more than half of respondents (**52.7%**) reported as having income-generating activities and lastly, the majority (**61.9%**) reported that they live within 5km near health facility.

Table 4.2: Socioeconomics characteristics of study participants (N=383)

Variable	Frequency (n)	Percentage (%)
Power to decide on postnatal care seeking		
Yourself	73	19.1
Husband/partner	261	68.1
Others	49	12.8
Place of giving birth		
Hospital	314	82.0
Home	51	13.3
TBA's	12	3.1
Others	7	1.8
Number of postnatal visits		
One	137	35.5
Two	121	31.6
Three and above	100	26.1
Not attend any visit	25	6.5
Work/business as a source of income		
Yes	202	52.7
No	181	47.3
If yes are you allowed to use money (transportation)		
Yes	171	84.2
No	31	15.3
Live near health facility (within 5km)		
Yes	146	38.1
No	237	61.9

4.3 Social-Cultural Beliefs Relating to Postnatal Services

In this section, the researcher aimed to ascertain the socio-cultural beliefs influence the utilization of postnatal services. As shown in table 3, the majority (**81.9%**) of postnatal mothers appreciated the presence of socio-cultural beliefs hindering utilization of PNC services and they are most valued by the community. About half of respondents (**56.2%**) reported that women are not allowed to go for PNC until umbilical cord shears off, while (**38.7%**) reported that women reported that they are not allowed to go for PNC until a baby is given a name. Furthermore, the majority (**86.7%**) reported that women are strictly kept inside for 40 days.

Table 4.3: Distribution of social-cultural beliefs relating to postnatal services(N=383)

Variable	Frequency (n)	Percentage%
Presence of cultural beliefs		
Yes	313	81.9
No	69	18.1
Women not allowed to go until umbilical cord falls	177	56.2
Women not allowed to go until baby given name	122	38.7
Others	16	5.1
Another social-cultural beliefs		
Stay inside for 40 days	13	86.7
Stay inside for 6 months	1	6.1
Stay inside for 2 months	1	6.1
Does your cultural belief allow a postnatal visit		
Yes	161	42.3
No	220	57.7
Danger signs occurring during postnatal period		
Yes	119	31.1
No	264	68.9
Danger signs relating to a cultural belief(119)		
Yes	54	14.1
No	65	17.0

4.4 Health Institutional Factors Influencing Utilization of PNC

The study shows that about more than half of mothers (**64.8%**) reported that they were taught/heard about PNC during ANC visits. Moreover, the majority (**95.8%**) didn't receive PNC follow up after discharge. Furthermore, the majority (**80.7%**) of postnatal mothers did not attend for postnatal checkup although they attend their respective visits.

Table 4.4: Health institutional factors influencing utilization of PNC(N=383)

Variables	Frequency (n)	Percentage (%)
Attended for a postnatal checkup		
Yes	74	19.3
No	309	80.7
ANC attendance		
1	55	14.4
2	149	38.9
3	95	24.8
4	84	21.9
At ANC taught/heard about postnatal care		
Yes	248	64.8
No	135	35.2
Follow up visit after discharge		
Yes	16	4.2
No	367	95.8
If yes did you receive any postnatal care at home		
Yes	3	0.8
No	380	99.2

4.5 Association between Each Independent Variable And Postnatal Care Utilization

To achieve the purpose of the study which was to assess the association between each independent variable and postnatal care utilization, binary logistic regression analysis was used to identify the factors influencing utilizing maternal PNC services. In this analysis, a dependent variable was the utilization of PNC services. Binary logistic regression used to predict the relationship between predictors (independent variables) and a predicted variable (the dependent variable) where the dependent variable is

binary. If there is any association between socio-demographic factors, socio-cultural factors, socio-economic factors and health institutional factors with the utilization of PNC service with corresponding odds ratio value.

Both adjusted and unadjusted logistic regression models were acceptable in the study. Unadjusted logistic regression models were acceptable to observe whether some covariates had a significant effect on the utilization of PNC services, whereas the adjusted logistic regression model was fit to look at the impact of a covariate on PNC service utilization after controlling for potential confounders. The interpretation and discussion of the results were naturally based on the adjusted logistic regression model.

