DEGREE OF COMPLETENESS OF PARTOGRAPH AND ITS EFFECTS ON OBSTETRIC OUTCOME AMONG WOMEN ATTENDED IN LABOR WARD AT MNAZI MMOJA REFERRAL HOSPITAL, ZANZIBAR

Dr. SABRINA BASHIR MOHAMED.

A DISSERTATION REPORT SUBMITTED IN (PARTIAL) FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MEDICINE IN OBSTETRICS AND GYNECOLOGY OF KAIRUKI UNIVERSITY.

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KAIRUKI UNIVERSITY

DEPARTMENT OF OBSTETRIC AND GYNECOLOGY

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JUNE, 2024

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for examination by Kairuki University a dissertation **"DEGREE OF COMPLETENESS OF PARTOGRAPH AND ITS EFFECTS ON OBSTETRIC OUTCOMES AMONG WOMEN ATTENDED IN LABOR WARD AT MNAZI MMOJA REFERRAL HOSPITAL ZANZIBAR"** in (partial) fulfillment of the requirements for the degree of master of Medicine in Obstetrics and Gynecology of Kairuki University.

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Signature:

17/10/2025

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Date:

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Date:

DECLARATION AND COPYRIGHT

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

As a student researcher enrolled at KU, I understand that plagiarism is a serious offense; therefore, I confirm that the contents of this research are entirely my own work.

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Mohamed.

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DEDICATION

I dedicate this dissertation to my loved ones whose unwavering support has been my anchor. I am deeply grateful to my devoted parents, whose words of encouragement and insistence on perseverance continue to resonate with me. To my sisters, Barke, and Maryam, and my brother Kibeki, your steadfast presence has been a source of strength.

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TABLE OF CONTENTS

ABSTRACT

Background: The degree of completeness of the partograph significantly affects birth outcomes for both mothers and neonates. This study evaluated 422 partographs from women who gave birth at Mnazi Mmoja Referral Hospital to examine its impact on maternal and neonatal health outcomes. Efficient utilization of the partograph during labor has the potential to substantially reduce maternal mortality linked to childbirth

Objective of the study: To assess the use of partographs by healthcare providers and their effect on birth outcomes in the management of labor among women delivering at Mnazi Mmoja Referral Hospital, Zanzibar, Tanzania.

Methodology: This study utilized a retrospective design to evaluate the completeness of partographs from women who delivered at MMH Zanzibar. The assessment involved descriptive statistics, chi-square analysis, and logistic regression for data analysis.

Results: The study included an analysis of 422 partographs, revealing an overall completeness rate of 57(13.5%). Among these, delivery records were most frequently recorded (74.4%), followed by fetal records (31.8%). Sociodemographic and maternal condition parameters were the least recorded, appearing in only 15.9% of partographs. There was a significant association between partograph incompleteness and cesarian deliveries (AOR=3.9; 95% CI=(1.0,15), overall maternal complication (AOR=12,95%CI(1.3,19)) and hospitalization between 1 to 3 days (AOR=7.8,95%(1.8,11.1).on the other hand there was a significant association between incomplete partographs and occurrence of birth asphyxia(

(OR=1.5,95%(1.1-1.9)). Furthermore, completed partographs showed a trend towards higher Apgar scores (>7) (OR=0.2,95%(0.1-0.41)).

Conclusions: This study highlights the crucial role of the partograph in reducing maternal and fetal mortality and morbidity, and preventing complications such as prolonged labor and postpartum hemorrhage. However, there is inadequate documentation of partograph parameters, indicating insufficient labor progress monitoring and potential adverse pregnancy outcomes. Regular refresher courses for healthcare workers, and supportive supervision.

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABBREVIATION

ACOG - American College of Obstetrics and Gynecology.

AIDS - Acquired Immune Deficiency Syndrome.

AVD - Assisted Vaginal Delivery.

BP - Blood Pressure.

C/S - Cesarean Section.

DDI - Decision Delivery Interval.

ECS - Emergency Cesarean Section.

FHR - Fetal Heart Rate.

HKMU - Hubert Kairuki Memorial University.

MMRH - Mnazi Mmoja Referral Hospital.

MDG - Millennium Development Goal.

MMR - Maternal Mortality Rate.

MTUHA - Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya.

NMR - Neonatal Mortality Rate.

NICE - National Institute of Health and Clinical Excellence.

NICU - Neonatal Intensive Care Unit.

NRFHR - Non-Reassurance Fetal Heart Rate.

PR - Pulse Rate.

PPH - Postpartum Hemorrhage.

SVD - Spontaneous Vaginal Delivery.

SPSS - Statistical Package of Social Science.

SOPs - Standard Operative Procedures.

TAH - Total Abdominal Hysterectomy.

TDHS - Tanzania Demographic Health Survey.

WHO - World Health Organization.

OPERATIONAL DEFINITIONS OF KEY VARIABLES

Partograph: a combined graphical display that monitors the fetus's and mother's labor progress over time on a single sheet of paper.

Complete partograph: The fetal, labor and maternal components of the partograph were all fully documented by accepted medical practices.

Incomplete partograph: The partograph's three sections were all recorded, yet only one or two parameters were filled in, or some were overlooked.

Not documented: None of the parameters from the partograph's three sections were documented.

immediate maternal outcome: when there are no complications (hysterectomy, blood transfusion, postpartum hemorrhage, episiotomy, or perineal tear) following a delivery (SVD or CS).

Adverse immediate maternal outcome: when delivery is linked to a hysterectomy, blood transfusion, postpartum hemorrhage, episiotomy, or perineal tear.

neonatal outcome: include neonates with Apgar score of > 7 in 5 minutes.

Adverse neonatal outcomes: include newborns who receive an ICU admission, those who have a fresh stillbirth, and those who have an Apgar score of less than seven in five minutes.

CHAPTER ONE:

INTRODUCTION

1.1 Background of the study:

The Partograph is a graphic log that shows the mother's and the fetus's pertinent information together with the progression of labor(1). It features action and alert lines that prompt a trained birth attendant to start additional interventions while keeping an eye on the status of labor(2).

One of the most important tools for managing mother and fetal health during labor and preventing unfavorable outcomes for the newborn, such as stillbirth, low birth weight, and hypoxia of the newborn, is the appropriate use of partographs (2).

Worldwide, 1000 women die every day from pregnancy-related and delivery-related preventable causes; 99 percent of these maternal deaths occur in low- and middle-income countries. Africa and some regions of Asia bear the brunt of this burden (3).

According to data from France, where severe maternal morbidity of 1.48% and neonatal poor result of 10.4% were noted, unfavorable birth outcomes continue to rank among the top causes of maternal newborn mortalities in affluent nations (4). According to reports, 3.1 to 4.2 neonatal deaths in Ireland are attributed to neonatal (5).

196,000 maternal deaths per year were recorded in Sub-Saharan African nations, while 443,000 maternal deaths annually are recorded in eastern Africa, where rates of maternal death are still among the highest in the continent despite a downward trend. The primary cause of maternal and neonatal mortality globally is unfavorable birth outcomes, which are more prevalent in the African area (6). Melaku and

colleagues observed that among Ethiopian women who gave birth through induced labor, 41% of those cases resulted in unfavorable neonatal outcomes (7). With 41 deaths per 1000 live births, neonatal mortality is still among the worst in the Eastern African region.

Neonatal death rates in Eastern Africa continue to be among the highest, with 41 per 1000 live births. Maternal newborn morbidity and mortality remain a significant public health issue in Tanzania. The Tanzania Demographic Health Survey (TDHS) estimates that there are 524 maternal deaths for every 100,000 live births, which indicates that the rate of prenatal mortality is still high. Conversely, Tanzania continues to have high and stable rates of newborn mortality, with an estimated 24 fatalities for every 1,000 live births(8).

According to Deborah and colleagues' study carried out in north Tanzania, adverse delivery outcomes such as stillbirth, respiratory distress, preterm, and asphyxia remain the primary cause of infant mortality in Tanzanians (9).

Adverse birth outcomes among mother's relatives can be caused by several variables, including low socioeconomic position, chronic illnesses, and prenatal diseases (10). Conversely, there are interventions connected to many aspects of labor progress, like partograph partial completion, induction of labor, and protracted labor, among others (11). Moreover, it has been claimed that obstructed labor accounts for about 8% of maternal mortality globally (12).

In Uganda and Rwanda, this figure is 26% and 12.3%, respectively, of maternal deaths. By early detection of difficulties such as uterine rupture, prolonged labor, and obstructed labor, among other related issues, close monitoring of labor progress with

a partograph has demonstrated benefits in the decrease of morbidity and mortalities related to labor (13).

On the other hand, a number of publications have noted partograph completeness as one of the factors influencing delivery outcomes. Partograph use was linked to fewer maternal blood losses and infant injuries in a Ghanaian study where 25% of partographs were completed(14). A study carried out in western Uganda also found that a newborn with a mother who underwent a standard fetal monitoring during labor had an excellent Apgar score(15).

Nonetheless, research on partograph completeness and its relationship to birth outcomes is still lacking, particularly in low-income nations like Tanzania.

1.2 Problem Statement.

Incomplete partograph usage has been linked to delays in decision-making during labor, stemming from inadequate monitoring of labor progression. This has been associated with various adverse outcomes including fetal distress, increased neonatal NICU admissions, obstructed labor, higher rates of cesarean sections, and elevated maternal and neonatal mortality and morbidity (16).

In Southeast Asia, findings found that implementing the partograph helped reduce prolonged labor by 67.6 % decreased the need for oxytocin augmentation from 20.7% to 9.1%, lowered cesarean section by approximately 18.9 %, and reduced intrapartum stillbirths from 0.5% to 0.3% (17). However, in low-income countries, Tanzania included , despite the high rate of incompleteness reported in different literature, in Ghana,Malawi, Ethiopia, Uganda and Tanzania , rates of 40%,65.3%, 46.6%,86.7% AND 61% respectively (18,19,21).Most of the available literature was more focused on rate and magnitude of completeness of partographs and did not

correlate with birth outcome (22,23). Moreover in Tanzania, studies like the one in Amana Regional Referral Hospital, which analyzed only 77 partographs due to documentation gaps, did not provide comprehensive data on birth outcomes (25).

This study aimed to determine the magnitude of partograph completeness and related neonatal and mother birth outcome among pregnant mother who delivered at Mnazi Mmoja Referral Hospital, Zanzibar.

1.3. Objectives of the study.

1.3.1. Broad objective.

To assess the use of partographs by healthcare providers and related birth outcomes in the management of labor among women who delivered at Mnazi Mmoja Referral Hospital, Zanzibar.

1.3.2 Specific Objectives.

1. To determine the level (percentage) of completeness of partographs used by healthcare providers in the management of labor.
2. To determine the association between partograph completeness and 24-hour maternal outcome.
3. To determine the association between partograph completeness and 24-hour neonatal outcome.

1.4. Rationale of the study

Several studies were conducted to highlight the benefit of partograph use during labor progression in Zanzibar Island. However, little is known regarding the relationship between partograph completeness and delivery outcomes in Zanzibar, more specifically at Mnazi Mmoja Referral Hospital.

