MEN'S KNOWLEDGE ON DANGER SIGNS OF OBSTETRIC COMPLICATIONS: THE CASE OF MUSOMA DISTRICT, MARA REGION - TANZANIA

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Men's Knowledge on Danger Signs of Obstetric Complications: The Case of Musoma District, Mara region- Tanzania

By

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A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree Of Master of Public Health of Muhimbili University of Health and Allied Sciences

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CERTIFICATION

The undersigned certify that he has read and hereby recommend for acceptance by Muhimbili University of Health and Allied Sciences a dissertation entitled: **Men's Knowledge on Danger Signs of Obstetric Complications** in partial fulfillment of the requirements for the degree of Master of Public Health of Muhimbili University of Health and Allied Sciences.

Dr. Innocent Semali (MD, Msc, PhD)

Date :.....

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I, **Msafiri Peter Swai,** 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.

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DEDICATION

My daughter

AKILAH

With Love

LIST OF ABBREVIATIONS

AIDS	-	Acquired Immuno Deficiency Syndrome
ANC	-	Ante Natal Care
EPI	-	Expanded Program on Immunization
FANC	-	Focused Antenatal Care
FGD	-	Focus Group Discussion
HIV	-	Human Immunodeficiency Virus
ITN	-	Insecticide Treated Nets
MCHA	-	Maternal and Child Health Aid
MDG	-	Millennium Development Goals
MoHSW	-	Ministry of Health and Social Welfare
NIMR	-	National Institute of Medical Research
NSGPR	-	National Strategy for Growth and Poverty Reduction
PHSDP	-	Primary Health Service Development Program
RCHS	-	Reproductive and Child Health Services
SMI	-	Safe Motherhood Initiative
STI	-	Sexually Transmitted Infections
WHO	-	World Health Organization

ABSTRACT

Studies have contributed to determine the status of women's knowledge over the danger signs of obstetrics complications. But this study aimed at determining the status of knowledge and awareness of the danger signs of obstetric complications amongst men and to identify associated factors.

A cross sectional study conducted in Musoma district in Mara region, where a total of 306 adult men whose female partners delivered a baby in the preceding year of the study were interviewed. Consecutive house to house survey was done to achieve study sample size.

Logistic regression model was fitted to determine the association between knowledge of danger signs of obstetric complications against a set of possible determinants while controlling for confounding and clustering effect.

This study revealed that 32% of men were found to have knowledge of danger signs of obstetric complications. In addition 45% of men who attending ANC clinic and received health talk were found to be knowledgeable than those who do not (p- value 0.044). The likelihood of knowledge of danger signs of obstetric complications increased two folds higher for men who accompanied their spouses to the post-natal clinics (OR 1.88, p- value 0.054). Men who were able to write and read were 50% higher the likelihood of having knowledge on danger signs of obstetric complications than those who were illiterate (OR 1.49, 95%, CI, p-value 0.004). There were no observed relations when knowledge of danger signs was compared with age of respondents, level of education, ability to read and write duration and types of relationship and preparations prior delivery.

Thus there is need to expand investment in educating men, so that more men are informed of the correct information regarding danger signs of obstetric complications. That will improve on informed decisions which positively impact to reduce maternal mortality and morbidity. However, this study recommends the use of media and particularly radio to expedite dissemination of educative messages to reach more men.

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CHAPTER ONE

INTRODUCTION

1.0 Background information

According to WHO global maternal and child health report 2012, approximately 800 women die from preventable causes which are related to pregnancy and childbirth on daily basis. However, 99% of all maternal deaths occur in developing countries. Women living in rural areas and among poorer communities are highly vulnerable to maternal mortality and morbidity. Young adolescents face a higher risk of complications and deaths as a result of pregnancy than older women therefore skilled care before, during and after childbirth is among the promising global strategy to save the lives of women and newborn babies (WHO, 2012).

As reported by WHO in 2011 "In Sub-Saharan Africa, a number of countries have halved their levels of maternal mortality since 1990" (WHO, 2011). In other regions, including Asia and North Africa, even greater headway has been made. However, between 1990 and 2010, the global maternal mortality ratio (i.e. the number of maternal deaths per 100 000 live births) declined by only 3.1% per year. This is far from the annual decline of 5.5% required to achieve MDG5 (WHO, 2012).

Women in developing countries have an average of many more pregnancies than women in developed countries, and their lifetime risk of death due to pregnancy is therefore higher (WHO, 2012). Poor women in remote areas are the least likely to receive adequate health care. This is especially true for regions with low numbers of skilled health workers, such as sub-Saharan Africa and South Asia. While levels of antenatal care have increased in many parts of the world during the past decade, world maternal mortality report that in 2012 only 46% of women in low-income countries benefit from skilled care during childbirth. This means that millions of births are not assisted by a midwife, a doctor or a trained nurse (WHO, 2012). In high-income countries, virtually all women have at least four antenatal

care visits, are attended by a skilled health worker during childbirth and receive postpartum care.

In low-income countries, just over a third of all pregnant women have recommended four antenatal care visits. Other factors that prevent women from receiving or seeking care during pregnancy and childbirth are: poverty, gender disparities, and distance, lack of information, inadequate services and cultural practices (Shija, Msovela and Mboera 2011).

Maternal and child health services were established in Tanzania in 1974, a year after 1975 the Expanded Programme of Immunization (EPI) was initiated to strengthen immunization services for vaccine of preventable childhood diseases. Tanzania adopted the Safe Motherhood Initiative (SMI) in 1989, following the official launch of the Global Safe Motherhood Initiative in 1987 in Nairobi, Kenya. Tanzania established the Reproductive and Child Health Section (RCHS) within the Ministry of Health and developed a National Reproductive and Child Health Strategy. These initiatives realized the roles and position of men being important group to influence positive changes in terms of supporting antenatal women during pregnancy, delivery and post-delivery (MoHSW, 2008).

Improving maternal and newborn health is among national priorities as coincides with the Millennium Development Goals 4 and 5 which commit the government of the United Republic of Tanzania to reduce number of deaths of women and newborns. It is also emphasized in the Tanzania vision 2025 and National Strategy for Growth and of Poverty Reduction (NSGPR) and Primary Health Services Development Program (PHSDP). There are also causes of mortality that are related to poor health including malnutrition. Over half of expectant women delivering at home as such may not be attended by skilled personnel or have no access to Emergency Obstetrics Care (TDHS, 2010).

In the efforts to respond to the maternal and infant mortality the government renewed its commitment by establishing a National Road Map strategic plan to accelerate reduction of maternal, newborn and child deaths 2008 – 2015. The strategy emphasizes on the involvement of men in the reproductive newborn and child health, that men have central role to play in decision making and influencing positive actions to support their spouses during labour and delivery.

The status of maternal, newborns and child health in Tanzania is challenged with many factors including low involvement of men in reproductive health (MoHSW, 2009). While infections are the most common cause of deaths of neonates and infants (TDHS, 2010), other causes of maternal and child burden of diseases include diarrhea, Malaria, malnutrition and HIV/AIDS. Many of newborn deaths could be averted by preventive measures such as hygienic care, early exclusive breast feeding and care during and post natal period (Manji, Erica and Mpembeni 2005). This fact is recognized because some of the pregnancy danger signs and delivery complications if ignored can results into newborn morbidity and even mortality.

However, in many parts of Tanzania there is gender based oppression where women 15-49 years are mostly affected by gender based violence. This is the group of women who are responsible for child bearing and thus prone to have suffered maternal complications. These women are socially inferior, experiencing forced sex, wives beating and they are least empowered to make decisions even on issues related to their own health (TDHS, 2010). For the last 12 years the maternal mortality rate has been declining from 578/100,000 in 1998 to 454/ 100,000 live births in 2010 (TDHS, 2010). Infant mortality rate also reduced to the level of 51 per 1,000 live births. Neonatal mortality is still high at 32 per 1000 live births. The levels of morbidity and mortality could further be reduced by improving maternal and child care including promoting men involvement in utilizing reproductive health services (MoHSW, 2008).

Maternal education, safe pregnancy and birth preparedness are realized as essential components of the focused antenatal care which prevent both maternal and newborn morbidity and mortality (MoHSW, 2009). However, for this component to be effective men should participate and attain reasonable level of awareness so that rational decisions at household level can be made to avert risks of obstetric complications.

Why this study focused on men?

The Tanzanian cultural practices put men on top of hierarchy of decision making, including decisions of the health care of their spouses. Therefore they become major

predictor of why, when, where and how frequent a pregnant women will access antenatal, delivery and post-delivery care. Men are also financially superior compared to women, thus are often responsible of meeting costs of transport in case of obstetric emergencies. This study has therefore, chosen to explore men's awareness and their knowledge on matters related to obstetric emergencies. It will also contribute to strengthen the current Tanzanian cultural values where men not only are wealthier and empowered but also make critical decisions impacting maternal and newborn health.

1.1 Statement of the Problem

Maternal morbidity is a significant public health problem affecting mostly poor resourced countries thus attracting local and global responses. In Tanzania for instance despite, 96% of women receiving ANC service from skilled providers, among pregnant women where individual counseling on birth, pregnancy danger signs and obstetric complications and breast feeding is routinely provided (TDHS, 2010). But many women are still facing life threatening consequences of obstetric emergencies.

Those women identified at risk should access trained health workers offering required interventions addressing pregnancy related complications. However, 50% of births are delivered at a health facility and 48% delivered at home (TDHS, 2010). To increase likelihood of accessing skilled services during delivery, mother attending ANC are counseled on early signs of pregnancy complications. Thus knowledge on the danger signs will facilitate early and timely decision making at household and community level to access services offered by skilled personnel. This is unlikely because half (51%) births in Tanzania are assisted by health professionals, 15% assisted by traditional and birth attendants, 29% assisted by untrained providers and 3% of births happens without assistance (TDHS 2010).

