QUALITY OF POSTNATAL CARE AMONG MOTHERS WITHIN 24-48 HOURS OF DELIVERY IN POSTNATAL WARDS AT MACHAKOS COUNTY REFERRAL HOSPITAL, KENYA

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DECLARATION

I, Anne Njeri Nyagah declare that this report is my original work and has not been submitted for the award of degree or diploma in any other university.

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CERTIFICATE OF APPROVAL

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DEDICATION

I dedicate this work to my loving family especially, my daughter Tamara Wambui you made the process worthwhile.

To my dad and mum, you have always been an inspiration.

To all my mentors and friends thank you.

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LIST OF ABBREVIATIONS

ANOVA: Analysis of Variance

COVID: Corona Virus Disease

CS: Caesarean Section

ERC: Ethics and Review Committee

FGD: Focused Group Discussion

HIV: Human immunodeficiency Virus

HCW: HealthCare Workers

FP: Family planning

IEC: Information Education and Communication

IOM: Institute of Medicine

KHIS: Kenya Health Information Survey

KMTC: Kenya Medical Training College

KNBS: Kenya National Bureau of Standards

KNH: Kenyatta National Hospital

LAM: Lactation Amenorrhea Method

MCRH: Machakos County Referral Hospital

MOH: Ministry of Health

NACOSTI: National Commission for Sciences, Technology and Innovation.

NHS: National Health Service

PNC: Postnatal Care

PPC: Postpartum Care

PMTCT: Prevention of Mother to Child Transmission

QSR: Qualitative Research Software

SBA: Skilled Birth Attendant

SDG: Sustainable Development Goals

SPSS: Statistical Package of Social Sciences

SVD: Spontaneous Vertex Delivery

UHC: Universal Health Coverage

UON: University of Nairobi

WHO: World Health Organization

OPERATIONAL DEFINITIONS

24-48 hours post-delivery: this refers to the time elapsed from the time the mother gave birth.

Experiences: An encounter that leaves an impression in someone's life.

Mothers: This refers to women who have given birth at Machakos County Referral hospital.

Nursing care: these are the services offered by nurses to both the mother and baby within 24-48 hours post-delivery. It includes the information sharing on danger signs of mother and baby, counseling on hygiene, breastfeeding, and the performance of maternal and neonatal assessments, assistance in patient ambulation.

Physical comfort: entails proper pain management, assistance with activities of daily living and a conducive hospital environment and its surroundings

Puerperal/Postnatal care: this is the care offered to mothers and their infants within 24- 48 hours post-delivery.

Puerperants: Mothers who are within six weeks of delivery.

Quality care: it is the timely, appropriate and acceptable care offered within set guidelines to patients to meet their health needs.

Quality postnatal/puerperal care: in this study entails the provision of relevant health messages, maternal and neonatal physical examination while observing basic standards; regular monitoring of vital signs; ensuring physical comfort, emotional support for mothers, and their families with a positive attitude and ensuring a pleasant experience.

Skilled birth attendants: This refers to the nurse, midwife, doctor or clinical officer attending to the postnatal mothers.

ABSTRACT

Background: In Africa, substandard postnatal care is associated with the deaths of 34% of women during the first 24 hours. Additionally, at least 38% of infants die due to infections, low birth weight or prematurity; aspects that are associated with poor early postnatal care. Appropriate and timely delivery of quality postnatal care is crucial in reducing maternal and neonatal morbidity and mortality. Particular attention needs to be paid on the quality of postnatal care being provided in the health facilities. Information on quality of care needed post-delivery is important in guiding postnatal care delivery.

Objective: This study assessed the quality of postnatal care among mothers within 24 - 48 hours of delivery in postnatal wards at Machakos County Referral Hospital (MCRH), Kenya.

Methodology: This was a cross-sectional descriptive study applying mixed-method approaches. An interviewer-administered questionnaire and focused group discussion (FGD) interview guide were used for data collection. The study was carried out among 264 postnatal mothers and eight participants for the FGD in the postnatal wards of MCRH. Pre-testing of the study tools was done. Statistical Package for Social Sciences (SPSS) was used for quantitative analysis. Descriptive statistics involved in seeking measures of central tendency like means, modes, and medians between the variables. Inferential statistics involved seeking associations between variables where the fisher's exact test was used and a p-value of ≤ 0.05 was considered statistically significant. Qualitative data was transcribed, checked for completeness before thematic analysis using NVivo 12 software. Ethical approval was sought from Kenyatta National Hospital-University of Nairobi Ethics and Research Committee, National Commission of Science Technology and Innovation and the hospital management.

Results: The mean overall quality of postnatal nursing care rating was reported to be 73.9% (n =196) with a standard deviation of 22.9. The mean rating of quality postnatal care for those who delivered via caesarian section was 52.3% with a standard deviation of 15.4 while the mean rating for the respondents who delivered via spontaneous vertex delivery was 83.3% with a standard deviation of 19.9. Fisher's exact test showed no statistically significant differences between the reported quality of postnatal care and residence (p-value = 0.55), as well as marital status (p-value=0.12). There was a statistically significant difference in the quality of care rating reported and age-groups (p-value=0.01), parity (p-value = 0.00), Level of education (p-value = 0.02) mode of delivery (p-value =0.00), occupation (p-value = 0.00) and number of living children (p-value=0.00). Qualitative analysis identified four themes: client-provider interaction, emotional support, care provided and the improvements in care.

Conclusion: Although quality of postnatal care was found to be highly rated by the respondents, there were glaring gaps in the experiences and quality of nursing care specific to postnatal clients.

Recommendations: There is need to improve the nursing specific postnatal care offered to mothers within 24-48 hours post-delivery and regularly monitor and evaluate the postnatal care services offered.

CHAPTER ONE: BACKGROUND

1.1 Introduction

From 2000 to 2017, the global maternal mortality ratio declined by 38 per cent – from 342 deaths to 211 deaths per 100,000 live birth. This translates into an average annual reduction rate of 2.9 per cent. While substantive, this is less than half the 6.4 per cent annual rate needed to achieve the Sustainable Development global goal of 70 maternal deaths per 100,000 live births. (Berhe, Araya, Tesfay, Bayray, & Etsay, 2017). Giving mothers and their newborns quality puerperium care can help prevent most of these deaths. This chapter covers the background of the study, the problem statement, broad objective, specific objectives, study justification, research questions and the expected benefits from the findings.

1.2 Background of the Study

According to the World Health Organization (WHO), quality of care is the magnitude to which health care services provided to patients improves their health outcomes. Quality healthcare involves the incorporation of effective, efficient, equitable, safe and human-centered care. (WHO, 2015a).

The postnatal period encompasses days and weeks after child birth and serves as a crucial phase in the lives of newborns and mothers considering that majority of the infant and maternal deaths do occur around this time. Close to half of all the maternal mortalities will always happen within the first 24 hours while up to 66% of the deaths occur within the first one week postnatal. The routine assessment offered during the period enables the healthcare provider to timely identify conditions that could easily lead to maternal morbidity and mortality. The conditions include but not limited to, thromboembolism, postpartum hemorrhage, and postpartum pre-eclampsia and

puerperal infection. Information can also be shared on the expected danger signs during the first few weeks postnatal. The period also provides a platform for healthcare professionals to share information on breastfeeding, nutrition and contraception use following delivery (Benova et.al, 2019).

Worldwide, it is estimated that close to 2.5 million neonatal deaths are reported yearly, with the sub Saharan region recording the highest of the neonatal mortality rates and maternal mortality ratio. In 2013 for instance, close to 2.8 million infants died globally before completing the first month of life while in 2015, 303,000 women died either after childbirth or during pregnancy. Kenya's maternal mortality ratio was estimated at 362 deaths per 100,000 live births (Kenya National Bureau of Statistics (KNBS), 2015). The high maternal mortality in Kenya has been associated with low quality of care in the health facilities or lack of it all together (KNBS, 2015; Gitobu, Gichangi and Mwanda, 2018b).

Hemorrhage, abortions, sepsis and hypertensive disorders account for over seventy percent of the maternal deaths. For newborns, complications of asphyxia, preterm birth, intra-partum perinatal deaths, and neonatal infections account for 85% of newborn death. These complications can be prevented through the provision of effective high-quality care (WHO, 2016a). It's estimated that about 4% to 27% of infant mortality incidences could be averted in Sub-Saharan Africa if quality postnatal care reached 90% of the mothers and their babies during the initial 24 hours into puerperium (Dlamini, Ziyane and Gule, 2017).

Within 48 hours after birth, quality postnatal care entails both maternal and neonatal examination. The examination of the mother involves routine assessment of vaginal blood loss, uterine involution, febrility and pulse readings during the initial 24 hours after delivery. Within six hours blood pressure and urine void should be checked and documented (Ng'ang' a, 2012). It is further

recommended that within the 48 hours, further inquiries be made about emptying of the bladder, incontinences, bowel function, healing of any perineal wound, tiredness, any pains, perineal hygiene, and vaginal blood loss. The healthcare workers should also assess the breastfeeding progress at each postnatal contact and further enquire about family support and the emotional well-being of the mother (MOH Kenya, 2012; Ng'ang' a, 2012). To achieve high-quality postnatal care, especially in resource-constrained settings, appropriate use of the available staff, infrastructure, and commodities is imperative (Bohren et al., 2014).

Quality postnatal care increases the likelihood of getting the right treatment that is not only timely but also in line with updated professional knowledge while observing basic reproductive rights (Houlton, Matthews, & Stones, 2000). High-quality care requires the appropriate use of the available resources to ensure effective case management (WHO, 2016a). Quality postnatal care also involves a multidisciplinary team comprised of doctors, nurses, midwives and clinical officers trained on management of normal deliveries, diagnosis as well as, management and referral of obstetric complications (MOH Kenya, 2012).

The quality indicators for maternal and newborn health are maternal mortality ratio, neonatal mortality and deliveries carried out by a skilled birth attendant (Lotto, 2015). In Haiti, only 30% of the Haitian mothers and 19% of the infants received puerperal care within the first 48 hours (Mirkovic et al., 2017). In 2014, it was estimated that in Kenya 61.2% of the mothers gave birth in the presence of skilled birth attendants and only 51% of women aged 15-49 years had a postnatal check during the initial 48 hours post-delivery (Kenya National Bureau of Statistics (KNBS),2015.

A Zambian study showed that the use of skilled birth attendance (SBA) helped in the early identification of obstetric complications and facilitated the initiation of appropriate management and care (Jacobs, Moshabela, Maswenyeho, Lambo, & Michelo, 2017). In the postnatal period,

quality healthcare is a critical aspect of the unfinished maternal and newborn health agenda on care around labor and delivery ,especially care in the immediate postnatal period (WHO, 2016a).

To conclude , there is quality postnatal care when; application of evidence-based clinical practices and non-clinical interventions, coupled with strengthened health infrastructure, competency, and optimism from healthcare workers is available (Bohren et al., 2014; WHO, 2016a). Where any of the above is compromised, the quality of care is negatively affected.

1.3 Problem Statement

Postpartum care (PPC) is quality when services entail prevention, early identification, and management of complications for women and their infants. It also involves health education on breastfeeding, family planning, immunization, HIV care services, proper diet and early identification of danger signs for both the infant and the mother. Even though African parturient mothers seek postnatal services, there is a challenge on the timeliness therefore making the quality of services wanting. This is evidenced by the high maternal deaths in the third world countries.

According to WHO, (2015) at least half of all puerperal maternal mortalities occur during the initial 24 hours of birth. In Africa alone, substandard puerperal care is also associated with the deaths of 34% of women during the first 24 hours. Some of the major causes of this in sub-Saharan Africa include sepsis, infection, and hemorrhages among mothers (Dahiru & Oche, 2015). Additionally, at least 38% of infants die due to infections, low birth weight or being born preterm; aspects that are associated with poor early postnatal care (Somefun & Ibisomi, 2016).

According to Warren *et al.*, (2015), health-related costs are a major impediment to access to quality postnatal care services in Kenya. Another study also notes that the implementation of free maternal

healthcare has contributed to low levels of consultation, unclean environment and compromised privacy levels in the postnatal period (Gitobu, Gichangi, & Mwanda, 2018a).

In 2015,the maternal mortality was estimated at 362/100000 live births and neonatal mortality at 22/1,000 live births (Kenya National Bureau of Statistics, 2015). The national figures on neonatal mortality compares with those of MCRH, at 18/ 1000 live births while maternal mortality greatly differs with MCRH at 143/ 100,000 live births according to Kenya Demographics Health Survey (KDHS,2019). Though the figures are way below the national figures majority of these deaths occurred within 24-48 hours of delivery.

A study carried out in MCRH in 2018 on the efficacy of the free maternal health policy showed the quality of maternal healthcare as poor (Gichuhi & Lusambili, 2019). This was associated with strained staff-to-patient ratio and inadequate essential resources which led to a lack of close monitoring of mothers and babies. Postnatal coverage in MCRH is at 21.8% (KDHS, 2019) compared to the national figures of 52.9% in 2014 according to the World Bank Collection of development indicators. It is for this reason therefore, that the researcher wants to assess the quality of postnatal-care in MCRH to identify gaps and improvements.

1.4 Justification of the Study

Despite all the available evidence in favor of quality in-hospital post-natal care, close to half of all the maternal mortalities occur within the first 24 hours after delivery. Kenya's maternal mortality still remains high at 362 per 100,000 live births. The high maternal mortality in Kenya has been associated with low quality of care in the health facilities post-delivery. For instance, in 2019, Machakos County recorded 26,253 live births and out of these only 7,426 and 6,134 mothers received post-natal care within 2-3 days and within six weeks respectively. MCRH recorded 8502

deliveries in 2019 and out of this only 20 women received PNC within the first 6 weeks. However, data on women and infants who received PNC within the first 2-3 days over the same period is missing (KHIS, 2019). Given this, provision of quality puerperal care is of utmost importance not only to the survival of the newborn but also in the avoidance of the delivery-related complications.

Routinely, strategies to bring down maternal and neonatal deaths have focused on expectancy and birthing periods with less focus given during puerperium (Chimtembo, Maluwa, Chimwaza, Chirwa, & Pindani, 2013). The minimal attention paid to the postnatal period has focused on the hospital deliveries with little attention paid to the quality of care offered in the first 24- 48 hours post giving birth. This study therefore, will not only seek to address the gaps in quality of postnatal care but also form the basis for future researches in this area of study as the postnatal period is a crucial phase for the lives of the newborns and of mothers yet a large proportion of maternal and infant deaths still occur during this period.

To the best of my knowledge, there is no study focusing on the quality of postnatal care in MCRH hence this study formed the basis for future research on postnatal care.

1.5 Significance of the study

This study provided an understanding of the quality of the postnatal care given to mothers within 24-48 hours post-delivery. It also informs the policymakers and other stakeholders on the need to ensure adequate resources are available to achieve quality postnatal care.

The postnatal mothers benefited by clearly understanding what should be offered during postnatal care within 24- 48 hours of delivery and how quality postnatal care improves their lives and that of their babies.

Lack of quality postnatal care has been attributed to increased maternal and neonatal mortality worldwide. If quality postnatal care is achieved within 24- 48 hours of delivery it will help in reducing these mortalities.

The hospital management and the nurse-midwives are able to rate on quality of the postnatal care that they offer to the mothers and seek to address the gaps identified.

Study findings could be used by policymakers to improve on the guidelines and the standard operating procedures regarding postnatal care. This would help in reduction of complications and deaths hence improving the outcomes of both the mother and the child

1.6 Research Questions

i. What is the quality of nursing care specific to postnatal mothers offered within 24-48 hours of delivery at MCRH?

ii. What is the quality of physical comfort during care in postnatal wards of at MCRH?

iii. What the quality of postnatal care is as experienced by mothers within 24- 48 hours of delivery?

1.7 Objectives of the study

1.7.1 Broad Objective

The main objective of the study was to determine the quality of postnatal care among mothers within 24-48 hours of delivery in postnatal wards at Machakos County Referral Hospital, Kenya.

1.7.2 Specific Objectives

i. To assess the quality of nursing care specific to postnatal mothers offered within 24-48 hours of delivery at MCRH.

ii. To determine the quality of physical comfort during care in postnatal wards of at MCRH.

iii. To evaluate the quality of postnatal care as experienced by mothers within 24- 48 hours of delivery.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers a survey of the various reports, books and scholarly articles read by the author in the process of the study. The literature search was done using Google Scholar, PubMed, and Hinari. The keywords used are postnatal/puerperal care and Quality postnatal care.

2.2 Postnatal Care

Postnatal care (PNC) is essential in the provision of interventions that are important to the health of the mother and newborn yet it is one of the most neglected (Berhe et al., 2017). It is one of the healthcare interventions for the prevention of impairment and disabilities but also the reduction of maternal mortality (Chimtembo, Maluwa, Chimwaza, Chirwa, & Pindani, 2013). Studies have shown that adequate utilization of the PNC reduces morbidity and mortality among the mothers and their babies. Inadequate resources i.e. human resources and essential medicines and supplies poses a major challenge in providing quality postnatal care (Berhe et al., 2017; WHO, 2016). According to WHO, if every expectant woman would have skilled care based on research findings and delivered in a friendly environment then, there would be a drastic fall on preventable maternal and neonatal mortality (WHO, 2016). To achieve high-quality puerperal care it requires the use of effective clinical and non-clinical interventions, optimism and optimum expertise from health workers.

2.2.1 Guidelines Recommended on Postnatal Care

Puerperal care is Important for the survival of both the mother and the baby. According to WHO recommendations on postnatal care, mothers should have at least four postnatal visits which are timed as: at least 24hours after birth, day 3 (48-72hours), between day

7-14 after birth and six weeks after birth, with specific activities being conducted at each visit. Starting from the initial one hour after birthing and during the first 24 hours, puerperal women should have regular assessment of vaginal bleeding, uterine contraction, uterine size, temperature and pulse rate routinely. Blood pressure should be measured shortly after birth. If normal, the second blood pressure measurement should be taken within six hours. These mothers should also be counseled on the danger signs to look out for in themselves and in their babies. They should also be taught on contraceptives, nutritional needs, and immunization.

Comprehensive assessment of the baby should also be done: this includes the baby's general condition, feeding mode, if it has passed meconium and presence of any danger signs like convulsions.In other subsequent visits, especially within 48hours, mothers should be asked of their general well-being, healing of wound, any pain and their emotional well-being.

Though the Kenyan guidelines are yet to be updated from 2012, Ministry of health has partially adapted WHO guidelines on discharge of mothers who deliver in hospital through spontaneous vertex delivery within 24 hours, those who deliver at home but get admitted within 48 hours and for those done cesarean section within 72 hours.

The Ministry of Health in Kenya developed guidelines to improve and strengthen postnatal care by increasing the timing and assessments within the six weeks after childbirth. Despite the fact that 80% of healthcare facilities in Kenya can offer the full spectrum of maternal care, including postnatal care, only 42% of women give birth in a healthcare facility. Of the 52% that give birth at home, assisted by unskilled birth attendants, only 19% will receive postnatal care (Ministry of Health, 2012). The challenges facing postnatal care still contribute to high maternal and neonatal mortality rates in Kenya despite the implementation of guidelines and remain a cause for concern.

