REFERRAL REASONS AND COMMUNICATION BARRIERS INFLUENCING REFERRALS OF WOMEN WITH OBSTETRIC COMPLICATIONS DURING PERIPARTUM PERIOD AT MUHIMBILI NATIONAL HOSPITAL, DAR ES SALAAM

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Department of Community Health Nursing

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By

Monica B. Alex

A Dissertation Submitted in (Partial) Fulfilment of the Requirements for the Degree of Master of Science (Midwifery and Women's Health) of

Muhimbili University of Health and Allied Sciences
October, 2017

CERTIFICATION

The undersigned certify that she has read and hereby recommend for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled ***''Referral reasons and communication barriers influencing referrals of women with obstetric complications during peripartum period at Muhimbili National Hospital'',*** in (partial) fulfilment of the requirements for the degree of Master of Science (Midwifery and Women's Health) of Muhimbili University of Health and Allied Sciences.

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Dr. Sebalda Leshabari (RN/M, MPH, PhD)

(Supervisor)

____

Date

DECLARATION AND COPYRIGHT

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

Signature... **Date**...

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ABSTRACT

Background: World Health Organization (WHO) emphasises that the referral process should follow a pre- established plan that can be put into action without delay at any given time. While obstetric referral has continued to be a challenge in the health care system, adherence to referral guidelines reflects the effectiveness of maternal referral system in influencing quality of care for reduction of maternal morbidity and mortality.

Objective: The aim of this study was to assess the obstetric referral process among women with obstetric complications during the peripartum period referred to Muhimbili National Hospital (MNH) for advanced obstetric management

Materials and methods: This was a cross-sectional study that was conducted at the maternity block in MNH, Dar es Salaam. Both qualitative and quantitative research methods were employed. Quantitatively, the study population was women admitted in the labour ward, high dependency ward, ICU ward and postnatal ward, who were selected by convenience sampling. Qualitatively the study population was health care providers (nurse-midwives, and obstetricians) working at the Maternity block in MNH, who were selected purposively.Quantitative data was collected by review of files of women with obstetric complications which were collected from the four wards (labour ward, high dependant ward, ICU ward and postnatal). File numbers were written on small pieces of paper, then the pieces of papers were mixed together and then half the number of pieces of papers was selected randomly each day. Qualitative data was obtained through in depth interviews using semi-structured interview guide to explore means of communication during the referral process. Data generated were analysed using univariate statistics when summarizing background characteristics. Qualitative data were analysed by using content analysis framework. The study was conducted in a one month period from 5st April to 23rd May.

Results: A total of 426 records of referred women were reviewed.95.8% came from public health facilities in which73.2% were referred from regional hospitals.Most documented reasons to refer women were hospital related factors 62%, among which theatre busy had 25.1%, unavailability of blood 11.3% and lack of equipment and supplies 10.3%. Late referrals (after two hours) were observed in60.3% of women. In-depth interviews indicated

barriers in the referral process with the most commonly identified including:- use and non-use of phones before referral, unsatisfactory referral form documentation and inadequate feedback mechanisms.

Conclusion: The study demonstrates lack of both human and non-human resources required for provision of health care services, and identifies high proportion of late referrals influenced by significant deficiencies in referral process.

Recommendations: These findings calls for the undivided attention of stakeholders in enhancing effectiveness of referral system by strengthening peripheral facilities and creating sustainable coordination between all levels of the referral system.

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LIST OF ABBREVIATIONS

BEmOC	Basic Emergency Obstetric Care
CEmOC	Comprehensive Emergency Obstetric Care
EmOC	Emergency Obstetric Care
ICU	Intensive Care Unit
IRB	Institutional Review Board
MNH	Muhimbili National Hospital
MoHCDGEC	Ministry of Health Community Development Gender Elderly and Children
MUHAS	Muhimbili University of Health and Allied Sciences
PHC	Primary Health Care
PPH	Postpartum Haemorrhage
SMI	Safe Motherhood Initiative
SPSS	Statistical Package for Social Sciences
TDHS	Tanzania Demographic and Health Survey
WHO	World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Tanzania health system is decentralized and assumes a pyramid structure which reflects the referral pathway from primary level to tertiary level that is from dispensaries to consultant hospitals. Health care services are offered by government, private not-for profit, faith based hospitals, private for-profit and company services(Kwesigabo, Mwangu, Kakoko, & Warriner, 2012).Linking the different levels of health care has been regarded as an important element of primary health care(Jahn & Brouwere, 2000).
A well-functioning referral system is considered to be an essential domain of successful Safe Motherhood programmes (Murray & Pearson, 2006).Even though pregnancy is a normal physiological process and a universally joyous event, the fact that every pregnant woman is at risk of complications cannot be overlooked.

Ability of different levels of health facilities to provide Emergency Obstetric services vary tremendously with some being Comprehensive Emergency Obstetric Care (CEmOC) facilities while others function at or less than Basic Emergency Obstetric Care level (BEmOC) (Hussein, Kanguru, Astin, & Munjanja, 2012).To a significant number of women, pregnancy may be complicated due to medical disorders or obstetric complications which can lead to maternal death. In most cases complications are unpredictable and develop rapidly but they can be treated(Lungu & Ratsma, 2007).

Obstetric referral from one health facility level to another is made when there is a prediction that a woman may develop obstetric complications or when the complication has already developed and cannot be managed at a specific health facility(Pacagnella, Cecatti, Parpinelli, Sousa, Haddad, Costa, Souza & Pattinson, 2014).In principle referral criteria should be entirely medical(Ng'ingo, 2007). Referral requires a medical judgement and depends on many things including but not limited to:- the skills of the referring staff, the tools for diagnosis, the availability of a health institution with specialist facilities, the quality of care at the referral institution, the cost of care, distance, transportation, communication, someone to accompany the patient, and feasibility of travel by the patient (Singh, Doyle, Campbell, Mathew, & Murthy, 2016).

Among the three components of delays model developed by Thaddeus and Maine, one is the delay in receiving adequate care at a health facility(Pacagnella et al., 2014). Here the referral system failures have been identified as a main contributing factor to substandard care for maternal health like shortage of human resources for health, lack of skilled health care personnel's, lack of medical equipment and supplies, frequent out of stock of essential medicines and lack of investigations for proper diagnosis(Murray & Pearson, 2006).According to (Murray & Pearson, 2006),requirements of an effective referral system include:- referral centre with sufficient resources, cooperation between referral levels, proper communication and feedback system, transport, integrated records system, skilled human resource for health and agreed setting specific protocols for the identification of complications.

Tanzania Referral Guideline depicts that effective referral system must adhere to the referral procedure components which constitute bases for referral, documentation of referral form, transport, communication and feedback (MoHCDGEC, 2016).While obstetric referrals have continued to be a difficult puzzle to solve the health care system challenges, adherence to referral guidelines reflects the effectiveness of maternal referral system and quality of care in reduction of maternal mortality.

1.2 Problem Statement

Poor accessibility of emergency obstetric care attributed by ineffective referral system contributes to severe morbidity and high maternal mortality in developing countries(Hussein et al., 2012).Worldwide 287,000 women die because of complications arising due to pregnancy and childbirth, whereby Sub-Saharan Africa accounts for about half of these deaths (Pembe, 2014). According to a national survey, Tanzania has a maternal mortality ratio of 556 per 100,000live births. Many of these deaths are due to direct and indirect obstetric complications hence remain a major public health concern(TDHS, 2016).

Estimates shows that 15% of all pregnant women develop pregnancy and childbirth related complications which require access to advanced care (Pembe, Urassa, Darj, Carlstedt & Olsson, 2008). In these circumstances, most life threatening obstetric complications occur during delivery or immediately after delivery (Singh et al., 2016). However even with the feasibility of interventions within the limited resources hospital settings, most maternal deaths in Tanzania occur after women have had contact with health care facilities (Pembe et al., 2010), making referral systems a critical domain for the survival of such women.