4.5.1 Socio-demographic factors

The study shows that mothers whose religious belief allowed them to utilize PNC service were 1.9 times more likely to utilize the PNC services (OR=1.91, $p=0.019$) compared to those whose religious belief does not allow them. Also, the study found that other socio-demographic characteristics had no influence on the utilization of PNC services.

4.5.2 Association between socio-cultural, economic and institutional factors with postnatal care

The utilization of PNC services among women was more associated with the following variables;

In social cultural factors, mothers who were prevented by cultural practices to attend PNC services (14.5%) were less likely to utilize PNC service than those mothers who were not prevented by cultural practices at p -value 0.002. Mothers who knew postnatal obstetric danger signs were 2.3 times (OR= 2.27, CI= 1.35 – 3.80) more likely to utilize postnatal care service than those who didn't know any obstetric danger signs during the postnatal period.

In socio-economic factors, the analysis displayed a highly significant relationship between the place of delivery and the utilization of postnatal care services with (OR= 6.79, CI= 2.08 – 22.24) women who deliver in a health facility are more likely to

receive medical care from skilled attendants which may assist their PNC utilization. Furthermore, women did workers or business than those who didn't work with a p-value of 0.044. In this study (OR= 2.96, CI= 1.77- 4.96) of the respondents who lived 0-5km from the health facility attended postnatal services while lesser association to the respondents lived more than 5km from the facility with a p-value of < 0.001.

Health institutional factors also revealed that pregnant women attended more than three antenatal care were 4 times (OR= 4.0, CI 1.42 – 11.25) more likely to utilize postnatal care service than those who attended three visits with (OR=2.84, CI= 1.01 – 8.02) compared to those attending one or two ANC visits.

Table 4.5: Association between socio-cultural, economic and institutional factors with postnatal care

Variable	Categories	Total	Use of PNC (%)	OR	95% CI of OR	P-value
Culture allow use of PNC	Yes	161	44 (27.3)	2.22	1.33 – 3.70	0.002
	No	221	32 (14.5)	Ref		
Know postnatal danger signs	Yes	119	35 (29.4)	2.27	1.35 – 3.80	0.002
	No	264	41 (15.5)	Ref		
Decision to use PNC	Husband	261	54 (20.7)	1.02	0.48 – 2.17	0.964
	Self	73	12 (16.4)	0.77	0.30 – 1.95	0.577
	Other	49	10 (20.4)	Ref		
Place of giving birth	Facility del.	313	73 (23.3)	6.79	2.08 – 22.24	0.002
	Home	70	3 (4.3)	Ref		
Was pregnancy planned	Yes	217	46 (21.2)	1.23	0.73 – 2.04	0.448
	No	166	30 (18.1)	Ref		
Worker or Business	Yes	202	48 (23.8)	1.70	1.01 – 2.86	0.044
	No	181	28 (15.5)	Ref		
Live nearhealth facility	Yes	146	45 (30.8)	2.96	1.77 – 4.96	< 0.001
	No	237	31 (13.1)	Ref		
Number attend ANC	Four	84	24 (28.6)	4.00	1.42 – 11.25	0.009
	Three	95	21 (22.1)	2.84	1.01 – 8.02	0.049
	Two	149	26 (17.4)	2.11	0.77 – 5.82	0.147
	One	55	5 (9.1)	Ref		

4.6 Univariate and Multivariate logistic regression analysis for PNC utilization among women at Babati urban district

In multivariate logistic regression results, socio-economic factors have a strong association and statistically significant with the utilization of postnatal care. For example, those mothers who gave birth at the hospital were 3.6 times more likely to use postnatal care services than mothers who did not give birth at the hospital [AOR= 3.64, 95% CI (1.04 – 12.71), *p-value* 0.043]. Moreover, study shows that mothers who lived near health facility were 2 times more likely to use postnatal care services than mothers who lived more than 5km from health facility [AOR: 2.02, 95% CI (1.16 – 3.51), *p-value* 0.013]. Other factors such as socio-cultural factors and institutional factors have no influence on the utilization of postnatal care services.