Targeted Postnatal Care starts immediately after the birth of a baby and extending for about six weeks thereafter. Elements of targeted postnatal care for maternal care include; health promotion using health messages and counseling (on nutrition and resumption of sexual activity), assisting the mother and her family to develop a personalized PNC plan, provision of Essential postpartum care by a skilled attendant, Early detection of danger signs and treatment of problems, prevention of mother to child transmission of HIV (PMTCT), Emergency Preparedness and Complication readiness, Counseling and service provision for Postpartum family planning (FP) / healthy timing and spacing of pregnancy, Screening for other conditions such as cervical cancer and breast cancer. Postnatal care for newborn care includes provision of Essential Care of the Newborn, counseling on infant and young child feeding, early detection of danger signs and treatment of problems and immunization (Ministry of Health, 2012)

2.3 Socio-demographics of the Postnatal Mothers

Satisfaction levels and experiences of patients are an essential measure on the quality of health care delivered and postnatal care is not an exception (Tocchioni, Seghieri, De Santis, & Nuti, 2018). Socio-demographic characteristics have been shown to affect the health-seeking behavior of the patients.

A study conducted in Uganda showed that women's awareness of their health, education level, and socioeconomic status may motivate them to demand quality postnatal care and thereafter affect their postnatal care-seeking behavior (Ndiritu, 2011). The level of education shapes one's experiences and one's expectation and may affect how one perceives the quality of postnatal care delivered (Tocchioni et al., 2018). The young and first-time mothers may lack knowledge about what quality postnatal care entails and may have low or high expectations. Women who are not

first-time mothers have reported receiving little or no attention from the health care workers compared to first-time mothers since they are expected to know (Sigh & Newburn, 2000).

Where people live has been shown to affect the utilization of postnatal care within 24- 48hours of delivery. A Zambian study revealed that women who stay in central rural areas were to a greater extent likely to utilize Skilled Birth Attendants and PNC within 24- 48 hours after birth compared to those residing in far off rural areas (Jacobs et al., 2017). This was associated with access to information among the urban areas and the accessibility of the health facility.

2.4 Quality of Nursing Services Specific to Postnatal Mothers

2.4.1 Information Sharing

Information sharing with primiparous women helps in allaying anxieties that come with being a first-time mother. Lack of information on the practical aspects of caring for the baby can have a huge impact on their emotional well-being (Malouf, Henderson, & Alderdice, 2019). Timely postnatal care services provide a platform for the mothers to get information and support on areas like using family planning and getting proper nutrition during breastfeeding (Sines, Syed, Wall, & Worley, 2007). Nurses and midwives play a crucial role in providing practical postnatal information that addresses competencies in parenting and individual needs (Gaboury, Capaday, Somera, & Purden, 2017).

According to the study on implementation of postnatal care, it revealed that majority of the mothers do not receive adequate information regarding postnatal period. In the study, it was established that nearly all of the mothers were not educated on nutrition and resumption of sexual activity. Similarly the study revealed that mothers were not given counselling service on postpartum family planning healthy timing and spacing of pregnancy, and danger signs to observe during postnatal

period. Contrary, in a different study on determinants of postnatal care non-utilization revealed that majority of the mothers indicated that health care providers had provided them with information regarding developing a personalized postnatal care plan, early identification detection of danger signs for mothers and babies. Therefore with shared of information it improves mothers and family members on what to expect during the postnatal period (Somefun, 2016).

Kenyan based study on the information needs of postnatal mothers revealed that most of them needed information on how to connect with their babies, understand and meet their needs, how to protect them and monitor their growth and progress (Rotich & Wolvaardt, 2017). Creating awareness about health issues surrounding postpartum care among mothers and the infants' results in the improved health status of the mothers and the infant (Dlamini et al., 2017). Empowering women in puerperium to recognize danger signs and symptoms of postpartum complications is crucial in seeking timely obstetric care (Kabakyenga, Östergren, Turyakira, & Pettersson, 2011). This is because most women regard postpartum complications as normal and may not seek advice (Dlamini et al., 2017).

Mothers who are equipped with knowledge on the danger signs are likely to seek medical advice early enough before they become life-threatening. In certain countries, as a standard mandatory practice, midwives must teach and do counseling on maternal danger signs to the mothers 48 hours after delivery before they are discharged (Dlamini et al., 2017).

Information sharing on family planning ensures good spacing of newborns. WHO recommends that counseling on family planning and birth spacing should entail safe sex practices and the various family planning methods with their advantages and disadvantages (WHO, 2015b). Armed with this information, the mothers can be able to decide on what works in their best interest.

A Zambian study on factors associated with postnatal care for newborns showed that postnatal mothers need to be counseled on the nutrition and healthy lifestyle practices for them and their infants.

The nutrition counseling should focus on the need for a balanced diet to promote healing and exclusive breastfeeding for the newborns to ensure that they receive all the required nutrients (Bwalya, Mulenga, & Mulenga, 2017). These findings compare well with those of studies carried out in Australia and Kenya that revealed that most of the mothers yearn for more information on the nutrition of their babies and more so on breastfeeding (Forster et al., 2008; Rotich & Wolvaardt, 2017).

In Shanghai China, most of the postnatal mothers considered advice on the care for the babies and the medical examination of their babies as the most crucial quality aspect of postnatal care. Most mothers expressed their desire to receive counseling about their health which was mostly missed (Lomoro, Ehiri, Qian, & Tang, 2002). This continues to show that mothers yearn for information that will positively impact their health and that of their baby.

2.4.2 Maternal and Neonatal Examination

Close monitoring of vital signs, vaginal blood loss, uterine involution and emptying the bladder during the first 48 hours after childbirth helps in early detection of the complications associated with labor (Berhe et al., 2017). Lack of consistent and close monitoring of maternal vital signs has been shown to reduce the likelihood of identifying complications early enough to avert maternal deaths (Dlamini et al., 2017). In this study, 56.8% of midwives reported that they do not routinely monitor the vital signs associating it with a high workload.

A Kenyan study estimated that only 42 % of the mothers who receive postnatal care received a health check during the initial dual days' post-delivery (Warren et al., 2015).

Even though vital signs are key in telling the physiological stability of mothers and infants, consistent monitoring of patients is still a huge challenge, especially in resource-constrained settings. A study done in Swaziland disclosed that substandard puerperal care was being offered to postnatal mothers with 79.8% of the respondents reporting that their blood pressure was taken, 44.9% reporting temperature measured and only 26.6% reporting pulse rate count done immediately after childbirth. In the same study,53.2% of the mothers described having undergone physical examination within 48 hours of delivery (Dlamini et al., 2017).

This is despite the period being associated with most of the maternal complications and mortality.

2.5 Quality of Physical comfort

In an evaluation on quality of postnatal care, it revealed that majority of the mothers were dissatisfied with quality of care received. Dissatisfaction was associated inadequate in fracture, including appropriate beds and bedding with unclean washrooms. Similarly they reported that their pains were not controlled during hospitalization period (Namujju et al., 2018) Patient's perception of physical comfort during a hospital stay is directly correlated to the quality of comfort care offered. As per the Institute of Medicine (IOM), most of the patients perceive their physical comfort to entail proper pain management, assistance with activities of daily living and a conducive hospital environment (Institute of Medicine, 2015). The post-partum experiences of the mothers may be affected by the hospital conditions, such as equipment, beds and beddings, noise, food, and layout (Gaboury et al., 2017). According to the patient, the level of physical comfort,

which is largely dependent on the above-mentioned factors, determines the level of the quality of nursing care offered.

Within the first 48 hours of delivery, most of the mothers experience a lot of delivery-related pain (Chen et al., 2014). The management of such pain also determines the level of engagement of the mother in the care of their newborn, if the pain is managed accordingly, she will be able to take care of her newborn well. According to a study done in Kenya on the information needs of postnatal mothers, most of the mothers expressed their need to know how to manage post-delivery pain and discomfort (Rotich & Wolvaardt, 2017). This attests to the fact that pain management is a vital component of comfort care.

An Indian study on the postnatal comfort of the puerperants showed that women who had vaginal delivery reported having experienced more physical comfort than those who had undergone cesarean section (Kartal, Özsoy, & Üner, 2018). This was associated with postoperative pain experienced, fatigue, personal hygiene deficiency, and late infant-mother interaction.

Adequate rest has also been shown to directly correlate to the mother's perception of the quality of postnatal care. Having a comfortable bed i.e. one with clean mattress and beddings can positively impact the mother's perception of the quality of care offered (Theo, 2014). This study found out that hygiene, a comfortable bed, dim lights, and a quiet room facilitated adequate rest.

2.6 Experiences of postnatal mothers within 48 hours of delivery

Quality postnatal care can be measured against set standards or as experienced by its recipients (Van Den Broek & Graham, 2009). Understanding mother's experiences of postnatal care and its meaning is crucial in the provision of individualized high-quality care.

During their interaction with the healthcare workers, postnatal mothers may perceive the experience to be pleasant or not and this may affect their level of satisfaction. A mother's level of satisfaction may be affected by poor staff attitude, how healthcare workers communicate with them and long waiting times (Ndiritu, 2011). Staff attitude is one of the most significant determinants of the perception of quality care provision. All mother and their significant others should experience care that is well-coordinated, straight forward, and accurate information exchange with the health workers (WHO, 2016).

A study on the experiences of women in puerperium carried out in the United Kingdom, revealed that around 50% of the women reported having gotten all relevant information, care and emotional support from the midwives and other healthcare workers (Sigh & Newburn, 2000). In this study, ten percent of women said they have received little or no information immediately post-delivery while a quarter reported not to have received any form of emotional support from the healthcare workers. These findings show gaps in the way mothers experience care.

Women have reported negative experiences in postnatal care offered. This was attributed to impolite words from the health professionals, fear, excessive postnatal pain, poor psychological and physical support and discomfort in the wards (Namujju et al., 2018; Rose & Janet, 2018).

Interpersonal skills help the healthcare worker to interact with the patients and relatives well hence creating a conducive environment for them to raise any concerns. A study done in Kenya showed most health care workers identified clients with their names, greeted them and ensured privacy or confidentiality when handling them. This happened more in private facilities compared to government facilities (Warren et al., 2015).

Lack of trust, poor teamwork and lack of collaboration between health care workers attending to postnatal mothers have been shown to negatively affect the quality of care offered to the mothers and their babies (Munabi-Babigumira, Glenton, Lewin, Fretheim, & Nabudere, 2017).

Good collaboration and teamwork allow for consultation among the healthcare workers while managing complications hence improving health outcomes.

A study carried out in Singapore on the experiences of first-time postnatal mothers showed that most of the mothers experienced labile emotions, anxiety, and stress over the infant's care. From this study, it is clear postnatal women need elaborate care and support from the midwife and other healthcare workers on the proper way of caring for their infants (Ong et al., 2014).

2.7 Gaps Identified in Literature

There is limited literature on the quality of postnatal care within 24-48 hours post-delivery, especially in Kenyan and East African contexts.

There is a dearth of literature on postnatal care focus on the first 48 hours post-delivery. Most of the literature is concerned with the first 6 weeks post-delivery, yet the critical hours associated with most of the preventable maternal deaths and have a major impact on postnatal outcomes are the first 48 hours after delivery. Few studies have delved into aspects of physical/physiological monitoring, comfort care and health education within the first 48 hours after delivery.

2.8 Theoretical framework

Donabedian model is used to examine health care services and evaluate the quality of health care. The model was developed in 1966 by Avedis Donabedian a Michigan University researcher and physician and has undergone several revisions since then.

This theory was used in this research to measure/assess the quality of postnatal care offered within 24-48 hours. It is a flexible model that can be applied in diverse health care settings. The application of this framework helped assess the quality postnatal care services offered at Machakos County referral hospital (MCRH) within 24-48 hours of delivery.

The three components of this model are the structure, process, and outcomes. Donabedian believed that the three domains of the model interact. The structural attributes are the settings in which care occurs(Donabedian, 1988).The process components measures the transactions that occur in patients care while the outcome is the end result of the care received.

Process measures things done to and for the patient while offering care. This study focused on process attributes like the quality of nursing care specific to postnatal which included; client examination (client monitoring, physical assessment, and provider interpersonal skills), information shared through health education and counseling and the quality of physical comfort offered which included aspects of structural component were used to measure the quality of postnatal care as an outcome.

According to Donabedian model, the outcome is the desired outcome or the ultimate goal of care. Improvements in the patient's knowledge and salutary changes in the patient's behavior are included under a broad definition of the goal of care, and so is the degree of the patient's satisfaction with care. The outcome in this study will be the quality of the postnatal care offered within 24-48 hours of delivery.

Donabedian model is widely used in research as it is flexible and can be applied to any healthcare setting. It can also be applied in the improvement of structures and processes in a health setting.

Nevertheless, this framework has been criticized for limited utility on how the attributes affect each other.

It also fails to incorporate certain factors that are thought to affect the quality of care like the environmental factors. In this study though, environmental factors that affect quality of care were incorporated.

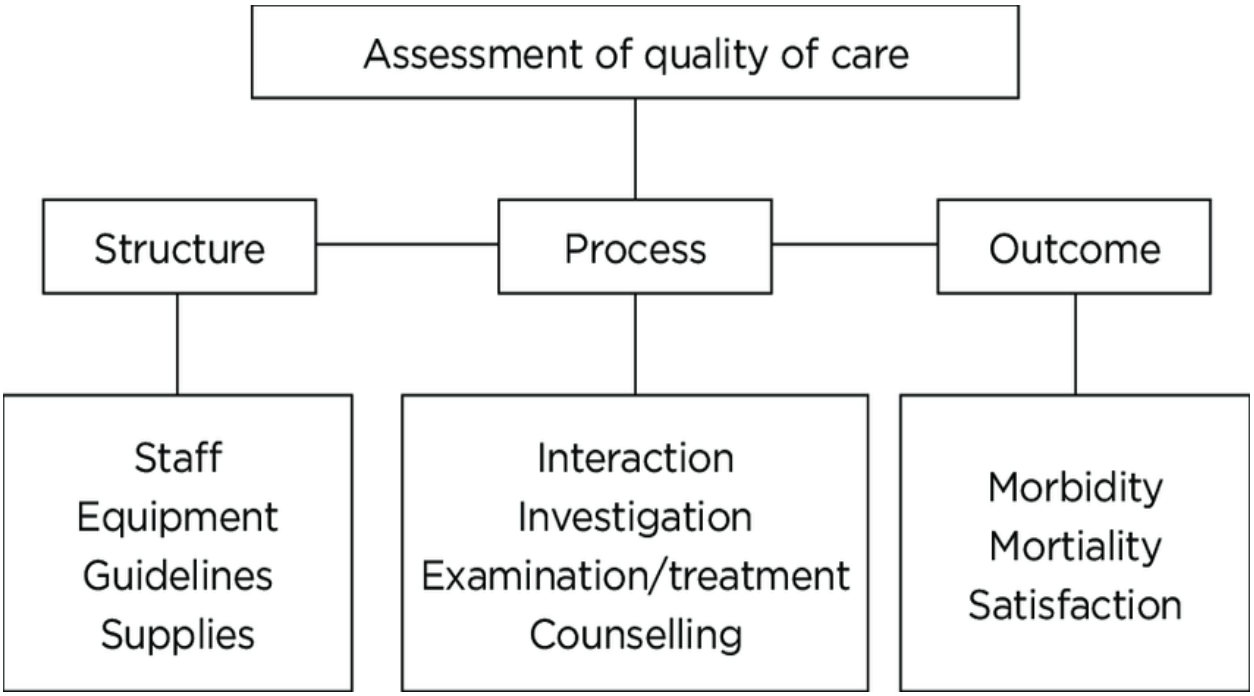

Figure 2.1: The Donabedian model for assessment of the quality of care
Adapted from Donabedian, (1988).

2.9 Conceptual framework

Shows the relationship of various variables.

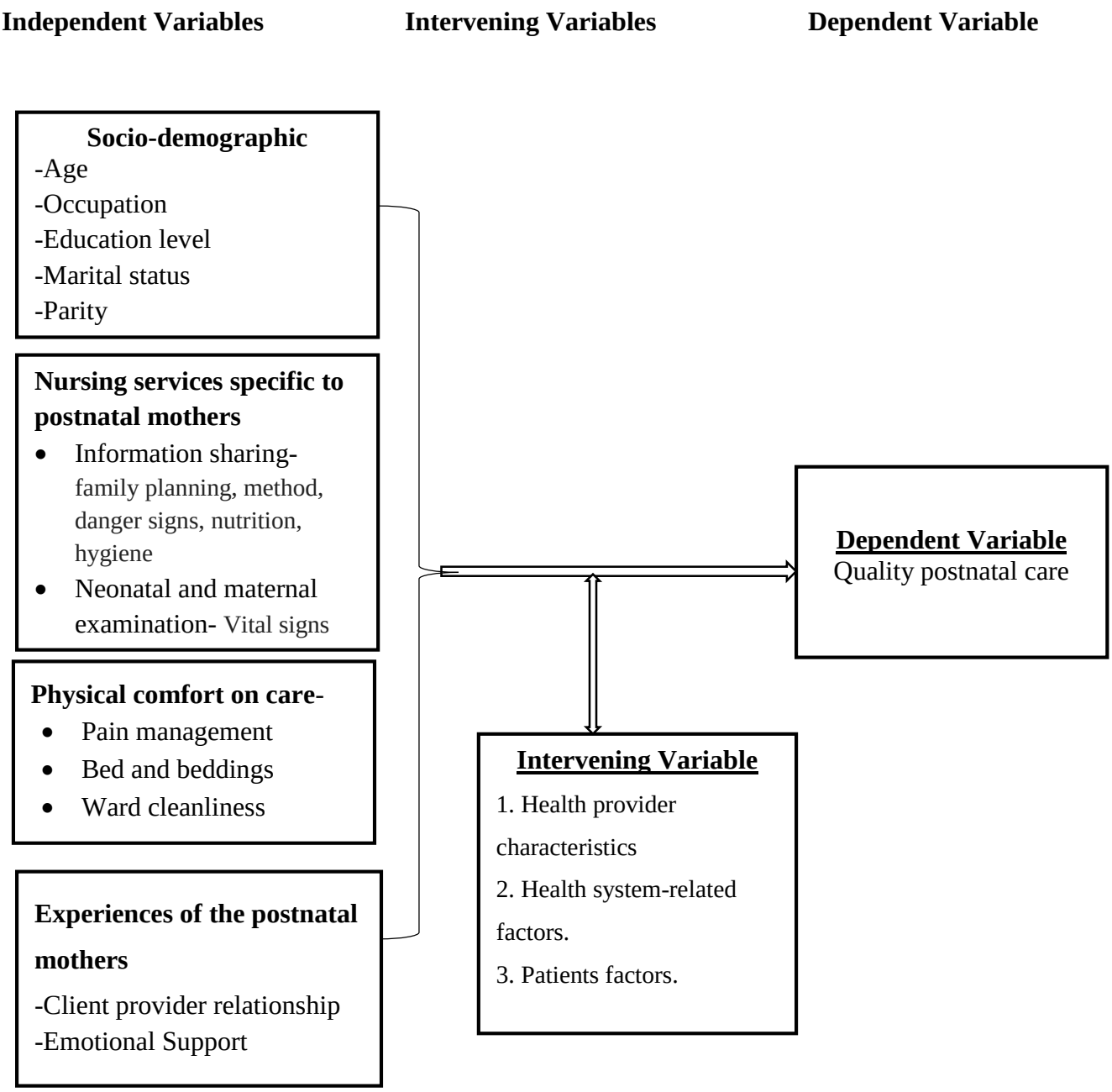

Figure 2.2: Conceptual Framework

CHAPTER 3: METHODOLOGY

3.1 Introduction

The chapter contains the research methodology employed in this study. Areas addressed include the research design, the target population, sample and sampling technique, data collection method and instrument, pilot study and data analysis and presentation.