Despite the fact that Dar es Salaam is a large and well developed city with three regional hospitals and a national hospital capable of providing both BEmOC and CEmOC services, the rate of maternal mortality in the region is still significantly high. This has being documented whereby by the maternal mortality ratio at MNH was 1,541 per 100,000 live births(Pembe, 2014).Personal observation at the maternity block of MNH revealed that a significant number of women arrive late and in critical conditions with poor and undocumented communication and feedback systems with other health care facilities.

There is still a paucity of evidence on the effectiveness of the referral process in reducing maternal mortality, in particular at MNH and general in Dar es Salaam. Therefore this study aimed at assessing obstetric referral process among women with obstetric complications referred to MNH for advanced obstetric management, in terms of reasons for referral, means of communication and feedback mechanisms including delays in reaching the appropriate levels of health facility.

1.3 Significance of the Study

Tanzania being one among the countries with high rates of maternal mortality, the referral system is still facing a significant number of barriers in terms of its functioning. The study aimed to provide information about the current referral system, which would offer a better understanding of what really happens on the ground when things are beyond the expected norms within the hospital setting thus informing policy makers to act accordingly.

Findings will inform hospital management teams to formulate and prioritize strategies to improve referral practice by strengthening the implementation of the referral guideline. Also findings will provide up-to-date information for researchers which can be used as a base for further studies on issues concerning obstetric referral.

1.4 Research questions

1. What are the reasons for referring women with obstetric complications to MNH?
2. What is the proportion of women delaying in reaching at MNH after decision to refer the woman from lower level facilities is made?
3. What are the means of communication used between the referring health care facilities and MNH.

1.5 Research objectives

1.5.1 Broad Objective

To assess obstetric referral process among women with obstetric complications during peripartum period referred to MNH for advanced obstetric management

1.5.2 Specific Objectives

1. To determine the reasons for referring women with obstetric complications to MNH
2. To identify the proportion of women delaying in reaching at MNH after decision to refer the woman from lower level facilities is made.
3. To explore health care providers experiences on the use of phones, referral forms and feedback during referral.

1.6 Definition of terms

Conceptual definitions

Referral; advice given by a health care practitioner to seek care at higher level health facility for more specialized care (Chaturvedi, Randive, Diwan, & Costa, 2014).

Referral; a process in which a health worker at a one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in, or take over the management of, the client's case (WHO,….)

Obstetric complication; An obstetric complication is defined as an acute condition which occur due to direct cause of maternal death, such as antepartum or postpartum haemorrhage, obstructed labour, puerperal sepsis, abortion complications, pre-eclampsia or eclampsia, ectopic pregnancy, and ruptured uterus, or indirect causes such as anaemia, malaria, and tuberculosis (Sikder et al., 2011)

Peripartum period;During labor and delivery(Berg et al., 2016)**.**

Parity; The number of pregnancies carried by one woman which attained foetal viability (Inyang-Otu, 2014).

Operational definitions

Obstetric referral: Is a transfer of a woman with obstetric complication(s) from secondary health facilities (district and region) to consultant health facility where specialized care and management can be attained

Referral process: Is a series of health related procedures which begin when a patient has an assessment need for specialty care which progresses to the decision of referring the patient to access specialty care, and ends with the completion of referred care. The process encompasses coordination between referring and consultant health facilities

Time: Duration between when the decision of institutional referral for the woman with obstetric complication is made and admission of the woman at MNH maternity block

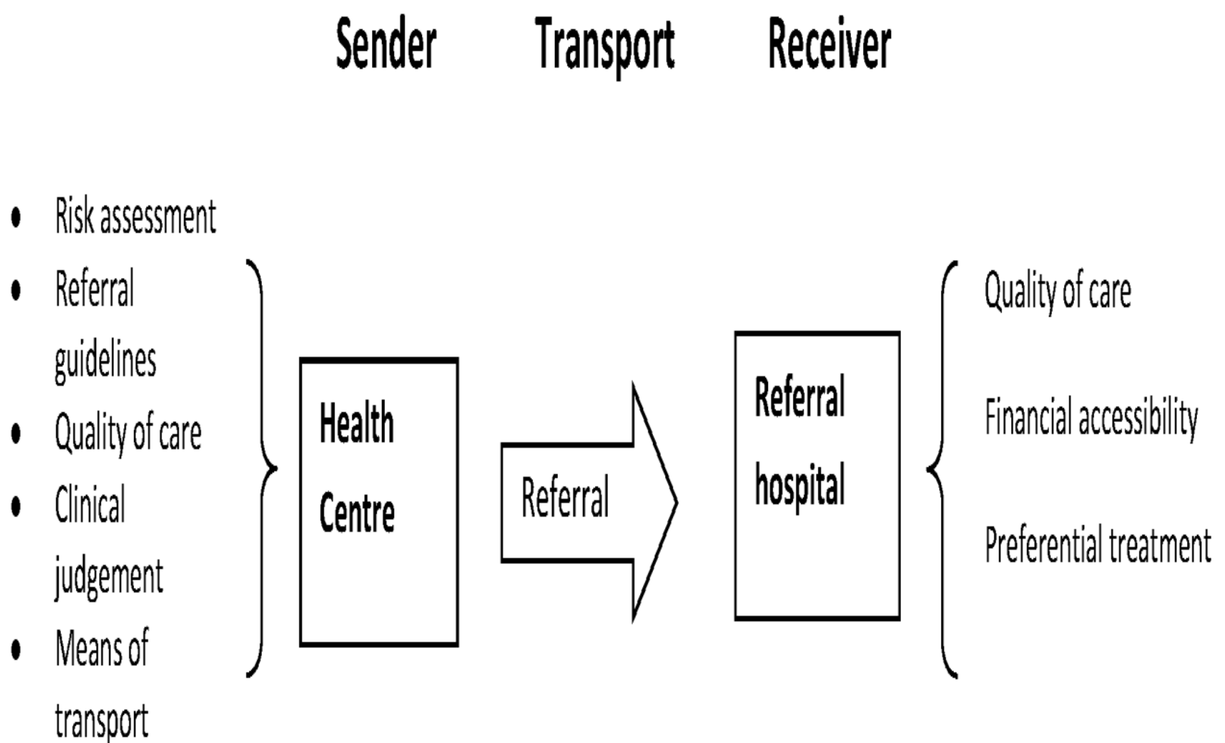
Reasons for referral: These are reasons for referring a woman from one health facility to another for further management which are documented in the referral form.

Health care providers: nurse-midwives, obstetricians and gynaecologists who are caring for women with obstetric complications.

Working diagnosis: Is the provisional diagnosis of the most likely nature of a disease which guides diagnostic tests and provisional treatment.