The findings also assist in exposing the characteristics of the partograph that require the attention of clinical and policy decision-makers to improve current practices as well as SOPs and guidelines.

Findings from this study may help to inform policymakers, early childhood stakeholders, and the government on how to ensure that children grow, develop, and reach their full potential. Awareness of the existing gap in the completeness of the partograph may help ensure proper partograph usage and utilization to fulfill the 2030 Sustainable Development Goals of 12/1000 and 70/100,000 live births, respectively (31).

1.5 Research question.

1. What is the level of completeness of partographs used by healthcare providers for the management?
2. What is the association between partograph completeness and 24-hour maternal outcome?
3. What is the association between partograph completeness and 24-hour neonatal outcome?

1.5.1 Research Hypothesis

There is an association between partograph completeness and obstetric outcomes among mother who at MM referral hospital.

CHAPTER TWO:

LITERATURE REVIEW.

2.1 Level of completeness of partograph used by healthcare providers for the management of labor.

The partograph, initially introduced by Friedman (1955), is a graphical tool utilized to monitor labor progression and ensure maternal and fetal wellbeing. It consists of three core components, as revised by WHO: fetal condition, labor status, and maternal health indicators. These elements are systematically evaluated and plotted over time during the course of labor (1,30,31).

Fetal monitoring involves assessing fetal heart rate (FHR) every 30 minutes in the first stage of labor and every 15 minutes in the second stage. Additionally, the status of amniotic fluid (clear, meconium-stained, or bloody) is recorded to indicate potential fetal distress or maternal/fetal bleeding (placenta previa or abruption) (32).

The assessment of labor progression includes counting contractions every 10 minutes and recording their duration, typically through abdominal palpation every 30 minutes. Cervical dilation is evaluated via vaginal examination every four hours, with attention to fetal descent and head molding (30,33).

Maternal health parameters are regularly monitored, including pulse rate (PR) every 30 minutes, blood pressure (BP), temperature, urine output, and dipstick analysis for protein, ketones, and glucose. Administration of fluids and medications like oxytocin is also documented (13,34).

Despite its importance, research indicates significant shortcomings in partograph completion globally. Studies in various regions reveal inconsistent recording of key

parameters, such as fetal heart rate, cervical dilation, uterine contractions, and maternal vital signs (1,35,36). Factors contributing to these deficiencies include inadequate training, lack of guidelines, and high workload in maternity settings, particularly in low-income countries (37).

2.2 Association between partograph completeness and 24-hour maternal outcome.

The incomplete use of the partograph contributes significantly to perinatal and postnatal mortality because it results in inadequate monitoring of labor, leading to prolonged or obstructed labor. Several studies have investigated the impact of completing the partograph on birth outcomes. In Ghana, Florence found that completing the partograph was linked to improved outcomes, including a notable decrease in maternal blood loss during the two weeks following childbirth However, Florence's study did not explore other causes of postnatal hemorrhage such as chronic diseases or placenta previa (38).

Similarly, in India, Penumadu and colleagues reported similar findings, indicating that completing the partograph was associated with better maternal outcomes (1,28). Additionally, in a randomized controlled trial conducted in India, Benazir and collaborators observed significant reductions in the active phase, second stage, and overall duration of labor when using the partograph compared to not using it. This approach also led to more spontaneous vaginal deliveries and decreased reliance on surgical interventions like cesarean sections or forceps deliveries (1,29).

2.3 Association between partograph completeness and 24-hour neonatal outcome.

The effectiveness of partograph completion in improving neonatal outcomes was highlighted in various studies. In Ghana, Florence and colleagues observed fewer instances of low Apgar scores and NICU admissions when the partograph was adequately completed (14). Similarly, Nyamtema et al. in Tanzania found that substandard fetal heart rate monitoring correlated strongly with adverse fetal outcomes (22). In Uganda, proper monitoring of fetal heart rates and cervical dilatation, as shown in a study, was associated with better Apgar scores (20). In Ghana, labor monitored with a partograph was significantly less likely to result in birth asphyxia, with completed partographs further reducing this risk (39).

However, conflicting results exist regarding the impact of incomplete partograph records on perinatal outcomes. Studies in Ghana, Nepal, and Tanzania indicated that incompletely recorded partographs were associated with delivery complications such as hypoxia, intrapartum stillbirths, and low Apgar scores (23,29,35). The WHO multicenter trial supported the use of partographs throughout labor to reduce intrapartum stillbirths, emergency cesarean sections, and labor complications (29). Conversely, a Cochrane analysis suggested that using a partograph did not significantly improve perinatal outcomes compared to labor monitoring without one (40).

It's important to note that inadequate labor monitoring can lead to missed diagnoses of maternal and fetal issues, necessitating timely interventions. Additionally, factors like maternal chronic diseases and healthcare providers' skill levels can influence perinatal outcomes.

CHAPTER THREE

METHODOLOGY

3.1 Study Area.

This research took place at Mnazi Mmoja Referral Hospital Zanzibar (MMRH), the National teaching hospital situated in the Unguja urban district of Zanzibar. MMRH boasts a total capacity of 400 beds, catering to the entire population of Zanzibar. The study specifically focused on the obstetrics and gynecology department, which offers comprehensive outpatient and inpatient services across four wards: antenatal, postnatal, labor, and gynecology, totaling 100 beds.

Within the labor ward, there are 6 delivery beds designed for privacy, along with 4 observation beds post-delivery, a resuscitation unit, and a nurse station. The department features a fully equipped operating theater comprising 5 rooms, including 3 dedicated to obstetric service.

MMRH manages roughly 30% of all facility-based deliveries in Zanzibar, amounting to approximately 14,000 deliveries annually. As of 2023, the hospital reported an in-hospital maternal mortality ratio of 350 per 100,000 live births.

3.1.1 Target Population

All women who delivered at Mnazi Mmoja referral hospital Zanzibar.

3.1.2 Study Population

All women who were in the immediate postnatal period in maternity at MMRH in Zanzibar who meet the inclusion criteria.

3.2 Study Design.

This study was a cross-sectional hospital-based study, which involved the assessment of completeness of partographs among women who delivered at MMRH in Zanzibar during the study period.

3.3 Recruitment and study participants.

Pregnant women received a thorough explanation of the research objectives before being invited to participate, following their provision of written informed consent (see Appendix II). The study included all pregnant women who delivered at MMRH. These women's partographs were collected post-delivery. The partographs were collected and included in the study until the required sample size was achieved.

Information on labor and delivery, extracted from partographs and client files, was verified using a checklist. Nurses and midwives in the labor ward were unaware of the research objectives to prevent any alterations in practice. To ensure this, research assistants were not recruited from the labor ward staff and were not present in the labor ward during the delivery process. All labor ward nurses and midwives were assumed to possess sufficient knowledge and skills in the utilization of partographs and labor monitoring.

3.4 Sample Size Determinations

The sample size for the research was calculated using the Kish Lisle formula (1965) for Cross-sectional studies. Prevalence used was obtained from the study done in Mwanza,

Tanzania which was 50%.

$$n = \frac{Z^2 P (1-P)}{\varepsilon^2}$$

Whereby:

n = Minimum sample size needed

Z = Percentage point of the normal distribution corresponding to the level of confidence. If the level of significance is 95% then Z is 1.96

ε = Maximum likely error/ margin of error i.e. 0.05

P = Prevalence of partogram completeness used was obtained from Nyamtema and colleagues in Tanzania where the rate of completeness was at 50% (19)

Hence the minimum sample size calculated was:

$$n = \frac{1.96 \times 1.96 \times 0.514 (1 - 0.514)}{0.05 \times 0.05} = 384$$

participants

n = 384 participants

To account for those who did not consent from the study or with inadequate information, a calculated sample size was increased by 10% ≈ to 422 study participants.

3.4.1 Data collection procedures.

3.4.2 Data collection tools.

A semi-structured questionnaire (Refer to Appendix II) was used to assess the degree of completeness of the partogram and admission in the maternity Units at Mnazi

Mmoja Referral Hospitals in Zanzibar. The tool was designed after reviewing different literature about partogram completeness and it consisted of four parts:

Part I: level of completeness of sociodemographic and gravida mother information like age of the mother, place of residence, gestational age, and registration number.

Part II: level of completeness of fetal monitored progress and different modes of intervention like fetal heart rate, amniotic fluid, amniotic fluid color, membrane rupture, and molding.

Part III: level of completeness of monitored the progress of labor and different modes of intervention like cervical dilatation, Contractions, and Descent of the presenting part.

Part IV: level of completeness of the delivery record like the type of delivery, Apgar score, birth weight, and gestation ages.

3.4.3 Data collection methods

During the study period, eligible study participants and provided consent were enrolled. Data collection took place in the postnatal units of Mnazi Mmoja Referral Hospitals using a pretested questionnaire. The principal investigator, assisted by trained research assistants, conducted data collection. The study included all pregnant women who delivered at MMRH. After initial screening, eligible participants' partographs were collected soon after delivery until the desired sample size was achieved. Information on labor and delivery was gathered daily from the partograph and client files using a checklist. To maintain impartiality, nurses, and midwives in the labor ward were unaware of the research objectives, achieved by ensuring that research assistants were neither labor ward staff nor present during labor. All labor ward personnel were assumed proficient in using partographs and monitoring labor.

The collected data from the partograph was evaluated for completeness across three main areas: fetal monitoring (including fetal heart rate, membranes, and molding), labor progress (evaluating uterine contractions, cervical dilatation, and fetal head descent), and maternal condition (covering blood pressure, temperature, and pulse rate). The correct recording was defined by appropriate time intervals: every half-hour for a maternal pulse, fetal heart rate, and uterine contractions; every four hours for cervical dilatation, fetal head descent, molding, amniotic fluid status, and maternal blood pressure.

Partograph completeness was categorized as follows based on the proportion of correctly filled sections:

Complete: all three parts (fetal and maternal monitoring, labor progress) were fully recorded.

Incomplete: some parameters were missing or not recorded.

Not documented: no parameters were recorded.

Maternal outcomes: assessed included mode of delivery (cesarean section, assisted vaginal delivery, spontaneous vaginal delivery), postpartum hemorrhage, episiotomy, perineal tears, hysterectomy, need for blood transfusion, and maternal death.

Neonatal outcomes: assessed Apgar scores, admission to the neonatal intensive care unit (NICU), and fresh stillbirths.

Both maternal and neonatal outcomes were classified as good or adverse based on predefined criteria.

Good maternal outcomes: were defined as births without complications, while adverse outcomes included complications such as perineal tears, episiotomy, postpartum hemorrhage, hysterectomy, or blood transfusion.

Good neonatal outcomes: were characterized by Apgar scores above 7 at 5 minutes, while

Adverse neonatal outcomes: included Apgar scores below 7, NICU admission, or fresh stillbirths.

Data quality control

The implemented tool was designed after an evaluation of various literature on the Completeness of partogram to ensure the accuracy of the data, and a pretest of the tool was done on 5% of the sample size obtained. Also, research assistants were trained on study procedures and data collection with an emphasis on how to use the data collection tool to guarantee data accuracy.

