

Qualitative study on maternal referrals in rural Tanzania: Decision making and acceptance of referral advice

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ABSTRACT

The aim of this study was to describe perceptions of maternal referrals in a rural district in Tanzania. Focus group discussions (FGDs) with health workers and community members, stratified by age and gender, were conducted. The FGDs revealed that husbands and relatives are the decision makers in maternal referrals, whereas the women had limited influence, especially on emergency referrals. The process in deciding to seek referral care is envisaged within community perception of seriousness of the condition, difficulty to access and cost involved in transport, living expenses at the hospital, and perceived quality of care at facility level. The hospitals were seen as providing acceptable quality of care, whereas, the health centres had lower quality than expected.

To improve maternal referral compliance and reduce perinatal and maternal morbidity and mortality, community views of existing referral guidelines, poverty reduction, women's empowerment and male involvement in maternal care are necessary. (*Afr J Reprod Health* 2008; 12[2]:120-131)

RÉSUMÉ

Etude qualitative sur l'orientation des sujets recherchant les soins maternels auprès des spécialistes en Tanzanie rurale: Prise de décision et acceptation des conseils des spécialistes. Cette étude avait pour but de décrire les perceptions des orientations des sujets recherchant les soins maternels dans un district rural en Tanzanie. Nous avons mené dix discussions à groupe cible (DGC) avec le personnel médical et les membres de la communauté stratifiés selon l'âge et le genre. Les DGCs ont révélé que les maris et les parents sont responsables de la prise de décision quand il s'agit des orientations vers les spécialistes alors que les femmes ont une influence limitée, surtout quand il s'agit des orientations auprès des spécialistes d'urgence. Le processus de décider de demander une orientation auprès du spécialiste est envisagé dans le cadre de la perception de la communauté de la gravité de la condition, la difficulté de trouver le transport et le frais de transport, la dépense quotidienne à l'hôpital et la qualité perçue de soin au niveau de l'établissement. On considérait que les hôpitaux assuraient des soins de qualité acceptable alors que les centres de soins disposaient d'une qualité inférieure. Pour améliorer la conformité aux orientations des sujets recherchant les soins maternels auprès des spécialistes et pour réduire la morbidité et la mortalité périnatale et maternelle, il faut avoir les opinions de la communauté sur les directives concernant les orientations vers les spécialistes, la réduction de la pauvreté, l'émancipation de la femme et l'implication de l'homme dans les soins maternels. (*Rev Afr Santé Reprod* 2008; 12[2]:120-131)

KEY WORDS: *maternal referrals, decision making, rural, Tanzania, FGD*

Sub-title: *Perceptions on maternal referrals*

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Introduction

An efficient referral system of good quality plays a crucial role in reduction of maternal mortality. In sub-Saharan Africa, maternal mortality rate (MMR) is the highest in the world and in Tanzania it is between 572 and 960 per hundred thousand live births¹⁻³. The risk of dying during pregnancy or childbirth faced by Tanzanian women is 100 times greater than that faced by women in the high-income countries². The major causes of MMR are postpartum haemorrhage, infections, hypertensive disorders, obstructed labour and complications from abortion^{1,4}.

The health system in Tanzania is organized in a referral pyramid, starting from the community dispensaries and rural health centres (RHCs) offering basic obstetric care and treatment of minor conditions. At the district level, there are district or district designated hospitals which are first referral level where necessary drugs, equipments and skilled staff are available to offer comprehensive obstetric care. Then at the regional level, there are regional hospitals and on top at national level, there are national and specialized hospitals.⁵ Health care is provided by the mixture of government, private not-for profit including mission hospitals and private for-profit including company services. Maternal services in the government institutions are provided free of charge.⁵

In Tanzania, 94% of pregnant women attend antenatal care at least once⁶. An action-oriented Reproductive and Child Health card number four (RCH-4 card) is used at dispensaries and health centres as a guide for deciding when a woman should be referred to a higher level of care. The RCH-

4 card includes guidelines for elective referrals to hospital for assessment or delivery, and emergency referrals during pregnancy, delivery and after delivery. It is estimated that 15% of all pregnant women will develop pregnancy and childbirth related complications which require access to first referral level care⁷. Studies have found that full implementation of the antenatal care referral guideline would result in more than 50% of all pregnant women being referred either antenatal or for delivery. However, previous studies in Tanzania show that acceptance of referral advice is reported as low and maternal and perinatal mortality is high^{8,9}. A study in Rufiji district reported that among women given emergency referral only half of them arrived at the hospitals⁸. There is no doubt that many patients who would benefit from referral are either not referred or arrive after considerable delay. The three phases of delays model in accessing obstetric care as described by Thaddeus and Maine¹⁰ contribute to high maternal mortality observed. The first delay is delay in deciding to seek care, the second is delay in identifying and reaching at a health facility, and the third is delay in receiving appropriate care after arriving at the facility.