3.2 Research Design

The study design was cross-sectional applying mixed methods approaches. For the quantitative approach, a descriptive cross-sectional study design was used since the researcher sought to determine the quality of postnatal care at a point in time. This choice of the design was settled on due to its inexpensive nature, speed and agility and the flexibility of being able to compare many different variables at the same time (Levin, 2006). For the qualitative approach, a phenomenological study design was used to get the mothers' experiences and the inferred meanings of those experiences. This design method was chosen since it focused on the commonality of a lived experience within a particular group and the meaning derived thereof (Creswell, 2013). Using a focused group discussions (FGD) guide, qualitative data was collected. Quantitative data was collected first followed by qualitative data. Quality being multifaceted, the mixed-method approach was ideal in obtaining information using a holistic approach from varied sources.

3.3 Study Area

This study was done within the postnatal wards in the obstetrics and gynecology department at Machakos County Referral Hospital (MCRH). The hospital is located in Machakos town in Kenya. It is a referral hospital for Machakos counties as well as a training hospital for Kenya Medical

Training College (KMTC) and other institutions. The hospital is off Machakos - Wote Road. As per the 2019 population census, Machakos County has a total population of 1,421,932 persons. The population density of the county is 235 persons per square Kilometer.

The medical institution has 560 bed capacity with six major departments: Obstetrics and gynecological, medical, surgical, pediatric, radiology and outpatient department. The obstetrics and gynecology department has five wards (gynecology ward, labor ward, antenatal ward, and 2 postnatal wards). The postnatal wards are further sub-divided into post-cesarean section and post vaginal delivery ward with a capacity of 40 and 80 patients respectively. The post CS wards had thirteen nurses and the post SVD had fourteen nurses. Majority of these nurses were diploma holders.

3.4 Study Population

The study population was postnatal mothers admitted in the post-delivery wards that included post cesarean section and post spontaneous vagina birth, having delivered within 24-48 hours.

3.5 Eligibility Criteria

3.5.1 Inclusion Criteria

The mothers that were recruited in the study included:

- All post cesarean section and post vaginal birth mothers having delivered within 24-48 hours and were rooming in with their babies
- Mothers above 18 years of age
- Mothers that were in stable general condition postoperative and fully conscious.
- Mothers that gave informed consent to participate in the study

3.5.2 Exclusion Criteria

Mothers that were excluded from the study were:

- Postnatal mothers that delivered within 24-48 hours of delivery but were very sick or psychologically unstable or whose babies were admitted in newborn unit
- Mothers who did not consent to participate in the study

3.6 Sample Size Determination

The sample size for quantitative and qualitative data are described separately as follows:

3.6.1 Quantitative Data

The sample size that was representative of the population was be determined using Fisher's formula (Kothari, 2004).It was calculated as follows;

$$\boldsymbol{n = \frac{Z^2 Pq}{d^2}}$$

In this case:

n = Sample size [for population >10,000]

Z = level of confidence according to the standard normal distribution. It will be 95%, **Z**-Value at 95% is 1.96.

P = Proportion of mothers giving a more than average rating in the quality of postnatal care received within 24- 48 hours after delivery = 50% (no available data)

Q = Proportion of the population without the characteristic of interest. (**1-P**)

d^2 = Tolerable margin of error; will be at 5%.

n = 1.96*1.96 [0.5] [0.5]

[0.05][0.05] = 384.16

With a target population less than 10,000 the sample adjustment done with the formula for finite population (Yamane, 1967).

$$nf = \frac{n}{1 + {}^{n}/_{N}}$$

Where:

nf = the intended sample size when population under study is less than 10,000

n = desired sample size when the total population >10,000(384)

N = average number of mothers who delivered in MCRH in a month in 2019 (709); 30% of these women had delivered via CS while 70% via SVD.

$$nf = \frac{384}{1 + {}^{384}/_{709}}$$

$$nf = 249.351$$

$$\sim 250$$

3.6.2 Qualitative data

A focused group discussion (FGD) guide was used to collect qualitative data. A maximum of 8 participants were sought for the discussion. Typically, focus groups are made up of five to ten participants according to (Krueger et al., 2000)

3.7 Sampling Technique

3.7.1 Sampling for Quantitative Data

Stratified sampling was used to stratify the wards into the post-cesarean section ward and post vaginal delivery wards. The target sample size was 30% and 70% of the respondents had delivered via caesarian and normal birth respectively based on the average deliveries conducted in the hospital. The researcher and the research assistants approached each mother in the ward, introduced themselves and administered the informed consent while ensuring that, the inclusion criteria was strictly adhered to. Then simple random sampling was used to choose the number of postnatal mothers to take part in the study. Selection was dependent on chance or probability. To randomly sample participants, the researcher folded papers marked 'YES' or 'NO' depending on the population in the postnatal wards. If for example, the population in the ward was 24, the researcher marked 8 papers 'YES' and the rest 'NO' since the researcher aimed to administer 8 questionnaires in a day. The papers were then shaken rigorously in a container to mix. The postnatal mothers who met the inclusion criteria and agreed to take part in the study were asked to pick small folded papers from a box. Those who picked 'YES' participated in the study and their files put a yellow sticker to avoid resampling.

. The same procedure was repeated in the post-cesarean ward where the researcher folded small papers with written ‘YES’ and written 'NO'. The small folded papers were shaken vigorously to

mix and mothers were asked to pick from the box. Those who picked "YES' took part in the study. This process went on daily till the targeted sample size was achieved.

3.7.2 Sampling for Qualitative Data

Identification of respondents for the Focus Group Discussion (FGD) was done using purposive sampling. Having met the inclusion criteria as stated above, the FGD group had participants with the following characteristics; a primipara with normal birth, a multipara with normal birth, both of the above-mentioned participants with vaginal incision or a perineal tear, a primipara who had had a caesarian section, a participant who had had both normal and cesarean delivery, a participant who had previously delivered in a private facility, a participant who had previously delivered in a public facility, and a participant who had previously delivered in MCRH.

Given the stringent demands of the inclusion criteria, a purposive sampling method was essential in identifying appropriate participants to take part in the research study.

3.8 Data Collection Tools

A researcher administered questionnaire consisting of open and closed-ended questions was used to collect quantitative data. The questionnaire had three sections namely: socio-demographic characteristics of the mother; quality of nursing care specific to postnatal, quality of physical comfort offered to both the mother and the baby (Appendix VI).

A focus group discussion (FGD) guide was used to collect qualitative data. The rationale for choosing FGDs was that they are useful in obtaining detailed information about personal and group feelings and perceptions about care. They also provide a broader range of information in addition to providing an opportunity to seek clarification on given perceptions or opinions. An FGD guide was used to guide the discussions and ensure that only important information was captured. The

guide had two sections: the demographics section and the section for the research questions (Appendix VII).

3.9 Research Assistants

These research assistants were graduate nurses on internship and were chosen because they had had prior experience in offering postnatal care, had good communication skills and maintained high quality data collection skills.

3.10 Pretesting of the tools

In this study, 10% (n=25) of the questionnaires were administered for pretesting purposes. A good pretesting should be composed of 10-25 questionnaires or 10% of the total participants (Chaudhary & Israel, 2017). The pretesting was done at Kangundo sub-county hospital because it is within the same administrative locality as MCRH. Pretesting helped in checking for consistency of answers, estimated time to fill the questionnaire and the general flow of the questionnaire and the focused group discussion questions (Kothari, 2004).

Reliability was achieved through use of standardized questions for both qualitative and quantitative aspects of the study. The principal investigator also trained and supervised the first four interviews done by the research assistant. Completed questionnaires were checked daily and errors corrected by the principal investigator. Internal consistency was conducted for the scaled non-binary domains in the questionnaire. Cronbach's alpha coefficient of > 0.65 was deemed satisfactory for each of the two non-binary and coherent dimensions of quality of postnatal care that were being assessed. The overall internal consistency for the domains of interest (nursing care specific to postnatal and comfort care) in the questionnaire was 0.78 (Table 3.10.1).

Table 3.10.1: Measure of Internal consistency

Domain/Factor	***Coefficient alpha***
Nursing care specific to postnatal (19 items)	0.92 (n = 264
Comfort care (5 items)	0.76 (n=264)

Validity was ensured through the use of a well-designed questionnaire. The FGD guide was discussed with a team of midwives and obstetricians beforehand and pretested at Kangundo hospital. Adjustments to the study tools was done as appropriate after pretesting

3.11 Data Collection process

The process of data collection for quantitative and qualitative are described separately as follows:

3.11.1 Quantitative Data

The researcher made a pre-visit to the study area to obtain permission to conduct the study. The data was collected by the principal investigator and research assistants (Bachelor of Science in nursing interns). During data collection the researcher obtained consent from participants before participating in the study. Data was collected using a researcher administered semi-structured questionnaire with both open and closed ended questions. The participants were selected randomly. Potential participants were explained to about the study fully till they understood, and allowed to ask questions in order to make an informed decision to participate. A written informed consent was obtained before the researcher administered the semi-structured questionnaire. The questionnaire addressed crucial information on the quality of nursing care specific to postnatal period; involving information shared by healthcare providers while in the ward, clinical

examinations undertaken to improve their wellbeing and quality of physical comfort. The principal investigator checked the completeness, consistency, and accuracy of the collected data. COVID 19 prevention measures like keeping a 1.5meters physical distance, temperature monitoring and sanitizing of hands were observed.

3.11.2 Qualitative Data

Data collection using questionnaires was a week later followed by a focus group discussion (FGD) with eight postnatal mothers who had stayed in the wards between 24-48 hours. Participants recruited in the FGD had not taken part in the filling of the questionnaires.

An FGD guide was used to structure the discussions and ensure that only important information was captured. One focused group discussion was carried out. The discussion was recorded, labeled and saved in a locked flash disk.

The principal investigator, one research assistant and the participants who had their babies with them sat uprightly on chairs which had been arranged in a circular manner. The principal investigator moderated the discussion using a guide prepared based on the study objectives while the research assistant took notes and observed the non- verbal communication by the respondents. Consent was sought from the participants to allow recording of the discussion. The discussion started with researcher welcoming and thanking the participants for agreeing to participate. This was followed by introductions and the researcher explaining the purpose of the focus group discussion. The participants were reminded that the discussion was open to different viewpoints and that there were no right or wrong answers. In addition, the participants requested to respect one another's opinions. The researcher ensured that the participants were in as stable general

condition, had received their pain medication and sat on comfortable seats during the discussion. The participants were also assured of assistance if they developed any physical discomfort.

She asked questions in a simple way and gave all the participants a chance to give an opinion. The researcher ensured a backup of the audio recording during the discussion.

3.12 Data Analysis and Presentation

Quantitative and qualitative data analysis and presentations are described separately as follows;

3.12.1 Quantitative data

The quantitative data from the questionnaire was analyzed using SPSS version 23.0. Demographic information was used to describe the sample. Frequencies, percentage, mean and medians were obtained for mothers' demographic characteristics, while frequencies and percentages were obtained for nursing care specific to postnatal and quality of physical comfort care. The rating of the quality of nursing care (Excellent (5), Very good (4), Good (3), fair (2), Poor (1), services not given (0)) was measured by summing up the individual scores for the 19 questions with the highest possible score of 95 and the lowest being 0. Similarly, quality of physical comfort care was measured by summing up the ratings in the 5 questions giving possible scores between 0 and 25. The average scores for quality of nursing care and physical comfort were calculated and presented as means with standard deviations.

Further, the overall scores for the quality of postnatal care were obtained by summing up the nursing care and physical comfort care scores. The highest possible score for the quality of postnatal care was 134. The total scores were scaled to percentage scores with the highest (134) being 100 percent score and the lowest being 0 percent score. The scores were categorized into 0-33 percent score (low quality), 34 to 66 percent score (average quality) and >=67 percent score

(high quality). These scales were constructed by the researcher with full consideration of the minimum standard care that should be accorded to postnatal mothers referencing standard care models developed by the World Health Organization (WHO, 2016). Quality of postnatal care was associated with the independent variables using Fisher's exact test of association for categorical data. Analysis of Variance (ANOVA) was used to compare means for continuous data across the 3 categories of quality of care. An independent t-test was used to correlate the mean score of quality in binary categorical variables. Statistical significance was interpreted at a 5% significance level (p-value less or equal to 0.05). Data was presented in tables, pie -charts and bar graphs.

3.12.2 Qualitative Data

All interviews with respondents were recorded using digital audio recorders, after administration of informed consent and typed verbatim in Microsoft Word. The transcripts were directly translated to English during transcription where necessary. Comparison for congruence in coding frameworks was conducted through coding of a sample of the transcripts by two independent assistants. Notes taken during the discussions were also used to check whether the transcripts reflected the totality of the discussion. Transcribed data was then used to create themes in NVIVO 12 software (QSR International, Australia) for coding and analysis. Transcripts' contents were read and re-read to identify common themes across all of the participants. Themes were identified deductively as per the study objectives and emerging themes were noted. Arising comparisons in perceptions in quality of care were documented and reported. Qualitative findings were used to triangulate findings from quantitative data collected in line with the objectives. Data was presented in four themes and sub-themes.

3.13 Data Storage and Management

Filled questionnaires and recorded transcripts were locked in a cabinet accessible only, to the Principal Researcher, and Research Supervisors. Back up of soft copy of the data was stored in password-protected hard drives. The computers in which the data was stored had passwords that were only accessible to the principal researcher. The data will be stored for a period of 10 years after which the hardcopy papers will be shredded into pieces and the soft copy data will be deleted and passwords removed from the computers and flash disks.

3.14 Ethical Considerations

Ethical approval was sought from Kenyatta National Hospital- University of Nairobi (KNH_UON) ethics and research committee (ERC). Further permission was sought from National Commission for Science, Technology and innovation (NACOSTI), Machakos county Director of health and Medical superintendent Machakos County Referral hospital (MCRH) to allow the researcher to collect data. The researcher then sought further permission from the ward in-charges. Participants were explained to the purpose and the benefits of the study, how confidentiality of their information would be maintained. They were informed that it was purely voluntary and would only sign an informed consent when they had understood about the study and were willing to take part in it. Participants were not coerced in any way. Those who declined to participate did not suffer negative consequences. Written informed consent was obtained from all participants before data collection commenced.

Participants were assured of confidentiality by anonymity and maintenance of privacy during interviews Anonymity was maintained throughout the data collection process this was achieved

by not indicating the name of the participants on the questionnaires. The study materials both in soft and hard copies were under lock and key only accessible to the principal investigator.

Risks to participants were minimized and the researcher acted promptly when participants expressed discomfort during the interview. Participants were also informed of no financial or other benefits to them but that the research would potentially inform the decision to improve the quality of postnatal care within the facility.

3.14.1 Covid-19 Prevention measures

Due to the corona virus disease (COVID 19), preventive measures were observed by the researchers, assistant researchers and participants. The measures included hand washing using alcohol-based sanitizers before and after data collection, social distancing of at least one meter between researcher and participants was maintained, face masks were used during data collection and minimum timelines were observed to collect data as well as taking the participants' temperature before commencement of data collection

3.15 Limitations and Delimitations

Interviewer bias: Prior interviewer's knowledge may have influenced questions structure and presentation. This was delimitated by ensuring the questions were asked with simplicity.

Responder bias: The respondents may not have answered asked questions honestly. This was mitigated by explaining to them that honest answers would help improve postnatal care in the future.

Information bias: The respondents may have given information that the researcher would have wanted to hear. This was mitigated by reassuring the participants that the researcher was neutral and there were no consequences for being truthful.

The results obtained from the study may not be generalized to all facilities in Machakos County since the study site is a referral hospital and the equipment available in the facility may not be available in other hospitals. The staffs at MCRH may be more experienced than staff from other facilities in the county due to the high volume of postnatal mothers they serve.

3.16 Dissemination and Utilization of study findings

Study findings will be disseminated to KNH/UON ethics review Committee, NACOSTI, MCRH, relevant policy, clinical and academic audiences through different outlets. The results were presented to the UON School of Nursing Sciences where the final copy will be made available in the University of Nairobi repository for future references.

Feedback will also be shared with postnatal mothers in MCRH and the Machakos County Referral Hospital management. The findings will also be published in peer-reviewed journals and presented in conferences.

CHAPTER FOUR: RESULTS

4.1 Introduction

This section outlines findings of the study based on quantitative and qualitative data obtained from 264 mothers and 8 participants respectively. The quantitative and qualitative findings are triangulated.

4.1.2 Response rate

A sample of 270 mothers, from the two postnatal wards, was interviewed using interviewer completed questionnaires. There were 264 questionnaires completed out of the 270 interviews attempted at 97.8% response rate. According to Kothari (2007), a response rate of more than 70% is appropriate for data analysis. Therefore, the data collected was deemed admissible for analysis.

4.2 Socio-Demographic Characteristics of Postnatal Mothers

The participants' age ranged from 14 – 43 years with 26.8, 26 and 24 being the mean, mode and median ages respectively. More than half of the participants 59.5 %(n= 157) were aged between 21 and 30 years and only a small proportion 1.1 %(n=3) were aged over 40 years. In terms of residence there was nearly equal distribution recorded between those living in rural 48.9 %(n=129) and those living in urban centers 51.1 %(n=135). Respondents at 45.8% (n=121) had attained secondary level education. Of the respondents reporting that they were married, 61.9% were aged between 20 and 30 years. Slightly more than half of the respondents 58.7% (n = 155) reported that they were employed. Table 4.1 details the summary of the demographic data collected from the respondents.