3.4.4 Eligibility criteria

Inclusion Criteria.

This study included all women who were in the immediate postnatal period who delivered at MMRH in Zanzibar, and who gave consent.

Exclusion Criteria

The following was excluded from the study:

- Admission with fetal distress and intrauterine fetal death.
- Women who enter the active phase of labor from home.

3.4.5. Study Variables

3.4.5.1 Dependent variable

Level of completeness in percentage.

Maternal birth outcomes.

Neonatal birth outcomes -immediate outcome based on Apgar's score, and 24-hour outcome based on being sick or normal

3.4.5.2 Independent variables:

a) Partograph completeness.
b) Sociodemographic characteristics of the mothers: age, residence, level of education.
c) Sociodemographic characteristics of the neonate: age, sex, weight.

3.4.6 Study limitations

First, shortages of equipment, time constraints in documenting partographs insufficient knowledge among obstetric care providers about the partograph's importance, could have been included. However, this issue was addressed by inadequately training the research assistant to accurately identify the clinical indicators of labor.

secondly, maternity and labor wards are highly congested with some mothers even having to labor on the floor as no bed is available. The limited number of delivery /theatre rooms available for expectant mothers led to the prolonged need for monitoring.

3.4.7 Ethical Considerations.

During the study period, the Principal Investigator and three research assistants, all medical graduates, thoroughly explained the study's purpose, objectives, and any potential risks or discomforts to eligible mothers. It was emphasized that participation was voluntary, with no consequences for choosing not to participate or discontinuing involvement, ensuring that neonatal care was not compromised. Written informed consent was obtained from all eligible mothers.

To protect participant identities, all responses were kept confidential, ensuring anonymity by not collecting personal details such as name status during data collection. Data confidentiality was strictly maintained within the research and clinical staff, with no disclosure unless explicit permission was granted by the individual caregiver. Patient names and statuses were not recorded in the database to safeguard privacy.

Physical examinations of mothers were conducted with minimal risk, ensuring assessments were conducted respectfully without disrupting their rest or feeding schedules. Precautions, such as using alcohol-based hand sanitizer to minimize infection risks during examinations, were implemented. Neonatal examinations were performed in a warm environment to prevent exposure to cold.

The study adhered to the ethical standards set by the research ethics committee at Kairuki University and the three Public Regional Referral Hospitals, as well as the ethical considerations specific to the study population.

Ethical clearance

Ethical clearance was obtained from the Institutional Research Ethics Committee of Kairuki University and permission to conduct the study was obtained from the Administration of the Zanzibar Health Research Institute and Mnazi Mmoja Referral Hospitals administration.

3.4.8 Reliability and validity of the data collection tool.

The questionnaire's validity was confirmed by experts from the Department of Obstetrics and Gynecology, each with extensive experience in teaching and supervising student research. Feedback from assessment forms guided modifications

to the questionnaire, which were implemented based on recommendations received. Before the main study, a pilot study involving 5% of the sample size was conducted to assess the questionnaire's suitability. Participants in the pilot study from the study center were not included in the final analysis, and adjustments were made to the questionnaire based on the pilot study results.

Research assistants underwent training before data collection to ensure their familiarity with both the study objectives and the research tool. Throughout the study, the reliability of data collection was maintained by these trained assistants, who also evaluated the questionnaire's ability to yield desired results and assessed the time required for completion, addressing any ambiguities in the instructions.

3.5 Data management

3.5.1 Data collection in the field.

Following information gathered using a questionnaire, it was coded using the identification numbers used on the questionnaire to ensure confidentiality. In addition to that, data cleaning was done to ensure there was no irrelevant and incorrect information.

3.5.2 Data Coding and Cleaning.

To verify that the data collected was accurate, daily discussions between the principal investigator and the research assistants were held. To guarantee the quality of the data, it was also cleaned up after two data clerks double-entered the data, and its accuracy was verified.

3.5.3 Data Analysis Plan.

Data from questionnaires was entered and analyzed using SPSS software version 25.0., a statistical computer program. Continuous variables like duration of labor were summarized as means and medians, standard deviations, and interquartile range. For categorical data like the Apgar score, level of completeness, and sociodemographic factors like age categories, occupation, and gravidity, SPSS software version 25.0 series for Windows was used to calculate proportions, percentages, and frequencies.

Objective 1: The level of completeness of partographs among women delivered at MMRH was computed as a percentage of complete partograph of all partographs recorded to MMRH during the study period.

For objective 2: The correlation between the completeness of the partograph and maternal outcome was analyzed in both univariate and multivariate logistic regression analysis. Biologically plausible variables and those with p values < 0.2 will be considered for multivariate analysis to avoid leaving out significant variables. The variables in the final multivariate model were significant when the p-value ≤ 0.05. The measure of association will be reported as odds ratios (ORs) with corresponding 95% CI and p-values. All statistical analyses were carried out in the SPSS 25 series for Windows.

For objective 3: The correlation between the completeness of the partograph and the neonatal outcome was analyzed by both bivariate and multivariate logistic regression analysis. Biologically plausible variables and those with p values < 0.2 will be considered for multivariate analysis to avoid leaving out significant variables. The variables in the final multivariate model were significant when the p-value ≤ 0.05. The measure of association was reported as odds ratios (ORs) with corresponding

95% CI and p-values. All statistical analyses will be carried out in SPSS 25 series for Windows.

3.6. Dissemination of the research findings.

A final report was compiled and submitted to the Head of the Department of Obstetrics and Gynaecology, Dean of the School of Medicine, Director of Postgraduate studies KU, and Head of Clinical Medicine Services KU as partial fulfilment for Masters of Medicine in Obstetrics and Gynaecology.

This report will also be disseminated through presentations to scientific conferences and further, it is expected that the results will be as a publication in a scientific journal and published in a peer-reviewed article and the copies will be available at KU and KU library.

CHAPTER FOUR

RESULTS OF THE STUDY.

4.1. Study participants.

During the study period of three months from February – April 2024 a total of 422 partographs of women who delivered at MMRH, Zanzibar, Tanzania was reviewed during the time of data collection. Eligible partographs were reviewed and consecutively enrolled in the study until the target sample size of 422 was reached.

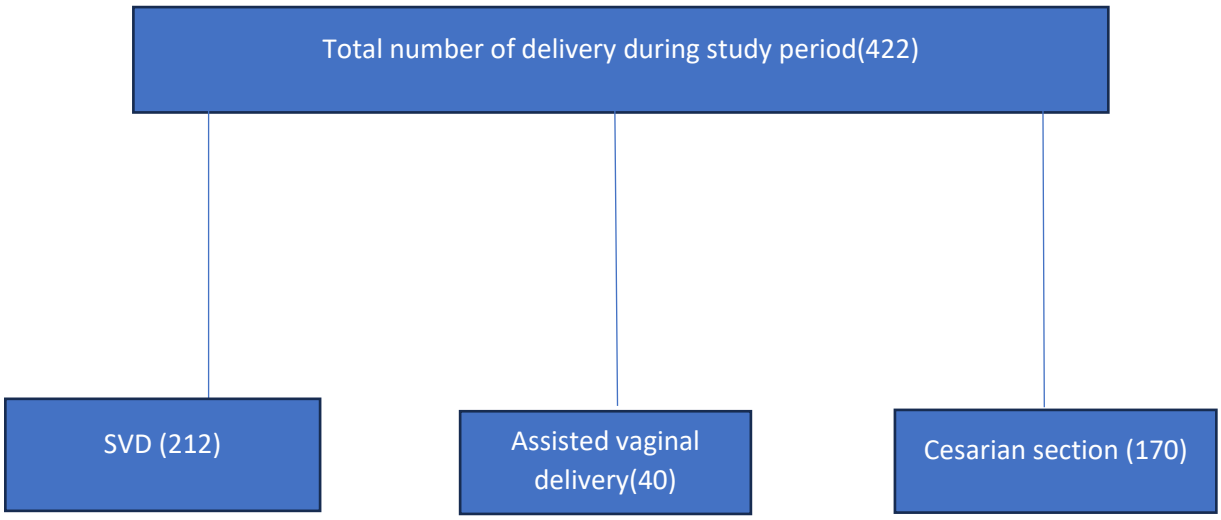


Figure1 Enrollment flow chart of the participants

4.2. Socio-demographic of study participants' information.

Table 1: Sociodemographic of the study participants

Variable Characteristic	Frequency n(422)	Percentage (row %)
Age (years)		
<20	35	8.3%
21-25	112	26.5%
25-35	183	43.4%
>35	92	21.8%
Residence		
Rural	110	26.1%
Urban	297	70.4%
Not recorded	15	3.6%
Gestational age		
37-40 weeks	76	18.0%
>40 weeks	332	78.7%
Not recorded	14	3.3%
Level of education		
Primary	117	27.7%
Secondary	113	26.7%
Tertiary	86	20.3%
Non-formal education	24	5.68%
Not recorded	82	19.43%
Occupation		
Wife house	139	32.95
Self-employed	89	21.1%
Employed	79	18.7%
Students	13	3.1%
Not recorded	102	24.25%
Gravidity		
Primigravida	125	30.0%
Gravida 2 – 4	150	35.5%
>4	147	34.8%

In this study, the majority of participants had an age range between 25 and 35

years (43.5%) and most of them came from urban regions (70.4%). On the other hand, 32.9 participants were housewives. 78.7% of participants delivered above 40 weeks.

Table 2. Clinical completeness of sociodemographic characteristics of gravid mother information.

Variable characteristics	YES	NON
Reg number Documentation	302(71.6%)	120(28.4%)
Age	422(100%)	0(0.0%)
Residence	407(96.4%)	15(3.6%)
Gestational age	346(82%)	76(18.0%)
Time for hospital admission	349(82.7%)	73(17.3%)
Time of initiation of partograph	406(96.2%)	16(3.8%)
Blood pressure on admission	278(66.2%)	142(33.8%)
Blood pressure was recorded 4 hourly	297(70.4%)	125(29.6%)
Pulse recorded on admission	290(68.7%)	132(31.3%)
Pulse rate recorded 4 hourly	181(47.6%)	221(52.4%)
Temperature recorded 4 hourly	124(39.4%)	298(70.6%)
Urine protein	182(43.1%)	240(56.9%)

The age, followed by residency, and the partograph initiation time were the most documented parameters in this study, accounting for 100% of the data. 96.4 % and 82.7 %, respectively. In contrast, the least documented parameters in 70.6%, 56.9%, and 52.4% of partographs were taking the temperature, recording it every four hours, and then recording the urine protein and pulse every four hours.

Table 3: Clinical completeness of fetal monitored progress in different modes of interventions.

Variable characteristics	YES	NON
Fetal heart rate recorded ½ hourly	292(79.2%)	130(30.8%)
Membrane recorded 4 hourly	271(64.2%)	151(35.8%)
Membranes information recorded	372(89.5%)	40(9.5%)
Was amniotic fluid color recorded?	208(49.3%)	214(50.7%)
Molding recorded 4 hourly	258(61.2%)	160(38.8%)

The fetal heart and membrane status were the most frequently reported fetal measures, accounting for 89.5% and 79.2% of all cases, respectively. However, the least amount of data was found for the color of amniotic fluid and the molding of fetal parameters, with rates of 50.7% and 38.8%, respectively.