1.7 Conceptual Model

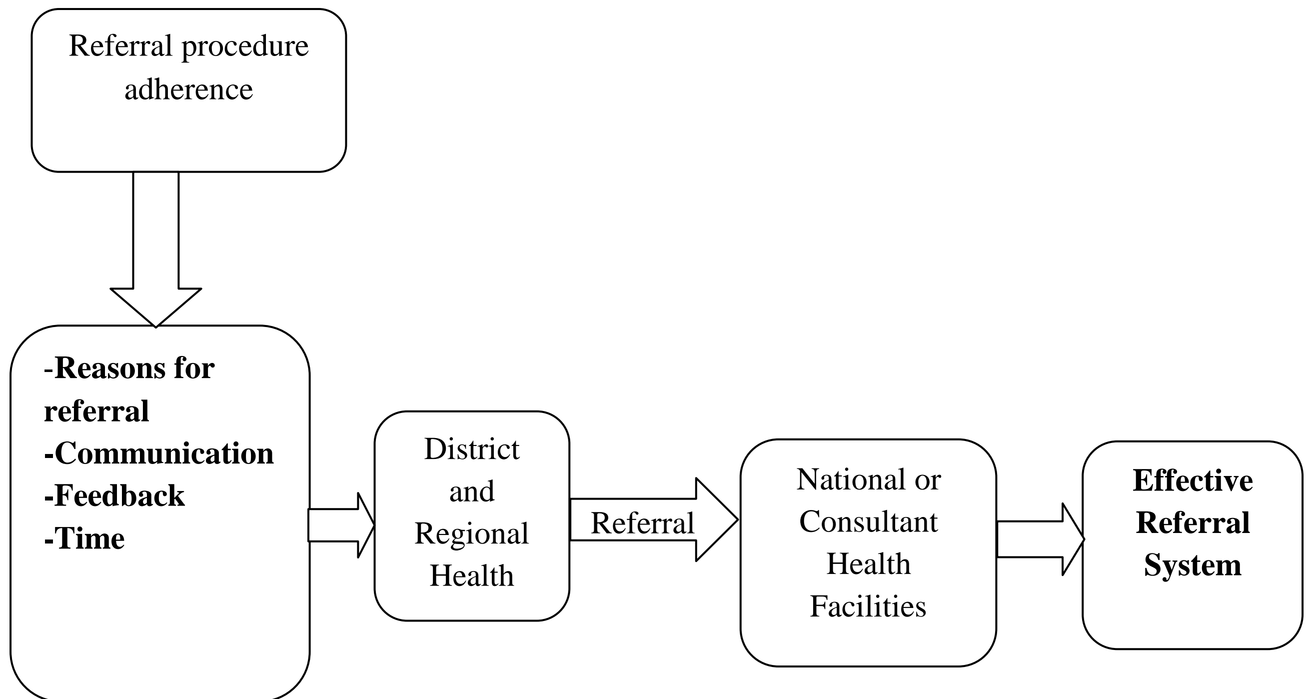
Figure 1: Model of referral chain



Source:Chaturvedi et al., 2014

This model conceptualises referrals as composed of three (3) components which are: - sender, transport and receiver. The model focuses on referrals between health facilities (referring and receiving health facilities) (Chaturvedi et al., 2014).

Figure 2: A Modified conceptual Model on Model of referral chain



The modified conceptual model of this study describes the referral procedure (chain) as recommended by Tanzania Referral Guideline that explains the components of effective referral procedure (MOHCDGEC, 2016). This model has being modified by limiting it to focus on effectiveness of the referral system and not assess the quality of care at referral hospitals.

This study focused on four components which are the reasons for referral, communication, feedback and time duration during referral, for assessing effectiveness of obstetric referral system. These concepts from the conceptual model have been used in developing the study objectives, data abstraction form for obtaining information used in analysis and presentation of research findings to evaluate effectiveness of obstetric referral system compared to the standards.

CHAPTER TWO

2.0 LITERATURE REVIEW

This literature review is the collection of literatures from different articles on obstetric referrals. The literature review consists of two sections based on obstetric referral and referral procedure.

2.1 Obstetric Referral

Obstetric referral system is a crucial component of the health care systems in providing access to emergency obstetric care when complications arises(Maskey, 2015). Effective referral ensures that the patient receives optimal care by connecting different levels of health care facilities (Singh et al., 2016)as an essential element of primary health care (PHC). A study by (Manijeh Eskandari, Abbas Abbaszadeh, 2013) showed that poor connections between different levels of the referral system are an integral part of an ineffective referral system in health care provision. Obstetric emergencies may occur in women with known risk factors but also they may occur to a significant proportion of women with no recognisable risk factors (Pillay et al., 2016).

Safe Motherhood Initiative (SMI) being a global effort to reduce the number of morbidity and mortality associated with pregnancy and child birth whereby in Tanzania emphasis is placed on three fundamental commitments. These are:-every pregnancy must be wanted, all pregnant women and their infants should have access to skilled care and every woman should be able to reach a functioning health facility to obtain appropriate care when complications arise(MOHCDGEC, 2016).Documented literature have displayed that a well-functioning referral system acts as a cornerstone in reduction of maternal mortality(Pembe et al., 2008). Where by around 99% of all maternal deaths occur in low and middle income countries (Pacagnella et al., 2014).

WHO standards emphasizes on ensuring appropriate referral of all patients with conditions that cannot be treated as required with the resources available at a particular health facility by following a pre-established plan that can be put into action without delay (WHO, 2015). World Health Organization estimates that between 88 and 98% of undesirable occurrence

of maternal deaths can be prevented with timely and adequate accessibility to emergency obstetric care through an effective referral system (Knight et al., 2013).

Requisites for successful maternity referral systems include:- an adequate resourced referral centre, efficient communication, feedback system, reliable transport measures, agreed setting-specific protocols for referrer and receiver, qualified staffs and proper record system (Murray & Pearson, 2006).A good referral system requires agreed goals, objective, standard protocols and regular review(Kitilla, 2001).

2.2 Reasons for referral

Reasons for referring women should reflect proper management in each level of care. While referring it's of importance to document the reasons so as to help in provision of management at the required facility. Documentation of the reasons for referral varies where by sometimes they are written in form of diagnosis and other times they are written by focusing exactly on what made the management impossible. A study done by (Jyoti Bindal, Nidhi Agrawal, 2017) showed the reasons for referral in terms of direct and indirect obstetric causes such as hypertension, haemorrhage, anaemia, malaria etc.
(Kitilla, 2001) revealed that referrals from hospitals within the city were mainly due to non-medical reasons such as shortage of empty bed and operation room related reasons (for example operation room not functional with no specific reason, operation room occupied, operation room under fumigation and unavailability of oxygen).

2.3 Delay in reaching care

Time is essential in obstetric emergencies because the onset of complications and proper initiation of management makes a difference to the outcome. Some complications like severe haemorrhage, few minutes are of a significant value to save life of both the woman and unborn child, while for other complications, hours or even days may be bearable but with the prognosis getting worse as time elapses (Kitilla, 2001)
Delays in transfer of women who get complications within the health care system leads to many women arrive at an EmOC facility in critical condition (Hirose et al., 2015). In a study which looked into delays in receiving obstetric care and poor maternal outcomes showed that 25.7% of delays were related to quality of medical care which reflects

ineffective referral system, whereby frequency of delay contributed to 84.1% of maternal mortality(Pacagnella et al., 2014).

It has also been recommended that basic and comprehensive Emergency Obstetric Care (EmOC) facilities should be available within two to three hours of travel for most women (Sabde et al., 2014). A study done by (Patel et al., 2015) showed that out of the 155 cases, time of referral was not mentioned in the referral slip for about 25 (16.1%) of the cases.A study done by (Khatoon et al., 2004) showed that delay in referral contributes significantly to undesirable maternal outcomes.

The reasons for delays have been soundly documented and include poor geographical environment, lack or inadequate transport vehicles and transport costs, lack of phones, scattered distribution of health facilities and poor decision-making of health care providers (Knight et al., 2012). These delays have an effect on both urban and rural areas. In obstetric emergencies, timely referrals are important in making sure of the accessibility to emergency obstetric care.

2.4 Means of communication

Referral system requires reliable communication systems between the different levels of facilities. Mobile phone technology plays a vital role in referral system as it improves the reply time for emergencies through sending of transport to the referring health facility, making preparation for immediate initiation of treatment when the patient arrives and offering advice on how to stabilize the patient before referral. A study by (Noordam et al., 2011) documented quick means of communication as essential in improving access to maternal health services. Another study done by(Afari et al., 2014) in a rural district showed that there were no standards for communication between health facilities, making provision of care inadequate with poor mobile network connection being a limitation.

The referral form is designed to facilitate communication in both directions through documentation. Studies have identified that referred patients are not being accompanied by referral forms and even those with referral forms they are inadequately documented in such a way that they do not give satisfactory information for enhancement of patient's management.

Every patient referred to a more advanced level of care should be accompanied by a written record of the findings, any treatment given and specific reasons for referral(Kitilla, 2001).

Despite the fact that feedback plays a major role in improving patients' management and providing opportunity for referring health facilities to self-evaluate themselves. A study done by (Afari et al., 2014)showed that the receiving health facilities were not giving feedback whereby huge workload was identified as a common barrier for not providing feedback.