Table 4.1: Socio-demographic characteristics

Variable	Frequency(n)	Percentage (%)
Mean age - 26.8 years (SD 5.91) *Median age* – 24 years *Mode* – 24 years		
Age group		
10-20	37	14.0
21-30	157	59.5
31-40	67	25.4
41-50	3	1.1
Marital status		
Single	47	17.8
Married	215	81.4
Divorced	1	0.39
Separated	1	0.39
Level of education		
None	2	0.76
Primary	45	17.0
Secondary	121	45.8
College	83	31.4
University	13	4.9

Residence		
Urban	135	51.1
Rural	129	48.9
Occupation		
Employed	155	58.7
Unemployed	109	41.3
Parity		
1	139	52.7
2	61	23.1
3	38	14.4
4	19	7.2
5	7	2.7

4.1.1 Obstetric characteristics

Of all the participants, 69.7 %(n=184) delivered via spontaneous vertex delivery (SVD) whereas 30.3 %(n=80) delivered via caesarian section (CS) as shown in Figure 4.1**.**

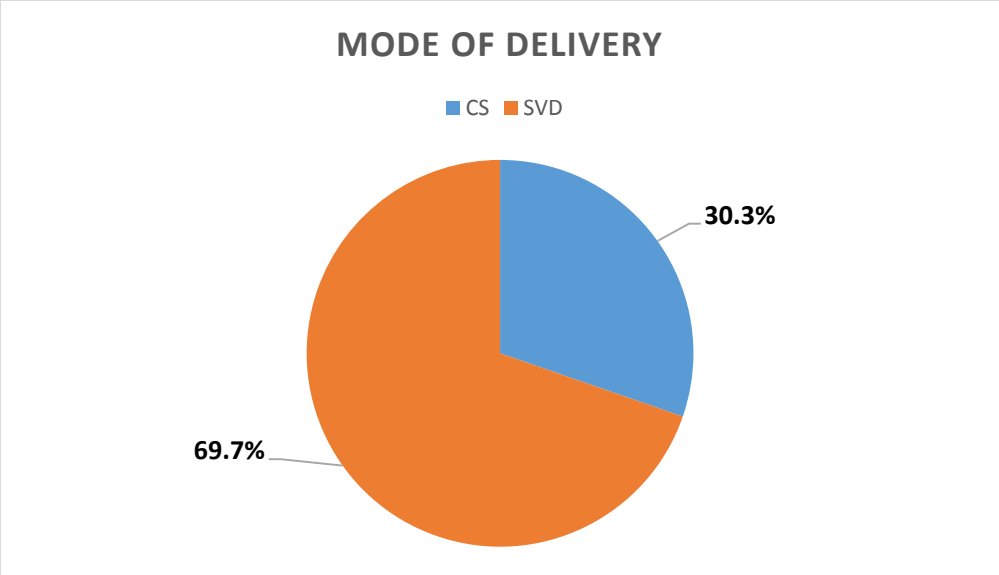

Figure 4.1 Mode of delivery

With regard to parity, slightly more than half of the respondents 52.7% (n=139) were first time mothers. The parity of all the respondents ranged from 1 to 5 as shown in Table 4.1**.**

4.3 Quality of Nursing Services Specific to Postnatal Care

The components assessed under the quality of nursing care services specific to postnatal care were, information sharing, maternal and neonatal examination.

4.3.1 Information sharing

Information sharing postnatally empowers mothers to identify conditions that may threaten their lives and that of their babies' and seek care promptly averting preventable mortality and morbidity. In majority of the respondents 79.0 % (n=209), information sharing (counseling) was done in a group (Figure 4.2) and nearly all of the respondents 98.1% (n=259) reported having understood the message that was being conveyed during counseling. When conveying messages, more than half of the respondents 53.0 % (n=140) reported that no charts or booklets were used.

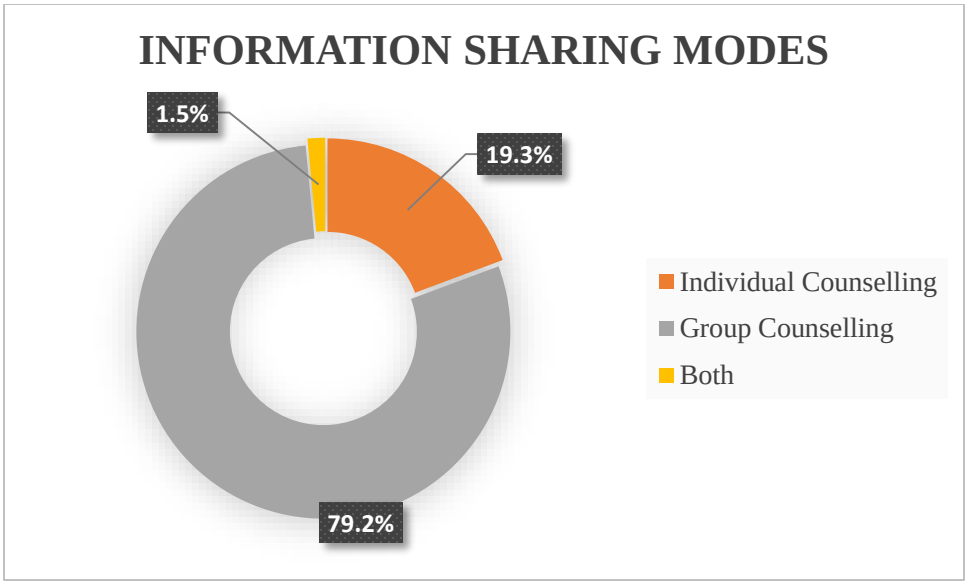

Figure 4.2 Information Sharing Modes

Information on immunization was the most shared with 94.3 %(n=249) of the respondents reporting that they were taught on immunization whereas breast care 42.4 %(n=112) and sleep and rest 40.9 %(n=108) were the least taught as shown in figure 4.3.

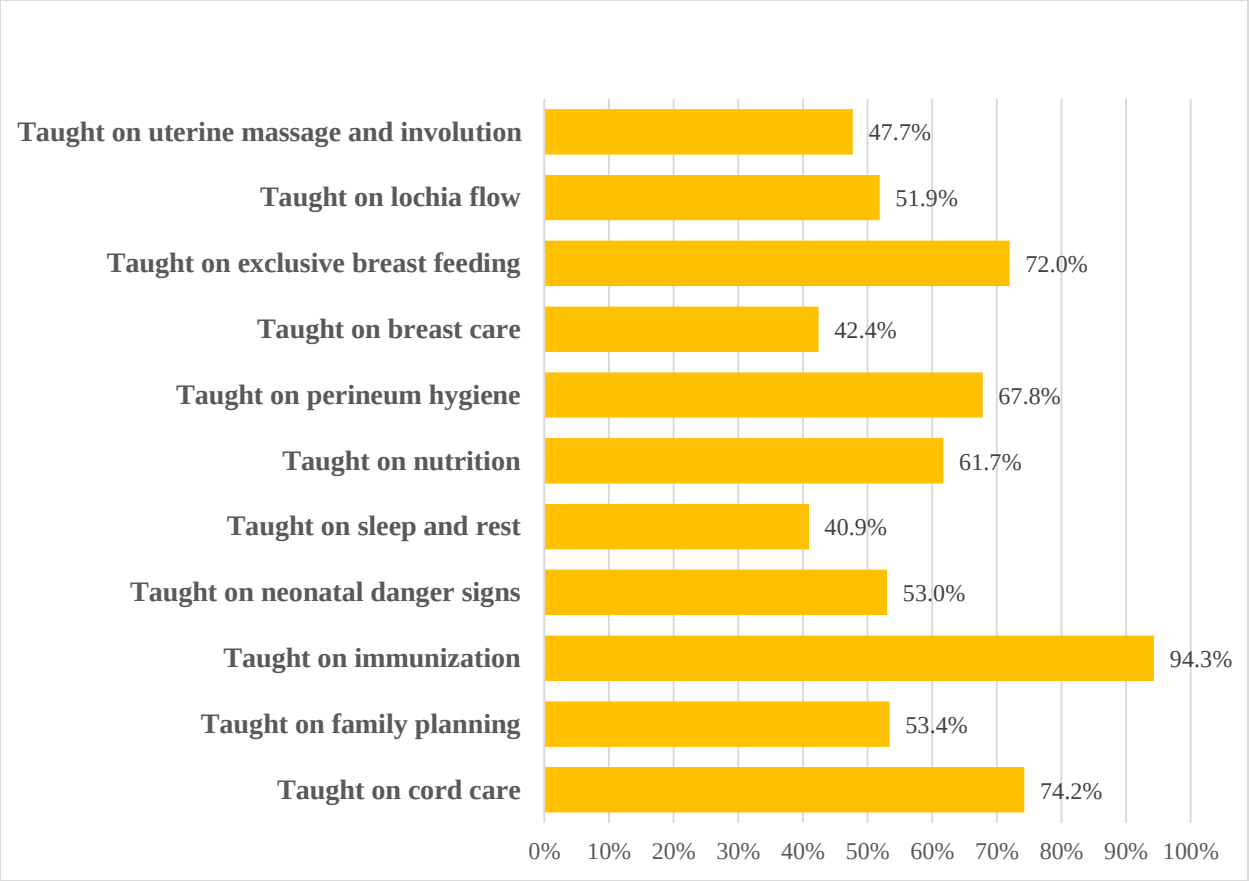

Figure 4.3: Proportion of respondents taught on specific nursing care items.

Information on important aspects of nursing care postnatally was collected through 19 nursing care items as shown in Table 4.2. The mode for each of the 19 nursing care items was calculated. The results indicated that the respondents rated care as either 'excellent' or 'poor' most of the times, however the calculated means revealed succinct ratings for the quality of care indicating that for most nursing care items, respondents rated the quality of care as 'good' with three items being rated as 'very good' (mean >4.0). The most highly rated nursing care items were related to medication administration, vital signs monitoring, and immunization whose mean ratings were above 4 out of a possible maximum score of 5. Postnatal exercise, breast care and sleep/rest aspects of nursing care got the least mean ratings at less than 2 out of a possible maximum score of 5.

Table 4.2: Nursing care specific to postnatal care mean ratings for each item

Nursing Care Item	N	Means score out of 5
Were you assisted to go to the toilet and given information regarding personal hygiene during the postnatal period?	264	3.32
Were you assisted in the perineal toilet and informed on how to keep your perineum hygienic?	264	3.18
Were you assisted in early ambulation?	264	2.36
Were your vital signs checked regularly?	264	4.49
Were you explained to on how to take care of breasts and minor breast problem in the postnatal period and its management?	264	1.97
Were you taught on uterine massage and involution?	264	2.35
Were you informed on sleep and rest?	264	1.84
Were you Informed regarding nutrition?	264	2.89
Were your medication/treatment administered at a proper time?	264	4.7
Were you taught on lochia flow and how to detect excessive bleeding during the puerperal period?	264	2.4
Were you advised about postnatal exercise?	264	1.7
Were you informed on FP methods & importance of family planning and postnatal follow up visits?	264	2.41
Were you taught on how to detect signs and symptoms of infection?	264	2.34
Were you assisted with chlorohexidine cord care?	264	3.45
Were you taught on the importance of colostrum and exclusive breastfeeding?	264	3.44
Were you assisted to position your baby during and after feeding and were you taught to burp after breastfeeding?	264	2.52
Were you taught to detect sign and symptoms of neonatal danger signs?	264	2.47

Were you informed on emptying the bladder every 30 minutes and its importance?	264	2.46
Were you educated about immunization and its importance?	264	4.26

4.3.2 Maternal examination and neonatal examination

In 89.9% (n=237) of the respondents, consent was obtained before any assessment or examination was commenced whereas only 62.5% (n=165) of the respondents reported that the procedure was explained to them. The healthcare workers maintained physical privacy during assessments and examinations of the babies and the mothers in 71.6 %(n=189) of the respondents.

4.3.2.1 Maternal examination

With regard to monitoring and physical assessment of postnatal mother, CS scar examination was conducted in only 8.6% (n=7) of the respondents who underwent CS (N=80) whereas calf tenderness was the least assessed in all of the respondents.

Of the 11 monitoring and physical assessment items specific to postnatal mother, 99.2% (n=262) and 94.7% (n=250) of the respondents indicated that they had received nursing care related to blood pressure/pulse monitoring within the first hour and at six hours after delivery, respectively. Regular temperature monitoring was reported by 78.4% (n=207) of the respondents.

Respondents who reported having received care related to excessive bleeding assessment were at 83.3% (n=220). Table 4.3 summarizes data specific to nursing care directed to mothers.

Table 4.3: Assessment of mother

Monitoring and Physical Assessment	Frequency (N=264)	Percentage (%)
Blood pressure and pulse rate taken within one hour after delivery	262	99.2
Blood pressure and pulse rate taken 6 hours after delivery	250	94.7
Temperature monitored regularly	207	78.4
Respiratory rate monitored regularly	74	28.0
Checked for excessive bleeding within 1 hour of delivery	220	83.3
Head to toe examination	119	45.1
Breast examination	101	38.3
CS scar examined	(N=80, n=7)	8.6
Condition of the episiotomy examined	(N=83, n=44)	53.0
Abdominal examination	77	29.2
Examined for calf tenderness	35	13.3

4.3.2.2 Neonatal examination

Baby assessment and examination had five domains. The baby's feeding method was the most commonly assessed domain as reported by 89.4 %(n=236) of the respondents. Respiration rate was the least assessed with only 28.8% (n=76) of the respondents reporting that their baby's respiration rate was taken as shown in figure 4.4.

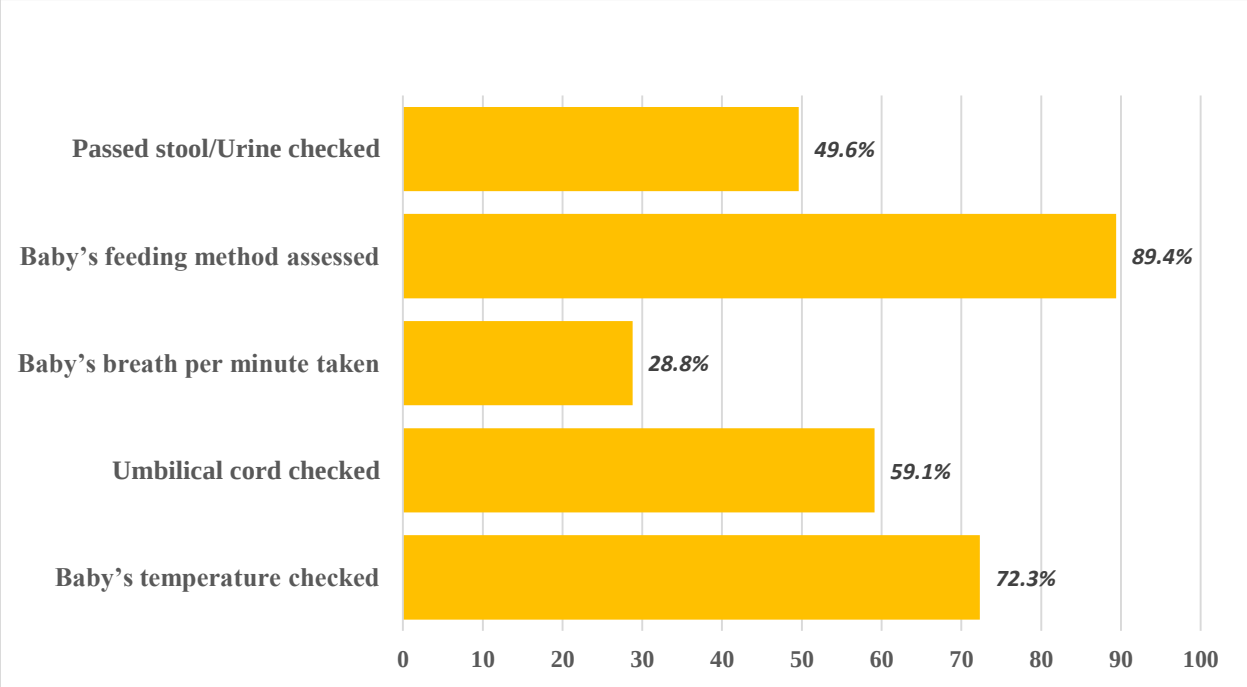

Figure 4.4: Proportion of neonatal assessments carried out

4.4 Physical Comfort Care

The aspects of comfort care like pain management are described as below;

4.4.1 Pain management rating and pain severity rating

In terms of pain management, majority of the respondents 78.0 % (n=206) rated their pain management as excellent.

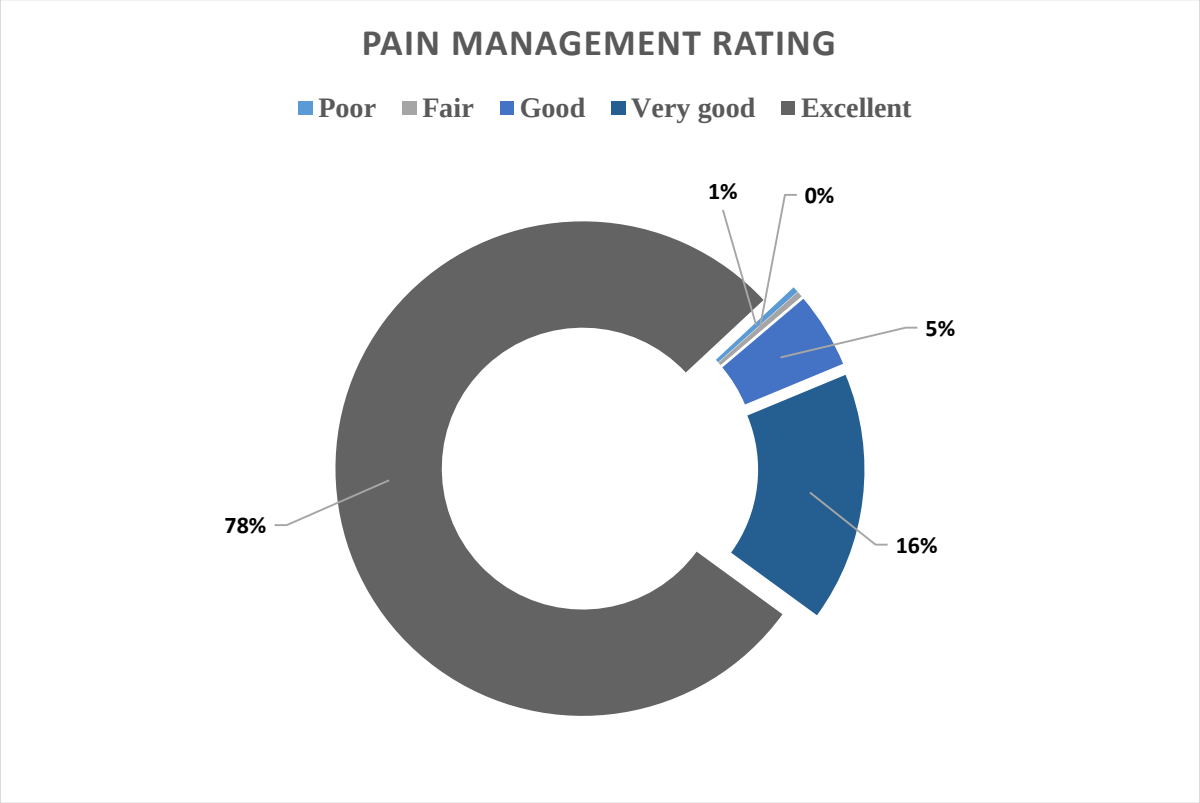

Figure 4.5: Overall pain management rating

Pain level was rated differently depending on the mode of delivery. Half of the SVD patients 50 % (n=92) reported having mild pain, whereas, 25 % (n=20) of those who delivered via CS rated the pain as very severe. Figure 4.6 shows how pain was rated depending on the mode of delivery (CS versus SVD).