The situational analysis of maternal newborn and child health conducted in six districts in Tanzania, found that even when counseling and education was provided it rarely addressed important newborn issues such as hygiene, temperature control, breastfeeding and detection of danger signs which are underlying causes of neonatal morbidity and mortality

(MoHSW, 2009). However, the report never assessed how and what do men know about danger signs of obstetric emergencies.

Antenatal care service is major source of information among women who attend ANC services but only few men usually attend antenatal clinics (Katz, *et al* 2009). Few studies have been conducted to explore the role of men in supporting labor and delivery (Orji, Adegbenro and Moses 2007). Status of knowledge of pregnancy danger signs and related complications among men in the East Africa is also not known (Kabakyenga, *et al* 2011). Some studies conducted in Africa have found that husbands, male partners and other male family members often make the decision about where a woman will attend ANC care and where will they deliver. However, Dunn, Haque and Innes (2011) noted that, although it is unlikely that men are actively ignoring the signs of complications during pregnancy and delivery but it is possible that they lack awareness of what to look for, thereby hindering their ability to initiate and being fully engaged during delivery and emergency needs.

A qualitative study conducted in rural Tanzania by on decision making and acceptance of maternal referrals in rural Tanzania revealed that, husbands and relatives are decision makers in maternal referrals but women have limited decisions on referrals of pregnancy related emergencies. (Pembe, *et al* 2008). The report further concluded that women empowerment and involvement of men in maternal care are necessary. However, the study did not explore awareness of obstetric emergencies among men who are basically initiators of the maternal referral.

Decision-making lies with men whose participation and effectiveness of the decisions depend on their awareness of the obstetric care needs of women. Therefore there is a need to know their awareness on pregnancy danger signs and other obstetric complications. Their level of awareness could be influenced by education, wealth, marital status, employment, culture, family size, income and number of wives and distance to health facility. Furthermore there is dearth of information on the roles of men in the access of pregnant women to skilled care at delivery and more important the awareness of men on the early signs of obstetric complications. Hence, this study seeks to determine to what extent male partners are aware of the obstetric emergencies. This study is designed not only looking at the levels of awareness and knowledge but it will seek to ascertain the

accuracy of information and what it means to them and possibly from which source their degree of awareness is acquired from.

1.2 Study Questions

(i) What proportion of men has knowledge on danger signs of obstetric complications?

(ii) What are the associated factors of knowledge on danger signs of obstetric complications among men?

(iii) What are the key sources of information responsible for the knowledge on danger signs of obstetric complications among men?

1.3 Rationale of the Study

The Tanzania reproductive health policy realizes men's roles in utilizing skilled care during labour and delivery. It is important to carry out researches to establish what proportion of men has the right information on danger signs of obstetric complications. Therefore, for the policy to continue calling men's participation without knowing what sort of knowledge and level of awareness men's have to effect the national reproductive health policy will still be a problem.

This study sought to add new knowledge on how maternal and child health care educational messages should be crafted and appropriately delivered to men. The findings helps to gain new insight of promoting involvement of men to access information and the science of reducing risks of pregnancy, labor and delivery.

Since most of the societies in Tanzania are male driven and practicing patriarchy system, then hypothetically if higher numbers of men are made aware of the risks of pregnancy and delivery complications then that could promote direction of the gender transformed society of men who give pregnancy and delivery deserved level of attention. In general, men at different age have significant gender roles in influencing maternal and child care decisions, thus requiring knowledge on obstetric emergencies.

This study serves as feedback to the service providers on areas that need to focus in empowering men to be more responsive and informed of their decisions and actions in order to improve maternal and newborn wellbeing. The study also aimed at broadening knowledge among decision makers in strengthening reproductive health care system and particularly to provide quality maternal newborn and child health services through sustainable male involvement.

Therefore, the finding of this study contribute not only to the maternal health but also to the newborn and child health since the roles of men are likely to influence the better outcome of pregnancies and care of newborns.

1.4 Broad Objective

To assess knowledge on danger signs of obstetric complications and associated factors among adult men in Musoma district in Mara region.

1.5 Specific Objectives of this study were:

(i) To determine the proportion of men who have knowledge on danger signs of obstetric complications.

(ii) To determine associated factors of knowledge on obstetric danger signs and related complications among men in the study area.

(iii) To identify key sources of knowledge on danger signs on obstetric related complications among men in the study area.

CHAPTER TWO

LITERATURE REVIEW

Maternal morbidity is among the public health care problems which have received numerous global and local attentions ranging from preventive, curative and rehabilitative. Tanzania has developed a number of strategies to control the magnitude and intensity of the problem. One of the responses was to adapt focused antenatal care to include other things such as to provide education and counseling to pregnant women on pertinent matters like diet and nutrition, rest and activity during pregnancy and post-delivery, personal hygiene, pregnancy signs and delivery complications, birth plans, immunizations, malaria prevention, breast feeding, ITN voucher and HIV/STI counseling and information. Unfortunately very few men are reached by such educative messages, due to the fact that, majority of men do not attend antenatal clinics where the services are routinely provided (Mullick, Kunene and Wanjiru 2005).

Study on decision making and acceptance of maternal referrals in rural Tanzania revealed that, husbands and relatives are decision makers in maternal referrals while women have limited influence especially on emergency referrals. For example in rural Kenya, level of awareness among a cohort of men working in a sugar cane plantation increased with their level of education; they were not ignoring the danger signs but they were also not taking the right decisions at the right time. (Dunn, Haque and Innes 2011).

However the study had questionnaires translated and administered in *English* and *Swahili* languages where some signs were comprehended differently by respondents. It also left out *Luo* speaking individuals who were the predominant ethnic group in the study area. In addition, analysis of the three responses on listed true and false pregnancy danger signs and delivery complications was disputable because what respondents perceived to be danger signs; the tool did not consider them as being true danger signs. Examples of such

conditions are inability to speak, hair loss and nasal bleeding (Dunn, Haque and Innes 2011).

In terms of data collection this study utilized structured interviews instead of self-administered questionnaires to avoid recall bias which in 2011 the Muhoroni study fell into when men responded to self-administered questionnaires.

In order to improve quality of maternal counseling to women on health messages especially danger signs of obstetric complications, involvement of husbands and other family members in antenatal and postnatal care are underscored. The rationale of including men in the maternal health was also acknowledged in a study conducted in Rufiji district to assess awareness of women in rural Tanzania on the danger signs of obstetric complications (Pembe, et *al* 2009). Besides high level of awareness among women, it was found that pregnant women have different perceptions and interpretations of pregnancy danger signs (Kimatta, Kowalewiski and Jahn 2000). This might be the case for the men whose level of knowledge and awareness is least known.

In 1996, men in rural Indian communities were less knowledgeable about the warning symptoms of pregnancy and delivery complications than about other aspects of reproductive health (Singh, 1998).

Antenatal education towards men was not found to be associated with benefits during childbirth among women. This is probably an outcome of their knowledge and awareness depending much on the perception of their men counterparts. In this regard, it was previously commented that subsequent researches should be focused on redesigning and assessing antenatal education in Spain where counseling viewed to respond to the current needs of women and men (Paz-Pascual, *et al* 2008). This study attempts to fill the gap of knowledge already available on the side of men and bringing out embedded knowledge among men.

In a study where sociological perspective of husbands was investigated in four major towns in India in 2006, it was concluded that “proper dissemination of knowledge about

maternal health care among husbands and making the husband's presence obligatory during antenatal care visits will help primary Health care unit secure better male involvement in maternal health care" (Chattopadhyay, 2012)

In India, men know little about pregnancy and related care, though they are the gatekeepers to care (Bloom, *et al* 2000). However until recent there are a number of gaps in the existing literature regarding men's role in maternal care. First, while studies on men's reproductive attitude and behavior have grown in number, they are dominated by problem-oriented approaches rather than men as individuals (Greene and Biddlecom, 2000).

A qualitative study conducted in Malawi to examine strategies to promote men participation in maternal health revealed some initiatives to be effective. The initiatives were partner notification, health care initiatives, and use of incentives and couple initiative and community mobilization (Kululanga, *et al*. 2011). However, in the same study authors concluded that, there is a need for creating awareness in men, so that they can sustain their participation in maternal health care of their female partners even in absence of incentives or coercion.

CHAPTER THREE

METHODOLOGY

3.0 Study Design

A cross sectional design, where data was collected once, the design was preferably chosen to minimize cost of the conducting the study.

3.1 Study Area and Setting

The study was done in Musoma district in Mara region. Musoma district is among the six districts forming Mara region. The district is bordered to the north by the Tarime and Musoma urban districts, to the east by Serengeti district, to the south by Bunda district and to the west by Lake Victoria. The district has 35 wards and 115 villages with an estimated population of 330,953 of whom 49% are men. (Census 2002).

Over 90% of populations are engaged in subsistence farming and livestock keeping while other are fishing communities residing along Lake Victoria shore.

The district's health care system has 61 health facilities of which 58 (95%) are dispensaries, 2 health centers and 1 hospital. It is also constrained by limited number of skilled staff, essential medical supplies and equipment. The district has an average of 24,400 deliveries per year while more than half (54%) deliveries are happening at home. Current district maternal mortality rate stands at 40/100,000 live births, the common causes being post – partum hemorrhage, abortion, HIV/AIDS related ailments, eclampsia and Sepsis. (CCHP 2012) Maternal referral system starts from lower dispensaries to the health centres then complicated cases are referred to Butiama district hospital which is within Musoma district. Other complicated cases are referred to Kibara mission hospital which is in Bunda district and Musoma regional hospital located in Musoma municipality.