The aim of this study was to describe perceptions of maternal referrals within the community and among health staff in the rural district of Rufiji in Tanzania. The specific objectives were to describe the process of decision making in seeking care for maternity problems and to identify factors that influenced acceptance of referral advice from health workers. To achieve this ten focus group discussions (FGDs) were conducted with health workers and the community stratified by age and gender.

Methods

Setting

Rufiji is a district in the Coastal region in Tanzania with an estimated population of 203,102, according to census results in 2002. The Rufiji River divides the district into a flood plain, a coastal-delta, and plateau zones. Transport in the district includes canoes, boats, motor vehicles and bicycles and most of the road networks in the district are almost impassable during the rainy season.

Antenatal care (ANC) and delivery services are provided in 48 dispensaries, four rural health centres (RHCs) and two hospitals; one is the district hospital owned by the government and another is non for profit owned by the Pentecostal church. All health centres are owned by the government. Four out of 48 dispensaries are privately owned; 3 by the non-for-profit organizations and one by a private for profit company. According to guidelines stipulated in the national RCH-4 card, health workers provide antenatal care for low risk women at dispensaries and RHCs and refer high-risk women and those with complications to the referral hospitals. Women who develop complication during delivery or after delivery are also referred. Assisted deliveries, vacuum extraction or forceps can only be provided at the hospitals. There is only one vehicle serving as an ambulance in the whole district.

Participants

The data collection was conducted in April 2005. Two RHCs situated at the furthest distance from the two hospitals in Rufiji district and the village nearest to each were purposely selected to be included in the study. Health workers and community

members were included in the study to capture perceptions of different stakeholders of maternal referrals. To enable interaction between participants and free expression the FGDs in the community, the groups were selected by age and gender. Fifty years or more was taken as an old group. Formal leaders including village chairperson were excluded, as they could have interfered with the freedom of expression amongst participants.

Ten FGDs were held, two with health workers (11) and eight from the community (85). The health workers included clinical officers (2), midwives (3), MCH Aide (1) and nurse assistants (5). All were working with maternity care. The community participants were selected from a village nearest to each RHC. In each village four FGDs were conducted that is one FGD each with young women, old women, young men and old men. Recruitment of participants was assisted by the chairpersons of the villages to ensure that all hamlets were represented. The focus group size in the community ranged from 9 to 12 participants, while all the health workers in the RHCs were included; five in one centre and six in another.

Focus group discussions

In this qualitative study, FGDs were chosen for the means of data collection, as perceptions at group level could be perceived from the interaction in the discussions¹¹. Data collection was by the two first authors of the study and a social scientist. Swahili was used in all sessions. FGDs were held in health centres for the health workers and at the village offices or under a mango tree for the community.

The moderator introduced the topics which included where do the community seek care on pregnancy and delivery? What are the danger signs? How are decisions on referral made? Factors affecting acceptance of referral instructions and opinions on quality of care provided. Despite the number of participants in the FGDs in the RHCs being relatively few, the quality of discussions was good and generated rich data. Participants were fairly open and expressed different views without intimidating each other. The FGDs were audiotaped and lasted between 60 to 90 minutes.

Data analysis

The audiotaped FGDs were transcribed and translated from Swahili to English to make data accessible to non-Swahili speaking members of the research team. To ensure accuracy of the translation, a transcript of one FGD was back translated by a linguistic expert. No significant differences were found. One tape for an FGD with young men was excluded from the analysis due to a recording defect. Thus, nine FGDs were analysed.

A qualitative content analysis method as described by Graneheim and Lundman¹² was used. All texts from the FGDs were first analysed for identification of patterns of the decision making processes. A second round of analysis was conducted for identification of factors that influence acceptance of referral. Each analysis included thorough reading of the transcribed text to identify meaning units, that is, statements that related to the topic of analysis. The meaning units were then condensed, abstracted and coded. These codes were categorized according to similarities and differences in content.