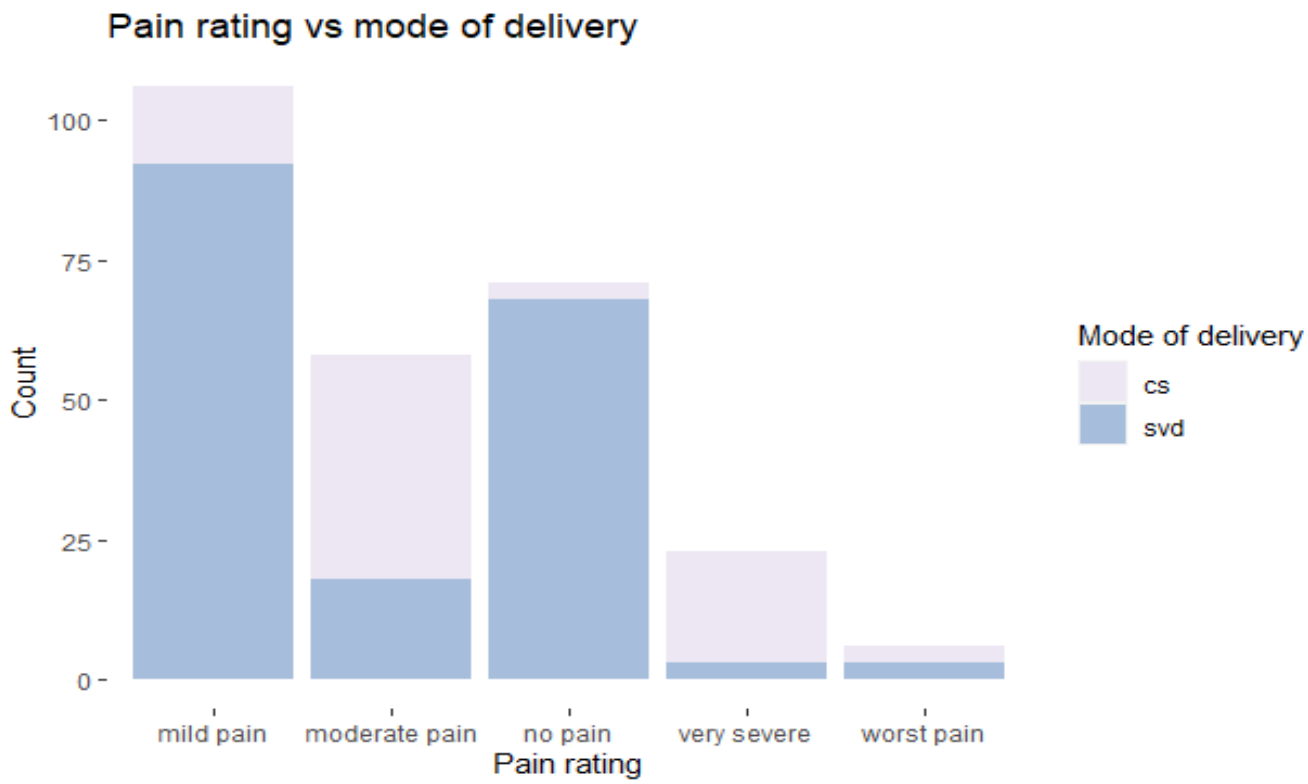

Figure 4.6: Pain rating versus mode of delivery

When pain severity ratings were compared with pain management ratings, 32.6% of the people who rated their pain level as mild also rated their pain management as excellent, similarly, of the 23 respondents that rated their pain level as very severe, 13 of them rated their pain management as excellent and only one respondent out of the 58 with moderate pain rated their pain management ass poor. Figure 4.7 shows a summary of pain severity rating versus pain management rating.

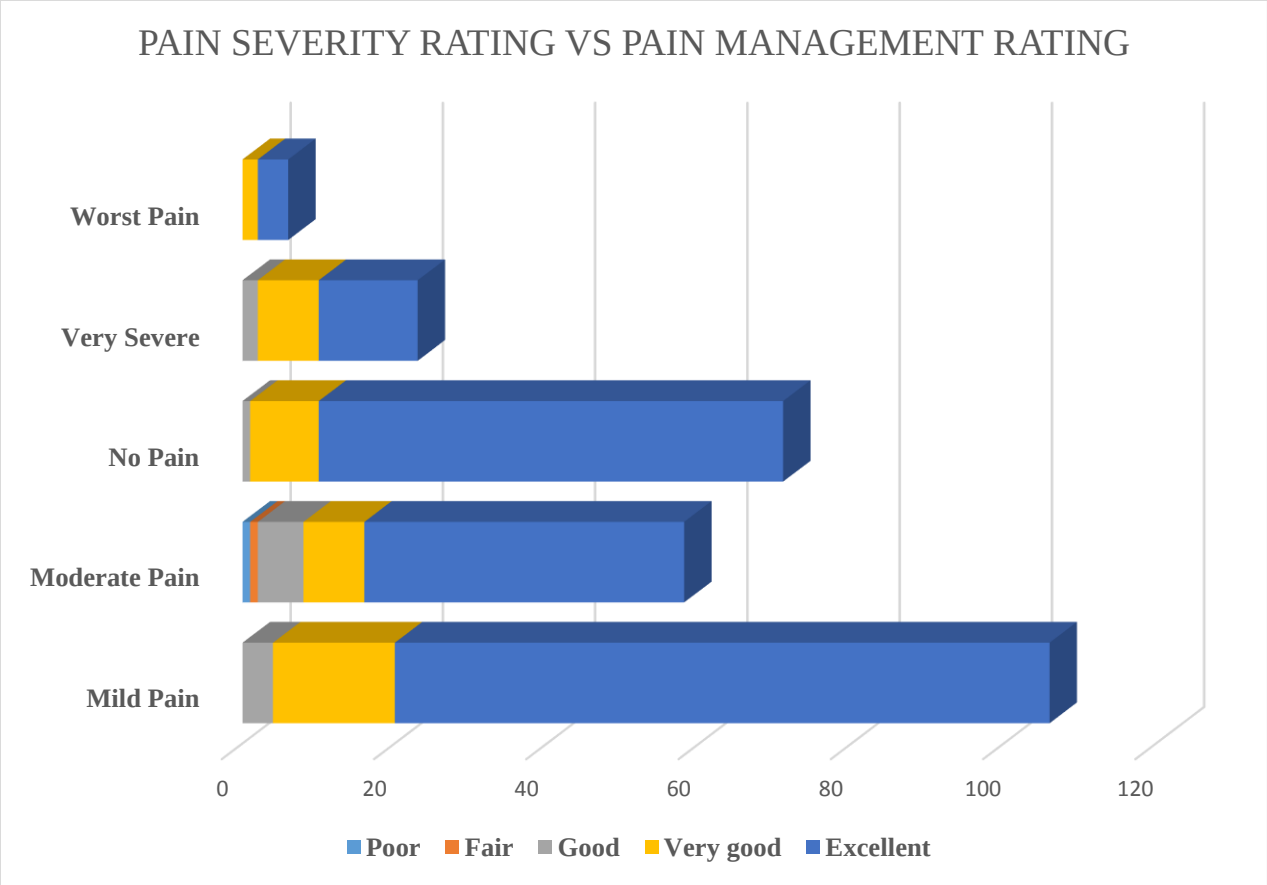

Figure 4.7: Pain severity rating vs. pain management rating

Generally regarding the quality of physical comfort care, nearly all the respondents 95.8% (n=253) rated the quality of care as high with only 4.1 % (n= 11) of the respondents rating the quality as average as shown in Figure 4.8.

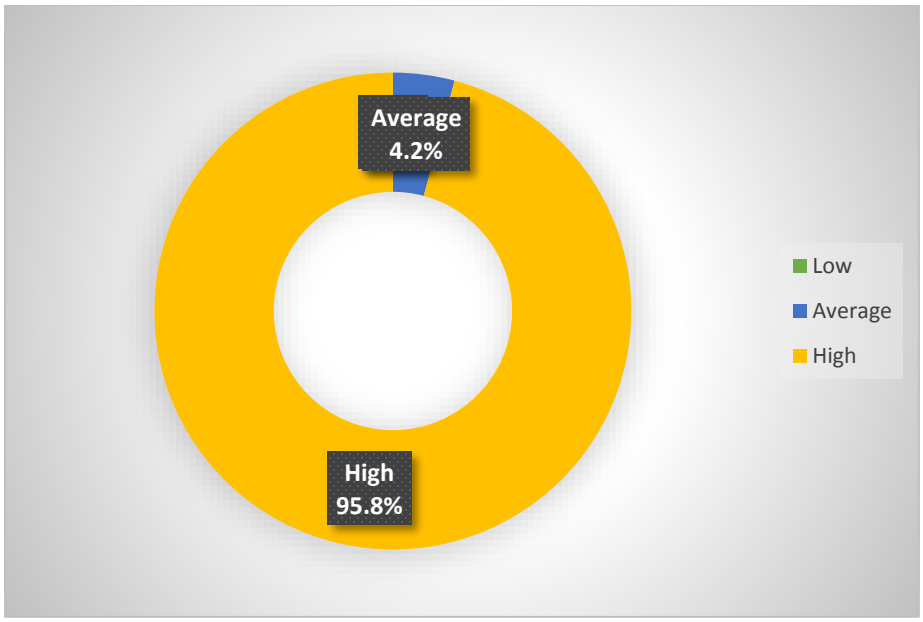

Figure 4.8: Proportion of respondents rating on quality of comfort care

4.5 Quality of Postnatal Care as Experienced by Mothers

Postnatal mothers' experiences and its meaning is crucial and helps measure the quality of care received. Qualitative analysis was done and four themes were identified: client-provider interaction, care provided, emotional support and the overall experience during the postnatal period.

Theme 1: Client-provider interaction

In this theme, four sub-themes were identified that explicated the interaction between the patients and the health care providers. They included: communication, timing of action, lack of empathy and attitudes of healthcare providers.

Sub-theme 1: Communication

When asked about their experience on communicating with the staff, most of the interviewees said that they did not have a pleasant experience communicating. Most often they got impolite, rude or gave no responses to their questions or concerns. One interviewee said:

> *"I came on Tuesday first, I was given a prescription for medication and was told to go and buy. Then I asked the one who was attending to me, 'the governor told us that the hospital has drugs' he told me 'go buy the drugs or delay there'*. [Respondent-5].

When asked whether she got a chance to ask questions about her care, one respondent said while sneering:

> *"Now who will you ask? Even when you tell the doctor, I feel this side is blocked and I'm in pain, they ask you 'now what do you want me to do?'* [Respondent-1]

Another respondent added:

> *"What they should change is that when you ask the doctor something, they should respond well not rudely and you came to seek for help from them, and that's what they have been employed to do."* [Respondent-8]

Another respondent said that she rarely got any response from healthcare workers who were ladies:

> *"Mostly ladies don't respond. They can respond rudely. They don't…When she checks your book and see you only have girls, she tells you 'even that one that is coming is also just a girl', now what is that?"* [Respondent-5]

On inquiring why she felt women health workers were likely to be arrogant the respondent went on to add;

"Me what I can say concerning maternity, they should provide opposite gender, like men. Because when a man starts with you from the beginning, he walks with you step by step in the provision of care. But we ladies, I don't know the problem we have. There are those who will talk rudely to you, after you deliver, they answer you rudely, like they are abusing you. So, men are better in maternity." [Respondent 5]

Sub-theme 2: Timing of action

Healthcare workers can sometimes delay in responding to requests made by patients under their care. This could be attributed to increased workload, prioritization of more important aspects of care and unfavorable nurse-to-patient ratios. One interviewee narrated how she had to wait for a long time before she could have her belongings brought to her:

"I left my belongings somewhere else, when I asked who would bring them she said 'you wait they'll be brought' and you don't have clothes to change and you have a child. I sat there until 10 o'clock at night, that's when my belongings were brought, from 2pm." [Respondent-1]

However, there were instances when the health workers responded promptly to the needs of the patients. One respondent said that whenever she would request for the nurses they would come and attend to her

"Mine (experience) was okay. When I call them…it was yesterday, when I called them, they came very quickly and I did not see if there was any issue." [Respondent-2]

Two other respondents also reported a similar experience of timeliness of care:

"I was brought my child well wrapped, immediately after drinking the porridge." [Respondent 6]

"First, I asked for water and they brought, after a while I called them (health worker); they came very quickly." [Respondent 7]

Sub-theme 3: Lack of empathy

Most of the respondents felt that the health workers lacked empathy and were not sensitive to their concerns. One interviewee had this to say:

"I told them I was in pain and they said that I'm not in pain I'm just pretending. Then they took me back to bed." [Respondent-3]

Another one added:

"I have been here for three days. If you tell them this is how I feel, they tell you go and sleep. When you tell them, 'I'm in pain' (they respond)'continue being in pain'. You see there's a problem there". [Respondent-7]

Sub-theme 4: Attitude of healthcare providers

The attitude of healthcare workers is often echoed in the sentiments they give. One respondent reported that while receiving care, some of the healthcare providers would hurl insults or abuses:

"After giving birth, let's say there is that blood that comes out, they will remove that grudgingly like they are abusing you, you have made the bed dirty… so, and you really don't know what the issue is." [Respondent-8]

Another respondent was quick to note the differences in personalities and attitudes of the healthcare workers, she said:

"(They) have treated me well but you know people are not same at heart, everyone has his own, there are those that are hard-hearted, there are those that are soft-hearted, but for me…those that I've talked to are good at heart and they've treated me well." [Respondent-3]

Sentiments from the healthcare providers can either be demoralizing or encouraging; one woman with five children said that she was not pleased by the sentiments received from the nurse regarding her situation, she said: *"When she checks your book and see you only have girls, she tells you 'even that one that is coming is also just a girl', now what is that?!"*.

Theme 2: Emotional support

The interviewees felt that the healthcare providers did not take time to listen to their concerns and respond to those issues in a sensitive and understandable way, one interviewee said:

"When you get here, they should ask you what your problem is and you tell them, so after you tell them, they should not leave you alone to suffer, because you are the one who knows how you are feeling." [Respondent-7].

Another suggested:

"What they should change is that when you ask the doctor something, they should respond well not rudely and you came to seek for help from them, and that's what they have been employed to do." [Respondent-8]

There were however instances when the interviewees felt that they were offered emotional support by the nursing care team and that their requests and concerns were adequately addressed. Two of those who took part in the discussion shared their experiences:

"Mine (experience) was okay. When I came here I was explained to the process of care and it was good."[Respondent-2]

"What I can say is that those I met were not bad, they treated me well. Even when I started with them down there (labor ward), they followed up with me until I was put in bed." [Respondent 6]

Theme 3: Care provided

Under this theme two sub themes were identified as below.

Sub-theme 1: Physical assessment and vital signs' monitoring

Regarding physical assessment, none of the mothers in the discussion was examined/assessed from head to toe, neither were their babies examined. One respondent said:

"Only the pressure and the medicines are given then you go back to bed …They don't examine the babies, I haven't seen". [Respondent-1]

"No, they were not examined" [Respondent-5]

With regard to measurement of blood pressure, all the interviewees reported that their blood pressures were taken once, twice or thrice since they came to the postnatal ward. Most of the patients reported having their initial blood pressure monitoring shortly after delivery and once during each shift. The exact timelines within which these measurements were taken were however unclear and difficult to assess as the inflow of mothers into the postnatal wards is continuous.

When asked about other vital signs assessments such as temperature monitoring and respiration assessment, physical examination both for the mother and the baby, the interviewee's responses indicated that no other assessments were done. One woman responded.

"Only pressure was taken." [Respondent 5]

Sub-theme 2: Improvements in care

On the positive side, the interviewees lauded the hospital for being very clean and one interviewee said there were noticeable changes since they last sought care in the facility:

"But it's not like before, you know before this place was bad, nowadays they bring porridge you drink, after a while tea is brought, at one o'clock…we were brought porridge down there (labor ward), up here (postnatal ward) we stayed for a while and porridge was brought again, at 10am we were brought tea, at 1pm rice, after a while again tea was brought, so I saw it was not like before."[Respondent 8]

Another participant was quick to add while smiling;

"We were brought for porridge immediately after delivery and few hours later we brought for tea."[Respondent 1]

There are however other structural issues that were persistent. The mothers were concerned about the exposure of their kids to malaria due to the lack of bed nets and other bedding, a 28-year-old mother who delivered via CS noted with a lot of concern and said:

"When you are from the ward or theatre and you are brought to this bed and you have a baby and there is no net and there are mosquitoes, that's the bad thing that I saw, I don't know how this problem will be addressed… the beds should have nets because of the babies."

Theme 4: Overall experience during the postnatal period

Most of the respondents (6 out of 8) rated their overall experience during the postnatal ward stay as a positive. When requested to rate the quality of care they had received: four respondents rated it above 70%, one respondent rated care at 60%, one at 50%, one at 40% and the lowest rating at 20% by one respondent. When asked about her experience since she came to the ward, one of the respondents, a 20-year-old Para 3 woman who delivered via SVD said: *"I can say I was well attended to because I came yesterday morning and the one who received me was a man and one nurse. So, I saw that they helped me ...."* indicating that her experience was positive coupled with convenience of the service and care received. However, not all the respondents had a positive experience while receiving care in the postnatal wards, a 28-year-old Para 2 lady who delivered via CS mentioned that here experience was very difficult, she said: *"Mine was a bit hard because you can start feeling pain and you tell them (healthcare providers) this is what I feel and they tell you to go to sleep, now when they see you are getting worse that's when they come..."*. Her experience indicates the inconsistencies in care delivered that vary with individual care provider and differences in personality.

4.6 Quality Postnatal Care Rating

Overall, the mean rating of quality of care was 73.9% with a large standard deviation of 22.9. The quality of postnatal care from quantitative analysis was rated by majority of the respondents 51.5 %(n=136) as average. This was in congruent with findings from qualitative analysis where half of the respondents rated the quality as high. Figure 4.8 gives a detailed summary of the overall quality of care rating.