3.2 Study Population

This study involved adult men aged 18 years and above who have female partners who had delivered a baby in the preceding year of the study. Their willingness to be interviewed was an essential inclusion criterion in the study participation. All children less than 12 months was listed in each village on the day of interview as a mean to verify their father's inclusion criteria.

3.3 Sample Size and Sampling Procedure

Study respondents were obtained the formula below: (sample size calculator- Raosoft web accessed)

$$n = \frac{Z^2 p(1-p)N}{d^{2(N-1)+Z^2 p(1-p)}}$$

$$n = \frac{1.96^{2*}0.5(1-0.5) * 330953}{0.06^2(330953-1) + 1.96^2 * 0.5(1-0.5)}$$

$$n = 267$$

N = 330,954 district total population

n= sample size

p=50% of adult men who have knowledge on danger signs of obstetric complications (assumption)

d= 6% absolute precision required

z=1.96 error correspond to CI 95%

5 % of participants added as non- response bias.

Given the intra cluster (within ward) variability of 0.01 with design effect of 1.08; a sample size of 289 participants was required. To account for 5% non-response a total of 305 participants, 61 respondents per village, were required to detect 50% of adult men who have knowledge on danger signs.

Study respondents were obtained through the following stages.

(i) In the first stage, random selection of five wards out a list of all the wards in the district.

(ii) In the second stage, one village from each ward was randomly selected through lottery from a list of all the villages.

(iii) Third stage, liststing of all children aged below 12 months who were attending growth and monitoring clinics in a respective village.

(iv) The fourth stage, corresponding number of fathers of those children were traced from each village and only 61 men from each village were selected for the interview by systematic random technique.

NB: Since the total population of the villages did not differ much (Kukirango 1,598 Kiriba 1,633, Butiama 1,666 Nyamimage 1,585 Mugango 1,650) then the same number of respondents was sampled from each of the village till total sample size was achieved.

3.4 Data Collection Tool

Structured interview questionnaire was designed to elicit information from respondents corresponding to the study variables. The questionnaire had a total of 19 questions divided in two main sections. Section 1; collected most of the respondent's demographic information such as age, literacy, highest schools attended, status of relationship and number of pregnancies the partner ever had. Section 2, had a set of questions specifically enquiring knowledge on danger signs of obstetric emergencies from which source respondents could have acquired their knowledge were also included.

All questions were translated from English to Swahili and back translated to ensure consistency was maintained.

The questionnaires were pre tested in Bunda district which borders Musoma district and the communities have similar socio – cultural characteristics. The pre test reveled that the data collection tool was acceptable among the men. However, the Swahili translation of Anaemia was changed from Ukosefu wa damu Mwilini to read as Upungufu wa damu mwilini because the former was not clear to the respondents. Some men could not recall their age in years, we then put an alternative question asking them to recall years of birth.

3.5 Recruitment and Training of Research Assistants

Two research assistants were locally recruited to help the researcher to collect data. Research assistants were trained for two days prior to the exercise of data collection. They were trained on objectives of the study, confidentiality, how to administer verbal consent, danger signs on obstetric complications and how to conduct interviews and recording responses. The emphasis was made on questioning skills and the recording of the responses based on the codes.

3.6 Study Variables and Definitions

3.6.1 Dependent Variable

Knowledge on danger signs of obstetric complications among men was an outcome of interest (dependent variable) for this study. Information to determine knowledge on danger signs as stated by the Tanzania maternal and newborn health guideline was collected; correct responses were then coded. This study listed danger signs which are common and easily recognized by ordinary individuals and are signs of potential life threatening conditions during pregnancy, delivery and post-delivery.

These included the following: (1) severe vaginal bleeding before or after delivery, (2) swollen hands/face and blurred vision (3) prolonged labour (labour lasting more than 12 hours) (4) fits during pregnancy (5) retained placenta (6) high fever (7) foul smelling vaginal discharge, (8) body weakness and lethargy (9) lack of fetal movements (10) loss of

consciousness (11) severe anaemia and (12) awareness of fast heart beats (13) Severe abdominal pain**.** The question posed to respondents to elicit responses on knowledge of key pregnancy danger signs was such as; "In your opinion, what life threatening conditions are likely to occur during pregnancy and or labour and few hours after delivery? Only spontaneous responses were checked along the listed items in a questionnaire.

A study recently conducted in Pwani region in Tanzania to determine women awareness of danger signs and obstetric complications defined awareness as an ability to mention at least one danger sign (Pembe *et al,* 2009). Whereas a study conducted in Nyanza province in western Kenya to assess knowledge of danger signs of obstetric complications among men in rural Nyanza province provided multiple choice questions to the respondents which might lead to incomparable results (Dunn, Haque and Innes 2011). Since there was no gold standard on scoring and little work to determine the knowledge of men on danger signs and obstetric complications ever been done before (Dunn, Haque and Innes 2011). This study had chosen to define the knowledge of pregnancy danger signs and related complications as ability to mention at least three of any recognized danger signs and related complications by individual to see if the study could give different results.

3.6.2 Independent Variables

Information collected regarding independent variables was: Age of respondent in years, age of female partner, relationship status, duration of relationship, highest level of school you have attended, number of pregnancy partner (s) ever had, accompanied your partner to the ANC clinic, whether an individual attends education session at ANC services, birth preparedness plans, accompanied spouse to the post-partum clinics.

3.7 Data Collection

The ward and village leaders were officially informed of the research activities prior to the data collection. The researcher and the research assistants in collaboration with reproductive and child health clinics developed lists of all children below the age of 12 months who were attending the growth monitoring clinics. From the lists, all men who are parents of those children were traced in their homes for interviews. Every respondent

who consented was assured of confidentiality and privacy during interview. Only one eligible respondent was given chance to participate from a household. In case of more than one eligible respondent were found in the same house a random selection by rotary was done to select one respondent who was interviewed.

Study respondents were directly approached for one to one interviews. The researcher and the research assistants had to seat in privacy with the respondent so as to avoid interruption from other family members. Responses were recorded by checking the appropriate codes found on the questionnaires.

The data collection was done by the researcher with the support of two research assistants. He was also responsible to ensure responses correctly filled in questionnaires and accurately coded by passing through all the questionnaires filled by research assistants every time before the team left the field. Time spent for one interview varied between 10 and 15 minutes, depending on the ability of the respondent to comprehend questions. Data was collected in December 2012. We noticed that men were easily accessed during house to house survey, we never experienced problem of privacy and confidentiality during interviews.

3.8 Data Management

All questionnaires were assigned ID numbers, questionnaires were filled based on the responses provided by each respondent; Response of each question was assigned code number in the questionnaire. At the end of each day the researcher went through each completed questionnaire checking for legibility and quality of completion. The data were later converted into electronic version established in the Microsoft Excel raw data sheet.

Single entry of data was done by the researcher and later a separate database was saved as back up. Questionnaires and other study materials were kept under custodian of the researcher.

3.9 Data Analysis

Data were entered into Microsoft Excel 2007. Data cleaning was done and included consistency checking, removing duplicated records and checking for missing value was done in Stata 11 standard editions (Stata Corp, Texas, USA). Any missing value was omitted during the analysis.

The outcome variable, knowledge on danger signs among men was defined as: (1 = if mentioned at least 3 out of 13 correct answers, 0 = failure to mention).

Information collected regarding independent variables was:

(i.) Age of respondent in years grouped as 18-24, 25-34, 35-49, 50 and above years.

(ii.) The age of female partner was also enquired and categorized in four age groups ie 15-17, 18-34, 35-49 and 50 years and above.

(iii.) Relationship status “married living together”, “married not living together”, “not married living together”, “not married not living together” was coded as 1, 2, 3 and 4.

(iv.) Duration of relationship was grouped in years <1 year, 1-3,4-8,9-15, 15 and above.

(v.) Highest level of school attended was coded as “no formal schooling”, “Primary”, “Secondary” and “Higher”.

(vi.) Number of pregnancy partner (s) ever had coded as “1-2”=1 “3-4”=2 and 5 and above =3.

(vii.) Accompanied partner to the ANC clinic coded as “Yes” or “No”.

(viii.) Whether a man attends education session at ANC services coded as “Yes” or “No”.

(ix.) Birth preparedness plans coded as “Yes” or “No”

(x.) Accompanied spouse to the post partum clinics codes as “Yes” or “No”

The “svy” command in STATA was used in order to account for the clustering effect introduced during the design process and data collection. This correction enabled to get correct standard error of the estimates. By ignoring the sampling design the standard errors which were likely to be underestimated.

Summary statistics (frequency table), proportions and graphs were generated. Each variable was first tabulated to get the frequencies and percentages of each category of the

given variable. Proportion of men who had knowledge on danger signs was obtained, and association between knowledge and other related factors were observed. Cross-tabulation and chi-squared tests were done. Each determinant (independent variable) was cross-tabulated with knowledge of the danger signs in order to determine if association exited. An association existed when the Chi-squared test revealed a p-value less than 0.05.

Survey multiple logistic regression model for dichotomous variable was fitted to determine the association between knowledge on pregnancy danger signs and a set of socio-demographic and other determinant factors while controlling for confounding effect.

3.9.1 Study Limitations

Any research process is bound to encounter some shortcomings and this study was no exception. This study excluded men whose female's partners lost their lives or their pregnancies terminated for different reasons. The study have limited statistical power to generalize the findings due to the fact that, the study covered small area and involved substantial small sample size. However, this study randomly selected study respondents thus added weight to the level of representativeness. All the data relied on self reporting and thus liable of bias; comparison of qualitative and quantitative data would have addressed such a limitation.