Table 4: The Clinical completeness of monitoring the progress of labor and its different modes of intervention.

Variable characteristics	Yes	Non
First vaginal examination in active labor plotted	253(60.0%)	169(40%)
Initial cervical dilatation plotted	185(45.8%)	237(54.2%)
Descent of the presenting part charted 4 hourly?	191(45.3%)	231(54.7%)
Contractions charted ½ hourly	207(49.1%)	215(50.9%)
If the partograph crosses alert line documentation	327(78%)	93(22%)
If the partograph crosses the action line.	277(75.6%)	145(34.4%)
Full cervical dilatation recorded	183(43.4%)	239(56.6%)
Detection of abnormal cervical dilatation	108(28%)	304(72%)
Detection of abnormal descent	112(27%)	310(73%)
Record of the duration of the first stage of labor	131(31%)	291(69%)
Record of the duration of the second stage of labor	172(40.2%)	250(59.8%)
Record of the duration of the third stage of labor	164(38.9%)	258(61.1%)
Time intervention of abnormal labor	106(25.1%)	316(74.9%)
Time for the active phase of labor.	210(49.8%)	212(50.2%)

The most parameters that were recorded during labor progression were the partograph's crossing of the alert line, the partograph's crossing of the action line, at rates of 78.0%, 75.6%, and 74.9%, respectively. Time intervention of abnormal labor, detection of abnormal descent, and detection of abnormal cervical dilatation were the least recorded with respective rates of 74.9%, 73%, and 72%.

Table 5: The clinical completeness of delivery record.

Variable	Yes	no
Mode of delivery	380(90%)	42(10%)
Sex record	394(91%)	38(9%)
Record of body weight of neonate	335(79.4%)	87(21.6%)
Apgar scorer recorded	363(85.8%)	60(14.2%)

Sex of the neonate and mode of delivery were the most documented parameters in 91 % and 90% respectively. Apgar score was the least recorded at 14.2%.

Table 6a: The overall completeness of partographs used by healthcare providers in the management of labor among women who delivered at MMRH, Zanzibar. at MMRH, Zanzibar.

Variable	Yes	Non
Fetal heart rate recorded	292(79.2%)	130(30.8%)
Membrane status recorder	271(64.2%)	151(35.8%)
Colored recorded	208(49.3%)	214(50.7%)
Molding recorded	258(61.2%)	160(38.8%)
Cervical dilatation recorded	183(43.4%)	239(56.6%)
Fetal descent recorded	191(45.3%)	231(54.7%)
Contraction recorded	207(49.1%)	215(50.9%)
Temperature	124(39.4%)	298(70.6%)
Blood pressure	297(70.4%)	125(29.6%)
Pulse rate	290(68.7%)	132(31.3%)
Urine test	182(43.1%)	240(56.9%)
Cervical crosse the alert line	327(78%)	93(22%)
Cervical cross the action line	277(75.6%)	145(34.4%)
Action taken documented	106(25.1%)	316(74.9%)

Fetal heart records followed by records of the alert line were the most recorded parameters with respective rates of 79% and 78%. Action taken record was the least parameter recorded.

Table 6b. Overall completeness of partographs used by healthcare providers in the management of labor.

Variable Characteristics	YES	NON
Sociodemographic and mother condition completeness	66(15.6%)	356(84.4%)
Fetal monitoring completeness	134(31.8%)	288(68.2%)
Cervical and Labor progression	122(28.9%)	300(71.1%)
Delivery record completeness	318(75.4%)	104(24.6%)
Overall completeness	57(13.5%)	365(86.5%)

The study's overall degree of completeness was 13.5%, with the delivery record and the fetal record having the highest percentages of parameters recorded in all partographs, at 75.4% and 31.8%, respectively. Sociodemographic and mother condition parameters were the least recorded only in 15.9 % of all partographs.

Figure 1: PIE chart showing the level of completeness of partograph of women delivered at Mnazi Mmoja Referral Hospital.

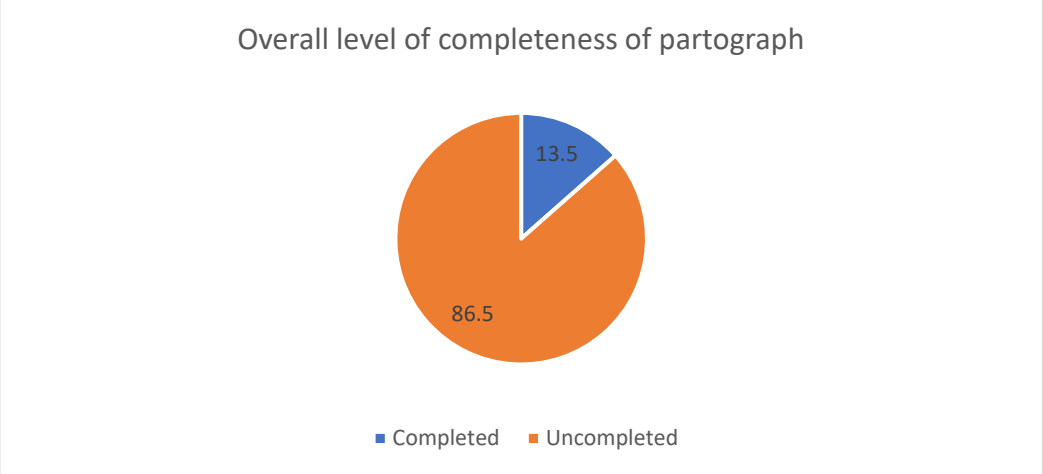
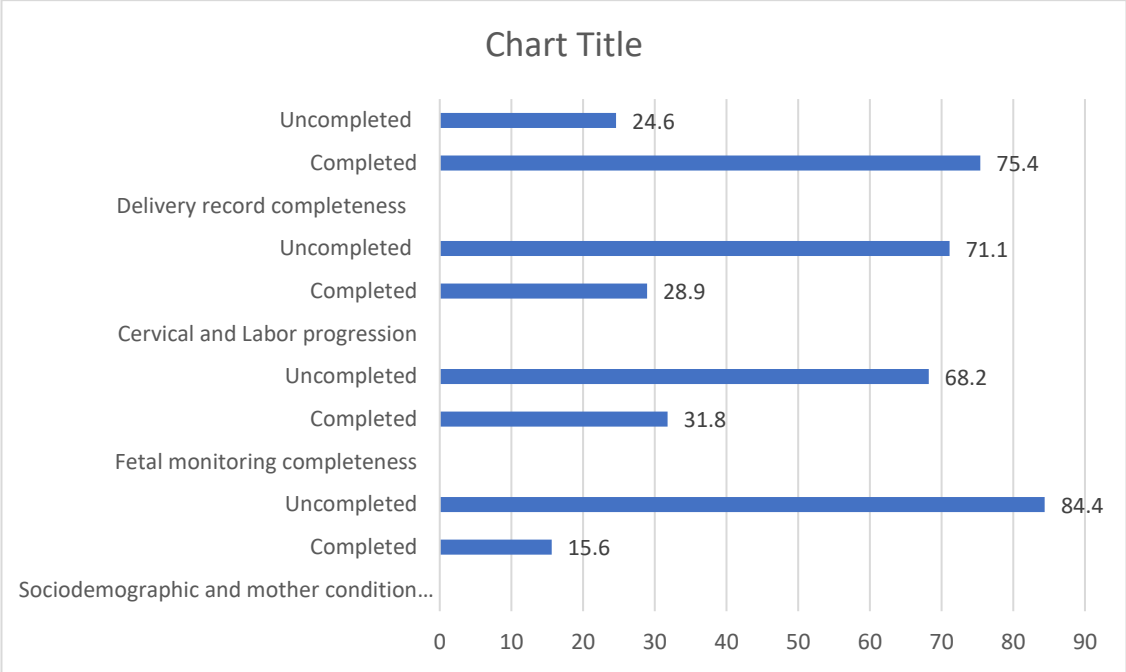


Figure 2: Bar chart showing the distribution of completeness of different components of the partograph.



4.3. Association between partograph completeness and 24-hour maternal outcome among women who delivered at MMRH, Zanzibar, Tanzania.

Table 7a: Univariate analysis of factors between partograph completeness and 24-hour maternal outcome among study participants.

Variable Maternal outcome	Partograph completeness Completeness of partograph			
Mode of delivery	**Completed (yes)**	**Uncompleted (no)**	**Odd (CI 95%)**	**Significance P-value**
Spontaneous vaginal delivery	33(15.6)	179(84.4)	Reff	
Assisted vaginal delivery	4(10)	36(90.0)	1.2(0.01,1.8)	0.1
Caesarian delivery	17(13.3)	111(86.7)	2(1.07,5.3)	0.04
Maternal complications.				
Overall Present	19(10.7)	158(89.2)	2.7(1.36-3.1)	0.04
Overall Absent	15(6.1)	230(93.8)	Reff	
PPH	3(4.9)	58(95.1)	Reff	
Perineal tears	1(1.6)	60(98.4)	1.2(0.7,2.0)	0.6
Impeding rupture uterus	1(4.7%)	20(95.2)	1.3(0.7-2.7)	0.6
hysterectomy	2(33.3)	4(66.7)	1.1(0.2-2.1)	0.7
Retained placenta	4(41.6)	7(58.3)	1.5(0.2-2.5)	0.9
Episiotomy	6(25)	18(75)	0.4(0.15-1.3)	0.3
Perineum intact	2(25)	6(75)	3(0.8-11)	0.21
Not recorded	14(5.7)	231(94.2)		
Duration of hospital stay				
< 1 Day.	32(51.6)	30(50.4)	Reff	
1 Day.	18(6.5)	257(93.5)	2.7(1.2-8.2)	0.01
Transfer to ICU				
Yes	15(51)	14(49)	1.15(1.0,1.20)	0.56
No	183(46.5)	210(53.4)	Reff	
Received BT				
Yes	40(51)	39(49)	1.05(1.0,1.08)	0.52
No	160	183	Reff	

In this study at univariate regression, there was a significant (p-value < 0.2) positive (Odds 2.1) association between the completeness of partograph and assistance

vaginal delivery and caesarian delivery. There was a trend of increasing hospital stays in patients with incomplete partographs. On the other hand, an incomplete partograph increases the risk of maternal complications by 2-fold (odd 2.7).

Table 7b: Binary analysis of factors associated with completeness of partograph and 24-hour maternal outcomes among study participants.

Maternal outcome	**Completeness of partograph**			
Mode of delivery	**Completed (yes).**	**Uncompleted (no)l**	**Adjusted odd (CI 95%)**	**Significance**
Assisted vaginal delivery	4(10)	36(90.0)	Reff	
Caesarian delivery	17(13.3)	111(86.7)	3.9(1.0,15)	**0.04**
Maternal complications				
Overall presence	19(10.7)	158(89.2)	12(1.3,19)	**0.02**
Overall absence	15(6.1)	230(93.8)	Reff	
Duration of hospital stay				
< 1 Day.	32(51.6)	30(50.4)	Reff	
>1 Day.	18(6.5)	257(93.5)	7.8(1.8,11.1)	**0.001**

Following binary regression, caesarian delivery(OR=3.1,95%CI(1.0,15)), overall maternal complication(OR=12,95%CI(1.3,19), P=0.02) and hospitalization between 1 to 3 days(OR=7.8,95%(1.8,11.1), P=0.001) were significant factors associated with the incompleteness of the partograph.