Ethical approval

Ethical approval of the study was obtained from the Research and Publication Committee of Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania. Permission to conduct the study was obtained from Rufiji district executive director's office and the villages' chairmen. Before each FGD, it was clarified that participation was voluntary and that the investigators were independent researchers with no connection to any local authority. All participants gave verbal consent to participate after discussing the purpose of the study and issues of confidentiality.

Results

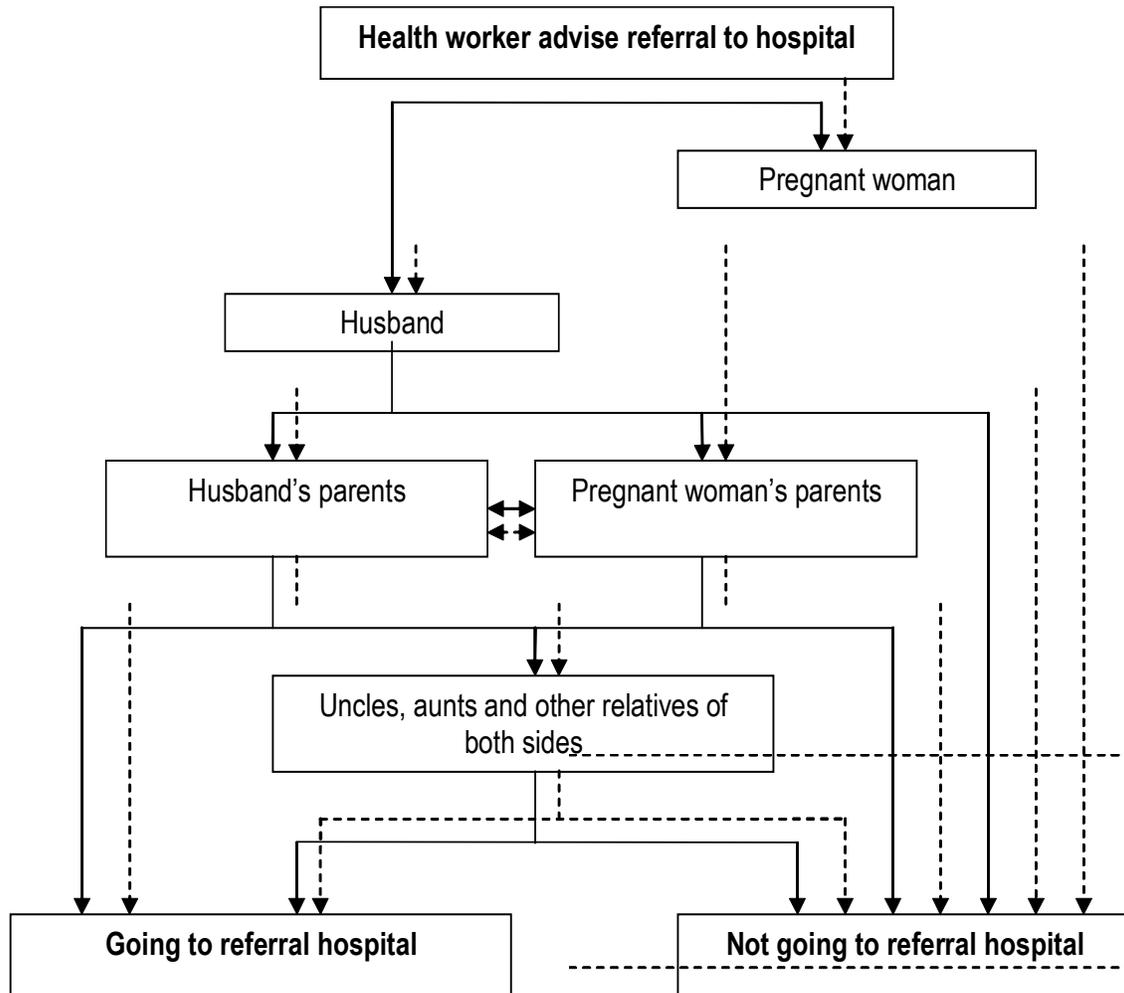
In the presentation of the results, quotes from the FGDs are given followed by abbreviations to indicate from which group they originated, OM = Old Men, YM = Young Men, OW = Old Women, YW = Young Women, HW = Health workers.