3.9.2 Ethical Considerations

The study proposal was presented to the Muhimbili University of Health and Allied Sciences Institutional Review Board (IRB) who gave the ethical clearance (Ref no: MU/PGS/SAEC/Vol.VI) to conduct the study after all the corrections were made. Permission to conduct the study was obtained from Musoma district and ward government authorities. The purpose of the study, benefits and right to refuse or withdraw participation at anytime without repercussion was explained to each respondent before the interview.

Signed MUHAS adopted consent forms were considered sufficient to be included in the study. To ensure confidentiality names or any personal identifier information was not written on questionnaires or in any documentation.

CHAPTER FOUR

STUDY FINDINGS

4.0 Social demographic information of the study respondents

Total number of respondents interviewed was 306 from five wards. Majority of them (37.9%) were in the age group of 35-49 years (see Table 1). Out of 306 men interviewed, 226 (73.9%) were married and living together with their wives. Most of the respondents (64.7%) had completed primary education and 10% were unable to read and write. About one third (32.7%) of the men accompanied their partners at ANC clinics and fewer (20.7%) two out of ten men accompanied their spouse to the post natal clinics. More than a third (36.9%) had spouses with history of pregnancy more than five times.

Table 1: Social demographic characteristics of study respondents

Age of respondent in years - n (%)	N= 306
18-24	28 (9.2)
25-34	86 (28.1)
35-49	116 (37.9)
50	76 (24.8)
Age of partner in years - n (%)	
12-17	10 (3.3)
18-34	207 (67.6)
35-49	70 (22.9)
50	19 (6.2)
Relationship status - n (%)	
Married living together	226 (73.9)
Married not living together	33 (10.8)
Not married living together	24 (7.8)
Not married not living together	23 (7.5)
Relationship period - n (%)	
< 1 year	25 (8.2)
1 - 3 years	74 (24.2)
4 - 8 years	66 (21.6)
9 - 15 years	57 (18.6)
15 + years	84 (27.5)
Ability to read and write- n (%)	
Yes	276 (90.2)
No	30 (9.8)
Education level - n (%)	
No school	33 (10.8)
Primary	198 (64.7)
Secondary	56 (18.3)
Higher education	19 (6.2)
Accompanied partner at ANC clinic - n (%)	
Yes	100 (32.7)
No	206 (67.3)
Attended education program at ANC clinic - n (%)	
Yes	71 (71)
No	29 (29)
Doing delivery preparation - n (%)	
Yes	151 (49.4)
No	155 (50.7)
Accompanied partner at postnatal clinic- n (%)	
Yes	63 (20.7)
No	242 (79.3)

4.2 Knowledge on danger signs of obstetric complications

This study regarded men who mentioned any of three danger signs of obstetric complications that are potential life threatening to be knowledgeable. A total of 98 (32%) men were found to have knowledge on danger signs of obstetric complications (see Table 2). However, the majority (66%) of those who had knowledge were aged between 25 and 49 years.

4.3 Factors related with knowledge on danger signs of obstetric complications

Table: 2 present the knowledge of danger signs of obstetric complications by determinant factors. The study revealed there was decreasing trend as the age of men increases the knowledge of danger signs decreases (p-value 0.048). On the other hand about (45%) of men who attended ANC clinic and listening to the ANC health talk were found to be knowledgeable than those who do not attend ANC services (p-value 0.044). Men who accompanied their wives to the post natal clinic were also shown to increase with the level of knowledge of danger signs. There were no observed relations when knowledge of danger signs was compared with age of respondents, level of education, ability to read and write duration and types of relationship and preparations prior delivery.

Table 2: Knowledge on danger signs of obstetric complications among men

	Knowledge of danger signs		
	No	**Yes**	**p-value***
Age of respondent (years)			
18-24	14 (50.0)	14 (50.)	
25-34	54 (62.8)	32 (37.2)	0.1166
35-49	82 (70.7)	34 (29.3)	
50+	58 (76.3)	18 (23.7)	
Age of partner (years)			
12-17	5 (50.0)	5 (50.0)	
18-34	134 (64.7)	73 (35.3)	
35-49	54 (77.1)	16 (22.9)	0.0481
50+	15 (79)	4 (21.1)	
Ability to read and write			
No	24 (80.0)	6 (20.0)	
Yes	184 (66.7)	92 (33.3)	0.1319
Education level			
No school	26 (78.8)	7 (21.2)	
Primary	137 (69.2)	61 (30.8)	0.3191
Secondary	34 (60.7)	22 (39.3)	
Higher education	11 (57.9)	8 (42.1)	
Relationship			
Married living together	154 (68.1)	72 (31.9)	
Married not living together	23 (69.7)	10 (30.3)	0.4921
Not married living together	13 (54.2)	11 (45.8)	
Not married not living together	18 (78.3)	5 (21.7)	
Relationship period			
< 1 year	13 (52.0)	12 (48.0)	
1 - 3 years	47 (63.5)	27 (36.5)	
4 - 8 years	48 (72.7)	18 (27.3)	0.279
9 - 15 years	39 (68.4)	18 (31.6)	
15 + years	61 (72.6)	23 (27.4)	
Accompanied partner to ANC clinic			
No	148 (71.8)	58 (28.2)	
Yes	60 (60.0)	40 (40.0)	0.2292
Attended ANC education talk			
No	21 (72.4)	8 (27.6)	
Yes	39 (54.9)	32 (45.1)	0.0441
Doing preparations prior delivery			
No	112 (72.3)	43 (27.7)	
Yes	96 (63.6)	55 (36.4)	0.2311
Accompanied partner postnatal Clinic			
No	174 (71.9)	68 (28.1)	
Yes	34 (54.0)	29 (46.0)	0.0225

* Chi-square p-value

Result from multiple logistic regression model presented in Table 3: Older men (age 50+years) had significantly less likelihood of having knowledge (OR 0.35, p-value 0.028). On the other hand, participants who were able to read and write 50% higher the likelihood of having knowledge (OR 1.49, 95% CI, p-value 0.004) given other factors are constant. Similarly, listening to radio increased the likelihood of knowledge of pregnancy danger signs by more than two-fold higher than (OR 2.2, 95% CI 1.01-4.8, p-value 0.048) living with a spouse.

The likelihood of knowledge of danger signs increased two-fold higher for men who accompanied their wives after delivery, though with weak statistical significance but there is clinical importance (OR 1.88, p-value 0.054)

Table 3: Logistic regression analysis of men's knowledge on danger signs of obstetric complications

	Odds ratio	95% CI	p-value
Age of respondents (years)			
25 - 34	0.66	(0.27 - 1.62)	0.266
35-49	0.52	(0.24 - 1.13)	0.078
50+	0.35	(0.15 - 0.83)	0.028
Relationship			
Married and living together (ref)	1	N/A	N/A
Married not living together	1.17	(0.23 - 5.86)	0.797
Not married living together	0.88	(0.34 - 2.33)	0.743
Not married not living together	0.47	(0.18 - 1.19)	0.087
Duration of relationship			
< 1 years	2.27	(0.83 - 6.19)	0.086
4 - 8 years	0.59	(0.22 - 1.61)	0.22
9 - 15 years	0.86	(0.41 - 1.79)	0.589
15 + years	0.92	(0.42 - 1.98)	0.765
Source of information			
Radio	2.21	(1.01 - 4.8)	0.048
TV	2.78	(0.63 -12.27)	0.128
Printed IEC materials	0.71	(0.24 - 2.08)	0.424
Health provider	1.62	(0.81 - 3.24)	0.127
Spouse	1.61	(1.27 - 2.04)	0.005
Other determinants			
Literacy	1.49	(1.24 - 1.79)	0.004
Accompanied partner to ANC clinic	1.37	(0.76 - 2.47)	0.216
Accompanied partner to postnatal clinic	1.88	(0.98 - 3.6)	0.054

4.4 Sources of knowledge on danger signs on obstetric complications

Different sources of information on danger signs were studied; most common was listening to radio (44%) followed by hearing from health workers (41%) (see Figure. 1). Other sources reflected some potential to inform men though by less than 30% percentage included the use of printed IEC, interacting with friends and spouses.

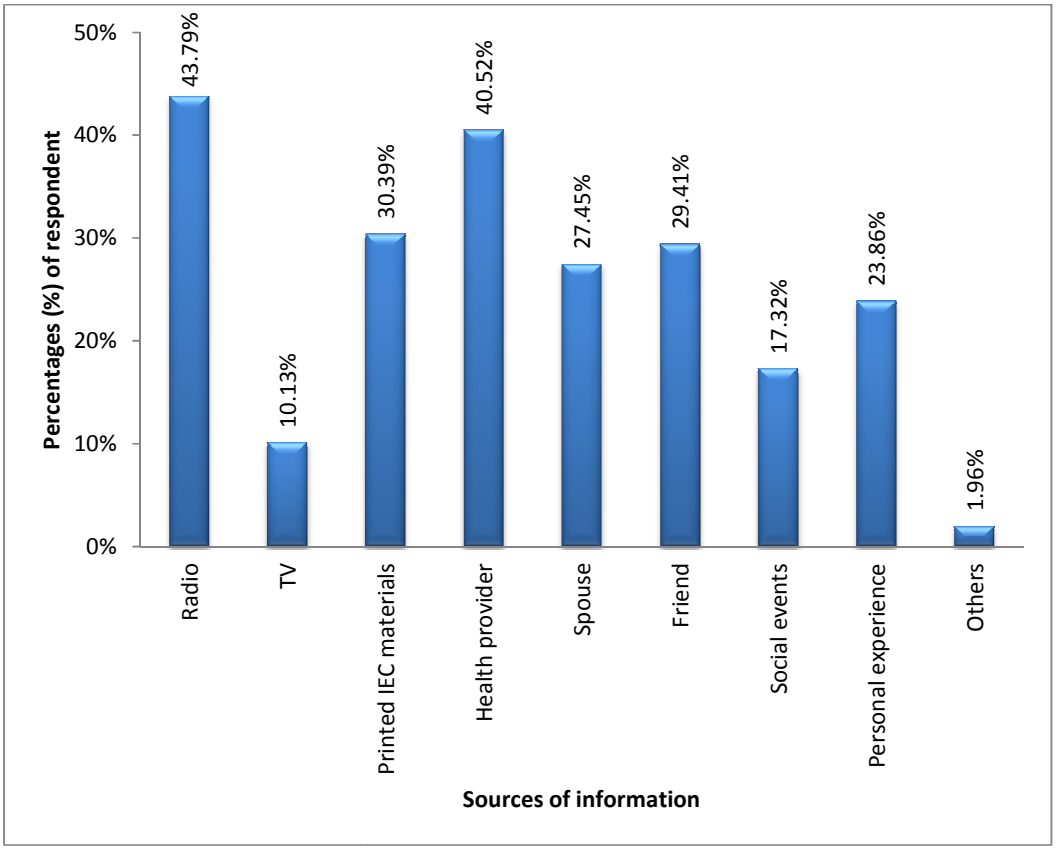


Figure 1: Men's sources of information on the knowledge on danger signs of obstetric complications