Promising referral linkages within the referral system which enhances accessibility to advanced health services within a continuum of care has shown a positive outcome on maternal health. Hence effectiveness of the referral system at all levels of health care facilities plays a great role in preventing adverse outcomes of pregnancy and childbirth (Hussein et al., 2012).

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Study Design

A cross sectional design employing both qualitative and quantitative approaches was used. Quantitatively, descriptive cross-sectional study design was used by reviewing of women's files that formed a basis for referral during labour and delivery due to obstetric complications and eventually admitted at the maternity block in MNH.

Qualitatively, a descriptive search was used to explore in depth descriptions as narrated by informants (nurse-midwives and obstetricians) who care for women during the obstetric referral process.

3.2 Study Setting

The study was conducted at the maternity block of Muhimbili National Hospital(MNH) which is located in Dar es Salaam. The hospital serves as a tertiary level and it is also a teaching hospital for the Muhimbili University of Health and Allied Sciences (MUHAS). The maternity unit at the Muhimbili National Hospital (MNH) receives about 600 maternal referrals per month from three Regional hospitals in Dar es Salaam namely Amana, Temeke and Mwananyamala, including other hospitals. However, there are occasional patients coming from upcountry. This study took place in the maternity block that admits pregnant women with complications, women in labour and postnatal women with and without complications.

Dar es Salaam is among the highly populated cities in Tanzania. Based on the national census and projection, the region had a population of about 5 million (NBS, 2016). The city is located along the coast of Indian Ocean. Though not politically recognized as the capital, it is the headquarters of the majority of the ministries, governmental and nongovernmental organizations headquarters as well as foreign embassies.

3.3 Study Population

Quantitatively, the study population was women admitted in the labour ward, high dependency ward, Intensive Care Unit (ICU) and postnatal ward. The study population for

the qualitative part of the study included health care providers (nurse-midwives and obstetricians) working at the Maternity block in MNH.

3.4 Sample Size

Quantitatively, the sample size was estimated by using the following formula (Naing, Winn, & Rusli, 2006).

- $N = \frac{Z^2 P(1-P)}{E^2}$

$N = \frac{1.96^2 x\ 50\% (100\% - 50\%)}{5\%^2}$

N=384.16

Adjusted sample size was426

Whereby;

N=Estimated minimum sample size

Z=Standard normal deviate set at 1.96(corresponding to the 95% confidence level)

P=proportion=50% (Since the proportion of peripartum referral is unknown, it was set at 50% in order to observe the minimum sample size)

E=Acceptable margin of error (5%)

Qualitatively, the researcher interviewed9 health care providers: - (7 nurse - midwives and 2 doctors), with the sample size being determined by reaching of data saturation point.

3.5 Study duration

The study was conducted for a period of 7 weeks, from 5th April to 23rd May, 2017.

3.6 Sampling technique

Quantitatively, simple random sampling was used whereby files were collected from the four wards (labour ward, high dependant ward, ICU ward and postnatal). In these wards we found files of women with obstetric complications. Selection was based on the available files forming a sampling frame. File numbers were written on small pieces of

paper, then the pieces of papers were mixed together and then half the number of pieces of papers were selected randomly each day.

Qualitatively, purposive sampling was used to select key informants who were considered to be knowledgeable and could best contribute to the information needs of the study.

3.7 Inclusion Criteria

For quantitative part

- All women referred during the peripartum period due to obstetric complications and admitted at labour ward, high dependent ward and ICU ward and postnatal ward

For qualitative part

- Ward in charges
- Nurse - midwives
- Obstetricians

3.8 Exclusion Criteria

For quantitative part

- Women with gestation age of less than 28 weeks
- Women with self-referral

For qualitative part

- Nurse – midwives and obstetricians with less than 3 years of experience

3.9 Data Collection

Data were collected through review of patients' files whereby information concerning socio-demographic characteristics such as age, education level, occupation, marital status, parity, gestation age, payment category, type of referral, presence of referral form, time of admission at MNH, referral diagnosis, reasons for referral, time of referral and working diagnosis at MNH was obtained using data abstraction form (Appendix I) which was in English language version constructed by the researcher. Information concerning communication and feedback system was obtained qualitatively by conducting face to face individual in depth interviews using interview guide (Appendix II). The guide consisted of

questions aiming at exploring informant's experience on means of communication during the obstetric referral process. The principal researcher together with the research assistant collected data and conducted all interviews that were audio-taped after obtaining consent from participants. Field notes were written during and immediately after the interviews.

3.10 Pilot of the Study

A pilot study was done to women with obstetric complications referred to Mwananyamala hospital prior to data collection by abstracting numerous patient records so as to test the data abstraction form. Mwananyamala hospital was considered to have close settings as those of MNH. Results of the pilot study were used to ensure clarity and understanding of questions to modify content and wording of the data abstraction form. Pilot study results are not included in the study results.

3.11 Validity and Reliability of the tool

For qualitative study

Validity

The data abstraction form was reviewed by an expert mid wife; obstetrician and statistician to check for content validity of the tool which was achieved by evaluating each question and provide opinion on how well answers the research objective. Their opinions were compared and analyzed to determine the degree of content validity.

Reliability

Two abstractors collected data from the same file. A Cohen's kappa (Kappa) rating was used to measure reliability, with the minimum acceptable level of 80% and preferably 95%

For quantitative study

3.12 Trustworthiness

In qualitative method trustworthiness is the way in which qualitative researchers make sure that transferability, credibility, dependability, and confirmability are evident in their study.In order to demonstrate that the evidence for the results reported is sound and the argument made based on the results is strong.

Credibility was achieved by triangulation of methods. That is using both quantitative and qualitative methods to ensure richness of the data gathered. Data triangulation was used during data collection by using multiple data sources which was achieved by going through patients' files; interviewing health care providers of different professions and different cadres about the same topic.

Member checking was done throughout the data collection process, during the conversations to confirm the accuracy of the investigator's interpretations.

To ensure dependability the same researcher was used to conduct the interview and asked the same questions in the same order, using an interview guide to ensure consistency during data collection and questioned the same areas for all participants. Questions were re-phrased and modified as the researcher continued to collect data so as to make sure that participants understood the information they were required to give.

Transferability was achieved through detailed description of the characteristics of study participants, study setting and study methods, so that a reader can compare them to a similar setting that they are more familiar with and apply the research results.

Confirmability was achieved by describing data collection, analysis, and presentation methods to create an audit trail and by retaining study data and making them available for use by another researcher in order to be able to verify the study when presented with the same data.

3.13 Training of Research Assistants

Prior to data collection a two days training of the research assistants was conducted by the principal researcher on how to obtain informed consent from the informants, to retrieve data from the patient's files, to fill the data abstraction form and how to collect data consistently to avoid biases and errors so as to come up with clean data.

3.14 Data Management

Control of data quality was achieved through training of research assistants on standardized data collection tool. Data abstraction forms were reviewed daily in the field

by the investigators. All incomplete and missing data were identified and rectified by the researcher and errors were corrected at the study site, during data collection.

3.15 Data Analysis

Quantitatively collected data was entered and cleaned to remove inconsistencies and out-of-range values. Data was analysed using statistical software (SPSS software version 21). Univariate analysis was performed to summarize background characteristics using frequency tables. All categorical variables such as marital status, employment status, etc. were summarized using proportions.

Qualitatively, field notes from the interviews on the health care provider's experiences on communication and feedback systems in the management of women with obstetric complications were read several times to obtain a sense of the wholeness and audio- taped information was transcribed verbatim and later translated into English to facilitate analysis by the research team. Qualitative content analysis was used to analyze the data, as described by (Graneheim & Lundman, 2004). Transcripts were read several times to obtain a sense of wholeness and familiarize with the data. The texts containing information about the participants' experiences on communication and feedback system were selected into 'meaning units' then condensed meaning units were obtained from the original meaning units. The condensed meaning units were then abstracted and labeled with codes. The codes were later grouped into categories reflecting the content of the text then similar categories were organized and formulated a theme.