Process of decision making in seeking care

In elective referrals, the process of decision-making starts when a risk in a pregnant woman is identified at antenatal clinic. The pregnant woman is electively referred and she would normally go back home and inform her husband, mother-in-law or her mother, if she is not married. Some pregnant women might not agree with the referral advice given by staff at health centre and consequently do not inform their relatives.

In an emergency during pregnancy, delivery or after delivery at the health facility, the health worker would inform the woman and her husband about the condition and the

Figure 1: Decision making process after health worker's advice an elective and emergency maternal referral



Key: Solid arrows are for emergency referral and dotted arrows are for elective referral

need for referral. If the husband was not there, the health worker would inform the person escorting the pregnant woman to the health centre, usually the mother-in-law. The woman herself usually has no active role, but to wait for the decisions from others.

Most of the time we inform ourselves first, when is impossible we call her husband if she has one. If is single we tell her parent or guardian (HW)

Towards the end of the pregnancy period, the mother-in-law usually stays closer to their daughter-in-law. When a condition is perceived as dangerous at home and immediate care is required, the pregnant woman's mother-in-law informs the husband. The husband commonly informs his father who consults the woman's parents. They discuss the seriousness of the problem and whether or not, and where to, seek care. In most cases,

the final decision maker is the husband, who also is responsible for financing the transport.

'He (the clinical officer) calls and tells you how much he has attempted, and asks whether you can manage to call for a vehicle or not'. (OM)

After having received the advice for referral, the husband and his parents then inform the woman's parents and other relatives. Together they conduct a meeting to raise money for transport and upkeep, and decide who should accompany the pregnant woman to the hospital. The husband may need financial help from the relatives.

'If she is under a man, a special meeting is held, in the presence of the husband's parents, the wife's parents and the husband himself. Special deliberations are set in place for soliciting contributions if the husband's means are poor, they help each other, no one is threatened, and provided she has a husband then it is alright'. (OW)

The husband's responsibility for making the decision on maternal referral is a prominent perception delineated in the FGDs. It lies with him, being the head of the family with the economic power and responsibility, to assist in arranging for blood transfusions. Some husbands do not agree with the referral advice thus do not inform other relatives. The woman's possibility to influence the decision-making was described as trying to persuade the husband to decide in accordance with her wish.

... In most cases when the doctor tells you to go for referral, you have to inform your husband. The husband is now left with two options, either to accept or reject the advice.... The doctor will emphasize that he cannot handle such a problem at the health centre, and there are no equipments

to help the woman, therefore, she must go to hospital. Now the husband. ...will understand that the problem is a big one.... (YW)

Despite the husband being seen as the most important person in the decision-making, it appears that if he neglects the need for referral or is unable to pay the costs of referral, the parents of the pregnant woman may interfere. It was described that if the pregnant woman's parents took their daughter for referral, the husband had no alternative but to accept and join them. The husband might also solicit help from the in-laws so that he should not be blamed if death occurs.

Sometimes it becomes necessary for such external assistance to be in place to avoid being the one who contributed to the woman's death. This is because if she dies, her parents will say that you purposively contributed to the death because you knew that you are able to marry another woman.... (YM)

Factors that influence acceptance of referral instructions

Perceptions of risk and complications in pregnancy and childbirth

The community's own assessment of whether the problem was serious might differ from the health workers' opinion and ANC guidelines. Referral due to risks factors during pregnancy was not taken as seriously as referral during delivery or when a complication occurred. In the discussions, examples of risks that were not seen as serious included: first pregnancy, young age, five or more pregnancies, abnormal lie of the baby and short stature. However, several complications were mentioned in all FGDs,

Table 1. Factors influencing acceptance of referral

1.	Perceptions of risk and complications in pregnancy and childbirth
2.	Previous experience of referral
3.	Cost of transport to the referral hospital
4.	Cost of living at the referral hospital
5.	Perceptions of quality of care at hospitals and health centres

including vaginal bleeding, anaemia (weak blood), retained placenta, convulsions (fits), prolonged labour, previous abdominal delivery and bigger abdomen than normal in under-aged woman.

... anaemia and bad presentation of the baby. It can just be due to a disease, and for others, convulsions. Others are in their first delivery and are told are too short...

... it can be caused by shortage of blood ... blood becomes insufficient due to poor feeding, malaria also contributes, hookworms, lack of blood...(OM)

Previous experiences of referrals

Previous pregnancy experiences may influence actions taken during the current pregnancy. Pregnant women and their relatives may not accept a referral when they have seen other women with the same problem deliver safely after being referred. Being too short, having their first pregnancy, abnormal lie or presentation and twins were cited as examples. This made people lose trust in the health workers when referred to the hospital, and even suspect that health workers may have other interests in the referral given.