Respondents were asked to mention sources of information they would recommend. Nearly a half (49%) of respondents recommended radio, followed by 42% who recommended printed IEC materials. Over one third (37.6%) of men recommended health care providers and social events as their preferred source of information on the knowledge of danger signs of obstetric complications in the community (see Figure 2).

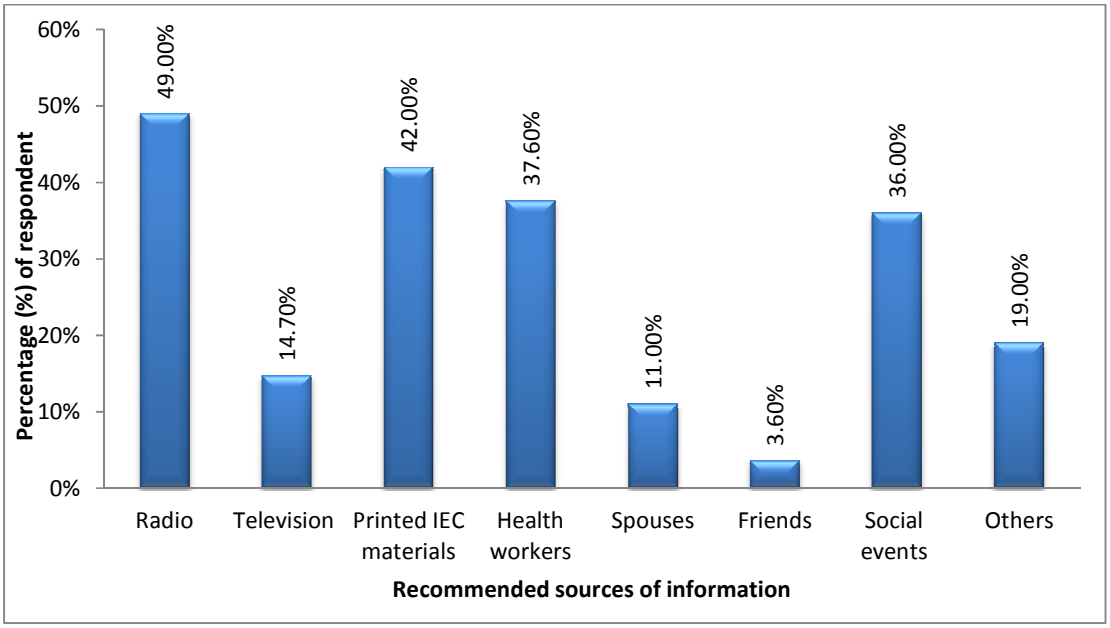


Figure 2: Information given by men as their preferred sources of information of danger signs on obstetric complications.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Discussion

Despite efforts made by the Tanzanian government to improve maternal and newborn health, this study demonstrated deficiencies in the knowledge of danger signs of obstetric complications in this rural district. A significant proportion of the men were not informed of danger signs of obstetric emergencies. A cross sectional survey conducted in rural setting of Bangladesh, had observed even lower proportion (12%) of men who were aware that their wives had suffered from complications during pregnancy, delivery or postnatal period implying that in some other places men are less conscious about their wives' obstetric problems (Salam, *et al* 2012). Low levels of knowledge and awareness on danger signs on obstetric complications among men, lead to some husbands do not agree with the referral advice thus do not inform other relatives (Pembe, *et al* 2008).

In her report on improving maternal health in Tanzania, Mwaikambo E. (2010) reported cultural practices, weak education, gender inequality and poor health seeking behavior to be among non –health systems causes of maternal mortality and morbidity. It's now imminent to re-focus studies on indirect causes of maternal and mortality and morbidity such as the roles of men in controlling maternal health decisions.

The realization of 50-70% of maternal deaths in Tanzania occurs during post natal period (TDHS 2010), that call upon the reproductive and newborn health services to be more vigor in educating men on the importance of supporting their spouses.

The likelihood of knowledge of pregnancy danger signs increased two-fold higher for men who accompanied their wives after delivery, though with borderline significant. This emphasis that, we need to tap this opportunity of men accompanying their partners to post natal care clinics to educate them on danger signs commonly happening after delivery.

This suggests that, there is a need to design comprehensive program to educate men not only on dangers signs of obstetric complications but also broader maternal and newborn health. While we realize that fact, a half of pregnant women in Tanzania are informed of the pregnancy danger signs and related complications (TDHS, 2010), but in this national survey exploration of similar attributes among men was not done. This calls upon for future surveys to explore status of men's knowledge and awareness at the countrywide scale.

On the other hand, men who were literate were significantly having higher knowledge by 50%. This suggests evidence that literacy is one of the key predictor of the men in acquiring knowledge on pregnancy danger signs and related complications. Similar finding was observed in recently published study which was conducted in Muhoroni in Nyanza province of western Kenya where in this study men who was proficient in identifying the danger signs of obstetric complications, were more educated (Dunn, Haque and Innes 2011). Therefore, the use of extra methods to provide education to the less educated population should be taken into consideration, in line with other efforts focusing on increasing literacy rate among adults.

Unexpectedly men who have lived longer with their spouses were seem to have less knowledge on danger signs that those who stayed in relationship for shorter period. Social demographic factors play confounding roles for this finding. Such factors included level of education, marital status and urbanized settlement.

This study found that majority of the men got information regarding danger signs of obstetric complications through listening to radio followed by hearing from health care providers. Men recommended radio, printed IEC materials and recommended health care providers and use of social events to pass education messages on danger signs of obstetric complications. Radio programs have proved to be one of the potential sources of educational messages to both rural and urban Tanzanian population for many years. It's unfortunate its potential has not been fully utilized to address broad maternal and newborns health concerns including danger signs of obstetric complications.

The Tanzania Demographic and Health Survey published the findings that, 77% of men and 58% of women are listening to radio at least once per week (TDHS 2010). Thus the survey suggesting that radio is the major channel of mass media communication in Tanzania. More investigation is required to quantify how many radio stations have maternal and newborn health programs? What messages on pregnancy danger signs are currently delivered to the public? And how much air time is specifically allocated on either radio or TV programs addressing primary prevention of obstetric and related newborns complications.

Pembe, *et al* (2008) pointed out that "women's empowerment and male involvement in maternal care are necessary in reducing maternal mortality and morbidity". This remark came out to confirm that men's involvement in maternal health decisions is crucial despite that this study was centrally looking at the awareness of pregnancy danger signs among women.

5.1 Conclusion

This report can conclude on the following note; men have low levels of knowledge of dangers signs of obstetric complications thus attributing to their low ability to understand and take appropriate actions in case of obstetric emergencies. The study also highlights the potential that media has and particularly the use of audio and visual to be more effective in delivering education and information to the public on danger signs of obstetric complications.

5.2 Recommendations

In the light of the research findings, the researcher would like to make recommendations based on the findings. The recommendations are meaningful to other districts which have similar maternal and child health concerns.

5.2.1 Increased use of media channels to educate men on pregnancy danger signs by local and national media houses.

The use of radio and health care providers seem to be effective source of information and communication on obstetric danger signs. Therefore, both local and national radio stations are urged to prepare quality (audio) radio programs which will educate the public on dangers signs of obstetric complications. The radio stations can consider inviting qualified health professionals to air radio programs.

5.2.2 Improved health education provided by health care providers working within Musoma district council.

Innovative ways are required to enhance health care providers to deliver educative messages through variety of channels. The use of printed IEC materials such as posters and leaflets could also help to disseminate messages amongst men attending reproductive health services and other avenues where men seem to attend in large numbers.

5.2.3 Education campaigns on dangers signs of obstetric complications lead by district health authority.

This study call upon the district multisectoral collaboration to makes use of different community events to educate men on danger signs of obstetric complications. Community based campaigns and advocacy initiative could help to rapidly disseminate knowledge and awareness on danger signs among men. More innovations are sought to reach older men who seem to have less knowledge on danger signs of obstetric complications.

5.2.4 District education and vocational training office to improve on functional adult education.

Since men who were able to read and write were 50% higher likelihood of acquiring knowledge comparing to those who were illiterate that confirm literacy to be one of the predictor of men acquiring knowledge on danger signs of obstetric emergencies. Therefore, this study call upon more investment on functional adult education and other initiative to ensure more men and women becomes literate and thus can benefit from primary maternal and newborns health education messages. In Tanzania literacy rate stands

at 80% by 2009 (Tanzania Basic Facts & Figures, 2011). However, the Basic Human settlement report shown the decreasing trend for the last thirty years.