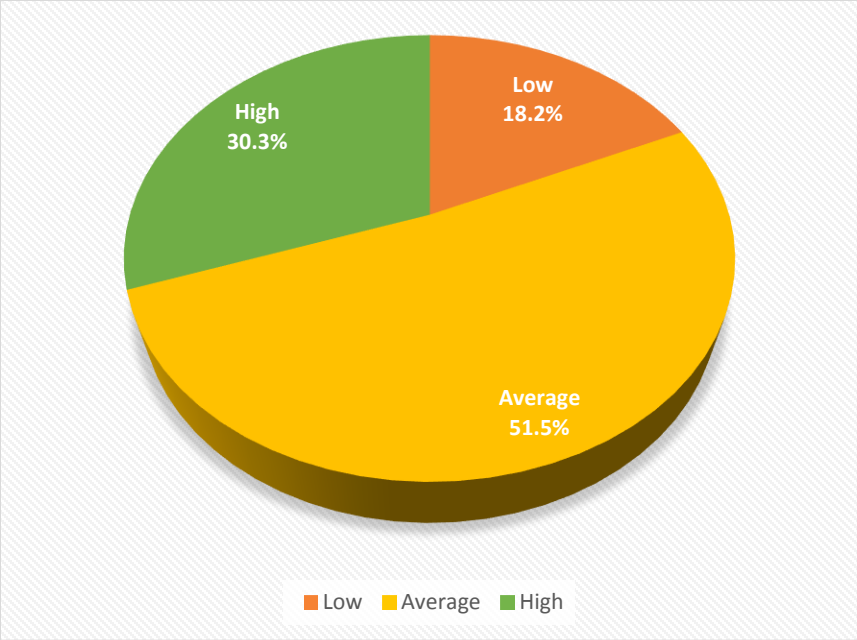

Figure 4.9: Quality of postnatal care rating by participants.

The mean overall quality of nursing care (other than comfort care) rating was reported to be 50.9% (average quality) with a large standard deviation of 22.6 indicating that the data points were far from the mean. When the data was separated by mode of delivery (CS or SVD), the mean overall rating of care for those who delivered via CS was 52.3% while the mean rating for the respondents who delivered via SVD was 83.3%.

Table 4.4: Overall mean rating of quality of postnatal care per delivery mode

Mode of delivery	Reported quality of care measures
CS (n = 80)	Mean 52.3% SD 15.4 Mode 44 Range 22.1%(n=30) – 73.5(n=100)
SVD(n=184)	Mean 83.3% SD 19.0 Mode 105; 103 Range 25%(n=34) – 78.7% (n=107)

4.7 Factors Associated with Quality of Postnatal Care

Fisher's exact test was used to measure associations between dependent and independent variables. Fisher's test was used in particular because at least one cell in the contingency tables for the variables of interest had an expected frequency of less than 5. Fisher's exact test showed no statistically significant differences between the reported quality of postnatal care and residence (p-value = 0.56), as well as marital status (p-value=0.13). There was however a statistically significant difference in the quality of care rating reported and age-groups (p-value=0.02), parity (p-value = 0.00), level of education (p-value = 0.02) mode of delivery (p-value =0 00), occupation (p-value = 0.00) and number of living children (p-value=0.00). Table 4.5 shows a detailed report on the results obtained from the analysis of association between variables

Table 4.5: Factors associated with quality of postnatal care ratings

Variable	Quality of postnatal care			P-value
	Low	Moderate	High	
Age-group				p-value=0.0163
10-20	*6*	*26*	*5*	
21-30	*25*	*84*	*48*	
31-40	*17*	*26*	*24*	
41-50	*1*	*0*	*2*	
Marital status				p-value=0.1271
Single	*5*	*31*	*11*	
Married	*43*	*104*	*68*	
Divorced	*0*	*0*	*1*	
Separated	*0*	*1*	*0*	
Marital status				
Level of education				p-value = 0.0235
None	*0*	*2*	*0*	
Primary	*13*	*22*	*10*	
Secondary	*26*	*65*	*30*	
College	*9*	*39*	*35*	
University	*0*	*8*	*5*	
Residence				p-value = 0.5592
Urban	*24*	*66*	*45*	
Rural	*24*	*70*	*35*	
Occupation				p-value < 0.0005
Employed	*21*	*76*	*58*	
Unemployed	*27*	*60*	*22*	
Mode of delivery				p-value < $2.2x10^{-16}$
CS	*41*	*38*	*1*	
SVD	*7*	*98*	*79*	
Parity				p-value = 0.0005
1	*28*	*87*	*24*	
2	*12*	*29*	*20*	
3+	*8*	*20*	*36*	

A multiple regression was carried out to investigate whether age, marital status, parity, mode of delivery, education, occupation and residence, could significantly predict participants' quality of

care rating. The results of the regression indicated that the model explained 53.8% of the variance and was a significant predictor of quality of care rating, $F(12, 12) = 23.0$, $p < 0.05$. It was found that parity of four significantly predicted quality of care rating ($\beta = 21.04$, $p<0.05$), as did parity of five ($\beta = 37.89$, $p<0.01$). Having attained primary education also was a significant predictor of quality of care rating as high ($\beta = -8.53$, $p=0.03$) as was being unemployed ($\beta = -10.82$, $p=0.02$). It was also found that SVD mode of delivery significantly predicted quality of care rating ($\beta = 25.53$, $p<0.00$)

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter presents a comparison of the study findings with other studies, draw conclusions and make recommendations based on the findings.

5.1 Introduction

The assessment of quality of care during the postnatal period focuses on quality of care indicators specific to maternal and newborn health (Lotto, 2015). This chapter presents the discussion of study findings as per the study objectives, conclusion and recommendations.

5.2 Socio-Demographic Characteristics of Postnatal Mothers

Age is a significant demographics characteristic in maternal child health as it informs decisions of care. It also helps classify a woman as high or low risk. In this study, more than half of the participants 59.5 %(n=157) were aged between 21 and 30 years with ages ranging from 14 years to 43 years. Atallah, (2013) revealed that the age of the patients significantly influences satisfaction as majority of the younger patients were not satisfied with the care provided in public facility compared to the older patients. Similarly, according to a study by Coelho (2015) patients' age was found to influence patients' satisfaction. From the same study, it was found out that patients over 40 years had a higher degree of satisfaction in availability or convenience.

In this study, majority of the respondents 59.5% (n=157) were first time mothers, this findings was similar to a study that had been conducted in Nigeria on evaluation of quality postnatal care and mothers satisfaction (Rose and Janet, 2018). Parity of four or five was also significantly related to the quality of postnatal care rating. A possible reason for this could be repeated prior exposure coupled with lowered expectations of care. Larson et al, (2014) noted that the number of visits to the antenatal clinic (ANC) positively influenced the women's rating of care received. This further

explains how prior exposure and preconceived expectations as a result of repeated exposures can influence the rating of quality of care received. A study by (Berhe et al., 2017) revealed that there is increase in acceptability of postnatal services with increase in parity. Multiparous women were content and appreciative of the care given and this was attributed to understanding of the expected care.

A large proportion of the respondents delivered via SVD. Notably, there was a statistically significant difference in the quality of care rating and mode of delivery (p-value < 0.00). This may be related to differing patient profiles, care expectations, administrative involvement in care delivery and different environments of care delivery. Other studies have shown that patients in surgical wards tend to rate care lower than those in non-surgical wards, as, those in the surgical wards, perceive individualized care differently and are more demanding (Kartal, Özsoy & Üner, 2018).

The level of education also had a significant effect on the rating of quality of care provided. Having attained primary level education was a significant predictor of the rating of quality of care provided while higher education levels were not significant predictors of quality of care rating. Studies have shown that a higher level of education is associated with a lower rating of quality of care and satisfaction with care (Radwin, 2003; Tocchioni et al. 2018; Lepnurm et al. 2012). Participants with higher education level tend to expect higher standards of care hence tend to be reserved in giving higher rating figures (Jennings, et al, 2005; Mwanga, 2013). In this study, participants with primary education, considered a lower level of education, rated the quality of care as high. This finding echoed in other findings that found out patients with lower levels of education tended to rate the quality of care highly (Bredart et al., 2003; Quintana et al., 2006).

5.3 Postnatal Nursing Care

Under the nursing services specific to postnatal care, findings on information sharing, maternal and neonatal examination were discussed

5.3.1 Information sharing

The immediate postnatal period is an opportune time to deliver health education on the identification of complications in both mother and baby and share family planning options to improve maternal outcomes. Information sharing empowers women to take care of themselves and their babies optimally. It also allays anxiety. Findings from this study indicated that information sharing to postnatal mothers was predominantly done in a group. A similar study in Malawi, midwives conducted health education using group education approach and personal information needs were not considered (Chimtembo, Maluwa, Chimwaza, Chirwa, & Pindani, 2013). Healthcare providers should aim at passing relevant information to all postnatal mothers under their care. Probably invest more in individual counseling to be able to offer individualized information based on assessed needs. In a study done in Nigeria, patients reported dissatisfaction with lack of patient specific counseling and lack of individualized care (Rose and Janet 2018).

Information given by health care providers on cord care, exclusive breastfeeding and immunization were highly scored (>3.0 out of 5) and were received by more than 50% of the respondents. These findings were contrary to findings from a similar study by Chen et al., (2014) where less than 40% of the respondents received information on infant feeding, cord care and danger signs monitoring. Family planning has been shown to improve maternal child outcomes. Women need information on the various family planning options available .Slightly more than half (51.5%) of the respondents in this study received information on family planning, this proportion, however, was

significantly higher than in a similar study (Mirkovic et al., 2017).A study conducted in Cote dl'voire and Burkina Faso revealed that health facilities hardly used the chance to teach clients on contraceptives. (Millogo et al., 2020). Information on family planning options is often shared by health workers during health talks or during teaching moments while interacting with patients (Dlamini, Ziyale & Gule, 2017). Therefore, enhancing communication and creating a conducive environment to enable effective information sharing is vital. In a study by (Dawes, 2013) sharing of information on family planning helped to improve quality of care as mothers were discharged with adequate knowledge on family planning. The study also elaborated that mothers that were educated on family planning post-delivery embraced family planning services earlier than mothers that were not educated on the same.

In this study, the qualitative analysis revealed both positive and negative experiences of patients as they sought to communicate with the healthcare providers. The negative experiences revealed several flaws in communication between patients and healthcare providers. Some respondents stated that their experiences communicating with the nurses was unpleasant as a direct consequence of the healthcare provider's attitude and lack of empathy. When patients are treated with dignity, empathy and respect their esteem is boosted and are likely to be attentive to information being shared. They are also likely to open up when they have disturbing personal issues. A review on literature shows that there is need for respectful treatment and consideration across continuum of care: for mothers and all their newborns (Sacks &Kinney, 2015).

Despite the negative experiences while interacting with the healthcare providers, there were instances when communication between the patients and the care providers was described as effective by the respondents. They felt that the healthcare providers listened to them and catered to their needs on time thereby building rapport that enhanced future communications. Other studies

have also shown that patients value a deep yet professional connection with their caregivers which is often enabled through communication thus enhancing a lasting rapport between the patient and the clinician. This makes the patients perceive "being known," acknowledged and known as a "whole person," and "having a human connection" thereby enhancing a therapeutic relationship (Bakker et al., 2001; Merckaert, Libert, & Razavi, 2005; Salander & Henriksson, 2005; Thorne et al., 2005; Treiman et al., 2009). Similar findings were echoed in a study that was done in England ;where the greatest ideal expectations for the majority of the women in that study, was to be certain of provision of nonjudgmental advice, reassurance and affirmation from health professionals who would have kindness and empathy on them ((McLeish, Harvey, Redshaw, & Alderdice, 2020).
Use of charts and booklets can help improve information sharing. In this study, however, job aids were used in slightly less than half (47%) of the participants to convey health messages. Mothers must be equipped with knowledge. Visual images on specific maternal and neonatal danger signs help them to easily remember and seek medical care as early as possible to avoid life threatening complications. A study by Jennings et al., (2015) showed that the increase in the proportion of mothers with knowledge on maternal and newborn danger signs was attributable to the use of counseling job aids.

5.3.2 Maternal and neonatal examination

Maternal and neonatal examinations are important aspects of postnatal care as they provide opportunities to assess the well-being of mothers and their neonates.

In this study, qualitative findings indicated that physical examinations for both the mother and the baby were not done. Head-to-toe examination was done on 45.0 % (n=119) of the respondents post-delivery in the quantitative findings. This is in congruence with findings in a study carried out in Malawi on quality of postnatal services, only 22% of midwives carried out a head to toe

examination before discharge (Chimtembo et al., 2013). All the interviewees in the qualitative segment mentioned that their blood pressure levels were taken at least once while receiving care in the postnatal ward, these correlated well with the high proportions 94.7% (n=250) of respondents from the quantitative analysis reporting that their blood pressure was assessed. These findings were significantly higher compared to those reported in Swaziland, in a study that examined the quality of immediate postnatal care in health facilities,79.8% of the respondents had reported their blood pressure had been taken (Dlamini, Ziyale & Gule ,2017).Findings on blood pressure assessment in this study were an echo to findings in a Kenyan study on the quality of follow-up postpartum care that showed that healthcare providers were keen on identifying postpartum hypertension (Ng'ang'a, 2013). Conversely, findings on temperature monitoring in the same study showed that only 19.4% had their temperatures taken, this significantly differed from findings of temperature assessment in this study where, 78.4% of the respondents had their temperature regularly monitored. The difference in these findings could be due to the emphasis on temperature monitoring to screen for COVID-19 viral infection. However, findings on breast examination were notably similar between this study and a study by Ng'ang'a (2013) where virtually 40% of participants received breast examination.

Of note though, was the alarmingly low incidences of CS scar examination. CS scar examination was done in only 8.6% (n=7) of the respondents (N=80). This could be attributable to the difference in sampling timing as well as the variation in CS scar examination times by the caregivers which ranged from 24 to 48hrs post-delivery. The absence of a specific set time for CS scar examination and the flexibility with which the respondents were sampled could have contributed to the low proportions observed. This agrees with findings by Jacobs et al., (2017) which revealed that nearly all post CS mothers reported that they had not been examined at their incision site 24 hours after

the procedure. Similarly, the findings corresponded with a study that indicted most of the postnatal mothers with soiled dressing were not examined in their first day post-operative but their dressings were changed on the third day after the procedure and that influenced their satisfaction with quality of care delivered (Somefun, 2016).Comparable findings by (Rose, & Janet,2018) found out that in half of the study participants, abdominal examination including CS scar examination was not done, lochia flow was not assessed in three-quarters of the participants and in none of the participants was assessement of perineal hygiene done.Additionaly, a criteria based audit to improve early postnatal care in Jinja ,Uganda established that incision site(CS scars) was the least assessed(Kanyunyuzi et al.,2017).Also in an English hospital women spoke of needing information on how often they should clean their abdominal wound area, how to take care of their wound including use of dressings, and if (and when) they could undertake practical tasks such as walking up stairs and driving (Beake, Rose, Bick, Weavers,&Wray, 2010).

Neonatal examination is very vital in averting neonatal mortality. It helps establish if babies are adapting well extra uterine and all their needs are being met. Ensuring babies are examined helps to improve quality of postnatal care and enhances prompt actions when complications are noticed. In this study 60% of the respondents affirmed that assessment of temperature and umbilical cord care was done. The study also reported that the baby's feeding method was assessed in 89.4% (n=236) of the respondents. This was similar to findings by Warren et al., (2009) wherein nearly all women in the study, reported healthcare workers assessed and counseled postnatal mothers on infant feeding. Findings from this study were also in consistent with recommendations from WHO that prioritize early initiation and exclusive breastfeeding. A study carried out in Hebei had contrary findings, only 37% of the mothers had received counseling on infant feeding and 32% on cord care (Chen et al., 2014).

5.4 Quality of Physical Comfort Care

Physical comfort entails pain management, a clean hospital environment, clean and comfortable beddings. In terms of physical comfort, virtually all of the respondents rated the quality of physical comfort as high. Effective pain management is central to ensuring physical comfort. Overall, pain management was highly rated, however, pain levels were rated differently depending on the mode of delivery. When postnatal mothers have quality physical comfort, they are able to get enough rest, attend to their needs and those of their babies. These findings were comparable to those in a study done in Turkey that assessed determinants of postnatal comfort levels of puerperants by Kartal, Özsoy & Üner (2018), where comfort care ratings among puerperants who had vaginal delivery were significantly higher than the ratings by those who had a cesarean section. More than three-quarters of the respondents stated that the environment was clean, quiet and promoted the much-needed rest during the postnatal period. In their study to examine the effect of the postpartum hospital environment on the attainment of mothers' and fathers' goals in Canada, Goubery et al., (2017) found that lack of physical comfort and fully private spaces resulted in interruptions to rest and breastfeeding. In terms of cleanliness, 70% of women in a study by Malouf, & Alderdice, (2019) in the United Kingdom reported the ward environment was very clean. These findings were comparable to those in this study where about 86% and about 67% of respondents reported that the ward environment was clean and the bedding were clean and comfortable. A survey by National Health Service (NHS) in the United Kingdom found that nearly three-quarters of the participants were offered a choice of food and only 19% reported that the food quality was poor. In this study, however, 60% of the respondents rated the quality and availability of food and in the wards very highly, making the results somewhat comparable to those of the National Health Service survey (NHS, 2007).

5.5 Quality of Postnatal Care as Experienced by Mothers

Quality of postnatal care as experienced by mothers focused on care provided, their interactions with the healthcare providers, emotional support as well as aspects of care improvements.

Client-provider interaction forms a central aspect in patients' perceptions on quality of care offered and often influences satisfaction rating of care (Shafiei, Small & McLachlan, 2012). In this study, client-provider interaction was marred with unpleasant communication experiences, lack of empathy and negative attitudes from healthcare workers. The analysis revealed that clients often found it difficult to communicate with the healthcare workers as they often got impolite, rude, or gave no response at all .These findings are an echo of findings from Uganda which showed that failing to give patients a chance to ask questions led to poor quality provider interactions and in extension poor patient centered care (Wilunda et al., 2015).In a similar study in Ghana on women experiences of intra-partum nursing care, participants viewed interpersonal interaction, emotional support and being respected as good quality nursing care (Afaya et al.,2017)

The respondents further felt that the healthcare workers were not sensitive to their concerns and that they lacked empathy. Neumann et al., (2009) findings on empathy and its effect on the quality of care rating in Germany were implied in findings from this study. Most of the respondents felt that they were not treated humanely and yearned to be tenderly and lovingly cared for during the postnatal period.Namujju et al, (2012) also found that empathy was an important aspect of care provision for postnatal mothers in Uganda with participants mentioning that they wanted to be received well and treated humanely.

Closely coupled with empathy was the emotional support that was also lacking on the healthcare providers' part. The respondents felt that healthcare providers did not take the time to listen to their

concerns and address their immediate care needs. This is in line with Pindani et al (2020) in a study done in Malawi 91.3% of midwives never considered emotional concerns in provision of care. Most of the respondents reported that only select aspects of care such as vital signs assessment was carried out whereas other aspects such as full body exam and assessment of the baby's condition was not done. However, overall experience with the quality of care was highly rated by the respondents. This showed that the overall care offered was appreciated but point out on areas that should be targeted for improvement. These findings were similar to those found by Lomoro et al., (2002) in a study conducted in china on mothers' perspectives on the quality of postpartum care. Ng'ang'a (2013) also found that despite patients reporting evident challenges with the care received, in the end, they rated the quality of care highly.

5.6 Overall Quality of Postnatal Care

The average quality rating of postnatal care by the respondents was 73.9%, averaged across the two domains of care (nursing care specific to postnatal; maternal and baby assessment and quality of physical comfort).