Table 8: Association between partograph completeness and 24-hour neonatal outcome among women who delivered at MMRH, Zanzibar, Tanzania.

Neonates outcome	Completeness of partograph				
Apgar score	**Completed (yes)**	**Uncompleted (no)**	**Odd (CI 95%)**	**Ch-square test**	**Significance**
> 7 at 5 minutes	37(17.6)	173(82.4)	0.2(0.61,4.26)	Reff	
< 7 at 5 minutes	20(9.4)	192(90.6)	1.5(1.1-1.9)	0.96	0.02
Admission to ICU					
YES	3(3.2)	91(96.8)	1(0,9,1.7)	0.54	0.28
NO	15(4.6)	313(95.4)	Reff		
Weight of the neonates					
Recorded	18(5.4%)	317(94.6%)			
Not recorded	0	87(100%)			

An incomplete partograph was strongly associated with decreases of APGAR less than 7 at 5 minutes (OR=1.5,95% (1.1-1.9)) However, there is a trend for an increase in Apgar above 7 in neonates with completed partographs (OR=0.2,95% (0.6-4.2)).

CHAPTER FIVE:

DISCUSSIONS.

5.1. Discussions.

In this study, the overall degree of completeness was 13.5 %, with the fetal record and delivery record having the highest percentages of parameters recorded in all partographs, at 75.4% and 31.8%, respectively. Labor progression was the least recorded with only 3% in all partographs. Assisted vaginal delivery, caesarian delivery, whole maternal complication and hospitalization more than 1 day where the significant factors associated with incompleteness of partograph. On the other side, uncompleted partograph was strongly associated with decreases of APGAR less than 7 at 5 minutes. However, there was a trend for an increase in Apgar above 7in patients with completed partographs.

Several authors have carried out similar studies worldwide. Engida and colleagues reported approximate results from Ethiopia, where only 32.9% of cervical dilatation and 20.70% of uterine contractions were recorded (1). In Tanzania, Nyamtema and associates published approximative findings, stating that 50% of the partographs studied lacked work duration of labor records. Furthermore, Nyamtema and colleagues' findings roughly match our data on blood pressure, temperature, and pulse monitoring, where 47% to 76 % of partographs were not recorded. Another study conducted by Paschal and colleagues in Tanzania among women who delivered at Muhimbili observed an approximated rate of 8.9 % of completed partographs (22).

In contrast to our results, several authors observed a high rate of completeness. For instance, the completeness of the partograph was found to be 25.6% in a study carried out in Ghana by Florence and colleagues (14). This may be explained by the

fact that Florence and associates defined the completeness of the portogram differently than we did during our investigation. In Uganda, MUKISA and colleagues have documented an incidence of 24.6% partograph completeness among women giving birth at Mulago RRH(20). But Mukisa and colleagues' results corroborated our own in terms of the three partograph parameters' completeness, with rates of 73.9%, 60.6%, and 68.3%, respectively, for the important labor, fetal, and maternal monitoring being documented inadequately.

There is still inconsistency in the literature on the completeness of the partographs due to the criteria employed to identify full partographs. Additionally, variations in the study population may be a contributing factor to this discrepancy.

Several factors have been associated with perinatal outcomes for both mothers and children. The different factors are related to mother chronic diseases and poor skills of care providers among others. However, this study was focused on assessing the contribution of completeness of partograph in birth outcomes as unlighted in the WHO multicenter trial which confirmed that the use of partograph throughout labor lowers intrapartum stillbirths, emergency cesarean sections, augmentation, and delayed labor (4). In addition, the WHO Cochrane analysis reported that Poor labor monitoring could lead to missed diagnoses of maternal and fetal problems and the need for interventions.

In this study, it was observed that positive (Odds 0.34) and statistically significant (p-value < 0.05) correlation between the completion of the partograph and the assistance vaginal and cesarean delivery. This could be explained by the fact that in this study there was a trend to improve monitoring when labor crossed the alert line or crossed the action line, as seen in 75.6% and 78% of the partographs. In addition,

there was observed poor monitoring of labor progression in this study where only 3.3 % of partographs had completed documented in this parameter.

In line with our findings, other authors reported improvement in maternal outcomes with the completeness of the partograph. In Ghana, Florence et al, reported that completeness of the partograph was associated with better birth outcomes such as a significant reduction in maternal blood loss in the 2-week postnatal period (14). However, Florence and colleagues didn't assess parameters used in the current study such as mode delivery, and perineal tears. Similar findings were reported by Penumadu and colleagues where completeness of the partograph was observed to be related to mothers' outcomes (2).

Controversies to our result, in India, Benazir, and colleagues observed a significant increase in spontaneous delivery and a decrease in assisted birth delivery in patients with completed partographs (29).

On the other hand, the current study observed that there was a trend of increasing hospital stays in patients with uncompleted partographs, and an uncompleted partograph increases the risk of perineal tears by 2 folds (odd 2.7). Poor monitoring can lead to several adverse birth outcomes, which may explain increases in hospital stays and perineal tears observed in the current study. However, we did not find published literature that collaborates with our findings.

In this study, we found a high correlation between the partograph's completeness and an increase in APGAR scores above 7 at five minutes. This may be explained by the finding that 79.2% of partographs in this study showed an improvement in fetal heart monitoring. Nonetheless, this study found a trend for birth asphyxia in patients

with incomplete partographs, which may have been caused by the 21.8% of inadequate fetal heart monitoring.

These results are consistent with those of Reindolf and associates in Ghana, where birth asphyxia was common in neonatal from labor with an uncompleted partograph (38). Comparable cases of birth asphyxia in women with incomplete partographs have been documented in Tanzania among women who delivered at Muhimbili (9).

The association between a partograph's completeness and neonatal birth outcome has generally been described by several writers. As observed in the current study and in research published in Tanzania, Ghana, and Nepal, where poor Apgar scores, intrapartum stillbirths, and delivery hypoxia were significantly correlated with incompletely recorded partographs (23,29,39).

5.2. Study Strengths and Limitations.

The findings from this study report only the contribution of partographs completeness to mother and neonatal birth outcomes and don't take into account other factors such as mother's conditions and health worker-related factors. In addition, this was a single-based hospital study, and this finding may not reflect the general perspective of the population.

5.3. Conclusions.

The level of completeness of partographs in women who delivered at MMR was at 13.4 % which was relatively lower on average than that reported in the literature. It was observed that there was a positive and significant correlation between the completion of the partograph and the assistance of vaginal and cesarean delivery. In addition, an incomplete partograph was relatively associated with the risk of perineal tears and increased hospital stay. On the other hand, the incompletion of the

partograph was significantly correlated with birth asphyxia, despite a trend of improvement of Apgar score in patients with completed partographs.

5.4. Recommendations.

Additional research is required to improve labor monitoring, specifically labor progression and fetal heart rate, to improve birth outcomes for both mothers and neonates. Meanwhile, special attention Conduct multicenter studies that take into account other factors that may affect birth outcomes. Ensure strict adherence to Standard Operating Procedures by all obstetricians during deliveries.

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APPENDICES

Appendix 1: Informed consent (English version)

Introduction:

Greetings! I am Dr. **Sabrina Bashir Mohamed,** a postgraduate student undertaking Obstetrics and Gynecology at Kairuki University (KU). I am currently conducting a study with the title "Determine the appropriate use of partograph by healthcare providers and related birth outcomes in the management of labor among women who delivered at Mnazi Mmoja Referral Hospital, Zanzibar, Tanzania." as part of my study requirements. I hereby request your participation and support in my study once I or my research assistant approach you. Your choice to participate or not will have no effect on your care and management. Please, you may ask questions, at any time if you do not understand anything about this study**.**

Title of the study

Degree of partograph and its effects on obstetrics outcomes among women attended I labor ward at Mnazi Mmoja Hospital Zanzibar.

Aim of the study:

The purpose of this study is to determine the appropriate use of partographs by healthcare providers and related birth outcomes in the management of labor among women who delivered at Mnazi Mmoja Referral Hospital, Zanzibar, Tanzania.

Benefits:

There is no direct benefit for you and your baby to participate, but the results from this study may help improve the management of delivery with subsequent improvement of care of mothers and newborns.

Risks:

There is no harm is expected from your participation in this study. We will ask you a few questions about your pregnancy and delivery as well as test you like other mothers and children who are tested after delivery. All this will be done in privacy and while you are resting in your bed and freely**.**

What does this study involve?

This study involves the research assistant or principal investigator asking structured questions to you, the patient, or relatives and filling the responses in the prepared questionnaire. Other information will be gathered through clinical examination and radiological investigation, the management provided will be obtained from your hospital file and then filled in the structured clinical form.

Consent:

Your consent to be enrolled in the study is entirely voluntary and amenable by signing the consent form. You are free not to consent and this will not affect the care and management offered to your patient. You may decide to stop participating in this study at any time for any reason**.**

Confidentiality:

The information you provide is extremely respected and will be preserved strictly confidential. The study information will be stored in protected computer files and paper records stored in a locked filing cabinet. Only study staff will have access to the information.

Access to information:

By signing this form, you allow the research team to use the information and give it to others involved in the research. The research team includes the researcher, facilitators, and others working on this study at Kairuki University.

Who to contact:

In case of any queries about this study further information, or questions, you can contact**:**

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   P.O Box:65300,

   Dar es Salaam.

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   Assistant Supervisor.

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Dar es Salaam, Tanzania.

Tel: 0753556696.

I,…….. have read/been told the contents of this form. My questions have been answered. I agree to participate in this study.

Signature of participant **……**

Date of signed consent **……**

Appendix II: Consent Form (Swahili Version)

Fomu ya ridhaa ya kushiriki katika utafiti

Utangulizi:

Jina langu **Dkt. Sabrina Bashir Mohamed**, mwanafunzi wa udaktari bingwa wa magonjwa ya kizazi na uzazi kwa akina mama katika chuo kikuu cha kumbukumbu ya Hubert Kairuki. Ninafanya utafiti juu ya ujazwajwi wa matumizi yafaayo ya fomu inayotumika kufuatilia maendeleo ya leba (patografu) kwa mama wajamzito na adhari zake, kuzaliwa kwa mtoto na adhari zake wanaohudhuria katika chumba cha afya ya uzazi na watoto katika hospital kuu ya Mnazi Mmoja Zanzibar. Ninaomba ushiriki wako katika utafiti huu endapo mimi ama msaidizi wangu atakapokufuata ili kukuuliza taarifa muhimu kuhusu tatizo lako.

Madhumuni ya utafiti:

Kuangalia muundo na matibabu yaliyotolewa katika ujazwajwi wa fomu inayotumika kufuatilia maendeleo ya leba (patografu) na adhari zake kupitia kwa mama mjamzito mpaka kuzaliwa kwa mtoto na adhari zake wanaohudhuria katika hospital kuu ya Mnazi Mmoja Zanzibar.