5.2.5 Renewing strategies to improve attendance of men to the maternal and newborn health services in Musoma district.

Though with statistical borderline significance but its clinical importance is underscored, men who accompanied their spouses to the post natal clinic depicted to have knowledge on danger signs of obstetric complications. However, this study found "health providers" being the second largest source of information of pregnancy danger signs among men. Then it's clearly evident that, increased men engagement and attendance to the RCH services will help to reach and spread knowledge on dangers signs of obstetric complications other maternal and newborn's health matters to the majority of men. District Health Management Team should continue to implement some strategies and innovating new ones to ensure more men are willingly attending RCH services.

5.2.6 Future researches on roles of men in maternal and newborn health concerns to be conducted at regional and national level.

This study had limited scope in terms of its key questions. However, for explorative purposes researcher recommends future studies to have wider geographical coverage, in-depth exploration of knowledge, awareness and practices of men in dealing with broader obstetric and newborn emergencies and related complications being conducted in Mara and other regions of Tanzania. Future study designs should consider collecting both qualitative and quantitative data from men and women in view of enriching the science of maternal mortality and morbidity prevention.

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APPENDICES

Appendix 1: Informed Consent, English Version Muhimbili University of Health and Allied Sciences: Directorate of Research and Publications

INFORMED CONSENT

Consent to participate in this study

Greetings my names is……I am working on this research project with the objective of finding out whether Men's have knowledge on danger signs of obstetric complications in Musoma district , Mara region.

Purpose of the study

Dear respondent I would like to inform you that this is a research study titled "**Men's Knowledge on Danger Signs of Obstetric Complications- The Case of Musoma District- Mara Region"** I would like to give you information about your participation in the study.

This study is aiming at assessing knowledge of pregnancy danger signs and related complications while exploring associated determinants among adult men in Musoma district in Mara -Tanzania. Kindly be honest and truthful for betterment of the results that should help improve current maternal and child health interventions.

What participation involves

If you agree to participate in this study the following will occur:

1. You will sit with an interviewer and have a guided discussion. The interviewer will be recording your responses in a questionnaire.
2. You should know that, no identifying information will be collected from you during the interviews or discussions.
3. You will be interviewed once for approximately 15-20 minutes in a chosen location.

Confidentiality

I assure you that all information collected from you will be kept confidential. Only people working in this research study will have access to the information. We will be compiling a report, which will contain responses of the interviews. Your name/s will not appear or other identifying information on the records of the information you provide.

Risks

You might be asked questions about issues that might make you feel uncomfortable; you may refuse to answer or discuss any particular issue/s.

Rights to Withdraw and Alternatives

Taking part in this study is completely your choice. If you chose not to participate in the study or if you decide to stop participating in the study you will not get any harm. You can stop participating in this study at any time even if you have already given your consent. Refusal to participate or withdrawal from the study will not involve any penalty or loss of any benefits to which you are otherwise entitled.

Benefits

The information you provide will help to increase our understanding on how many men have knowledge on danger signs on obstetric complications. This will enable us to improve on the existing maternal and newborn and child health programmes in view of the changing roles that men can provide to support maternal and newborn welfare.

In case of injury

We do not anticipate any injury/harm will occur to you or your family, as a result of your participation in this study.

Who to contact

If you ever have questions about this study, you should contact the **Principal Investigator Msafiri Peter Swai (+255 713 571870)** of Muhimbili University of Health and Allied Sciences, P. O. Box 65001, Dar es Salaam.

In case of further inquiries or questions, you can also contact the Director of Research and Publication Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam. You may call **Prof. Mushi M, Chairman (Research and Publications Committee, MUHAS. P.O.Box 65001,** Dar es Salaam – Tanzania, Tel **+2552150302-6**); or **Dr. Innocent Semali** who is the supervisor of this study (Tel. **0754 269838**)

Participation

Do you Agree YES……. NO……..

I have read and understood the contents in this form. I agree to participate in this study.

Signature of Participant ……..... Date……

Signature of Principal Investigator……...Date…….…….

Appendix 2: Informed Consent Swahili Version Muhimbili University of Health and Allied Sciences: Directorate of Research and Publications

FOMU YA RIDHAA

Ridhaa ya kushiriki katika utafiti

Habari, jina langu ni ……., nafanya kazi katika mradi huu wa utafiti wenye lengo la kuchunguza kama wanaume wanauelewa kuhusu dalili za hatari wakati wa ujauzito, uchungu, kujifungua and baada ya kujifungua.

Malengo ya Utafiti

Ndugu mshiriki napenda kukufahamisha huu ni utafiti ujulikanao kama "Uelewa wa Dalili za hatari za ujauzito, uchungu , kujifugua na baada kujifungua miongoni mwa Wanaume wilayani Musoma vijijini". Nitakupatia taarifa za kina kuhusu ushiriki wako katika utafiti huu.

Tunatarajia kuwa utakuwa mwaminifu na mkweli katika taarifa utakazotupatia ili kupata matokeo mazuri na yatakayo wezesha kuboresha afau mbalimbali za afya ya uzazi na mtoto.

Ushiriki wako utahusisha nini

Ukikubali kushiriki katika utafiti huu utafanya yafuatayo:

1. Utakaa na msaili/mtafiti kufanya mazumguzo yanayohusu ufahamu wako
2. Hakuna taarifa zozote za utambulisho tutakazokusanya wakati wa utafiti huu.
3. Mahojiano haya yatachukua takriban dakika kumi na tano au ishirini, kwenye seheme yenye utulivu na faragha.

Usiri

Nakumbushia kwamba taarifa zote zitakozokusanywa kutoka kwako zitakua ni siri, ni watu

wanaofanya kazi katika utafiti huu tu ndio wanaweza kuziona taarifa hizi. Tutajumuisha ripoti ambayo haitakuwa na utambulisho wowote. Hatutaweka jina lako wala taarifa yoyote ya utambulisho kwenye kumbukumbu za taarifa utakazotupatia.

Madhara

Tutafanya mazungumzo juu ya ufahamu wako wa dalili za hatari zinazoweza kutokea wakati wa ujauzito , uchungu kujingua au baada ya kujifungua. Baadhi ya maongezi au maswali yanaweza kukufanya usijisikie vizuri. Unaweza kukataa kujibu swali au kuongelea suala lolote na unaweza kuhiari kutokuendelea na usaili wakati wowote.

Haki ya kujitoa na mbadala wowote

Kushiriki katika utafiti huu ni hiari yako, kama utachagua kutoshiriki au utaamua kusimamisha ushiriki wako, hautapata madhara yoyote. Unaweza kusimamisha ushiriki katika utafiti huu muda wowote hata kama ulisharidhia. Kukataa kushiriki au kujitoa kwako katika utafiti, hakutaambatana na adhabu yoyote au upotevu wowote wa faida au huduma yoyote unayostahili kupata.

Faida

Taarifa utakayotupatia itasaidia kuonegeza uelewa wetu wa juu cha uelewa wa dalili za hatari za ujauzito, wakati wa uchungu, wakati wa kujifungua na baada kujifungua miongoni mwa wanaume. Pia itatusaidia kuboresha huduma ya uzazi na watoto ambazo zinatolewa kwa sasa.

Endapo Utadhurika

Hatutegemei madhara yoyote yatatokea kwa kushiriki kwako katika tafiti hii. **Mawasiliano** Kama una maswali kutokana na tafiti hii, unaweza kuwasiliana na Mkurugenzi wa Utafiti na Uchapishaji, Chuo Kikuu cha Muhimbili S.L.P 65001, Dar es Salaam.

Sahihi

Je unakubali kushiriki kwenye utafiti huu?

Mshiriki amekubali…….Mshiriki amekataa…….

Sahihi ya mshiriki …….

Sahihi ya mtafiti mwandamizi ……..

Appendix 3: Questionnaire

Participant ID No: ☐☐☐

INTRODUCTION

This study is focusing to assess knowledge on danger signs of obstetric complications among men in Musoma district. The findings of this study are expected to contribute efforts of involving men in supporting labour and related complications. You are among the selected the study participants, your participation is voluntary. All your personal information will be kept confidential. However you can decide to stop at any point during the interview.

SECTION A: SOCIAL DEMOGRAPHIC INFORMATION

1	**Date of interview**	**Date: Month: 20..**	
2	**Ward**		
3	**Village / street**		
4	**How old are you? (in years) when were you born?**	▪ 18-24 ▪ 25-34 ▪ 35-49 ▪ 50 or more	1 2 3 4
5	**How old is your spouse /partner (in years)**	▪ 12-17 ▪ 18-34 ▪ 35-49 ▪ 50 or more	1 2 4 5
6	**Relationship status**	Married “living together” Married “not living together” Not married “living together’	1 2 3 4

		Not married "not living together"
7	**For how long have you been in relationship with your current partner?**	Less than 1year 1 1-3 years 2 4-8 years 3 9-15 years 4 15 years and above 5
8	**Can you write and read Swahili?**	YES 1 NO 2
9	**What is highest level of school you have attended?** *(pre-empty responses)*	Not attended school at all 1 Primary 2 Secondary 3 Higher 4

SECTION B: KNOWLEDGE AND AWARENESS ON PREGNANCY DANGER SIGNS OF OBSTETRIC COMPLICATIONS

10	**How many pregnancies does your current partner ever had***?(in case he has multiple partners enquire about elders partner)*	▪ 1- 2 1 ▪ 3- 4 2 ▪ 5 or more 3
11	**Do you usually accompany your partner when she is attending the antenatal care clinics?**	▪ YES 1 ▪ NO 2
12	**If "YES" do you attend to the ANC education talks?**	▪ Yes 1 ▪ No 2
13	**If "YES" can you recall what was discussed during your last visit?**	
14	**Do you usually make any childbirth preparedness plans whenever your partner is approaching to deliver?**	▪ Yes 1 ▪ No 2