Quantitative data were presented using tables and figures of relevant variables while Qualitative data were presented in terms of themes with backup of participants quotes.

3.16 Definition of variables

Dependent variable

Referral

Independent variables

Reasons for referral, communication barriers (use of phone, referral form, feedback)

3.17 Ethical Consideration

For the qualitative part of the study, informed consent was obtained from each participant after the researcher had explained the purpose of the study. Despite the interview being reproduced on the papers, anonymity of participants was maintained by not including any of their identification. Participants were informed of their right to refuse participation in the study without jeopardizing the services they were to get. They were also assured of the confidentiality of the collected information and they were told that they are free to discontinue from the study any time they want and privacy was maintained at all times during the interviews. (Appendix VIII).

Data abstraction forms were identified by numbers and not names to ensure confidentiality and anonymity. All files were reviewed in the hospital premises and only the researcher and research team had access to the data abstraction forms. In the field the principal investigator assisted the health care providers to give required lifesaving services in case of obstetric emergencies whenever necessary.Data abstraction forms, field notes and tape recorder were stored by the principal researcher at a safe cupboard which was locked with a keyand later will be destroyed by burning the forms and field notes and deleting the recordings after the study has been published to maintain privacy.

3.18 Ethical Clearance

Ethical clearance was requested and granted by MUHAS Institutional Review Board (IRB) (Appendix V). Permission to conduct the study was obtained from the Executive Director of Muhimbili National Hospital (Appendix VI).

3.19 Dissemination of the Results

Research report will be submitted to MUHAS Directorate of Post-graduate studies. Also findings will be disseminated to Director of MNH, University and MoHCDGEC Libraries and will be presented in various National and international Conferences as well as published in nursing and midwifery journals.

CHAPTERFOUR

4.0 RESULTS

4.1 Background characteristics

Table 1 shows the socio-demographic characteristics of the referred patients. A total of 426 records of women referred were reviewed. 408 (95.8%) came from public health facilities, of these 73.2% were from regional referral hospitals.The age range between 20 and 34 years accounted for 312 (73.2%) of the referrals. Majority of the women, 414 (97.2%), were married. Almost two third of the women 269 (63.1%) had some primary education. By occupation, half of the women, 214 (50.2%), were unemployed. 153 (35.9%) of referred women were nulliparous and gestation age of 37-44weeks accounted for 264 (62.0%) of the referrals.

Table 1: Background characteristics of study participants, MNH (n=426)

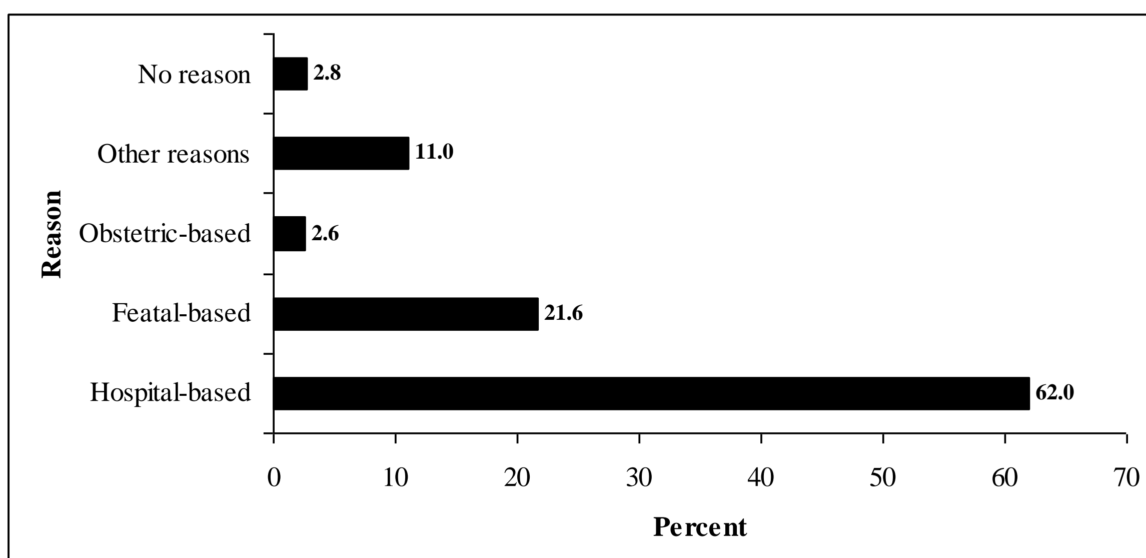
Background characteristic	Number (%)
Source of the sample	
Public facilities	423 (99.3)
Private facilities	3 (0.7)
Age group (years)	
15 – 19	53 (12.4)
20 – 24	106 (24.9)
25 – 29	113 (26.5)
30 – 34	93 (21.8)
35+	61 (14.3)
Current marital status	
Not married*	12 (2.8)
Married**	414 (97.2)
Education status	
No formal	32 (7.5)
Some primary	269 (63.1)
Some secondary	112 (26.3)
Above secondary	13 (3.1)
Employment status	
Unemployed	214 (50.2)
Employed	212 (49.8)
Parity	
0	153 (35.9)
1	121 (28.4)
2+	152 (35.7)
Gestation age (Weeks)	
28 – 36	162 (38.0)
37 – 44	264 (62.0)

*Widow, Divorce, Separate; **Married or Cohabiting

4.2 Reasons for referrals

Most documented reasons to refer women based on hospital factors, 265 (62%), among which theatre being busy accounted for (25.1%), followed by unavailability of blood (11.3%) and lack of equipment and inadequate supplies (10.3%). Foetal-based reasons included premature care (20.4%) and neonatal care (1.2%). Obstetric reasons were only (2.6%) of the referred cases while other reasons (11%) included further management and in (2.8%) of the referrals the reasons where not documented.

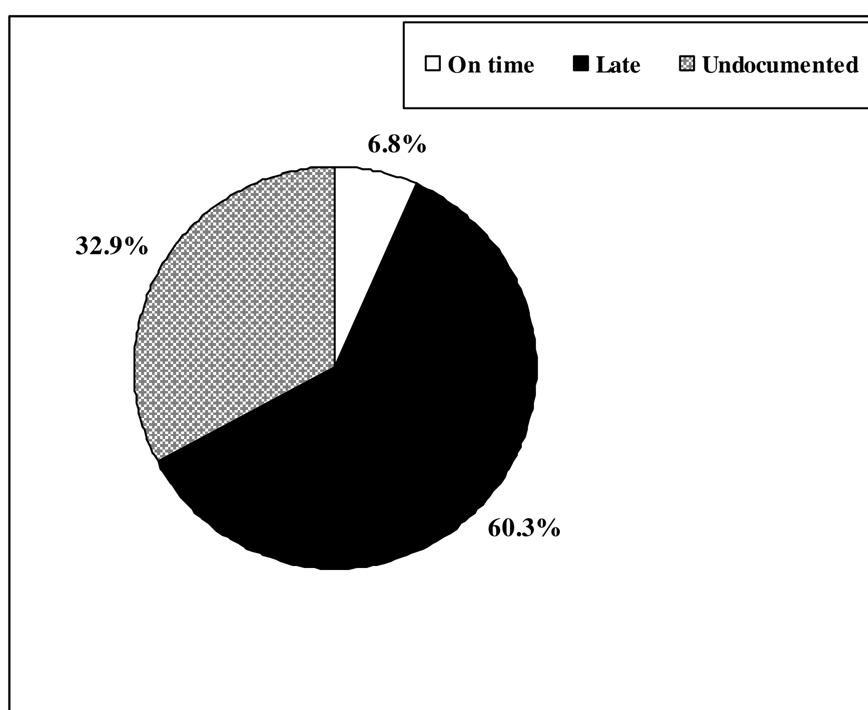
Figure 3: Documented reasons for referral



4.3 Time since decision to refer and actual admission at MNH

Referral within two hours accounted for only 29 (6.8%) of the referred women where as 257 (60.3%) were referred after 2 hours. Mean time among referred women was 4.9 (SD=3.1) hours. Among women referred early, the average time was 1.3 (SD=0.4) hours as compared to 5.3 (SD=3.0) hours for women referred late. However, 140 (33%) of the referred women had undocumented duration of time.