However, when the quality of care was analyzed by delivery mode, it was noted that on average, the mean rating of the quality of postnatal care by CS respondents was 52.3%; much lower than the mean rating by mothers who had had vaginal births (83.3%).These numbers suggested that the quality of care after delivery was rated differently across the two groups that received postnatal care. The range of quality ratings may have been related to the nurses' work environments in terms of perceived ability to attain the resources needed to complete nursing tasks as was found by Ridley, Wilson, Harwood and Laschinger (2009) in their study that examined how work environments affect the quality of care in Canadian Settings.

When the quality of care was assessed in terms of nursing care specific to postnatal (postnatal care for both the mother and the baby other than comfort care), the mean rating (50.9%) was lower than the rating for the overall postnatal care (73.9%). This suggests that physical comfort was rated highly by all the participants and had a significant effect on the overall rating of postnatal care; however, these proportions reveal that there is a lot of improvement needed in nursing care areas to improve the quality of care in the postnatal units. Gathara et al (2019) found that delivery of core nursing care in the Kenyan settings was challenging due to unfavorable nurse-to-patient ratios.

When the mean ratings for each of the 19 items in the specific nursing care domains were calculated, the results indicated that the most highly rated nursing care items were related to medication administration, vital signs monitoring, and immunization whose mean ratings were above 4 out of a possible maximum score of 5.These findings were similar to findings in other studies done in Ethiopia, Kenya, and Swaziland where vital signs assessment and aspects of health education were highly rated (Berhe et al, 2017; Ng'ang' a, 2013; Dlamini, Ziyale & Gule., 2017). This could be due to the prioritization of tasks that nurses deem most important in provision of care.

This is also often a direct result of constraints in resources and high nurse-to-patient ratios. Prioritization assumptions are further evidenced by the fact that information on postnatal exercise and breast care got the least mean ratings at less than 2 out of a possible maximum score of 5 as they could be deemed less important and not requiring nurse's immediate attention. These findings echoed the findings in other studies that reported that information on aspects of breast care, postnatal exercise among others, were infrequently shared. For example, in study carried out in Nigeria, Rose & Janet, (2018) found that only 30% of midwives provided counselling on

breastcare and family planning during discharge,while postdelivery breast examination at 6 weeks was not done.

5.7 Conclusion

The overall quality of the postnatal care rating, as per the patients' perspective, was relatively high. Patients' perspectives on quality of care were diverse because of the influence of their backgrounds and exposure. Conversely, there were glaring gaps in the quality of nursing care specific to postnatal, as well as in the care as experienced by these mothers.

5.8 Recommendations

The recommendations are described under practice and policy.

5.9.1 Practice recommendations

The staff at MCRH need to improve the quality of nursing care specific to postnatal, embrace positive attitude, comprehensive health education to patients and their close monitoring. They also need to be mindful of the patients' needs and preferences while providing care.

The women need to be empowered on postnatal care, what it entails and their rights. This could be done by health workers through seminars and health talks to empower them with knowledge of what postnatal care is, what care is provided, to who, when and where.

5.9.2 Policy recommendations.

Machakos County government need to be monitoring and evaluating the Quality of postnatal services offered in hospitals.

The county also needs to implement structural improvements to the facility such as, provision of mosquito nets, warm and sufficient beddings to reduce further risk to other diseases

The management of MCRH need to put more emphasis on improving client-provider interaction. This could be done by conducting on-the-job training on communication, holding open dialogue sessions with patients and if possible conducting exit interviews to provide a continuous and relevant source of feedback to the management for immediate actions.

5.10 Further Research

A comparative study on quality of postnatal care among CS and SVD mothers need to be carried out.

Studies on quality of health-care provision in other health departments need to be done.

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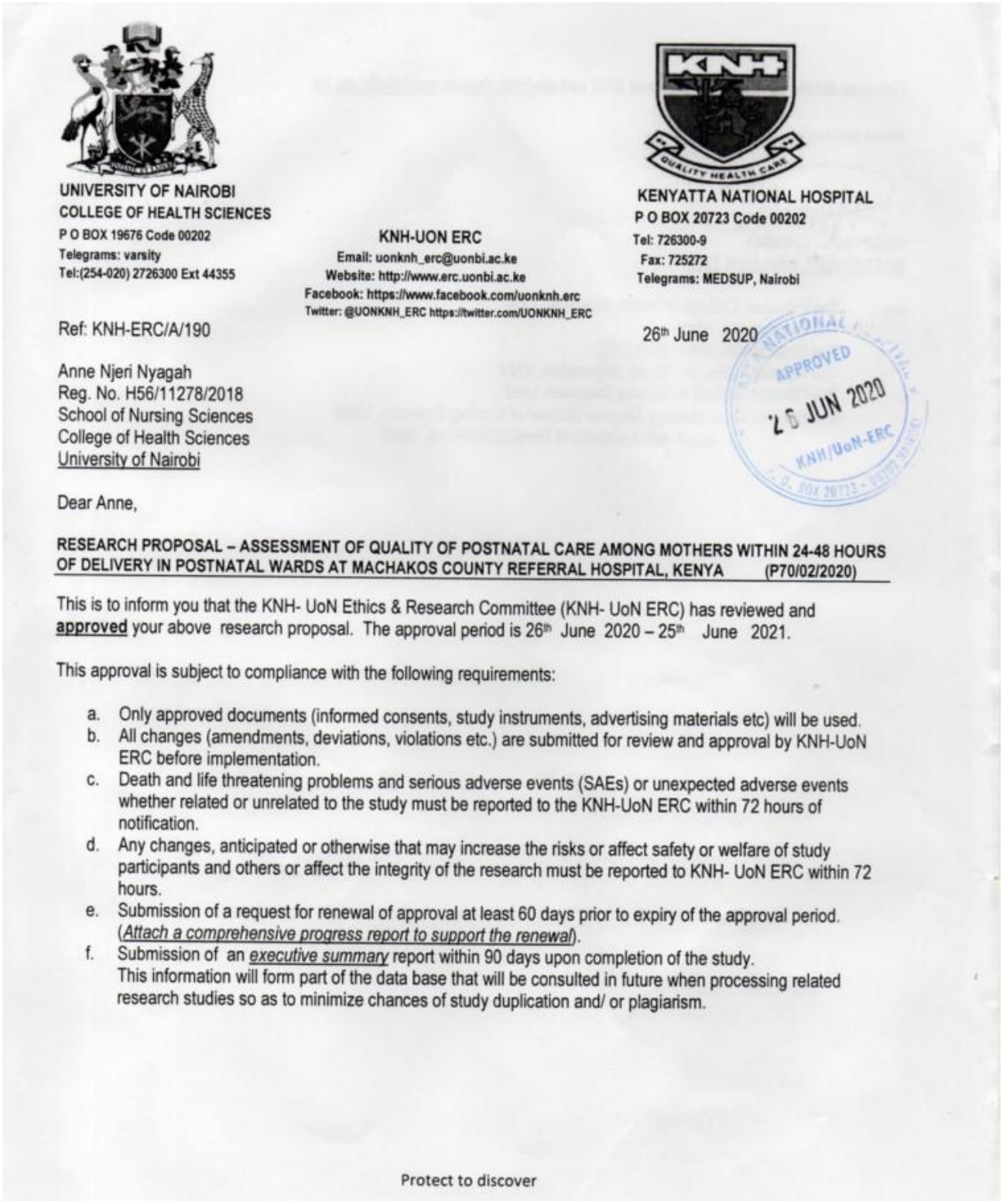
Yasemin Aydın Kartal1, Azime Özsoy2, Kadriye Üner (2018) Determination of Postnatal Comfort Levels of Puerperants in a Public Hospital and Affecting Factors International Journal of Health Sciences & Research 207 Vol.8; Issue: 3

APPENDICES

APPENDIX I. Approval letter by ethics



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26th June 2020

APPROVED
26 JUN 2020
KNH/UoN-ERC

Anne Njeri Nyagah
Reg. No. H56/11278/2018
School of Nursing Sciences
College of Health Sciences
University of Nairobi

Dear Anne,

RESEARCH PROPOSAL – ASSESSMENT OF QUALITY OF POSTNATAL CARE AMONG MOTHERS WITHIN 24-48 HOURS OF DELIVERY IN POSTNATAL WARDS AT MACHAKOS COUNTY REFERRAL HOSPITAL, KENYA (P70/02/2020)

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH- UoN ERC) has reviewed and **approved** your above research proposal. The approval period is 26th June 2020 – 25th June 2021.

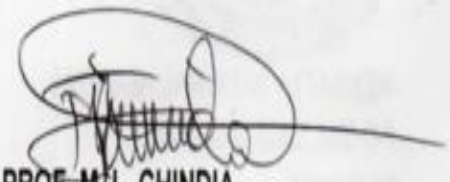
This approval is subject to compliance with the following requirements:

a. Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b. All changes (amendments, deviations, violations etc.) are submitted for review and approval by KNH-UoN ERC before implementation.
c. Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH-UoN ERC within 72 hours of notification.
d. Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH- UoN ERC within 72 hours.
e. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f. Submission of an *executive summary* report within 90 days upon completion of the study. This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/ or plagiarism.

Protect to discover

For more details consult the KNH- UoN ERC website **http://www.erc.uonbi.ac.ke**

Yours sincerely,



PROF. M. L. CHINDIA
SECRETARY, KNH-UoN ERC

c.c. The Principal, College of Health Sciences, UoN
The Director, CS, KNH
The Chairperson, KNH- UoN ERC
The Assistant Director, Health Information, KNH
The Director, School of Nursing Sciences, UoN
Supervisors: Dr. Abednego Ongeso (School of Nursing Sciences, UoN)
Dr. Joyce Jebet (School of Nursing Sciences, UoN)

Appendix II. NACOSTI Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **153006**

Date of Issue: **21/July/2020**

RESEARCH LICENSE

This is to Certify that Miss.. ANNE NJERI NYAGAH of University of Nairobi, has been licensed to conduct research in Machakos on the topic: ASSESSMENT OF QUALITY OF POSTNATAL CARE AMONG MOTHERS WITHIN 24-48 HOURS OF DELIVERY IN POSTNATAL WARDS AT MACHAKOS COUNTY REFERRAL HOSPITAL, KENYA for the period ending : 21/July/2021.

License No: **NACOSTI/P/20/5860**

153006

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix III Authorization letter for data collection.

REPUBLIC OF KENYA

GOVERNMENT OF MACHAKOS COUNTY
DEPARTMENT OF HEALTH AND EMERGENCY SERVICES
Office of the County Director of Medical Services

Machakos Highway
P.O. Box 2574-90100
Machakos, Kenya
Telephone: +254 -44-20575
Fax: 254-44-20655

REF: **DHES/DMS/RESEARCH/2020/27**

23rd July 2020

Principal Investigator
ATTN: **Anne Njeri Nyaga**
University of Nairobi
Reg. No. H56/11278/2018

Dear Anne,

RE: LETTER OF AUTHORIZATION FOR CONDUCTING PROPOSED RESEARCH

The Department of Health and Emergency Services, Machakos County is keen to collaborate in your study: **'Assessment of Quality of Postnatal Care among Mothers within 24 - 48 hours of Delivery in Postnatal Wards at Machakos County Referral Hospital, Kenya.'**

Note is taken of the Ethical approval from the KNH - UON Ethics & Research Committee (KNH-UoN ERC) Ref. KNH-ERC/A/190 dated 26th June 2020 as well as the Research License from the National Commission for Science, Technology & Innovation number **NACOSTI/P/20/5860** dated 21st July 2020.

You are hereby authorized to proceed with the research and urged to share the findings with the Department of Health and Emergency Services; Machakos County, through this office.

DEPARTMENT OF HEALTH & EMERGENCY SERVICES
DIRECTOR
23 JUL 2020
MEDICAL SERVICES
GOVERNMENT OF MACHAKOS COUNTY

Sincerely,

Dr. Jonathan Nthusi
County Director – Medical Services

cc: County Executive Committee Member – Health & Emergency Services
Chief Officer – Medical Services
Medical Superintendent, Machakos Level 5 Hospital

Appendix IV: Informed Consent

Title of the study: Assessment of the quality of postnatal care among mothers within 48 hours of delivery in postnatal wards at Machakos County Referral hospital, Kenya.

Researcher: Anne Njeri Nyagah (Master of Science in Nursing (Midwifery and obstetric nursing) student, Year II)

Institution of Study: University of Nairobi

Introduction to the study

You are invited to give information for the filling of questionnaire as a part of a research study, carried out by Anne Njeri Nyagah who is a student pursuing a Master of Science in Nursing (Midwifery), at the University of Nairobi. The research is being carried out in postnatal wards (12, 13).

This consent form gives you information about the study, the risks and benefits, and the process will be explained to you. Once you understand the study, and if you agree to take part, you will be asked to sign or use your thumb finger to put a mark (thumbprint) on the consent form.

Purpose of the study:

The main purpose of this research study is to assess the quality of postnatal care among mothers within 48 hours of delivery in postnatal wards at Machakos County Referral hospital, Kenya.

Time

The questionnaire filling will take approximately 25-30 minutes through the guidance of the researcher or the assistant while the focused group discussion will last for approximately 45-60 minutes.

Study Objective

The specific objectives will be: to establish the socio-demographic characteristics of mothers delivering in Machakos county referral Hospital (MCRH); to assess the quality of nursing care specific to postnatal mothers offered within 24-48 hours of delivery in MCRH, to determine the quality of physical comfort during care in postnatal wards and the experiences of the postnatal mothers within 24-48 hours of delivery at MCRH.

Benefits of the study

There are no direct benefits for you as an individual participant. However, the findings of this study can be used by the institution to come up with policies/guidelines or improve on the existing quality of the postnatal care among mothers within 24-48 hours of delivery which can help reduce maternal and neonatal mortality.

Risks

There are no directly foreseen risks for you participating in this study. If there are any questions you do not want to answer, you skip them. Also, you have the right to decline giving information.

Confidentiality

Data, including questionnaires and files from the study, will be kept in locked cabinets during the study. Your data will be labeled with your study code, not your name. Your identity will be kept confidential. Any relevant additional information you will volunteer to offer to the researcher will remain confidential and will only be disclosed with your permission.

Questionnaire Procedure

The questionnaire will be researcher-administered and you will be required to understand the questions before answering. The questionnaire is numbered (coded) thus you will not be required

to give any personal information. The questionnaire contains both open and close-ended questions. The questionnaire is divided into different sections.

Voluntary Participation and Withdrawal

Remember, your participation is entirely voluntary. Should you change your mind, you have the right to drop out at any time without facing any consequences. You may skip questions or stop participating at any time.

Sharing the results

The results of this study may be presented during scientific and academic forums and may be published in scientific journals and academic papers

Contact Person

If you have any further questions during or after the research feel free to contact the investigator, the supervisor or the KNH/UON Ethics and Research Committee on the contacts given below.

1. **Principal Investigator**

Name: Anne Njeri Nyagah
Phone No. +254 720 294 759
Email: nyagahanne@yahoo.com
Physical Address: School of Nursing Sciences
The University of Nairobi, College of Health Sciences
Kenyatta National Hospital Campus

2. **Supervisors**

Name: Dr. Joyce Jebet
Phone No. +254 721 475 165
Email: jjcheptum@gmail.com
Physical Address: School of Nursing Sciences
The University of Nairobi, College of Health Sciences
Kenyatta National Hospital Campus

Name: Dr. Abednego Ongeso
Phone No. +254 720 775 815
Email: aongeso@gmail.com
Physical Address: School of Nursing Sciences

The University of Nairobi, College of Health Sciences
Kenyatta National Hospital Campus

3. Ethics Committee

Prof. M.L. Chindia,
The Secretary,
KNH/UON Ethics and Research Committee
Tel No. +254 726300-9
Email: uonknh_erc@uonbi.ac.ke

Physical Address: School of Pharmacy Grounds

The University of Nairobi, College of Health Sciences
Kenyatta National Hospital Campus

Appendix V: Fomu ya Idhini (Swahili version)

Kichwa cha utafiti: Tathmini ya ubora wa utunzaji wa akina mama baada ya kuzaa kati ya masaa 48 ya kujifungua katika wodi za baada ya kujifungua katika hospitali ya rufaa ya Kaunti ya Machakos, Kenya.

Mtafiti: Anne Njeri Nyagah (Mwanafunzi WA Shahada ya Uuguzi, Mwaka WA Pili)

Taasisi ya Utafiti: Chuo Kikuu cha Nairobi

Utangulizi wa utafiti

Umealikwa kujaza dodoso Kama sehemu ya utafiti, unaofanywa na Anne Njeri Nyagah ambaye ni mwanafunzi wa shahada ya Uuguzi (Ukunga) (Master of Science in Nursing (Midwifery), katika Chuo Kikuu cha Nairobi. Utafiti unafanywa katika wadi za baada ya kuzaa (12, 13, 4B).

Fomu hii ya idhini inakupa habari juu ya utafiti, hatari na faida, na mchakato huo utaelezwa kwako. Mara tu ukielewa uchunguzi, na ikiwa unakubali kushiriki, utaulizwa kutia saini au utumie kidole chako kuweka alama (kuchapishwa Kwa kidole) kwenye fomu ya idhini.

Lengo la Utafiti:

Kusudi kuu la utafiti huu ni kutathmini ubora wa utunzaji wa baada ya kuzaa kati ya akina mama kati ya masaa 24- 48 baada ya kujifungua katika wadi za kujifungua katika hospitali ya Rufaa ya Kaunti ya Machakos, Kenya.

Muda

Kujaza dodoso itachukua takriban dakika 15-25 kupitia mwongozo wa mtafiti au msaidizi.

Malengo Maalum

Malengo maalum yatakuwa: kuamua tabia za kijamii na idadi ya akina mama wanaojifungua katika Hospitali ya Rufaa ya Machakos; kutathmini uzoefu wa akina mama wa kujifungua kati ya masaa 48 ya kujifungua katika Hospitali ya Rufaa ya Kata ya Machakos na kukagua huduma za

baada ya kujifungua zinazotolewa ndani ya masaa 24- 48 ya kujifungua katika Hospitali ya Rufaa ya Kata ya Machakos.

Faida za utafiti:

Hakuna faida ya moja Kwa moja kwako Kama mshiriki WA mtu binafsi. Walakini, matokeo ya utafiti huu yanaweza kutumiwa na taasisi kupata sera/miongozo au kuboresha juu ya ubora uliopo wa huduma ya kuzaa kati ya akina mama kati ya masaa 24- 48 baada ya kujifungua ambayo inaweza kusaidia kupunguza vifo vya akina mama na watoto wachanga.

Hatari

Hakuna hatari za moja Kwa moja zinazotarajiwa kwako unaposhiriki katika utafiti huu. Ikiwa Kuna maswali ambayo hutaki kujibu, unaweza yawacha wazi. Kwa kuongezea, una haki ya kukataa kutoa habari.

Usiri

Data, pamoja na dodoso na faili kutoka kwa utafiti huu itawekwa kwenye makabati yaliyofungwa wakati wa masomo. Data yako itakuwa na lebo na nambari yako ya kusoma sio jina lako. Kitambulisho chako kitakuwa siri. Maelezo yoyote muhimu ambayo utajitolea kumpa mtafiti itabaki kuwa ya siri Na itafunuliwa tu Kwa idhini.