Table 4.6: Univariate and Multivariate logistic regression analysis for PNC utilization among women at Babati urban district

Variable	Categories	Total N	Use PNC (%)	Univariate analysis			Multivariate analysis		
				cOR	95% CI	P-value	aOR	95% CI	P-value
Religion allow use of PNC	Yes	221	53 (24.0)	1.91	1.11 – 3.27	0.019	1.46	0.82 – 2.61	0.196
	No	162	23 (14.2)	Ref					
Culture allow use of PNC	Yes	161	44 (27.3)	2.22	1.33 – 3.70	0.002	1.67	0.97 – 2.88	0.064
	No	221	32 (14.5)	Ref					
Know postnatal danger	Yes	119	35 (29.4)	2.27	1.35 – 3.80	0.002	1.39	0.79 – 2.43	0.251
	No	264	41 (15.5)	Ref					
Place of giving birth	Facility	313	73 (23.3)	6.79	2.08 – 22.24	0.002	3.64	1.04 – 12.71	0.043
	Home	70	3 (4.3)	Ref					
Worker or business	Yes	202	48 (23.8)	1.70	1.01 – 2.86	0.044	1.25	0.71 – 2.20	0.433
	No	181	28 (15.5)	Ref					
Live near facility	Yes	146	45 (30.8)	2.96	1.77 – 4.96	< 0.001	2.02	1.16 – 3.51	0.013
	No	237	31 (13.1)	Ref					
Number of attend ANC	Four	84	24 (28.6)	4.00	1.42 – 11.25	0.009	1.86	0.61 – 5.65	0.275
	Three	95	21 (22.1)	2.84	1.01 – 8.02	0.049	1.24	0.40 – 3.82	0.710
	Two	149	26 (17.4)	2.11	0.77 – 5.82	0.147	1.11	0.39 – 3.36	0.815
	One	55	5 (9.1)	Ref					

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the study findings. The result of this study shows that utilization of postnatal care services was low (19.8%) in Babati urban district at Manyara region. This study was comparable to study done in South-Sudan which showed (11.4%) (32,55). These findings differed from a study done in Bahi District, Tanzania which was 71.6%(17), and DebreBirhan Town, Northern Shewa Ethiopia which was 78.3% (56).

5.2 Discussion

Among the socio-demographic variables, religion was the only variable which has a significant association with utilization of postnatal care during univariate logistic analysis. After multivariate logistic regression analysis it didn't have statistical significance in this study. This pattern appears to be different to the other study conducted in India that shows religion (27). Furthermore, the evidence from other studies show that teamwork between religious leaders and health officials are vital for changes in health (28,29).

Socio-cultural factors

This study revealed that respondent's cultural practice after childbirth was an important predictor of PNC utilization. The women who adhere to cultural practices were found to have less attendance on PNC compared to those who were free from culture. The importance of the puerperium is significant in Babati women's cultures. About (56.2%) of women were not allowed to go out until umbilical cord falls while (38.7%) until baby given name. These results found to have an effect on PNC utilization. The socio-cultural practices around childbirth such as maternal isolation after delivery and cultural belief play a vital role in non-utilization of postnatal care as reported in a studies done in rural southern Tanzania and Kenya (16,20,57,58).

Socio-economic factors

Furthermore, the study illustrated that mothers who lived within 5 kilometers from the health facility were 2 times more likely to use postnatal care services than mothers who lived more than 5kilometers from the health facility. These results were consistent with the studies done in rural southern Tanzania, Nepal and Cambodia which showed that most women who lived within 5kilometer from health facility tends to have more than two PNC visits (1,58–60) This is because Babati urban have less access to public services, such as transport and health services, therefore, means of transportation was not favorable to them and make the PNC service utilization to below. These finding are similar to the study done in Ethiopia in 2016 by Tesfay et al. which shows (AOR=2.655)(33,61). However, these findings were inconsistent to study done in Morogoro-Tanzania by Mohan et al., (2015) which reported that distance was not associated with facility use for postnatal care with p-value 0.11 (62).