Figure 4: Proportion of women according to referral time



4.4 Experiences on means of communication

Health care providers working at the maternity block in Muhimbili national hospital were interviewed. From analysis of the data a main theme “Inadequate connection between different levels of health facilities” emerged that reflected the health care provider’s experiences of obstetric referral process. The theme included 3 categories: - (1) Use and non-use of phones before referral (2) Unsatisfactory referral form documentation (3) Inadequate feedback mechanism.

Inadequate connection between different levels of health facilities

Use and non-use of phones before referral

Health care providers interviewed explained that there is inconsistent and poor information exchange between health facilities, as despite a mobile phone being available for communication but it's only one and is placed in one ward. Moreover some of other peripheral health facilities do not have the phones for communication and still even with those facilities with phones not all of them make calls before they refer the patients.

> *"For now the communications are done through mobile phone which is in the labor ward, others make phone calls before referring the mothers and others just refer without making any phone calls. Not all referring health facilities make phone calls".* (Nurse-midwife, P1)

Health Care Providers (HCPs) described how the lack of advance notice from referring health facilities makes it difficult for hospital staff to make early preparations adequately.

> *"A patient can come intubated, very sick. She arrives and you have other stuffs, you start to run here and there so information before patient's arrival is very important because of preparation".*(Nurse-midwife, P5)

Unsatisfactory referral form documentation

Health care providers interviewed reported that referred patients are accompanied with referral notes which should facilitate communication about the patient's condition but the referral forms have no enough information to help in the patient's management and hence hinders continuation of patients care.

> *"………………..No documentation of what was done as primary management to the patient. So when the patient arrives here you cannot continue with management from where they ended you have to start afresh".* (Obstetrician, P6)

> Another health care provider said

> *"............ referral forms don't have information to help in patient's management. Below the form you will find the name and number of the referring doctor but for my experience most of the times you find it's a wrong number".* (Obstetrician, P9)

Inadequate feedback mechanisms

Informants explained that there is no feedback given to referring health facilities instead only complaints are being given when things have not being done appropriately or as expected. Immediate feedback given through phone calls depends on the initiative of individual providers, whereby during patients' admission they can call and inquire about stuffs which have not being done as required but this is not done on a regular basis.

"No, we don't give any feedback. Few times we can call to complain or to ask but from there if a patient dies or recovers it's not common to give feedback".(Obstetrician, P9)

Other informants also explained the inconsistent use of forms for giving feedback.

"For almost one month now we give feedback through forms, but they are not yet being used effectively, emphasis on their use has not being made". (Nurse-midwife, P2)

CHAPTER FIVE

5.0 DISCUSSION

This study aimed at assessing obstetric referral process among women with obstetric complications during peripartum period referred to MNH for advanced obstetric management. Results obtained have shown that the referral system is still facing a considerable number of challenges and hence not implemented as required.

Results from this study indicate that hospitals are not able to manage most of the obstetric complications due to hospital related reasons which accounted for more than 60% of all referral reasons, more than a quarter pointing to the theatre being busy, more than 10%each stating of unavailability of blood and lack of equipment and supplies (10.3%) and others. Likewise a study by(Kitilla, 2001)showed that most hospitals were not capable of managing obstetric emergencies due to lack of resources/supplies, and hence questioned the performance of hospitals which provide Comprehensive Emergency Obstetric Care (CEmOC). Similarities of the findings may be due to the fact that both settings are in developing countries in which most public hospitals that are supposed to offer EmOC are not able to function at that level.

More than half (60%) of women reached MNH after two hours since the decision to refer them was made. These results signify that lives of most women could have been lost if they were referred due to severe Post-Partum Haemorrhage (PPH) since this complication is well known to cause immediate death of women in less than an hour. Delay is a lethal enemy to women with obstetric complications hence time is a vital component when dealing with emergency conditions in which rescuing two lives is the outmost goal. A study done by (Fournier et al., 2009)showed that maternal referral system decreased the risk of death among women who had obstetric complications by relating to whether proper care was received within two hours or not in those women who had haemorrhagic complications.

Standards portrays that a patient is supposed to be referred immediately after the decision is made. Although this study did not look into the causes of delays but studies done elsewhere indicated that reasons for delay include lack of fuel for ambulances, absence of

escorting nurse, presence of one ambulance hence the driver has to wait for all expected referrals so that they can all be transferred at once (Afari et al., 2014).

Qualitative findings of the study on assessment of obstetric referral process from the experiences of healthcare providers working in a tertiary level hospital offer extra proof about the barriers which impede effectiveness of the referral system. Non-use of mobile phones for exchanging information, unsatisfactory referral form documentation and inadequate feedback mechanisms all contribute to inadequate linkage between different levels of health facilities.

Study results reveal that there is inconsistency in information exchange before referral of patients as illustrated by the non-use of phones by the referring health facilities despite their availability. Communication aims at calling for transportation, seeking advice and providing a room for the receiving facility to make early preparations for the emergency, making appropriate communication vital. These findings coincide with a study done by (Mona et al., 2013)which explored referral system links between lower and higher level facilities. It showed that even with the presence of phones still the referring facilities were not calling the receiving facility each time they wanted to refer patients.

This study has shown that the quality of referral forms remains to be questionable in a sense that they do not offer adequate information to facilitate patient's management hence act as a barrier in continuation of care. During the interviews several health care providers reported that due to poor documentation of the referral forms it makes them unaware of what has being done to the patient and hence have to start giving care from the beginning. Results of this study were consistency with the study done by (Aggarwal et al., 2015) which showed that at one point in time improper documentation can lead to treatment repetition. Also a study by (Ohn et al., 2011)showed that the number of patients referred without referral letters was significant enough to attract attention. This finding is different from our study whereby all referred patients were accompanied with referral letters, and this is due to the fact that our study didn't focus on self referrals which according to the established rules they could be accepted at the receiving facility without referral forms if there payment category is either by health insurance or cash.

Another unique finding revealed from this study is the lack of standard organization for giving feedback. Feedback provides a means through which challenges facing maternal referral system can be addressed by providing an opportunity for evaluation. Similar to our findings, lack of feedback has been noted to affect the referral process and undermine proper management of patients (Manijeh et al., 2013). High level facilities are obligated to keep records of management and outcomes of all patients referred and give recommendations to the referring facilities so as to improve patients care by reducing overcrowding of patients who are critically ill.

Referrals can be reasonably accepted if the referral facilities provide quality care. The goal of establishing a referral system was to deliver best medical care by skilled personnel timely. The current referral system is more of a transfer system rather than referral system due to the influence of referral system barriers which hinders smooth delivery of health services. There is a significant difference between the referral pyramid found in policy documents and the realities women face when they try to access maternal care especially in developing countries. The effectiveness of obstetric care at referral levels need to be ascertained supervised and enhanced.

5.1Study limitation

First some information was missing from the patient's files, this was mitigated by reviewing register books and other documents which were available in the specific wards to verify missed data.

Second, using in-depth interview in the presence of the researcher may make some respondents to over report good behaviour and under report undesirable behaviour (social desirability bias).This was mitigated by asking indirect questioning to countercheck responses and use of effective interview techniques

CHAPTER SIX

5.1Conclusion

The study demonstrates lack of both human and non-human resources required for provision of health care services in the referring facilities, and identifies high proportion of late referrals influenced by significant deficiencies in referral process.

5.2 Strength

The strength of the study is that, it has used both qualitative and quantitative approaches which have complemented each other to describe the obstetric referral process.

5.3 Recommendations

Findings from this study have highlighted the difficulties encountered by referral hospitals in the process of fulfilling their responsibilities

For practice:

Institutions should conduct trainings for sharpening of skills and provide updates on referral process to enhance accountability and ensure uninterrupted communication system.