What makes them not to go is events such as this, one (woman) who was told she had twins but when she went there she had only single baby, she says these are liars (laughter) or sometimes they say the baby is abnormally lied but when you go there the lie is good (YW)

Cost of transport to the referral hospital

Participants described transport as one of the major problems encountered when emergency referral is decided. Most depend on the vehicle stationed at the district hospital, which created a sense of lack of ownership. In an emergency, a health worker had to call the district hospital to ask for the vehicle, which may not be accessible because of the lack of radio communication or it was being used for other purposes. Other options of transport included hiring a motor vehicle, which is much more expensive, or waiting for the routine bus which leaves every morning. Incidences of maternal deaths caused by delay in receiving care due to inability to pay for the transport were discussed in the FGDs.

One woman was referred to hospital but they were financially incapable, so she continued to stay at the health centre until she died there.... If we had a car, a serious patient could just be rushed to hospital (OW)

Cost of living at the referral hospital

During the FGDs, there was concern over the cost of living incurred in maternal referrals. When the pregnant woman was referred, she was usually accompanied by at least two relatives, one to assist her at the hospital and another to donate blood when needed and keep contact with the family. The pregnant woman might have to stay outside of the hospital to await delivery if she had been referred due to a risk factor. In addition, the people escorting her have to find a place to stay during that period. Strategies for these arrangements had to be made.

We just go, just like that. We have no means, but what can we do? If we have relatives staying there we request them to accommodate us in their homes.Whether you can afford the costs or not, when faced with such problems you may have to borrow from someone, or even sell your property (OW)

Perceptions of quality of care at hospitals and health centres

The perceptions of quality of care at health facilities could influence the adherence to advice on referral. It was understood from the FGDs that quality of care was perceived as having several intertwined components, including the mothers' chances of recovery, the provision of free medicine and other services and respectful treatment by care providers. In the FGDs, the referral hospitals were cited as providing more satisfactory services compared to the health centres. The importance of immediate provision of services and ability to work as a team among health workers was seen as good quality of care. Health workers' kindness and willingness to listen and explain the health

problem without verbal and physical harassment were perceived as good care. Instruction of mothers and relatives on cleanliness were mentioned as important, as well as regular change of bedclothes and cleaning of the floor.

At the hospital the services are good...because your patient will become well... Immediate after you arrive you get the services, drugs are available and cleanness is satisfactory. (OM)

...You are not harassed; a problem is explained to you and to the patient. (OM)

Delay in opening health centres, absence of health workers during working hours because they are doing their own activities and the relatives of the patient have to go to their homes was of great concern to the participants.

... Sometimes pregnant women go there and find that the nurses are busy with other issues. Or you may go there and be told that the doctor is at home, you have to follow him there (YM)

Giving other people information about women going for maternal services at the health facilities and not listening carefully were regarded as poor quality of care. It was also desirable that it should be possible to complain about the care without risking punishment such as being mistreated, threatened, withheld or delayed the services when sick.

....The health workers do not respect patients. They say whether you come here or you don't we will continue to get our salaries as usual. And there is nothing we can say because if they hear you, never attempt to go there for treatment...They will not accept you again as a form of punishment (OW)

Discussion

The present study described perceptions of community members and health workers on the use of maternal referral in rural Tanzania. It indicates that the first and second delay described in the three delay model¹⁰ contributes to delay in accessing obstetric care at the hospitals when women are referred from dispensaries and health centres. The process in deciding to seek referral care is envisaged within community perception of seriousness of the condition, transport, cost involved in transport and living at the hospital, and perceived quality of care.