Hatari /Athari:

Hakuna athari / madhara yoyote yanayotegemewa kutokana na wewe kushiriki kwenye utafiti huu. Tutakuuluza maswali machache kuhusu ujauzito wako na kujifungua pamoja na kukupima kama wamama na watoto wengine wanavyopimwa baada ya kujifungua. Hayo yote yatafanyika kwa usiri na ukiwa umepumzika kitandani kwako na kwa uhuru

Faida za utafiti:

Ushiriki wako / ridhaa ya mgonjwa wako kushiriki katika utafiti huu, utawezesha kujua

muundo na matibabu yaliyotolewa kwa wagonjwa waliopata matatizo baada ya kujifungua kwa gonjwa kwa kutumia partograpy, katika hospitali ya Mnazi Mmoja Zanzibar na hivyo kuboresha huduma kwa jamii nzima.

Haki ya kutoshiriki:

Ni hiyari kushiriki katika utafiti huu na unaruhusiwa pia kujitoa, hakuna madhara yoyote atakayopata mama mjamzito ikiwa umechagua kujitoa kwenye utafiti na haitaathiri upatikanaji wa huduma kwa mimba yako .

Usiri:

Taarifa zote zitakazokusanywa katika utafiti huu zitakuwa siri, hivyo ushiriki wako hautajulikana na mtu asiye husika na utafiti bali timu ya watafiti tu.

Malipo:

Kwa kushiriki kwenye utafiti huu, hautalipwa wala hautalipa gharama yoyote.

Ukiwa na swali au tatizo lolote, unaweza kuwasiliana na wafuatao:

1. MTAFITI MKUU,

   DR. SABRINA BASHIR MOHAMED

   Obstetrics and Gynecology department,

   HKMU,

   P. O. Box 65300, Dar es Salaam, Tanzania.

   Tel: 0629224194

   Email: Sabrinakibeki@yahoo.com.

2. MSIMAMIZI

   DR. MONICA CHIDUO

   Senior Lecturer

Department of Obstetrics and Gynecology

P.O.BOX 65300, Dar es Salaam, Tanzania.

Tel: 0713618847

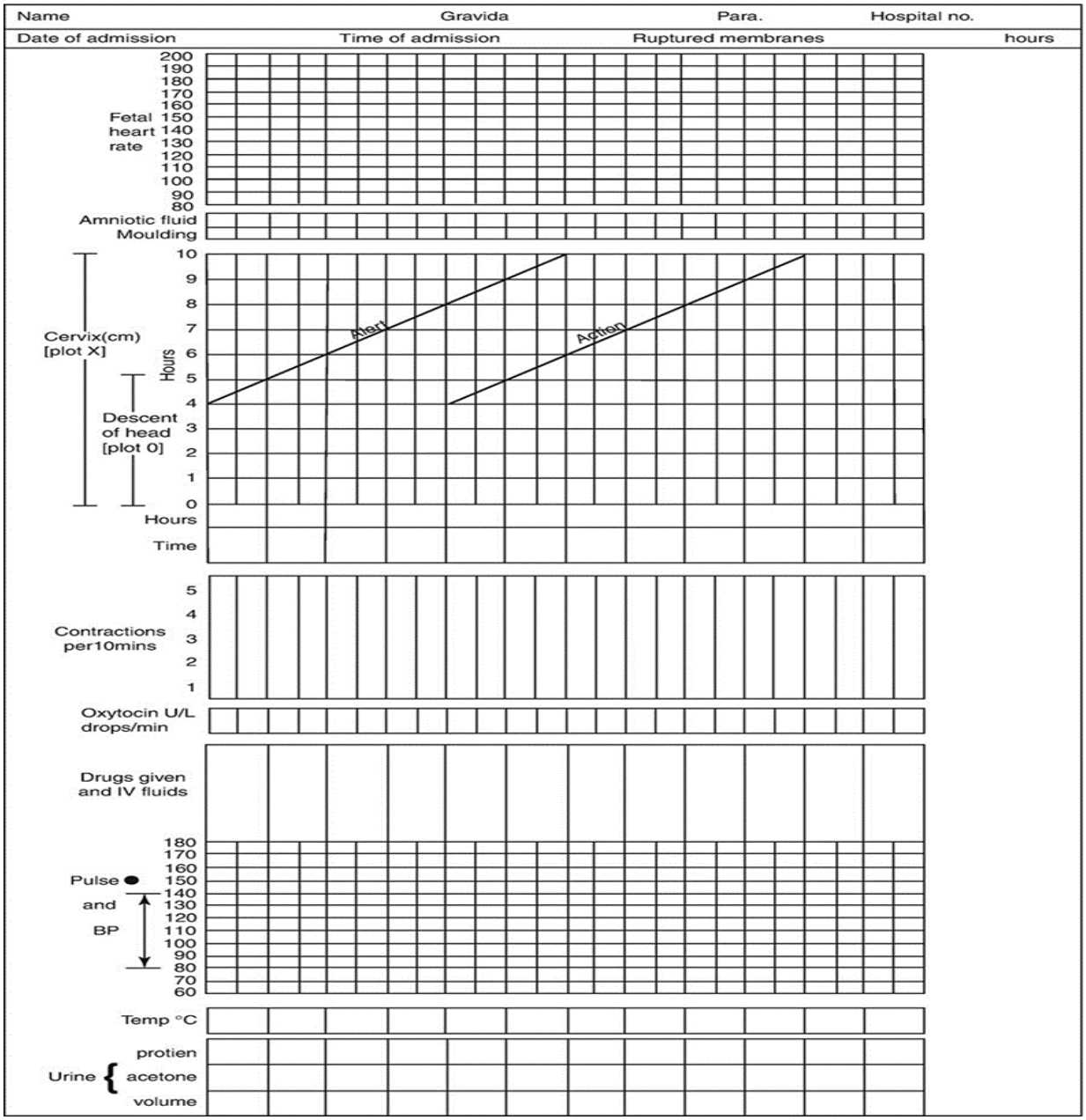
Kuweka sahihi ya makubaliano:

Mimi, _____, nimesoma/nimesomewa maelezo yote yaliyomo kwenye fomu hii na nimeelewa. Maswali yangu yamejibiwa vizuri na niko tayari kushiriki.

Sahihi ya mshiriki _____

Sahihi ya Mtafiti _____Tarehe _____.

Appendix III: Partograph Review Monitoring Indicators.



Appendix IV: Checklist

PARTOGRAPH PRACTICE AND ITS EFFECT ON

OBSTETRIC OUTCOME AMONG WOMEN ATTANDED IN LABOR WARD AT

MNAZI MMOJA REFERRAL HOSPITAL, ZANZIBAR TANZANIA.

Name of the interviewer .....

Date of interview .....

PART I: PARTOGRAPH PATTERN AND SOCIAL DEMOGRAPHIC INFORMATION

1. Documentation of the client's registration number

a). ☐Documented

b). ☐Not documented

2. Documentation of date of birth in years/age

a). ☐Not documented

b). ☐<20 years

c). ☐21- 25 years.

d). ☐25-35 years

e). ☐>35 years.

3i. Education level of the mother:

a). ☐Not documented

b). ☐ Non-formal education

c). ☐ Primary education

d). ☐ Secondary O level education

e). ☐ Tertiary education

3ii.Employment status of the mother:

a). ☐Not documented

b). ☐ Employed

c). ☐ Self-employment

d). ☐ Unemployed

4). Residence

a). ☐Urban

b). ☐Rural

c). ☐Not documented

5. Gestational age (weeks)

a). ☐Not documented

b). ☐37-40 weeks

c). ☐> 40 weeks

5. Time of Hospital admission (hrs.)

a). ☐ Documented

b). ☐ not documented.

ii. If the answer to the question above is Yes what time?

a). ☐ AM

b). ☐ PM

c). ☐Not documented

6. Time of initiation of partograph

a). ☐AM

b). ☐PM

c). ☐Not documented.

ii. If the answer to the question above is Yes what time?

a). ☐AM

b). ☐PM.

c). ☐Not documented

4. Is the partograph attached to the patient file?

a. ☐ Yes

b. ☐ No.

8. Blood pressure on admission recorded?

a. ☐ Recorded

b. ☐Not recorded.

9. Blood pressure recorded 4 hourly?

a. ☐Complete

b. ☐Incomplete

c. ☐Not recorded

10. Pulse rate on admission recorded?

a. ☐ Recorded

b. ☐Not recorded.

11. Pulse rate recorded 4 hourly?

a. ☐Complete

b. ☐Incomplete

c. ☐Not recorded

12. Temperature recorded 4 hourly?

a. ☐Complete

b. ☐Incomplete

c. ☐Not recorded

13. Urine for protein?

a. ☐Complete

b. ☐Not recorded.

PART II: PARTOGRAPH PATTERN OF FETAL AND DIFFERENT MODE OF INTERVENTION

14. Fetal heart rate recorded ½ hourly?

a. ☐ Recorded

b. ☐Partially

c. ☐Not recorded

15. Membrane recorded 4 hourly?

a. ☐ Recorded

b. ☐Not Recorded

c. ☐Partial

16. Membrane information recorded?

a. ☐Intact

b. ☐Spontaneous rupture

c. ☐ARM

17. Amniotic fluid color recorded?

a. ☐Clear

b. ☐Meconium stain

c. ☐Not documented

18. Molding recorded 4 hourly?

a. ☐Complete

b. ☐Incomplete

c. ☐Not recorded

PART III: GRAVIDA MONITORED PROGRESS OF LABOUR AND DIFFERENT MODE OF INTERVENTION

19. First vaginal examination in active labor plotted?

a. ☐ Plotted

a. ☐Not plotted

20. Initial cervical dilatation plotted correctly to alert line.

b. ☐ Documented

c. ☐Not documented

21. Did the mother deliver within 4 hours of the first virginal examination?

a. ☐ Documented

b. ☐Not documented

22. If the question above is No, is cervical dilatation plotted at least every 4 hours?

a. ☐Complete

b. ☐Incomplete

c. ☐None

23. Descent of the presenting part charted 4 hourly?

a. ☐Complete

b. ☐Incomplete

c. ☐None

24. Contractions charted ½ hourly?

a. ☐complete

b. ☐Incomplete

c. ☐None

25. Did the partograph cross the alert line?

a. ☐Yes

b. ☐No

26. If the answer to the question above is yes, any action taken?

a. ☐ Dr. to review

b. ☐ Oxytocin

c. ☐IV fluid for resuscitation

d. ☐C/S

e. ☐SVD

f. ☐Not documented.

27. Did the partograph cross the action line?

a. ☐Yes

b. ☐No

28. If the answer to the question above is yes, is any action taken?

a. ☐ Dr. to review

b. ☐ Oxytocin

c. ☐IV fluid for resuscitation

d. ☐C/S

e. ☐SVD

f. ☐Not documented

29. Second stage, full cervical dilatation recorded.

a. ☐Alter line

b. ☐Action line

c. ☐Not documented

30. Detection of abnormal cervical dilatation

a. ☐Arrest cervical dilatation

b. ☐Protracted

c. ☐Not detected

31. Detection of abnormal descent

a. ☐Arrested descent

b. ☐Protracted descent

c. ☐Not detected

32. The duration of the first stage of labor was recorded.

a. ☐ Recorded

b. ☐Not recorded.