The analysis showed statistical significant to mothers who gave birth to the health facility. Giving birth at a health facility is very important as the clients are taught about care during the postpartum period, newborn care, breastfeeding etc., before discharge. This may influence the utilization of PNC services. Those mothers who gave birth at the hospital were 3.6 times more likely to use postnatal care services than mothers who did not give birth at the hospital. These findings were supported with other study done in Malawi by Khaki et al., (2019) which reported that woman whose birth was supported by a skilled health worker was (aOR:1.91) more likely to attend PNC services than a woman who was not supported by a skilled health worker(21,22,63). Furthermore, a study done in Ethiopia reported that women who deliver at a health facility and supported by skilled health workers are directed to pursue PNC services at the facility (32,64,65).

Health institutional factors

The utilization of PNC services depend on ANC attendance and this was reported being a key in the preparation of PNC (30). For those women who had more than three antenatal follow up were aware of postnatal care than those who had two and one ANC attendance, therefore are more likely to attend PNC service (51,52). This

results supported by the study done in Mara and Kagera reported that mothers were more likely to attend PNC if had made at least four ANC visits during pregnancy, thus, promoting ANC services may have a positive impact on PNC (66).

5.3 Study limitations

The study population was recruited from a limited geographical area. Therefore, the results would not be generalized to other regions in Tanzania. However, the findings represent other contexts with similar socio-economic characteristics.

The study did not involve the providers and administrators to understand both providers and system factors why PNC utilization was low which would add more strength to the study for policymakers.

5.4 Conclusion

This study concludes that the utilization of postnatal care services is low at Babati urban district as only 19.8% of the respondent's utilized postnatal care services. The study also showed that the most important factors influencing the use of postnatal care include the distance from the health facility and giving birth at the health facility.

5.5 Recommendations

The following recommendations may help increase the utilization of postnatal care services in Babati urban district. In order to improve utilization of postnatal care services, the service providers can extend the service by doing outreach PNC in order to capture those who lived far from the health facility, also during ANC visits to insist mother to give birth in the health facility and to do real postnatal checkup will emphasize the importance of attending PNC services. This will also help to strengthen the client service provider relationships, enhance client's satisfaction and therefore help to improve the use of postnatal services.

Council Health Management Team should create awareness programs on postnatal care services and should be implemented, targeting women, husbands, and

community and this may influence utilization of postnatal care services. In addition, postnatal women should also be educated about the risks they face, signs of danger during the postnatal period.

The ministry of health will need to ensure update guidelines, standards and protocols this will help increase utilization of postnatal hence reduce maternal mortality.

5.6 Recommendations for Further Research

It is recommended that studies be done on:

1. Strategies to improve and scale-up PNC service utilization among women by involving providers and administrators.
2. Research with strong analytical studies is recommended to validate this finding for more generalizability.

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APPENDICES

Appendix: A Questionnaires

A: PART ONE: ENGLISH VERSION

**MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
(MUHAS)**

SCHOOL OF NURSING

DEPARTMENT OF COMMUNITY HEALTH NURSING

**FACTORS ASSOCIATED WITH UTILIZATION OF POSTNATAL CARE
AMONG WOMEN AT BABATI URBAN DISTRICT, MANYARA,
TANZANIA**

SECTION A. SOCIO-DEMOGRAPHIC CHARACTERISTICS

(Circle the collect answers in each part)

1. Age.....
2. Marital status
 - a) Single
 - b) Married
 - c) Cohabiting
 - d) Divorced
 - e) Separated
3. Level of education
 - a) No formal education
 - b) Primary
 - c) Secondary
 - d) Higher

4. What is your religious belief
 - a. Pagan
 - b. Islamic
 - c. Christian
 - d. Others
5. Does your religious belief allow you to attend postnatal visits?
 - a) Yes
 - b) No
6. If no what are difficulties
 - a) Religious leaders constrain not to attend PNC
 - b) According to the religious belief, PNC not necessary
 - c) Others
7. What is your teach/opinion from your religious leader when the postnatal mother falls sick during the postnatal period
 - a) Prayer
 - b) Lead for Quran
 - c) Advice to seek medical advice
 - d) Others
8. If get sick/problem in relation to your health where do you go for medical help
 - a) Church
 - b) Mosque
 - c) Traditional healers
 - d) Other (specify)
9. What is your tribe?
 - a) Iraq
 - b) Mbulu
 - c) Barabaig
 - d) Others (Specify).....