For policy*:*

The government should conduct monitoring and evaluation of referral guideline implementation and strengthen existing health care facilities by ensuring constant and adequate availability of equipment, supplies and skilled human resource for health.

For research:

Further research should be conducted at lower level facilities to assess barriers affecting the referral system, as this study focused only on a tertiary level facility

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APPENDICES

Appendix I: Data abstraction form - English version

"***Referral reasons and communication barriers influencing referrals of women with obstetric complications during peripartum period at Muhimbili National Hospital***

Identification number___________________________

Name of referring health facility:_________________________

Section 1: Basic information

1	Age	______________________________	
2	Educational level	1. No formal education 2. Primary education	3. Secondary education 4. College or university
3	Occupation	1. Employed	Unemployed
4	Marital status	1. Single	2. Married

Section 2: Obstetric history information

5	Parity	______________________________
6	Gestation age (weeks)	______________________________

Section 3: Referral

7	Payment category	1. Cash-IPPM 2. Health insurance	3. Cost sharing 4. Exemption
8	Type of referral	1. Self-referral	2. Institutional referral
9	The patient came with referral form	1. Yes	2. No
10	Time of admission at MNH	____	
11	Referral diagnosis	____	
12	Reasons for referral	____	
13	Time of referral	____	
14	Working diagnosis at MNH	____	

Appendix II: Interview guide - English version

"*Referral reasons and communication barriers influencing referrals of women with obstetric complications during peripartum period at Muhimbili National Hospital*".

Identification number___________________________

Opening

I want to thank you for taking the time to meet with me today.

My name is Monica B. Alex, currently; I am a student at Muhimbili University of Health and Allied Sciences pursuing MSc. in MWH. I am conducting a research titled: **Obstetric referral process among women with obstetric complications at MNH, Dar es Salaam.** I would like to talk to you about your views and experiences in communication and feedback systems during the process of receiving and managing obstetric referrals. The interview will take about 45 minutes. I will tape the session because I don't want to miss any of your responses and I will also be taking some notes during the session. I will use a high-quality audio clip record to ensure data accuracy. Your views are highly respected and all responses will be kept confidential (interview responses will only be shared with the research team).

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

Interview ID No……………………………Date of interview………………………

PART: A

PARTICIPANTS DEMOGRAPHIC DATA

1. Age (years)............ 2.Sex of participant… 3.Occupation.............

4. Years of work experiences………… 5.Educational level……………

PART B: INTERVIEW QUESTIONS

1. Is there any communication done between the referring health facility and MNH before referring the patient for the purpose of information exchange about the patient referred?
   - What type of communication?

2. Please explain the importance of being given information before a patient is referred

   For the: -patient, hospital and health care provider

3. Please explain the feedback given to the health care facilities which refer patients to MNH about the patient’s management and prognosis

4. Please explain the importance of giving feedback to the referring health care facilities For the: - patient, hospital and health care provider

5. Please explain, what are the things which make you see that the feedback given is being acted upon

6. Please explain, what are the things which make you see that the feedback given is not being acted upon

7. Please explain the challenges you encounter in obstetric referrals
8. Please explain in your views what things should be done to make obstetric referral more effective

Thank you very much for your cooperation.

Appendix III: Data abstraction form - Swahili version

Fomu ya uchukuaji wa data

Utaratibu wa rufaa za wanawake wenye matatizo ya nayohusiana na uzazi katika Hospitali ya Taifa ya Muhimbili, Dar es Salaam

Namba ya Utambulisho: ___________________________

Jina la Hospitali Iliyoleta Rufaa: ________________________

Kifungunamba1: Taarifa za Msingi

1	Umri wa mama	___________________	
2	Kiwango cha elimu ya mama	1. Hajasoma 2. Elimu ya msingi	3. Elimu ya sekondari 4. Elimu ya juu
3	Kazi ya mama	1. Amejiajili/Ameajiliwa	2. Hajajiajili/ hajaajiliwa
4	Hali ya ndoaya mama	1. Hajaolewa	2. Ameolewa

Kifungu namba2: Taarifa za uzazi

5	Idadi ya mimbaalizojifungua	__________________
6	Umriwamimba (katika wiki)	__________________

Kifungu namba 3: Rufaa

7	Mfumo anaotumia kulipia huduma	1. Fedha taslimu 2. Bima	3. Kuchangia huduma 4. Msamaha
8	Aina ya rufaa	1. Rufaa binafsi	2. Rufaa ya hospitali
9	Mama amekuja na fomu ya rufaa	1. Ndio	2. Hapana
10	Muda aliopokelewa hospitali ya Muhimbili	________________________________	
11	Ugonjwa uliosababisha mama akapewa rufaa	____________________________________	
12	Sababu ya mama kupewarufaa	______________________________________	
13	Muda aliopewa rufaa	_________________________________	
14	Ugonjwa anaotibiwa mama hospitali ya Muhimbili	____________________________________	

Appendix IV: Interview guide - Swahili version

Utaratibu wa Rufaa za wanawake wenye matatizo yanayo husiana na uzazi katika Hospitali ya Taifa ya Muhimbili, Dar es Salaam

Namba ya Utambulisho: ___________________________

Jina la Hospitali IliyoletaRufaa: ________________________

SEHEMU: A

TAARIFA ZA AWALI ZA MSHIRIKI1.

1. Umri (miaka)………………….. 2. Jinsia ya mshiriki…………………

3. Miaka ya uzoefu wa kazi……………………4. Kiwango cha elimu…………………….

5. Kazi ya mshiriki……………

PART B: MASWALI

1. Tafadhali nielezeni Mawasiliano gani hufanyika kabla mama hajapewa rufaa kuja katika hospitali ya taifa ya Muhimbili
   - Mawasiliano hufanyika kwa njia gani?
2. Tafadhali nieleze umuhimu wa kupewa taarifa kabla ya kuletwa kwa rufaa

   Kwa: -mgonjwa, hospitali, mtoa huduma
3. Tafadhali nieleze mrejesho ambao hospitali ya taifa Muhimbili huwa inatoa kwa hospitali zinazoleta rufaa kuhusiana na matibabu yanayo endelea na maendeleo ya wagonjwa kwa ujumla?
   - Mrejesho huwa unazingatia/ unahusisha vitu gani?
   - Mrejesho huwa unarudishwa kwa njia gani?
   - Mrejesho huwa unarudishwa baada ya muda gani?

4. Tafadhali nifafanulie umuhimu wa kutoa huo mrejesho katika hospitali zinazoleta rufaa

   Kwa mgonjwa, hospitali, mtoa huduma

5. Tafadhali nieleze ni vitu gani vinavo kufanya uone kuwa mrejesho unaotolewa huwa unafanyiwa kazi na hospitali iliyotoa rufaa?

6. Tafadhali nielezeni vitu gani vinavokufanya uone kuwa mrejesho unaotolewa huwa haufanyiwi kazi na hospitali iliyotoa rufaa?

7. Tafadhali nieleze changamoto ambazo wewe unakutana nazo katika rufaa za akina mama

8. Tafadhalini eleze kwa mtazamo wako ni vitu gani unavyo dhani vinaweza kufanyika ili kufanya rufaa ziweza kiufanisi zaidi?

Asante kwa ushirikiano wako.

Appendix V: Informed consent- English version

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED HEALTH SCIENCES

DIRECTORATE OF RESEARCH AND PUBLICATIONS

ID NO

Greetings! My name is **MONICA B. ALEX** I am a midwife student pursuing MSc. Midwifery and Women's health at Muhimbili University of Health and Allied Sciences. Currently conducting study on**" Obstetric referral process among women with obstetric complications during peripartum period at Muhimbili National Hospital, Dar es Salaam".**

Purpose of study

To assess obstetric referral process among women with obstetric complications referred to MNH for advanced obstetric management.

Sponsor

Self sponsor

What participants involve

Your participation in the study will be at your own choice and you are free to decide without any adverse reactions. Participation will require you to answer questions in relation to your experience on communication and feedback systems during the management of women with obstetric referral due to obstetric complications .The interview will take about 45 minutes.