33. If the answer above is yes, mention the duration of the active stage of labor in hours

a. ☐<11 Hours

b. ☐> 12 Hours

c. ☐ Not documented

34. The duration of the second stage of labor was recorded.

a. ☐ Recorded

b. ☐Not recorded

35. If the answer above is yes, mention the duration of the second stage of labor in hours

a. ☐< 60 minutes

b. ☐> 1 hour

c. ☐Not documented

36. The duration of the third stage of labor was recorded.

a. ☐ Recorded

b. ☐Not recorded

37. If the answer above is yes, mention the duration of the third stage of labor in minutes

a. ☐< 30minutes

b. ☐> 30minutes

c. ☐Not documented

38i. Time intervention of abnormal labor

a. ☐Documented

b. ☐Not documented.

38ii. At what time does the intervention of abnormal labor?

a. ☐AM

b. ☐PM

c. ☐Not documented.

39i. Time for the active phase of labor.

a. ☐< 30 minutes

b. ☐ 31 – 75 minutes

c. ☐> 75minutes.

d. ☐Not documented

39i. Time for C/S or SVD

a. ☐< 30 minutes

b. ☐ 31 – 75 minutes

c. ☐> 75minutes.

d. ☐Not documented

40. Active management of the third stage of labor

a. ☐Complete

b. ☐Incomplete

c. ☐None

PART IV: MATERNAL OUTCOME

41. Mode of delivery

a. ☐Spontaneous Vaginal Delivery

b. ☐Assisted Vaginal Delivery

c. ☐Caesarean delivery

d. ☐Not documented

42. Maternal complications

a. ☐PPH

b. ☐Perineal Tear

c. ☐Impending Rupture/ruptured uterus

d. ☐Hysterectomy

e. ☐Retained placenta

f. ☐Episiotomy

g. ☐Perineum intact

h. ☐Not recorded

i. ☐PPH and Perineum Tear

j. ☐PPH and Perineal intact

43. Duration of hospital stay

a. ☐< 24 hours

b. ☐1 – 3 days

c. ☐> 3 days

d. ☐Not documented

44. Transfer to ICU

a. ☐Yes

b. ☐No

45. Received BT

a. ☐Yes

b. ☐No

PART V: OUTCOME/STATE OF THE NEW BORN

46. The sex of the newborn documented

a. ☐ Documented

b. ☐Not documented

47. Sex recorded

a. ☐Male

b. ☐Female

c. ☐ Not documented

48. Abnormality of the neonate recorded

a. ☐ Recorded

b. ☐Not recorded

49. The body weight of the newborn recorded

a. ☐ Recorded

b. ☐Not recorded

50. If yes Record the weight

a. ☐< 2.5kg

b. ☐ 2.6 – 3.2 kg

c. ☐ 3.3 – 3.9 kg

d. ☐> 4 kg

e. ☐ Not documented

51. Apgar scorer recorded

a. ☐> 7 at 5 minutes.

b. ☐< 7 at 5 minutes

c. ☐ Not documented

52. Neonate admitted to ICU

a. ☐Yes

b. ☐No

53. Stillbirth recorded

a. ☐ Recorded

b. ☐Not recorded.

54. Alive birth recorded

a. ☐ Recorded

b. ☐Not recorded.

MAZOEZI YA PARTOGRAPH NA ATHARI YAKE JUU YA MATOKEO YA UZAZI MIONGONI MWA WANAWAKE WALIOHUDHURIA KATIKA WADI YA UTUMISHI KATIKA HOSPITALI YA RUFAA YA MNAZI MMOJA, ZANZIBAR TANZANIA.

Jina la mhojiwa.....

Tarehe ya mahojiano .....

SEHEMU YA I:

MFANO WA SEHEMU NA DEMOGRAFIA YA HABARI KIJAMII.

1. Nambari ya usajili ya mgonjwa

a). ☐Imeandikwa

b). ☐Haijarekodiwa

2. Nyaraka za tarehe ya kuzaliwa katika miaka/umri

.....

3. Makazi ya mgonjwa

a). ☐Mjini

b). ☐Vijijini

c). ☐Haijarekodiwa

4. Umri wa ujauzito (wiki)

a). ☐Haijarekodiwa

b). ☐Wiki 37-40

c). ☐> Wiki 40

5. Muda wa kulazwa Hospitalini (saa.)

a). ☐ Imeandikwa

b). ☐ Haijarekodiwa.

ii. Ikiwa jibu la swali hapo juu ni Ndiyo saa ngapi.

a). ☐ AM

b). ☐ PM

c). ☐Haijarekodiwa

6. Wakati wa kuanzishwa kwa patografu

a). ☐AM

b). ☐PM

c). ☐Haijarekodiwa.

ii. Ikiwa jibu la swali hapo juu ni Ndiyo saa ngapi.

a). ☐AM

b). ☐PM.

c). ☐Haijarekodiwa

7. Je, patografu inaambatishwa kwenye faili la mgonjwa?

a. ☐ Ndiyo

b. ☐ Hapana.

8. Shindikizo la damu wakati wa kulazwa limerekodiwa?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa.

9. Shindikizo la damu limerekodiwa saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Haijarekodiwa

10. Kiwango cha mapigo kwenye uandikishaji kimerekodiwa?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa.

11. Kiwango cha mapigo kinarekodiwa saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Haijarekodiwa

12. Kiwango cha joto kinarekodiwa kwa saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Haijarekodiwa

13. Mkojo kwa protini?

a. ☐Kamilisha

b. ☐Haijarekodiwa.

SEHEMU YA PILI:

MFUMO WA SEHEMU YA HALI YA MTOTO NA TOFAUTI YA UINGILIAJI.

14. Mapigo ya moyo ya mtoto yanarekodiwa ½ kwa saa?

a. ☐ Imerekodiwa

b. ☐Kwa kiasi

c. ☐Haijarekodiwa

15. Utando unarekodiwa saa 4?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa

c. ☐Sehemu

16. Taarifa za utando zimerekodiwa?

a. ☐Isiyobadilika

b. ☐Kupasuka kwa papo hapo

c. ☐ARM

17. Rangi ya maji ya amniotic iliyorekodiwa?

a. ☐Wazi

b. ☐Madoa ya meconium

c. ☐Haijarekodiwa

18. Ukingo unarekodiwa kwa saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Haijarekodiwa

SEHEMU YA TATU:

MAENDELEO YA UCHUNGU KWA MJAMZITO NA HALI MBALIMBALI.

19. Uchunguzi wa kwanza wa uke katika uchungu iliyopangwa?

a. ☐ Iliyopangwa

a. ☐Haijapangwa

20. Upanuzi wa awali wa seviksi uliopangwa kwa usahihi kuhusiana na mstari wa tahadhari.

b. ☐ Imeandikwa

c. ☐Haijarekodiwa

21. Je, mama alijifungua ndani ya saa 4 baada ya uchunguzi wa kwanza wa ubikira?

a. ☐ Imeandikwa

b. ☐Haijarekodiwa

22. Ikiwa swali hapo juu ni Hapana, upanuzi wa seviksi hupangwa angalau kila saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Hakuna

23. Mteremko wa sehemu inayowasilisha iliyochorwa kwa saa 4?

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Hakuna

24. Mikato iliyoorodheshwa ½ kwa saa?

a. ☐ kamili

b. ☐Haijakamilika

c. ☐Hakuna

25. Je, patografu ilivuka mstari wa tahadhari?

a. ☐Ndiyo

b. ☐Hapana

26. Ikiwa jibu la swali lililo hapo juu ni ndiyo, je, kuna hatua yoyote iliyochukuliwa?

a. ☐ Dkt kukagua

b. ☐ Oxytocin

c. ☐IV maji kwa ajili ya kuhuisha

d. ☐C/S

e. ☐SVD

f. ☐Haijarekodiwa.

27. Je, patografu ilivuka mstari wa kitendo?

a. ☐Ndiyo

b. ☐Hapana

28. Ikiwa jibu la swali hapo juu ni ndiyo, hatua yoyote imechukuliwa?

a. ☐ Dkt kukagua

b. ☐ Oxytocin

c. ☐IV maji kwa ajili ya kuhuisha

d. ☐C/S

e. ☐SVD

f. ☐Haijarekodiwa

29. Hatua ya pili, upanuzi kamili wa seviksi umerekodiwa.

a. ☐Badilisha mstari

b. ☐Mstari wa hatua

c. ☐Haijarekodiwa

30. Kugundua upanuzi usio wa kawaida wa kizazi

a. ☐Kukamata kutanuka kwa seviksi

b. ☐Ya muda mrefu

c. ☐Haijatambuliwa

31. Kugundua asili isiyo ya kawaida

a. ☐Asili iliyokamatwa

b. ☐Kushuka kwa muda mrefu

c. ☐Haijatambuliwa

32. Muda wa hatua ya kwanza ya leba ulirekodiwa?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa.

33. Ikiwa jibu hapo juu ni ndiyo, taja muda wa hatua amilifu ya leba masaa

a. ☐<Saa 11

b. ☐> Saa 12

c. ☐ Haijarekodiwa.

34. Muda wa hatua ya pili ya leba ulirekodiwa?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa

35. Ikiwa jibu hapo juu ni ndiyo, taja muda wa hatua ya pili ya leba masaa

a. ☐< dakika 60

b. ☐> Saa 1

c. ☐Haijarekodiwa

36. Muda wa hatua ya tatu ya leba ulirekodiwa?

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa

37. Ikiwa jibu hapo juu ni ndiyo, taja muda wa hatua ya tatu ya leba dakika

a. ☐<30dakika

b. ☐> 30 dakika

c. ☐Haijarekodiwa

38i. Uingiliaji wa wakati wa kazi isiyo ya kawaida

a. ☐Imeandikwa

b. ☐Haijarekodiwa.

38ii. Wakati gani kuingilia kati kwa kazi isiyo ya kawaida.

a. ☐AM

b. ☐PM

c. ☐Haijarekodiwa.

39i. Muda wa awamu ya kazi ya kazi.

a. ☐< Dakika 30

b. ☐ Dakika 31 - 75

c. ☐> dakika 75.

d. ☐Haijarekodiwa

39i. Muda wa C/S au SVD

a. ☐< Dakika 30

b. ☐ Dakika 31 - 75

c. ☐> dakika 75.

d. ☐Haijarekodiwa

40. Usimamizi hai wa hatua ya tatu ya leba

a. ☐Kamilisha

b. ☐Haijakamilika

c. ☐Hakuna

SEHEMU YA IV: MATOKEO YA MAMA

41. Njia ya kujifungua

a. ☐Kujifungua kwa njia ya kawaida.

b. ☐Kusaidia kwa kujifungua.

c. ☐Kujifungua kwa upasuaji

d. ☐Haijarekodiwa

42. Matatizo ya uzazi

a. ☐PPH

b. ☐Kuchanika ya Perineal

c. ☐Mpasuko Unaokaribia/kupasuka kwa kizazi.

d. ☐Upasuaji wa upasuaji

e. ☐placenta iliyobaki

f. ☐Episiotomia

g. ☐Perineum intact

h. ☐Haijarekodiwa

i. ☐PPH na Perineum Tear

j. ☐PPH na Perineal bila kubadilika

43. Muda wa kukaa hospitalini

a. ☐< Saa 24

b. ☐Siku 1 - 3

c. ☐> siku 3

d. ☐Haijarekodiwa

44. Kuhamishiwa ICU

a. ☐Ndiyo

b. ☐Hapana

45. Imepokea BT

a. ☐Ndiyo

b. ☐Hapana.