- 10. How many times you give birth.
 - a) 2
 - b) 3
 - c) 4
 - d) 5
 - e) More than 5
- 11. Did you attend / any postnatal care?(tick all applicable)
 - a) Within 24hrs.
 - b) 7-14 days
 - c) 42 days
 - d) All visits
 - e) Not attended at all

SECTION B: SOCIO-CULTURAL FACTORS

- 12. Is there any cultural beliefs relate to a post-delivery woman
 - a) Yes
 - b) No
- 13. If yes, mention
 - a) A post-delivery woman not allowed to go out until the baby umbilical cord falls
 - b) A post-delivery woman not allowed to go out until the newborn named at eight days
 - c) Others
(specify).....
- 14. Are your cultural beliefs allow you to attend postnatal visits within 42-days post-delivery
 - a) Yes
 - b) No

15. Did you know danger signs which may occur during the postnatal period
(Within 42 days)

- a) Yes
- b) No

16. If yes do you think there relationship (danger signs) with any your cultural
belief

- a) Yes
- b) No

SECTION C. SOCIO-ECONOMIC CHARACTERISTICS

17. Who has the power to decide on postnatal health care seeking?

- a) Your-self
- b) Mother
- c) Father
- d) Husband
- e) Mother-in-law
- f) Father-in-law
- g) Others (specify).....

18. Where did you have birth?

- a) Hospital
- b) Home
- c) Traditional birth attendant
- d) Traditional healer
- e) Others (specify).....

19. If you gave birth in the health facility, did you attend /any postnatal care?

(circle all appropriate)

- a) Within 24hrs.
- b) 7-14 days
- c) 42 days
- d) All visits
- e) Not attended at all

20. If had birth out of health facility, did you attend /any postnatal care? (circle all

appropriate)

- a) Within 24hrs.
- b) 7-14 days
- c) 42 days
- d) All visits
- e) Not attended at all

21. Was the pregnancy planned?

- a) Yes
- b) No

22. If yes, did you attend /any postnatal visits? (circle all appropriate)

- a) Within 24hrs.
- b) 7-14 days
- c) 42 days
- d) All visits
- e) Not attended at all

23. If no, did you attend /any postnatal visits? (circle all appropriate)

- a) Within 24hrs.
- b) 7-14 days
- c) 42 days
- d) All visits
- e) Not attended at all

24. Do you have work/business as a source of income?

- a) Yes
- b) No

25. If yes, are you allowed to use money with/ without consultation from your husband/partner if needed during the postnatal period?

- a) Yes
- b) No

26. If no, where did you get money if you need during postnatal care?

- a) Husband/partner
- b) From in-laws
- c) From parent
- d) Others (specify).....

27. A. Is there any source of income at home?

- a) Yes
- b) No

28. If yes, are you allowed to use that money if needed during postnatal care?
(Transportation)?

- a) Yes
- b) No

29. Do you live near any health facility (within 5kms)

- a) Yes
- b) No

30. If yes or no, how many times did you attend postnatal care services?

- a) 1
- b) 2
- c) 3

SECTION D. HEALTH INSTITUTIONAL CHARACTERISTICS

31. At any postnatal attendance did you receive postnatal checkup (as per postnatal guideline)

- a) Yes
- b) No

32. If yes, mention the care given?

- a) Vital signs assessment
- b) Uterus assessment
- c) Vaginal discharge assessment
- d) Others (specify).....

33. A. How many times did you attend the antenatal clinic on a current past pregnancy

- a) One
- b) Two
- c) Three
- d) Four

34. If you had attended four/ any ANC visits, do you taught/ heard about postnatal care after childbirth?

- a) Yes
- b) No

35. Did you have to follow up visits after discharge from hospital?

- a) Yes
- b) No

36. If yes, did you receive any postnatal care services at home/ mobile services?

- a) Yes
- b) No

...THE END...