15	**If "YES" what exactly did you do?**	
16	**Do you accompany your partner to the postpartum clinic?**	YES 1 NO 2
17	**In your opinion, what life threatening conditions which are likely to occur during pregnancy, labour and or few hours after delivery?** (*do not read responses, Please tick if any of these signs are mentioned or any signs that are closely related to these)*	Fits of pregnancy 1 Severe abdominal pain 2 Fowl smelling vaginal discharge 3 Severe vaginal bleeding 4 Lack of blood (Anemia) 5 High Fever 6 Loss of consciousness 7 Swelling of the lower limbs/face and blurred vision 8 Awareness of fast heart beat 9 Child does not move 10 Labor pains for more than 12 hours 11 Retained placenta 12 Lethargic or Body weakeness, "Other" specify 13
18	**Which among the following signs are considered to be the most dangerous signs and that require an urgent help to a pregnant or delivering women** *(read all responses to the participants circle the correct responses)*	▪ Fits of pregnancy 1 ▪ Nausea 2 ▪ Severe abdominal pain 3 ▪ Vomiting 4 ▪ Blood presure 5 ▪ Excessive sweating 6 ▪ Vaginal bleeding 7 ▪ Do not like to speak 8 ▪ Lack of blood (Anaemia) 9 ▪ Spent most of time sleeping 1 ▪ Severe headche 1 1

		▪ High fever ▪ Loss of consiciuosness 1 ▪ Skin rashes 1 ▪ Swelling of lower limbs 1 ▪ Dislike some of the food items 1 ▪ Child does not move 1 ▪ Eating soil 1 ▪ Awareness of fast heart beat 1 ▪ Excessive fetal movement 2
19	**From which source have you learned the danger signs of obstetric complications?** *(allow the respondent to mention as many sources as he can)*	Radio 1 Television 2 Printed IEC materials 3 Health care providers 4 Community health workers 5 Spouse/ partner 6 Peers or relatives 7 Community events eg drama 8 Personal experince 9 "Others" speficify 1
20	**Could you suggest the best ways to convey education messages on danger signs of obstetric complications among men?** *(allow the respondent to mention as many sources as he can)*	Radio 1 Television 2 Printed IEC materials 3 Health care providers 4 Community health workers 5 Spousal / partner 6 Peer or relatives 7 Community events eg drama 8

Appendix 4: Dodoso la Utafiti

UTANGULIZI

Utafiti huu unalenga kubaini uelewa wa dalili za hatari za ujauzito, wakati wa uchungu, wakati wa kujifungua na baada ya kujifungua. Matokeo ya utafiti huu yataongeza uelewa juu ya namna ya kuboresha na kuweza kupanua elimu miongoni mwa wanaume, pia itasaidia kubuni mbinu mpya za kuwafikia wanaume ili washiriki kikamilifu katika kutoa maamuzi sahihi yenye kuwasaidia wenza wao wanapokabiliwa na dalili hizo za hatari wakati wa ujauzito.

SEHEMU A: TAARIFA ZA MSHIRIKI

No:			
1	**Tarehe ya Usaili**	**Tarehe Mwezi 20…**	
2	**Kata**		
3	**Kijiji au Mtaa**		
4	**Je una umri gani (miaka)? Au Ulizaliwa mwaka gani?**	▪ 18-24 ▪ 25-34 ▪ 35-49 ▪ 50 au zaidi	1 2 3 4
5	**Je mwenza wako ana umri gani?** *(ikiwa ana mwenza zaidi ya mmoja, uliza taarifa za mwenza /mke wa kwanza)*	▪ 12-17 ▪ 18-34 ▪ 35-49 ▪ 50 au zaidi	1 2 4 5
6	**Hali ya mahusiano** *(ikiwa ana mwenza zaidi ya mmoja, uliza taarifa za mwenza /mke wa kwanza)*	Nimeoa " tunaishi pamoja" Nimeoa "hatuishi pamoja" Sijaoa "tunaishi pamoja" Sijaoa "hatuishi pamoja"	1 2 3 4

7	**Je umekuwa na mahusiano na mwenza wako wa sasa kwa muda gani?**	Chini ya mwaka 1 [1] Miaka 1-3 [2] Miaka 4-8 [3] Miaka 9-15 [4] Miaka 15 au zaidi [5]
8	**Je unaweza kusoma na kuandika kwa lugha ya Kiswahili?**	NDIYO [1] HAPANA [2]
9	**Kiwango cha juu cha shule au vyuo ulivyosoma?**	Sijawahi kujiunga na shule [1] Elimu ya msingi [2] Elimu ya sekondari [3] Zaidi ya elimu ya sekondari [4]

SEHEMU B: TAARIFA KUHUSU UFAHAMU ALIONAO MSHIRIKI

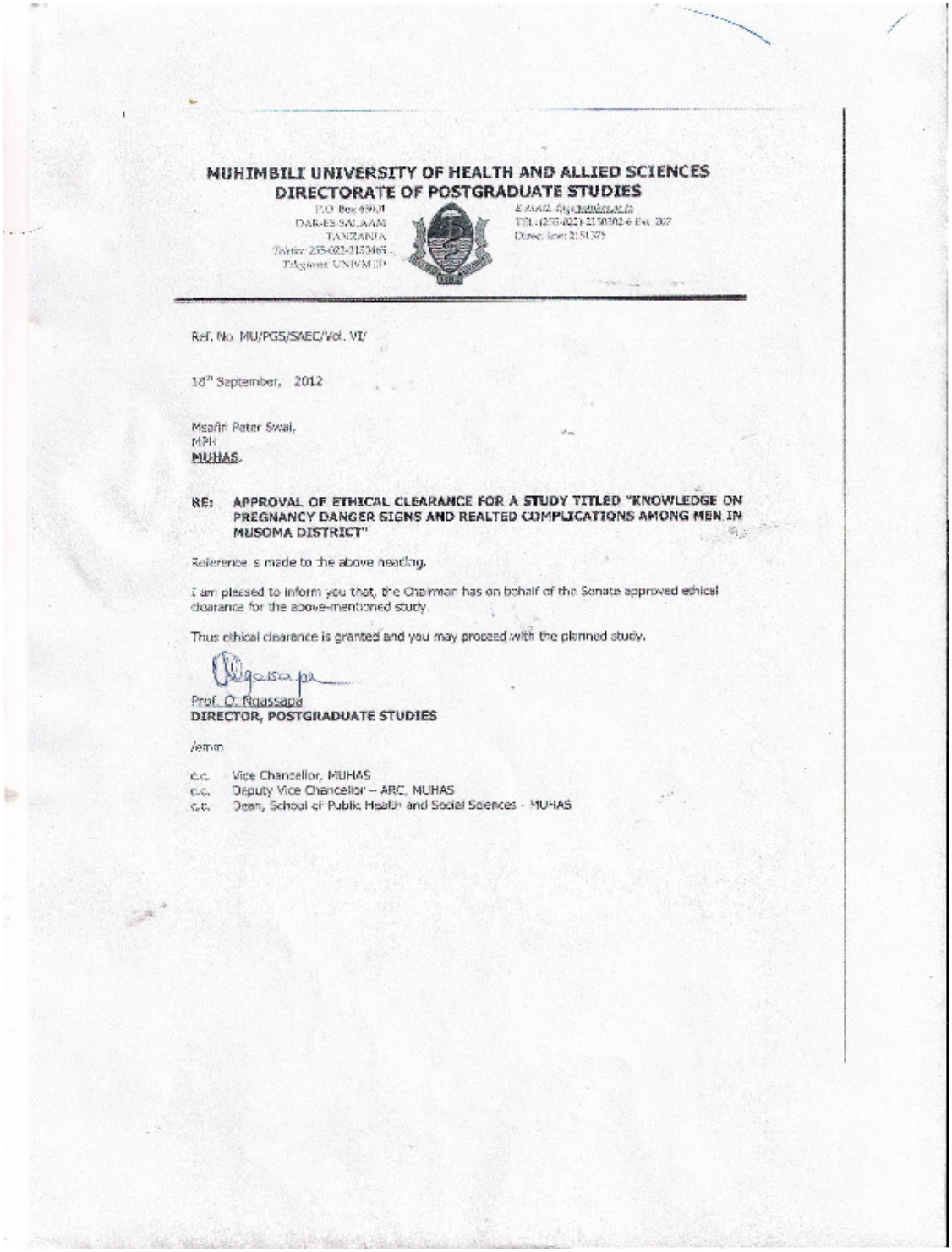
10	**Mwenza wako amewahi kuwa mjamzito mara ngapi?**	▪ 1- 2 ▪ 3- 4 [2] ▪ 5 au zaidi [3]
11	**Je mwenza wako ni mjamzito kwa sasa?**	▪ NDIYO [1] ▪ HAPANA [2]
12	**Je huwa unamsindikiza mwenza wako anapokwenda kliniki wakati akiwa mjamzito?**	▪ NDIYO [1] ▪ HAPANA [2]
13	**Ikiwa "NDIYO" Je umewahi kusikiliza au kudhuria vipindi vya elimu inayotolewa na watoa huduma za afya?**	▪ NDIYO [1] ▪ HAPANA [2]