SEHEMU YA V:

MATOKEO/HALI YA MTOTO MPYA

46. Jinsia ya mtoto mchanga iliyoandikwa

a. ☐ Imeandikwa

b. ☐Haijarekodiwa

47. Ngono imerekebishwa

a. ☐Mwanaume

b. ☐Mwanamke

c. ☐ Haijarekodiwa

48. Ukosefu wa kawaida wa mtoto mchanga kurekodiwa

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa

49. Uzito wa mwili wa mtoto mchanga kurekodiwa

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa

50. Kama ndiyo Rekodi uzito

a. ☐< 2.5kg

b. ☐ 2.6 - 3.2 kg

c. ☐ 3.3 - 3.9 kg

d. ☐> 4 kg

e. ☐ Haijarekodiwa

51. Mfungaji wa Apgar alirekodiwa

a. ☐> 7 kwa dakika 5.

b. ☐< 7 kwa dakika 5

c. ☐ Haijarekodiwa

52. Mtoto mchanga alazwa ICU

a. ☐Ndiyo

b. ☐Hapana

53. Bado kumbukumbu ya kuzaliwa

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa.

54. Kuzaliwa hai kurekodiwa

a. ☐ Imerekodiwa

b. ☐Haijarekodiwa.

Appendix V: Ethical Clearance

REVOLUTIONARY GOVERNMENT OF ZANZIBAR

Ministry of Health,
P. O. Box 236,
Street: Mnazi Mmoja - Zanzibar
Tel: +255-24-2231614
Email: info@mohz.go.tz
Website: www.mohz.go.tz

Zanzibar Health Research Institute,
87 Barabara ya Binguni
P. O. Box 236
Website: www.zahri.go.tz
Postcode: 72208, Binguni
Street: Binguni – Zanzibar
Tel: +255(0) 776 264 880
Email: zahrec@zahri.go.tz

Ref: NO. ZAHREC/02/ST/MAY/2024/85 03rd May, 2024

Sabrina Bashir Mohamed,
Student Researcher,
Hubert Kairuki Memorial University.

RE: ETHICAL CLEARANCE FOR CONDUCTING HEALTH RESEARCH IN ZANZIBAR

This is to certify that the research protocol titled **"Degree Of Completeness Of Partograph And Its Effects On Obstetric Outcomes Among Post Natal Women Who Delivered In Labour Ward At Mnazi Mmoja Referral Hospital, Zanzibar."** was received and reviewed on the 24th of April, 2024.

We would like to inform you that your proposal has been "**Approved**" for implementation.

Sites of Research: *Mnazi Mmoja hospital.*

The Principal Investigator has to:

i. Submit your progress report and a final report upon completion of Research.
ii. Seek permission for Publication of results from ZAHREC.
iii. Submit Copies of the final Publications to ZAHREC.
iv. Seek approval for any changes made to the approved protocol prior to their implementation

Any researcher who deviates or fails to comply with these conditions shall be guilty of an offense and shall be liable for **Six months: 03/05/2024 - 02/11/2024**

Thanks in advance,

ZANZIBAR HEALTH RESEARCH INSTITUTE 10 MAY 2024 P.O. Box 236, ZANZIBAR

Dr Mayassa S. Ally,
CHAIR- HRCC,
ZANZIBAR HEALTH RESEARCH INSTITUTE,
BINGUNI,
ZANZIBAR.

Amour S. Mohamed,
DIRECTOR GENERAL,
MINISTRY OF HEALTH,
ZANZIBAR.

HUBERT KAIRUKI MEMORIAL UNIVERSITY (HKMU)

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Ref. No. HKMU/IREC/27.10/440 **09th April 2024**

Dr. Sabrina Bashir Mohamed,
Hubert Kairuki Memorial University,
P.O. Box 65300,
Dar es Salaam, Tanzania.

RE: ETHICAL CLEARANCE CERTIFICATE FOR CONDUCTING HEALTH RESEARCH.

I am pleased to inform you that the research titled: **Degree of Completeness of Partograph and Its Effects on Obstetric Outcomes Among Women Attended in Labour Ward at Mnazi Mmoja Referral Hospital, Zanzibar (Mohamed S. B., 2024)** has been granted ethical approval.

This approval is in effect for one year from the above date. Any changes in the procedures should be reported to the Institutional Research Ethics Committee. Significant changes will require the submission of a revised request for ethical approval. You will be required to submit **study progress report** every six months.

Permission to publish your findings should be sought from the National Institute for Medical Research (NIMR) before submission to a publisher and not concurrently.

CHAIR PERSON

Name: Prof. Fredrick Kaijage

Signature:

SECRETARY

Name: Prof. Columba Mbekenga

Signature:

HUBERT KAIRUKI MEMORIAL UNIVERSITY
P. O. Box 65300
DAR ES SALAAM

HOSPITALI YA RUFAA MNAZI MMOJA

ZANZIBAR

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Tarehe: 28 / 5 /2024

Nd Sabrina Bashir Mohamed
Mwanafunzi/Mfanyakazi Mtafiti
Chuo/Ofisi/Hospitali Hubert Kairuki

KUH: RUHUSA YA KUFANYA UTAFITI.

Mada ya hapo juu inahusika na barua hii.

Ombi lako la kuja kudadisi baadhi ya wagonjwa/wafanyakazi kwa lengo la kulamilisha utafiti huo limepokewa na kuzingatiwa. Ruhusa imetolewa kuja kwa ajili ya udadisi huo unaohusiana na:

Degree Of Completeness Of Patograph And Its Effects On Obstetric Outcomes Among Post Natal Women Deliverd In Labour Ward At Mnazi Mmmoja Referral Hoapital, Zanzibar.

kuanzia tarehe ya barua hii kwa muda wa mwezi mmoja.

Unatakiwa kuwasilisha matokeo ya utafiti wako ofisini kwa Mkurugenzi Mtendaji mara baada ya kazi ya uandishi wa ripoti hiyo kumalizika na kuwasilisha kwenye Taasisi husika.

Unatakiwa kuvaa Kitambulisho chako muda wote wa kazi hii kwenye maeneo ya hospital. Pia uwe na kopi ya barua hii. Kutokana na upungufu wa wafanyakazi hospitalini hapa huruhusiwi kutumia wafanyakazi wa hospital kwa kazi yako hii.

Natanguliza shukurani za dhati kwa mashirikiano

Ahsante

Hafidh Sheha Hassan
/Mkurugenzi Mtendaji,
MnaziMmoja Hospital,
Zanzibar

MNAZI MMOJA HOSPITAL
Date.....
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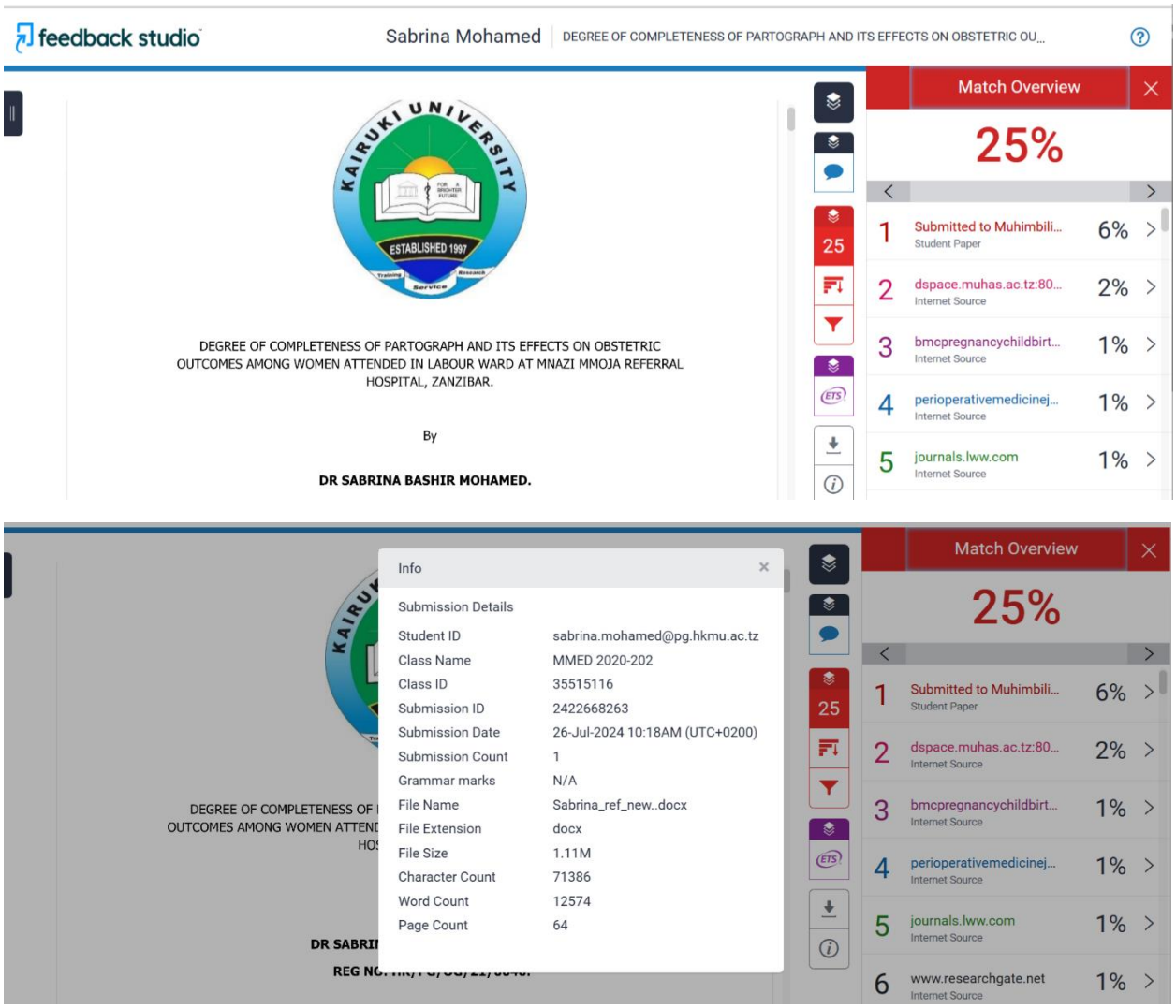
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DEGREE OF COMPLETENESS OF PARTOGRAPH AND ITS EFFECTS ON OBSTETRIC OU...
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