Appendix B: Questionnaires (Kiswahili Version)

CHUO CHA AFYA NA SAYANSI SHIRIKISHI MUHIMBILI

IDARA YA UUGUZI NA AFYA YA JAMII

**UCHUNGUZI WA MAHUDHULIO YA HUDUMA YA WAMAMA BAADA
YA KUJIFUNGUA KATIKA WILAYA YA BABATI MJINI, MANYARA,
TANZANIA**

B: SEHEMU YA 2: KISWAHILI (kwenyejibu la kilaswalizungushiajibusahihi)

1. Umriwamama
2. Haliya mama yandoa
 - a) Hajaolewa
 - b) Ameolewa
 - c) Wanaishipamoja
 - d) Wameachana
 - e) Wametengana
3. Elimuya mama
 - a) Hana elimu
 - b) Elimuyamsingi
 - c) Elimuyasekondali
 - d) Elimuyajuu
4. Diniyako
 - a) Hunadini
 - b) muislamu
 - c) Mkristo
 - d) Nyinginezo
 - e)

5. Je diniyakoinakuruhusuwewekuhudhuliahudumayauchunguzibaadayakujifungua ?
- Ndio
 - Hapana
6. Kama hapana, kitugani kina kuzuia
- Viongoziwakowadini
 - Au misingiyadinihairuhusu
7. Ninimaoni au mafundishoyaviongoziwakowadinikuhusianana mama aliyejifunguaanapokuwamgonjwawakatiwasiku 42 zauzazi?
- kumuombea
 - kumsomea Quran
 - humshaurikutafutaushauriwakitabibu
 - Nyinginezo
8. Kama mama aliyejifunguaakiwamgonjwa/au anashidaataendawapikwaajiliyakupatamsaadawakimatibabu?
- Kanisani
 - Msikitini
 - Wangawatibaasili
 - Wengineo (taja).....
9. Kabila gani?
- Iraq
 - Mbulu
 - Barabaig
 - Nyingine (taja).....
10. Je kunaimanizakimirazozotekuhusiananawamamawaliojifungua?
- Ndio
 - Hapana

11. Kama ndio

- a) Mama aliyejifunguaharuhusiwikutokampakakitovu cha motto kianguke
- b) Mama aliyejifunguaharuhusiwikutokampaka motto apewejinasikuyanane
- c) nyingine
(taja).....

12. Umebebeujauzitomarangapi?

- a) 2
- b) 3
- c) 4
- d) 5
- e) Zaidiyamara 5

13. Je umewahikuhudhuliamahudhulio/au hudhuliolote la hudumayauzazibaadayakuji fungua? (zungushiakwayaliyosahihi)

- a) Ndaniyamasaa 24.
- b) Siku 7-14
- c) Siku 42
- d) Mahudhulioyote
- e) Hujahudhuliahudhuliolote

SEHEMU B: MASWALI YA KITAMADUNI

14. Je

kunaimanizakimirazozotezinazokuruhusukuhudhuliahudumazauzazibaadayak ujifunguasiku 42?

- a) Ndio
- b) Hapana

15. Je unazifahamu daliliza hatari ambazo zinaweza kutokea andani yako 42 zauzazi?

- a) Ndio
- b) Hapana

16. Kama _____ unazifahamu _____ je unafikiri ku naweza ku kawana mahusiano yahi zoda lilizahatarina imani zote zakimira?

- a) Ndio
- b) Hapana

SEHEMU C. MASWALA YA KI-JAMII NA UCHUMI

17. Ni

nanimwenyemaamuziyakukuruhusuwewekuhudhuliahudumazauzazibaadayak
ujifungua?

- a) Wewemwenyewe
- b) Mama yako
- c) Baba yako
- d) Mumewako
- e) Mama mkwe
- f) Baba mkwe
- g) Wengine (taja).....

