ORIGINAL ARTICLE

OBSTETRICAL REFERRALS BY TRADITIONAL BIRTH ATTENDANTS

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Background: In Pakistan 90% of births are conducted by TBA's. In most cases, TBA's are unable to diagnose the complications and are often unable to take decisions on timely referral. The objective of this study was to determine the prevalence, nature and outcome of life threatening obstetrical conditions in referrals by Traditional Birth Attendants (TBAs). **Methods**: This Observational, Descriptive study was conducted from January to December 2007, in the obstetrical unit of Fatima Hospital, Baqai Medical University, a tertiary care community based hospital. The study included patients referred by TBA's who developed life threatening obstetric conditions (LTOCs). **Results:** Total 64 patients were referred by TBA's. The prevalence was 7.8%. Out of them, 53 (82.8%) patients admitted with life threatening obstetric conditions. The near-miss morbidities and mortalities were 45 (84.9%) and 8 (15%) respectively. Maternal mortality to Near-miss morbidity ratio was 1:6. Obstructed labour caused near-miss morbidity in 32 (60.3%) patients with no mortality. Postpartum haemorrhage as life threatening condition developed in 16 (30.1%) patients with 10 (18.8%) near-miss morbidities and 6 (11.3%) mortalities. Puerperal sepsis accounted for 1 (1.88%) near-miss morbidity and 2 (3.76%) mortalities. The mortality index for puerperal sepsis is (66.6%) almost double of postpartum haemorrhage (37.5%). **Conclusion:** Mortality to near miss morbidity ratio is high. Misidentification and late referrals of complicated cases by TBA's were responsible for near-miss morbidities and mortalities.

Keywords: Traditional Birth Attendants, Life threatening obstetric conditions, Maternal mortality

INTRODUCTION

Health is a basic human right, and must be available and accessible to all in an affordable framework. In Pakistan, despite an elaborate network of over 5,000 Basic Health Units and Rural Health Centres, supported by higher level facilities, primary health care activities have not brought about expected improvements in health status, especially of rural population.[1] In Pakistan 70% of the population is residing in rural areas and 90% of the births were conducted by TBA's.[2] In most cases, TBA's cannot save women's lives effectively because they are unable to diagnose the complications and are often unable to take decisions in time for referral. The World Health Organization definition of a TBA is a 'person who assist the mother during childbirth and who initially acquired her skills by delivering babies herself or by working with other TBA's. The TBA's in Pakistan are generally older uneducated women, who lives in the community and are recognised for her experience attending to pregnant women, the birth itself, and caring for the mother and newborn immediately after birth.[3] According to one study TBA's who have not received formal training may be particularly fearful of recrimination if they refer patients with complications to the formal health care system.[4]

Maternal mortality represents the level of health care services, social welfare and economic affluence of a community. Despite strenuous efforts, the maternal mortality in Pakistan remains high. The National figure of 340 maternal deaths/100,000 live births tends to hide the fact that in some rural areas it is as high as 700/100,000 live births.[2] Like many other developing countries, Pakistan is also faced with an enormous challenge in reaching the Millennium Development Goals (target of 75% reduction in maternal mortality ratios by 2015) set by the United Nations.[5] Eighty percent of maternal deaths occur at home and only 1 in 20 women with complications of pregnancy and childbirth reach a facility with emergency obstetrical care.[6] Near-miss morbidity is defined as a complication that immediately threatens a woman survival but does not result in her death by luck or appropriate care.[7]

The objective of this study was to determine the prevalence, nature and outcome of life threatening obstetric conditions in referrals by traditional birth attendants.

MATERIAL AND METHODS

This observational, descriptive study was conducted from January–December 2007, in the obstetrical unit of Fatima Hospital, Baqai Medical University, a tertiary care community based hospital. The study included patients referred by TBA's who has developed life threatening obstetric conditions.

The life threatening obstetric conditions were diagnosed on the basis of clinical criteria.[8] Detailed history and examination of patients were done and information was collected on a pre-designed proforma. They were managed accordingly and monitored for outcome.

Outcome of LTOC's was assessed as near-miss morbidity and maternal mortality. The ratio of mortality to near-miss morbidity was calculated. Mortality index was measured by maternal deaths resulting from particular obstetric condition divided by life threatening obstetric conditions.

Data were analysed on SPSS-11. The results were expressed in frequency and percentages.

RESULTS

Patients who survived (Near-miss morbidities) the life threatening conditions were 45 (84.9%) while mortalities occurred in 8 (15%) patients. Maternal mortality to Near-miss morbidity ratio was 1:6 (Table-1).

Obstructed labour caused near-miss morbidity in 32 (60.3%) patients with no mortality. Postpartum haemorrhage as life threatening condition developed in 16 (30.1%) patients with 10 (18.8%) near-miss morbidities and 6 (11.3%) mortalities. Puerperal sepsis accounted for 1 (1.88%) near-miss morbidity and 2 (3.76%) mortalities. The mortality index for puerperal sepsis is (66.6%) almost double of postpartum haemorrhage (37.5%) (Table-2).