14	**Ikiwa "NDIYO" naomba unieleze elimu hiyo ilihusu mambo gani**	
15	**Mkeo anapokaribia kujifungua huwa unafanya matayarisho yanayolenga kumsaidia ajifungue salama?**	▪ NDIYO 1 ▪ HAPANA 2
16	**Kama "NDIYO" je unaweza kunieleza ni matayarisho gani?**	
17	**Je humsindikiza mwenza wako anapokwenda kliniki baada ya kujifungua?**	NDIYO 1 HAPANA 2
19	**Kwa maoni yako ni dalili zipi humtokea mjamzito na ambazo huweza kusababisha hatari kwa mjamzito au mtoto atakayezaliwa?** *(Usimsomee majibu haya mshiriki, weka alama ya '√' mbela ya kila dalili atakayotaja)*	Kifafa cha mimba 1 Maumivu makali ya tumbo 2 Kutokwa na majimaji yenye harufu ukeni 3 Kutokwa na damu ukeni 4 Upungufu wa damu 5 Homa kali 6 Kupoteza fahamu 7 Kuvimba miguu / uso /kutoona vizuri 8 Kuhisi mapigo ya moyo 9 Mtoto kutocheza tumboni 1 Uchungu wa muda mrefu 1

		ie zaidi ya masaa 12
		Kukwama kondo la nyuma 1
		Mwili kulegea au Kuishiwa nguvu 1
		Sijui 1
20	**Kwa maoni yako dalili zipi kati ya hizi unadhani ni za hatari na zinahitajika hatua za haraka kumsaidia mjamzito.** *(msomee majibu mshiriki kisha zungushia dalili atakazozitaja)*	▪ Kifafa cha minba 1 ▪ Kichefuchefu 2 ▪ Maumivu makali ya Tumbo 3 ▪ Kutapika 4 ▪ Shinikizo la damu 5 ▪ Kutokwa na jasho 6 ▪ Kutokwa na damu nyingi ukeni 7 ▪ Hapendi kuzungumza 8 ▪ Ukosefu wa damu mwilini 9 ▪ Muda mwingi anapenda kulala 1 ▪ Kuumwa kichwa sana 1 ▪ Homa kali 1 ▪ Kupoteza fahamu 1 ▪ Kutokwa vipele mwilini 1 ▪ Kuvimba miguu, uso, kutoona vizuri 1 ▪ Kutopenda baadhi ya vyakula 16 ▪ Mtoto kutocheza tumboni 1 ▪ Kula udongo 1 ▪ Kuhisi mapigo ya moyo 1 ▪ Mtoto anacheza sana tumboni 2
21	**Je uelewa wa dalili hizi ulijifunza au ulipata kuzisikia wapi?**	Radio 1
		Runinga (Televisheni) 2
		Majarida, vipeerushi, mabango nk 3

		Mtoa huduma za afya 4
		Mwenza/mke 5
		Marafiki / ndugu 6
		Uhamasishaji katika matamasha 7
		Nimewahi kushuhudia 8
		"Nyingine" itaje" 9
22	**Je unapendekeza njia zipi zitafaa kuwaelimisha wanaume dalili za hatari za ujauzito, uchungu, kujifungua au baada ya kujifungua.**	Radio 1
		Runinga (Televisheni) 2
		Majarida, vipeperushi, mabango nk 3
		Mtoa huduma za afya 4
		Mwenza/mke 5
		Marafiki / ndugu 6
		Uhamasishaji katika matamasha 7
		Nimewahi kushuhudia 8
		"Nyingine" itaje 9

Appendix 5: MUHAS Approval of Ethical Clearance



MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

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TEL: (255-022) 2150302-6 Ext. 307
Direct line: 2151375

Ref. No. MU/PGS/SAEC/Vol. VI/

18th September, 2012

Msafiri Peter Swai,
MPH
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "KNOWLEDGE ON PREGNANCY DANGER SIGNS AND REALTED COMPLICATIONS AMONG MEN IN MUSOMA DISTRICT"

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.

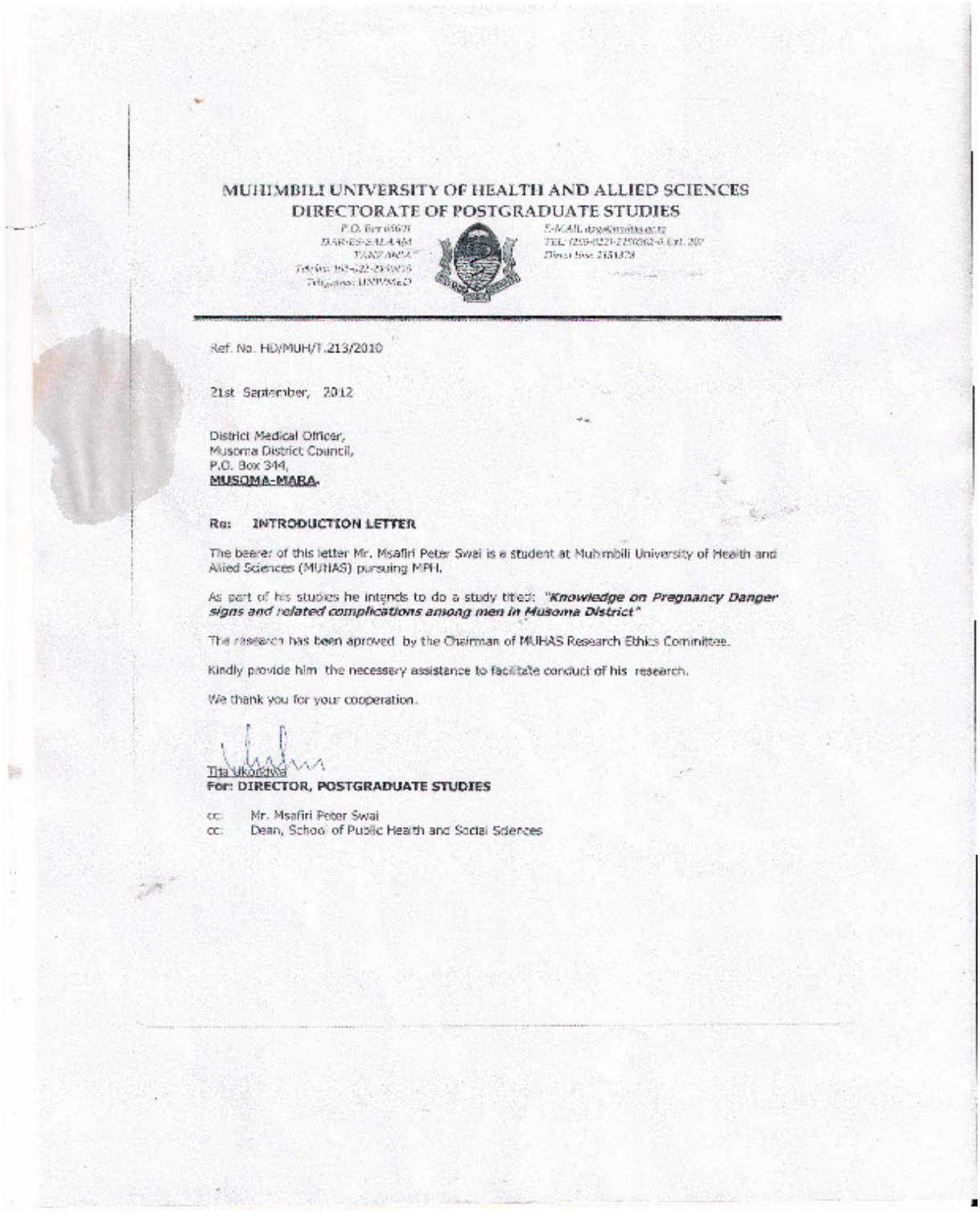
Thus ethical clearance is granted and you may proceed with the planned study.

Prof. O. Nyassapo
DIRECTOR, POSTGRADUATE STUDIES

/emm

c.c. Vice Chancellor, MUHAS
c.c. Deputy Vice Chancellor – ARC, MUHAS
c.c. Dean, School of Public Health and Social Sciences - MUHAS

Appendix 6: Introduction Letter to Musoma District Medical Officer



MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
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Direct line: 2151378

Ref. No. HD/MUH/T.213/2010

21st September, 2012

District Medical Officer,
Musoma District Council,
P.O. Box 344,
MUSOMA-MARA.

Re: INTRODUCTION LETTER

The bearer of this letter Mr. Msafiri Peter Swai is a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MPH.

As part of his studies he intends to do a study titled: ***"Knowledge on Pregnancy Danger signs and related complications among men in Musoma District"***

The research has been aproved by the Chairman of MUHAS Research Ethics Committee.

Kindly provide him the necessary assistance to facilitate conduct of his research.

We thank you for your cooperation.

Tita Ukondwa
For: DIRECTOR, POSTGRADUATE STUDIES

cc: Mr. Msafiri Peter Swai
cc: Dean, School of Public Health and Social Sciences

Appendix 7: Introduction Letter to the Ward Executive Officers

HALMASHAURI YA WILAYA YA MUSOMA

Namba ya Simu: 2622163
2620521
2620768
FAX NO. 2620521

Ofisi ya Mkurugenzi Mtendaji (W)
Idara ya Afya,
S.L.P. 344,
MUSOMA

Tarehe: 03/12/2012

WATENDAJI WA KATA :

KUKIRANGO. .
KIRIBA.
BUTIAMA.
NYAMIMANGE.
MUGANGO.

YAH: UTAFITI WA UELEWA WA DALILI ZA HATARI ZA UJAUZITO MIONGONI MWA WANAUME.

Tafadhali husika na mada tajwa hapo juu.

Napenda kumtambulisha Dr Msafiri Swai ambaye ni mwanafunzi wa Chuo Kikuu cha Muhimbili, ataendesha utafiti katika kata zilizotajwa hapo juu kwa kushirikiana na watoa huduma za Afya vituoni . ofisi inaomba ushirikiano wenu.

Ahsante

Dr G. Makenge.
Mganga Mkuu (W),
MUSOMA.

DISTRICT MEDICAL OFFICER
MUSOMA