18. Ulijifunguliawapi?

- a) Hospitali
- b) Nyumbani
- c) Mkungawajadi
- d) Mgangawatibaasilia
- e) Nyingine (taja)

19. Kama ulijifunguliakituo cha afya, je
ulihudhuliamahudhulioyote/baadhiyahudumayauzazibaadayakujifungua?
(zungushiayaliyo/iliyosahihi)

- a) Ndaniyamasaa 24.
- b) Siku 7-14
- c) Siku 42
- d) Mahudhulioyote
- e) Hujahudhuliahudhuliololote

20. Kama ulijifungulianjeyakituo cha afya , je! Ulihudhuliamahudhulioyote/
baadhiyahudumayauzazibaadayakujifungua? (zungushiayaliyo/iliyosahihi)

- a) Ndaniyamasaa 24.

- b) Siku 7-14
- c) Siku 42
- d) Mahudhulioyote
- e) Hujahudhuliahudhuliololote

21. Je ulikusudia/tarajakubebamimbahiyo?

- a) Ndio
- b) Hapana

22. Kama ndio, je! Ulihudhuliamahudhulioyote/
baadhiyahudumayauzazibaadayakujifungua? (zungushiayaliyo/iliyosahihi)

- a) Ndaniyamasaa 24.
- b) Siku 7-14
- c) Siku 42
- d) Mahudhulioyote
- e) Hujahudhuliahudhuliololote

23. Kama hapana je! Ulihudhuliamahudhulioyote/
baadhiyahudumayauzazibaadayakujifungua? (zungushiayaliyo/iliyosahihi)

- a) Ndaniyamasaa 24.
- b) Siku 7-14
- c) Siku 42
- d) Mahudhulioyote
- e) Hujahudhuliahudhuliololote

24. Je unafanyakaziyoyote/ biasharakamachanzo cha uchumiwako

- a) Ndio
- b) Hapana

25. Kama ndio je unaruhusayakutumiahelayako pale
inapobidikijihudumiakatikahudumayasiku 42
zauzazibilakupataruhusakwamwenzi?

- a) Ndio
- b) Hapana

26. Kama hapana, je! Unapatawapifedhayakujihudumia pale unapohitajikatikakipindi cha siku 42 zauzazi?

- a) Mume / mwenzi
- b) Wakwe
- c) Wazazi
- d) Wengine (taja).....

27. Kama familiakunachanzochochote cha mapato?

- a) Ndio
- b) Hapana

28. Kama ndio, je!
Unaruhusayakutumiafedhahizoza familiainapohitajikandaniyasiku 42 zauzazi (Usafiri)

- a) Ndio
- b) Hapana

29. A. Je unaishikaribunakituo cha afya (ndaniyakilomita 5)

- a) Ndio
- b) Hapana

30. Kama ndio au hapananimarangapiulihudhuliakupatahudumayauzazibaadayakujifungua?

- a) 1
- d) 2
- e) 3

Appendix C: Informed Consent in English Version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES (MUHAS)



Consent to participate in a study titled **Factors associated with low utilization of postnatal care in Babati urban District at ManyaraRegion, Tanzania.**

ID NO: HD/MUH/T.295/2017

IDENTIFICATION NO:		
--------------------	--	--

Greetings! My name is EDINA LAWRENCE MATHAYO. Currently, I am a student at Muhimbili University of Health & Allied Sciences pursuing MSc in Midwifery and Women's Health. I am conducting research on the title: **"Factors associated with utilization of postnatal care services among women in Babati urban District at ManyaraRegion, Tanzania"**

Purpose of the study: The aim of this study is to assess factors associated with utilization of Postnatal Care among women who gave birth from 1 month up to 6 months prior the period of data collection in Babati urban district at Manyara region.

Sponsor: This study is self-sponsored

Involved Participation: If you agree to participate in this study, I will request you to answer the question related to your perceptions and experience on factors associated with low utilization of Postnatal Care among women through focus questioner. The questions will take about 15-20 minutes.

Risk: The researcher anticipates no harm will happen to you as you participate in this study.

Confidentiality: The information that will share in the questionnaire will be treated as strictly confidential and will be used only for research purpose only and not for other reasons. Your name will not be used for identification during data analysis and report development, instead,anumber will be used.