Table-1: Prevalence of LTOCs, near-miss morbidity and mortality

Parameter	Number	Percentage
LTOC	53	82.8
Intra partum	34	64.1
Postpartum	19	35.8
Near-miss morbidities	45	84.9
Maternal deaths	8	15.0

Table-2: Nature and outcome of LTOC in referrals by TBA'S [n (%)]

Nature of LTOC	n=53	Near-miss morbidity n=45	Maternal mortality n=8	Mortality Index
Obstructed labour	32 (60.3)	32 (60.3)	0	0
Eclampsia	1 (1.88)	1 (1.88)	0	0
Placenta Previa (Type IV)	1 (1.88)	1 (1.88)	0	0
Postpartum haemorrhage	16 (30.1)	10 (18.8)	6 (11.3)	37.5
Puerperal sepsis	3 (5.66)	1 (1.88)	2 (3.76)	66.6

DISCUSSION

Obstetrical care in the western world is at its peak. In developing countries it is still at its docks, due to illiteracy, male dominant society and untrained birth attendants. Majority of population living in rural areas does not have an easy accessibility to a maternity and essential obstetric care resulting in more emergency transfers with life threatening obstetric complications. For many years, the World Health Organization advocated training of TBA's and integrating them with the mainstream clinical services. The hope was that TBA's would recognise life threatening obstetric conditions like postpartum haemorrhage or obstructed labour and refer women in a timely way to hospitals or clinics with the expertise and facilities to deal with their problems.[7]

In the present study, life threatening obstetric conditions was diagnosed in 64.1% of Intra partum and 35.8% postpartum referrals by TBA's in contrast to a study at Guatemala where the figures were 8% and 4% respectively.[8]

Comparable to current study, an Indian study demonstrated 17.7% and 42.9% of obstetrical complications during labour and postpartum period.[9] The results of postpartum complications (28.1%) were comparable to 53.1% in another study of Pakistan.[10] In a population-based study from Bangladesh, about one quarter (26.2%) of the women experienced a labour or delivery complication.[11] The range of incidences reported from these studies illustrates that it is simply not known what proportion of women are likely to develop severe morbidities.

The maternal death to near-miss ratio is 1:6 in the present study; it indicates that for every 6 women who survived life threatening complication, one died. Two more studies on the same subject showed this ratio of 1:5 and 1:7 respectively.[12] This ratio is indicative of the standard of obstetrical care that unit offers. The studies carried out in developed world showed a contrast ratio of 1:117–223 which reflects their standard of obstetrical care.[13]

In developing countries like Pakistan especially in rural areas due to financial and transport problems, family tends to keep the patient at home, relying on TBA's, who were unable to recognize these complications and their consequences. Obstructed labour is a serious and common complication with high morbidity and mortality. In this study 60.3% of patients with obstructed labour were admitted in life-threatening situation (near-miss morbidities) and luckily no mortality occurred, as also reported in an Ethiopian study.[14] However, compared to our study, contrast results were observed in a study from India.[15]

The increased frequency of postpartum haemorrhage in the developing world reflected lack of active management of the third stage of labour.

In the present study 330.1% of patients developed life threatening postpartum haemorrhage after home deliveries due to lack of active management of third stage of labour and late realisation of seriousness of the condition by TBAs. However a study proved that even with appropriate management of third stage of labour, approximately 3% of vaginal deliveries results in severe postpartum haemorrhage, but this incidence is very much low as compared to our study.[16] The present data showed that there were 18.8% near-miss morbidities due to postpartum haemorrhage in contrast to 77% results of another study.[17] A study of Pakistan stated that 14.3% of hospitalised patients developed this near-miss morbidity.[18] Puerperal sepsis another serious condition of rural women delivered by TBA's. Accurate data in Pakistan however is not available. In current study, it threatened the life of 5.66% patients while 1.88% of them were near-miss morbidities who survived this condition comparable to other studies where it was responsible for 13% and

7.4% of near miss morbidities.[19]

The mortality index is used to assess the standard of care in specific maternal conditions. The mortality index was high for puerperal sepsis (66.6%) than for post partum haemorrhage (37.5%) in present study as compared to another study.[20] Puerperal sepsis caused mortalities in (3.76%) of patients in this study, compared to a study causing 10.9% of mortalities.[21] Similarly, other studies found postpartum haemorrhage and puerperal sepsis as leading causes of mortalities.[22] Preventive measures including active management of third stage of labour, implementing hygienic practices to reduce mortalities from these complications.

The maternal mortalities occurred due to the problems with referral chain between facilities, and constraints of the community-financial, physical, and cultural to access care. Same problems of developing countries were mentioned in a study carried out in Uganda.[23] Increasing access to obstetric care for skilled attendance is only a first step towards the reduction in maternal mortality. Training of TBA's can help to reduce maternal mortality as a study in Nepal showed a reduction of 78%.[24] A recent study of Pakistan conducted in rural areas of four provinces demonstrated a significant reduction in maternal mortality by adopting the strategy of skilled birth attendance.[25] Where TBA's are an important source of delivery care, policy makers need to make the best use of TBA's while simultaneously planning for replacement with skilled attendants.

However there are some limitations of the study. Firstly we lack the data of those patients who were referred by TBA's to other clinics/hospitals. Secondly we do not have records of total number of home deliveries conducted by TBA's and maternal mortalities that occurred at home. There is no magic bullet to reduce maternal mortality. This requires staff for supervision in different villages, financial, logistic support, communication and friendly relationship with community and TBA's to obtain results without flaws.

CONCLUSION

Intrapartum referrals by TBA's were with obstructed labour (near-miss morbidity). While, postpartum referrals contributed to mortalities. Misidentification and late referrals of complicated cases by TBA's were responsible. Community awareness, training of TBA's and increasing access to obstetric care are steps towards reducing near-miss morbidities and mortalities.

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