Utaratibu wa Dodoso

Utajijazia mwenyewe dodoso hili na utahitajika kuelewa maswali kabla ya kuyajibu. Karatasi ya maswali imehesabiwa (iliyowekwa alama) Kwa hivyo hautalazimika kutoa habari yoyote ya kibinafsi Kama kuandika jina lako. Dodoso lina maswali yote ya wazi na ya karibu. Dodoso linagawanywa katika sehemu tofautti.

Ushiriki wa Hiari na Kujiondoa

Kumbuka, ushiriki wako ni wa hiari kabisa. Iwapo utabadilisha mawazo yako, unayo haki ya kuacha kujaza dodoso hili wakati wowote bila kukabiliwa na matokeo yoyote. Unaweza kuruka maswali au kuacha kushiriki wakati wowote.

Kushiriki Matokeo

Matokeo ya utafiti huu yanaweza kuwasilishwa wakati wa vikao vya kisayansi na kitaaluma na inaweza kuchapishwa katika majarida ya kisayansi na karatasi za kitaaluma.

Watu WA Mawasiliano

Ikiwa una maswali yoyote wakati wa au baada ya utafiti jisikie huru kuwasiliana na mpelelezi, wasimamizi au Kamati ya Maadili na Utafiti ya KNH/UON kwenye anwani ulizopewa hapa chini.

1. **Mtafiti Mkuu**

   Jina: Anne Njeri Nyagah
   Nambari ya Simu. +254 720 294 759
   Barua Pepe: nyagahanne@yahoo.com
   Anwani: Shule ya Kisayansi ya Uuguzi
   Chuo Kikuu cha Nairobi, College of Health Sciences
   Bewa la Hospitali kuu ya Kenyatta

2. **Wasimamizi**

   Jina: Dkt. Joyce Jebet

   Nambari ya Simu. +254 721 475 165

   Barua Pepe: jjcheptum@gmail.com

   Anwani: Shule ya Kisayansi ya UUguzi

   Chuo Kikuu cha Nairobi, College of Health Sciences

   Bewa la Hospitali kuu ya Kenyatta

Jina: Dkt. Abednego Ongeso

Nambari ya Simu. +254 720 775 815

Barua Pepe: aongeso@gmail.com

Anwani: Shule ya Kisayansi ya UUguzi

Chuo Kikuu cha Nairobi, College of Health Sciences

Bewa la Hospitali kuu ya Kenyatta

3. **Kamati ya Maadili**

Prof. M.L. Chindia,

Katibu,

Kamati ya Maadili na Utafiti ya KNH/UON

Nambari ya Simu. +254 726300-9

Barua Pepe: uonknh_erc@uonbi.ac.ke

Anwani: School of Pharmacy Grounds

Chuo Kikuu cha Nairobi, College of Health Sciences

Bewa la Hospitali kuu ya Kenyatta

Appendix VI: Questionnaire

TITLE: ***Assessment of the quality of postnatal care among mothers within 24-48 hours of delivery in postnatal wards at Machakos County Referral hospital, Kenya***.

Serial Number …… Date ……

INSTRUCTIONS

Please follow the instructions below

i. Please tick in the appropriate response in the space provided

ii. Do not indicate your name anywhere in the questionnaire.

SECTION A: Socio-Demographic Variables

1. Age in years_____
2. What is your marital status?

   [ ] Single

   [ ] Married

   [ ] Divorced

   [ ] Separated

3. What is you highest level of education?

   [ ] Primary

   [ ] Secondary

   [ ] College

[ ] University

[ ] None

4. Residence

[ ] Urban

[ ] Rural

5. What is your occupation?

[ ] Civil Servant

[ ] Private institution employee

[ ] Self employed

[ ] Informal employment

[ ] Unemployed

[ ] Others (specify) _____

6. What is your mode of delivery?

[ ] Spontaneous Vertex Delivery

[ ] Cesarean Section

7. Obstetrics Score

Para _____

Living children_____

Abortions_____

Still births _____

8. Reason for choosing the hospital?

[ ] Modern facilities

[ ] Referral from another hospital/clinic

[ ] Quality care offered by the Nurses

[ ] Convenience

[ ] Availability of good doctors

[ ] Any other, please specify _____

SECTION B: Nursing care specific to postnatal

9. Please rate on the quality of the following nursing care where

Excellent (5), Very good (4), Good (3), fair (2), Poor (1), services not given (0)

	ITEM	**Was this care offered Y/N**	**I**	**2**	**3**	**4**	**5**
a.	Were you given information regarding personal hygiene during the postnatal period?						
b.	Were you assisted in the perineal toilet and informed how to keep my perineum hygienic.						
c.	Were you assisted in early ambulation?						

d.	Were your vital signs checked regularly?						
e.	Were you explained to on how to take care of breasts and minor breast problem in the postnatal period & its management?						
f.	Were you taught on uterine massage and involution						
g.	Were you Informed regarding nutrition the postnatal period?						
h	Were you Informed regarding sleep and rest in the postnatal period?						
i.	Were your medication/treatment administered at a proper time						
j.	Were you taught on lochia flow and how to detect excessive bleeding during the puerperal period						
k.	Were you advised about postnatal exercise?						
l.	Were you informed on FP methods & importance of family planning and postnatal follow up visits?						
m	Were you told how to detect signs and symptoms of infection						
n.	Were you assisted with chlorohexidane cord care cord						
o.	Were you taught on the importance of colostrum and exclusive breastfeeding						
p.	Were you assisted to position your baby during and after feeding and was taught to burp after breastfeeding.						

q.	Were you taught me to detect sign and symptoms of neonatal danger signs						
r.	Were you informed on emptying the bladder every 30 minutes and its importance						
s.	Were you educated about immunization						

10. Was the counselling offered individually, group or both?

[ ] Individually

[ ] Group

[ ] Both

11. Were chart and booklets used to confer the messages clearly?

[ ] Yes NO [ ]

12. Did you feel that nurse/midwives conveyed messages in a language that you understand?

[ ] Yes NO [ ]

13. Please indicate **Yes** or **No** in the appropriate box whether the midwife/nurse performed the following on you:

	Assessed/monitored on:	Yes	No
Client Monitoring post-delivery			
a.	Was your blood pressure and pulse rate taken within one hour after delivery		
b.	Was your blood pressure and pulse rate taken 6 hours after delivery		
c.	Was your temperature monitored regularly		
d.	Was your respiratory rate monitored regularly		
Physical assessment post-delivery			
a.	Checked for excessive bleeding within 1 hour of delivery		
b.	Were you done head to toe examination and how many times was it done		
c.	were your breast examined		
d.	Was your Cs scar examined(where applicable), how many times		
e.	Was the condition of the episiotomy examined(where applicable)		
f.	Were you done an abdominal examination		
g.	Were you examined for calf tenderness		

14. Did the midwife/nurse check the following on the baby?

	Assessed/Monitored on:	Yes	No	Don't know
a.	Check baby's general condition			
b.	Check Baby's temperature			
c.	Check the Umbilical cord			

d.	Baby's breath per minute			
e.	Baby's feeding method			
f.	Passed stool/Urine			
Total				

15. Was an informed consent sort from you before any examination was performed on you or the baby?

[ ] Yes [ ] No

16. Were you explained the various examination procedure done on you and baby and their significance?

[ ] Yes [ ] No

17. Was privacy maintained during the various procedures performed on you and the baby?

[ ] Yes [ ] No

SECTION C: QUALITY ON PHYSICAL COMFORT

17. How would you rate your pain within 24-48 hours post-delivery in a scale 0-10 where

[ ] 0 is no pain

[ ] 1-3 mild pain

[ ] 4-6 moderate pain

[ ] 7-9 very severe pain

[ ] 10 worst pain

18. Please rate how you were impressed by the state of comfort offered.

Where Excellent (5), Very good (4), Good (3), fair (2) Poor (1), service not given (0)

S/NO.	**ITEM**	**0**	**1**	**2**	**3**	**4**	**5**
a.	Were you offered help when needed						
b.	Were the bed and beddings clean and comfortable						
c.	Were you given pain killers and was the pain adequately controlled						
d.	Was the ward environment was clean and quiet at night						
e.	Was there food and a hot beverage in the ward throughout						

Appendix VII: Focused Group Discussion Guide.

Date of discussion:	**Moderator:**
Venue:	**Note-taker:**
Time start:	**No. Participants at the start:**
Time stop:	**No. Participants at stop :**
Script code:	

Introduction

My Name is ***Anne Njeri Nyagah***, a student at the University of Nairobi pursuing a Master of Science in Nursing (Midwifery). You have been selected to participate in this interview as a postnatal mother who delivered during the last 24-48 hours in Machakos Referral hospital. The study is titled "assessment of the quality of postnatal care among mothers within 24-48 hours of delivery in postnatal wards at Machakos County Referral Hospital, Kenya."

This will be an interactive session and all the group members should feel free to give their inputs in each question. You will be required to sign the attendance sheet provided

PART B: Participants Demographic Data

S/No	Identity Number Given	Age	Marital status	Mode of delivery	No. of Pregnancies	Occupation	No. of deliveries
1							
2							

3							
4							
5							
6							
7							
8							
9							
10							

1. How would you describe your interaction with nurses/midwives/doctors offering services to you and your family within 48 hours of delivery? *(Probe) if the patients were oriented in the ward set up, if the health workers introduced themselves, if the providers allowed questions from patients and their families and answered them promptly and with positive attitude if the information shared to patient was consistent and in simple language, find out if they felt health care workers took enough time to sort their concerns and Find out what the patients liked or disliked about the health care providers*
2. Did you feel the examination/assessment offered to you and the baby have any benefit? *(Probe)What assessments were carried out, how often they were carried out, what assessments they felt were more beneficial, and Areas they felt neglected*
3. What emotional support did you receive*? (probe)determine the types, find out if they were informed of mood changes during the postnatal period if they felt safe to express their challenges to the doctors/nurses/midwives*
4. Did you receive any contradictory information on postnatal care?

Which information did you receive?

Which information was contradictory?

5. Were there factors that may have made a difference to your experience on postnatal care? *(Probe) how the factors influenced the experience*
6. What areas would you want to be changed to better postnatal care within 24-48hours of delivery*? (probe)Why*
7. What did you dislike in the postnatal care offered during your stay?
8. How would you rate the quality of your postnatal care?

Appendix VIII: Code Book

QUALITY OF POSTNATAL CARE AMONG MOTHERS WITHIN 24-48 HOURS OF DELIVERY IN POSTNATAL WARDS AT MACHAKOS COUNTY REFERRAL HOSPITAL, KENYA

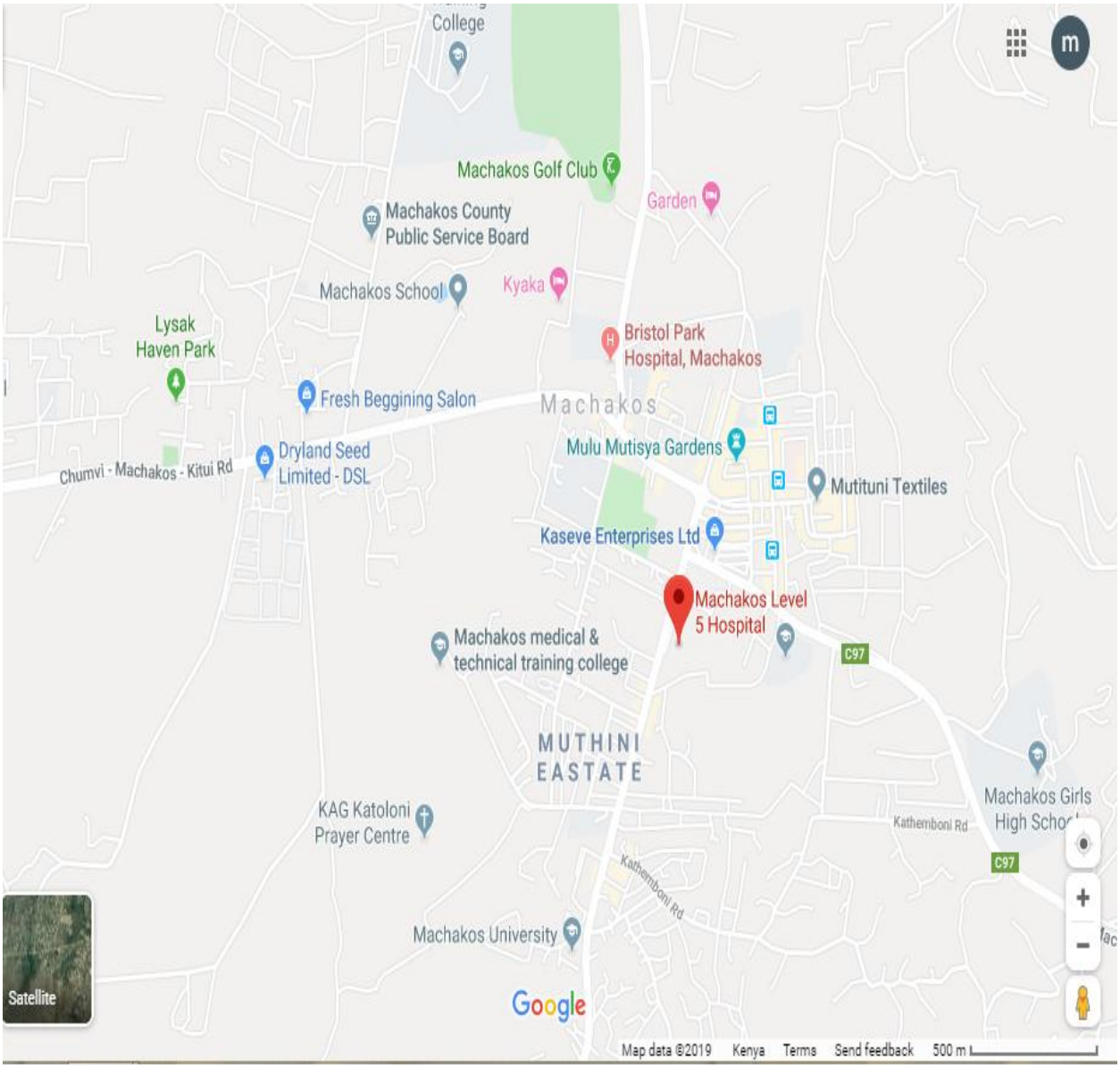
Theme	*Sub-theme*	*Description*	*Examples from Transcripts*
Client-provider interaction	Communication	Participants describe unpleasant experiences while communicating with the care provider	I came on Tuesday first, I was given a prescription for medication and was told to go and buy. Then I asked the one who was attending to me, 'the governor told us that the hospital has drugs' he told me 'go buy the drugs or delay there'. [Respondent-5]. Now who will you ask? Even when you tell the doctor, I feel this side is blocked and I'm in pain, they ask you 'now what do you want me to do?' [Respondent-1] "What they should change is that when you ask the doctor something, they should respond well not rudely and you came to seek for help from them, and that's what they have been employed to do." [Respondent-8]
	Timing of action	Participants describe their experienced with receiving care requested/required within the acceptable bounds of time	I left my belongings somewhere else, when I asked who would bring them she said 'you wait they'll be brought' and you don't have clothes to change and you have a child. I sat there until 10 o'clock at night, that's when my belongings were brought, from 2pm." [Respondent-1] "Mine (experience) was okay. When I call them…it was yesterday, when I called them, they came very quickly and I did not see if there was any issue." [Respondent-2]

			I was brought my child immediately after drinking the porridge. [Respondent 6] First, I asked for water and they brought, after a while I called them and said the baby is coming out; they came very quickly. [Respondent 7]
	Lack of empathy	Participants describe being treated without empathy while under the custody of healthcare providers	I told them I was in pain and they said that I'm not in pain I'm just pretending. Then they took me back to bed. [Respondent-3] I have been here for three days. If you tell them this is how I feel, they tell you go and sleep. When you tell them, 'I'm in pain' (they respond)'continue being in pain'. You see there's a problem there. [Respondent-7]
	Attitude of healthcare workers	Participants share feelings on healthcare workers attitudes noting the difference in personalities	"After giving birth, let's say there is that blood that comes out, they will remove that grudgingly like they are abusing you, you have made the bed dirty… so, and you really don't know what the issue is." [Respondent-8] "(They) have treated me well but you know people are not same at heart, everyone has his own, there are those that are hard-hearted, there are those that are soft-hearted, but for me…those that I've talked to are good at heart and they've treated me well." [Respondent-3] "When she checks your book and see you only have girls, she tells you 'even that one that is coming is also just a girl', now what is that?!". [Participant 5]
Emotional support		Participants describe when they felt they were not emotionally supported by the healthcare workers and offered	"When you get here, they should ask you what your problem is and you tell them, so after you tell them, they should not leave you alone to suffer, because you are the one who knows how you are feeling." [Respondent-7].

		suggestions for improvements	"What they should change is that when you ask the doctor something, they should respond well not rudely and you came to seek for help from them, and that's what they have been employed to do." [Respondent-8] "Mine (experience) was okay. When I call them…it was yesterday, when I called them, they came very quickly and I did not see if there was any issue." [Respondent-2] "What I can say is that those I met were not bad, they treated me well. Even when I started with them down there, they followed up with me until I was put in bed." [Respondent 6]
Care provided	Physical assessment and vital signs monitoring	Participants report on lack of comprehensive physical assessments or vital signs monitoring done	"Only the pressure and the medicines are given then you go back to bed …They don't examine the babies, I haven't seen". [Respondent-1] "No, they were not examined" [Respondent-5] "Only pressure was taken." [Respondent 5]
	Improvements in care	Participants share comparisons of current care provided and previous care noting the changes in current care	But it's not like before, you know before this place was bad, nowadays they bring porridge you drink, after a while tea is brought, at one o'clock…we were brought porridge down there (labour ward), up here (postnatal ward) we stayed for a while and porridge was brought again, at 10am we were brought tea, at 1pm rice, after a while again tea was brought, so I saw it was not like before. [Respondent 2] "When you are from the ward or theatre and you are brought to this bed and you have a baby and there is no net and there are mosquitoes, that's the bad thing that I saw, I don't know how this problem

			will be addressed… the beds should have nets because of the babies."
Overall experience with postnatal care		Participants share their perceptions on the overall experience with postnatal care	"I can say I was well attended to because I came yesterday morning and the one who received me was a man and one nurse. So, I saw that they helped me …." [Participant 5] "Mine was a bit hard because you can start feeling pain and you tell them (healthcare providers) this is what I feel and they tell you to go to sleep, now when they see you are getting worse that's when they come...". [Participant 2]

Appendix IX: Map of the Study Area



Adapted from Google Maps

Originality Report

- Processed on: 01-Dec-2020 19:15 +08
- ID: 1461297469
- Word Count: 16757
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QUALITY OF POSTNATAL CARE AMONG MOTHERS WITHIN 24-48 HOURS OF DELIVERY IN POSTNATAL WARDS AT MACHAKOS COUNTY REFERRAL HOSPITAL, KENYA By Anne Nyagah

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