Confidentiality

All collected information will be kept confidential and this will be maintained by using codes and no names will be asked or required. Notes collected during the interview and the recordings will be analysed with only the study identification number and if the results of the current study will be published or presented in a scientific meeting, names and other information that might identify you will not be used.

Benefits

There will be no direct benefit for your participation; however the study findings will help health care providers to improve practice and inform hospital management teams to formulate and prioritize strategies to improve referral practice by strengthening the implementation of the referral guideline.

Compensation

There will be no compensation of any kind in participation.

Risk

The study will not harm you physically, psychologically or emotionally.

Rights to Withdraw and Alternatives

Participation in this study is voluntarily and you have the right to refuse to participate or withdraw from the study even if you have already given your consent. Refusal to participate or withdraw from the study will not involve penalty or loss of any benefits to which you are otherwise entitled.

Who to Contact

If you ever have questions about this study, you should contact the principle investigator **Monica B. Alex, RN +255 (0) 719 041 641,** P. O. Box65300, Dar es Salaam. If you ever have questions about your rights as a participant, you may contact or call Director of Research and Publications Committee Prof. Said Aboud at MUHAS, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6.

Signature:

Do you agree to participate? Put √ in appropriate box

Participant agrees ☐ Participant does NOT agree ☐

I, ____ have read the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of Participant ____Date ____________

Signature of the Researcher ____________________________________Date____________

Appendix VI: Informed consent- Swahili version

CHUO KIKUU CHA AFYA NA SAYANSI SHIRIKISHI MUHIMBILI.

KURUGENZI YA UTAFITI NA UCHAPISHAJI

Ridhaa ya Kushiriki Katika Utafiti

Namba ya Utambulisho

Habari jina langu naitwa Monica B. Alex, ni mwanafunzi wa shahada ya juu ya udhamini ya ukungana afya ya mama katika Chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili. Kwa sasa nafanya utafiti juu ya Utaratibu wa rufaa za wanawake wenye matatizo yanayo husiana na uzazi katika Hospitali ya Taifa ya Muhimbili, Dar es Salaam.

Malengo ya utafiti

Kuchunguza Utaratibu wa rufaa kwa akina mama wajawazito wenye matatizo yanayohusiana na uzazi wanaopewa rufaa kuja katika Hospitali ya taifa ya Muhimbili kwa ajili ya matibabu zaidi.

Mfadhili

Binafsi

Jinsi ya kushiriki

Ushiriki wako katika utafiti huu utakuwa kwa ridhaa yako binafsi na huru pasipo madhara yoyote. Katika ushiriki wako utahitajika kujibu maswali yanayohusu mawasiliano na mrejesho unaotolewa kuhusiana na akina mama wajawazito wenye matatizo ya uzazi

wanaopewa rufaa kuja katika Hospitali ya taifa ya Muhimbili kwa ajili ya matibabu zaidi. Kujibu maswali itakuchukua muda wa dakika45 kujibu maswali yote.

Usiri

Taarifa zote utakazotoa zitatunzwa katika usiri mkubwa, hutatakiwa kujaza jina lako, taarifa zitakazokusanywa zitafanyiwa kazi kwa namba ya Utambulisho pekee na kama majibu yatatangazwa au kutolewa taarifa katika mkutano wa kisayansi hakutatolewa jina au taarifa yoyote inayokutambulisha wewe.

Faida

Hakutakuwa na faida ya moja kwa moja katika ushiriki wako, japo majibu yatasaidia kusababi sharufaa zinazokuja katika Hospitali ya taifa ya Muhimbili kufuata Utaratibu uliowekwa. Hii inawezekana kwa kutoa taarifa kwa watunga sera kwa hali halisi ilivyo ili kuandaa sera itakayoweka mikakati ya kuboresha utendaji kazi wa watoa huduma na kuifanya menejimenti ya hospitali kutengeneza mikakati ya kuimarisha utekelezajiwa Mfumo wa rufaa uliowekwa.

Fidia

Hakutakuwa na fidia ya namna yoyote ile katika ushiriki wako.

Athari

Utafiti huu hauna aina yoyote ya athari kimwili, kibaologia au kiakili.

Haki ya kujitoa katika utafiti

Ushiriki wako katika utafiti huu ni hiari yako na una haki kukataa kushiriki au kujiondoa katika utafiti huu hata kama umetoa kibali cha kushiriki. Kukataa kushiriki au kujiondoa katika utafiti hutatoafidia au kupotezafaida zako.

Nani wa Kuwasiliana

Kama kuna swali lolote lile kuhusu utafiti huu, wasiliana na mtafiti mkuu Monica B. Alex, kwa namba ya simu ya mkononi+25 719 041 641, Sanduku la Posta 65300**,** Dar es Salaam. Kama una swali lolote kuhusu haki zako kama mshiriki unaweza Kuwasiliana na mkuu kamati ya kitengo cha utafiti nautangazaji Prof. Said Aboud katika Chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili, Sanduku la Posta 65001, Dar es Salaam. Simu: +255 2150302-6.

Je? Unakubali kushiriki weka alama ya tiki (√) katika kisanduku husika

Ndiyo ☐ Hapana ☐

Mimi, ____________________________________ nimeelezwa / nimesoma maelezo yote ya fomu hii na nimejibiwa maswali yangu yote. Nimekubali kushiriki katika utafiti huu.

Sahihi ya mshiriki ________________________________Tarehe ___________

Sahihi ya mtafiti _________________________________ Tarehe ___________

Appendix VII: Ethical clearance

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

P.O. Box 65001
DAR ES SALAAM
TANZANIA
Web: www.muhas.ac.tz

Tel G/Line: +255-22-2150302/6 Ext. 1015
Direct Line: +255-22-2151378
Telefax: +255-22-2150465
E-mail: dpgs@muhas.ac.tz

Ref. No. MU/PGS/SAEC/Vol. IX/75

3rd April, 2017

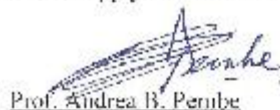
Monica B. Alex
MSc. Midwifery and Women's Health.
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "OBSTETRIC REFERRAL PROCESS AMONG WOMEN WITH OBSTETRIC COMPLICATIONS DURING PERIPARTUM PERIOD AT MUHIMBILI NATIONAL HOSPITAL, DAR ES SALAAM."

Reference is made to the above heading.

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

The ethical clearance is valid for one year only, from 4th April, 2017 to 3rd April, 2018. In case you do not complete data analysis and dissertation report writing by 3rd April 2018, you will have to apply for renewal of ethical clearance prior to the expiry date.



Prof. Andrea B. Pembe
DIRECTOR OF POSTGRADUATE STUDIES

cc: Director of Research and Publication
cc: Dean, School of Nursing

Appendix VIII: Approval to conduct the study from Muhimbili National Hospital

MUHIMBILI NATIONAL HOSPITAL

Cables: "MUHIMBILI"
Telephones: +255-22-2151367-9
FAX: +255-22-2150534
Web: www.mnh.or.tz

Postal Address:
P.O. Box 65000
DAR ES SALAAM
Tanzania

In reply please quote:
Ref: MNH/TRC/ Research/ 2017/ 026

Date: 05/04/2017

Monica B. Alex
MUHAS.

RE: PERMISSION TO COLLECT DATA AT MNH NO: 2017/ 026

Name	Monica B. Alex
Title	Obstetric referral process among women with obstetric complications during peripartum period at Muhimbili National Hospital, Dar es Salaam.
Institution	MUHAS
Supervisor	Dr. Sebalda Leshabari
Period	05th April, 2017 – 04th June, 2017 3months

You have been permitted to collect data in respect to the undertaking of the above mentioned study.

Please ensure that you abide to the ethical principle and other conditions of yours approval.

Sincerely,

Dr. Faraja Chiwanga (MD,M.Med, Msc)
Head, Teaching, Research and Consultancy Coordination Unit

cc: Head, Obstetric and Gynaecology