Husbands and relatives have a major role in deciding and ensuring women referred receive the care. Women were only involved in decision making in acceptance of referral advice to a limited extent. This was especially true in emergencies where the husband, together with his mother and other relatives, had the responsibility of deciding and later informing the pregnant woman on the final judgment. The social status among the community members such as mother in law had a significant role in the process of decision-making. We did not find any indications in our study that women deliberately abstain from participating in the decision making process. This has been found in other studies on the interaction between health workers and women^{13, 14}. The passive role of the pregnant women may be hidden in the cultural context and economic status of women in the society. While the community is involved in the health-care of the mother especially in emergency situations, there is still need for sustained campaigns to involve men in reproductive health and maternity care. This will improve

support for safe pregnancy and delivery given the imbalance in decision-making between men and women in this society. Men lack of understanding of the risks of childbirth has serious consequences for women's health¹⁵. In Nigeria formal education has been shown to be a major determinant in the change of women taking decisions in the absence of their husbands¹⁶. Mullany et al. showed that involving husbands in antenatal health education increased post-partum care utilization and likelihood to be highly prepared for birth among women compared with women who received antenatal health education alone and with women who received no education¹⁷. More than educating men in antenatal and postnatal care clinics but local and religious leaders, radio messages and community drama groups may be used to enhance their knowledge attainment and participation in maternal care.

Non-compliance with the elective referral advices during the antenatal care like short stature, first pregnancy, young age and many pregnancies indicates that the families made its own risk calculation, which did not necessarily agree with the risk factors mentioned in the RCH-4 card. Referral during delivery or when a complication occurred was taken more serious than a referral advice during pregnancy without visible symptoms. The primary point of view of the community risk calculation is their experience. According to a previous study in the same district, only 50% of women referred because of emergency condition reached a hospital⁸. The importance of identifying women developing obstetric complication, prompt referral and early arrival to the hospital providing emergency

obstetric care has been identified as the corner-stone in reduction of maternal mortality and morbidity⁷. Quantitative studies have shown that most risk factors have a low predictive value for the occurrence of obstetric complications¹⁸⁻²⁰. Risk prediction may wrongly identify many women as being at risk with considerable cost implications for the individual, health services and the society. It also gives false confidence to women identified at low risk thus hinder emergency preparedness.

Lack of transport and financial constraints play a crucial role in the failure of referral for obstetric emergencies in most developing countries. Rural areas have few roads which are difficult to pass, especially during the rain season. Moreover, some of the lower level health facilities are far from the referral hospitals making transportation difficult. The transportation related costs of reaching the referral hospitals are substantial, particularly in emergency situations^{10, 21-24}. The focus groups in the present study identified the same factors as obstacles in adhering to referral advices. Traditional birth attendants in a study from the same region in Tanzania mentioned transport difficulties and cost as the main factors for women not accepting referral advice²⁵. There have been attempts to alleviate the problem of cost involved in transport. A community mobilization intervention to support transport system in north-western Tanzania revealed an increase in timely referral and transport of pregnant women to hospitals in emergencies²⁶. In Northern Nigeria, emergency loan funds to provide money for women with obstetric complications, and partnership between the community and the local commercial transport owners have been

established and contribute significantly to the reduction of costs^{27, 28}.

Beyond transport costs, the cost of care, accommodation for accompanying people, food, and sometimes drugs were of major concern expressed in the FGDs. This confirmed the findings from other studies in Africa²⁸⁻³⁰. These costs may deter women with complications from accepting referral advice given at health facilities.

Emergency obstetric care services in hospitals are either not accessible or not functioning properly in many developing countries. This third of the three delay model¹⁰ could not be accomplished by the method of data collection used in this study. However, the quality of care at hospital level was perceived as favourable, and met the needs and expectation of the community members and was not quoted as an obstacle for referral acceptance in the rural area. This contrasted to the findings from another study from Southern Tanzania, where rural women felt insecure and discriminated in the town hospital³¹. This may not be obvious in Rufiji as the whole district is more of rural population. The quality of care in the health centres was however expressed as less satisfactory than expected. This may play a role in delaying the community members to reach a decision when health worker give a referral advice, thus contributing to the first phase of delay.

In this study, information was collected from all stakeholders of the maternal referral care which give perceptions of the services provided but it is important to study women with complications given referral (complied and not complied) using an in-depth interview method to capture their experiences of

the referral care. This could yield rich information and the actual obstacles to referral care.

In order to achieve the millennium development goals (MDG) four and five, which address reduction of perinatal and maternal morbidity and mortality, this study calls for consideration in developing evidence-based guidelines for improving referral compliance. Education on maternal care should include not only pregnant women but also men and key family members, such as mother-in-laws. Furthermore, women's empowerment and poverty reduction should be addressed within the society to enable women's active involvement in the referral decision-making process, in accordance with MDG three and one. Prospective longitudinal studies in maternal referrals, including auditing of quality of care at both frontline health facilities and hospitals, are suggested.

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