Benefits: There will be no direct financial benefits to you; however; participation in this research has the potential to explore the factors associated with low utilization of postnatal care at Babati urban district.

Rights to Withdraw and Alternatives. You are free to choose whether to participate or not or withdraw in this study at any time. Refusal to participate or withdraw will not imply any effect on your service or treatment. However, we would like you to participate in this study because your views are very important in this study.

Whom to Contact: In case of any emergency concern you may contact the researcher through the following address: Edina L. Mathayo, School of Nursing, MUHAS. P.O Box P. O. BOX 65004, Dar es Salaam. Email address: edinamathayo36@gmail.com. Mobile phone number +255788504265. OR you may consult the Director of research and publication Dr. Bruno Sungunya Mobile number +2552221152467

Agreement for participation

I have read and understood the purpose and procedure for this study and I am willing to participate in this study.


Participant’s signature.....
signature.....
Date.....
Date.....

Thank you for your participation.

Appendix D. ETHICAL CLEARANCE

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR OF POSTGRADUATE STUDIES

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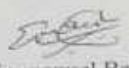
Ms. Edina Lawarence Mathayo
MSc. Midwifery and Women's Health
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED: "FACTORS ASSOCIATED WITH UTILIZATION OF POSTNATAL CARE AMONG WOMEN IN BABATI URBAN DISTRICT, MANYARA "

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has, on behalf of the Senate, approved ethical clearance for the above-mentioned study. Hence you may proceed with the planned study.

The ethical clearance is valid for one year only, from **9th April, 2019 to 8th April, 2020**. In case you do not complete data analysis and dissertation report writing by **8th April, 2020**, you will have to apply for renewal of ethical clearance prior to the expiry date.



Dr. Emmanuel Balandya
ACTING: DIRECTOR OF POSTGRADUATE STUDIES

cc: Director of Research and Publications
cc: Dean, School of Nursing, MUHAS

Appendix E. INTRODUCTION LETTER

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR OF POSTGRADUATE STUDIES

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E-mail: dpgs@muhas.ac.tz

Ref. No. HD/MUH/T.295//2017 10th April, 2019

Town Director
Babati Town Council
P.O. Box 383
MANYARA.

Re: INTRODUCTION LETTER


The bearer of this letter Ms. Edina L. Mathayo is a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MSc.Midwifery and Women's Health.

As part of her studies she intends to do a study titled: "*Factors associated with utilization of postnatal care among women in Babati Urban District, Manyara*".

The research has been approved by the Chairman of University Senate.

Kindly provide her the necessary assistance to facilitate the conduct of her research.

We thank you for your cooperation.


Ms. Sharifa Kamby
For: **DIRECTOR, POSTGRADUATE STUDIES**

cc: Dean, School of Nursing
cc: Ms. Edina L. Mathayo

Appendix F. PERMISSION LETTER

**JAMHURI YA MUUNGANO WA TANZANIA
OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA**

Simu Na: 027-2510066,
027-2510075,
027-2510060,
Fax Na: 027-2530294.



Mganga Mkuu wa Halmashauri ya Mji,
Halmashauri ya Mji Babati,
S.L.P 400,
BABATI

E.mail: mkurbabati@babati.go.tz

Website: www.babati.go.tz

Kumb. Na MK/BAB/PF.436/55

3 MEI 2019

Bi. Edina Lawrence Mathayo.

Afisa Muuguzi.

**YAH; KURUHUSIWA KUKUSANYA TAARIFA ZA UTAFITI UNAOHUSU
"FACTORS ASSOCIATED WITH UTILIZATION OF POSTNATAL CARE AMONG
WOMEN IN BABATI URBAN DISTRICT"**

Ofisi ya mganga mkuu kwa kushirikiana na watendaji wa wa kata nne (4) za Babati mjini (kata ya Mrara kati, Bagara, Bonga na Maisaka) tunapenda kukufahamisha kuwa umeruhusiwa kukusanya taarifa kwa akina mama wallojifungua. Kuanzia tarehe 3 may-3 June 2019.


MGANGA MKUU WA MJI
HALMASHAURI YA MJI
BABATI

TMOH.