Original Article

Sociodemographic characteristics and handling of life-threatening obstetric cases by traditional birth attendants in Cross River State, Nigeria

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ABSTRACT

Background: Majority of pregnant women, especially in remote rural areas still desire to be delivered by traditional birth attendants (TBAs) who neither have the skills nor the equipment to treat life-threatening complications.

Objective: To determine the sociodemographic characteristics of TBAs and how they manage life-threatening obstetric cases.

Methodology: This was a prospective study carried out over a 3-month period during the training of TBAs in the state on the reduction of maternal mortality. A total of 540 TBAs from 18 Local Government Area of the state participated in the study. Data obtained were sex, age, levels of education, number of deliveries conducted per month, difficult cases encountered, and how they managed them. The data were analyzed using Epi Info version-7 and presented in tables.

Results: TBAs are mostly females, i.e. 538 (99.6%) and only 2 (0.4%) were males. Majority of the TBAs were above the age of 55 years, i.e. 488 (88.9%); had primary education 416 (77.0%); married 396 (71.6%); and grand multiparous 293 (54.3%). Most TBAs deliver 4 newborn monthly, i.e. 148 (22.6%), and the mean number of newborn delivered monthly was 3.9. Concerning the mode of handling of the difficult cases, majority, i.e. 338 (62.6%) have a nurse/midwife they always call for assistance while only 147 (27.2%) refer their life-threatening cases directly to the nearby hospital.

Conclusion: TBAs still plays a role in deliveries in most rural and urban areas. Majority of TBAs do not refer their life-threatening cases directly to the nearby hospital. Therefore, TBAs should be trained on how to identify life-threatening cases and promptly refer to hospitals for better outcome.

Key words: Cross River State; delivery; emergency obstetrics; maternal mortality; traditional birth attendants.

Introduction

It is well known that one of the main indicators of society's level of development is its state of maternal health, which also serves as an indicator of health-care delivery system performance. Reduction of maternal mortality is top on the agenda of many global efforts, such as the safe motherhood initiative.[1] Reduction of maternal deaths by 75% before 2015 was a cardinal goal in the millennium development goals.[2,3] These goals have not been realized by many developing nations because of poor budgetary allocations to the health sector. It is rather unfortunate that majority of the pregnant women in Nigeria and other developing countries struggle to survive pregnancy, labor, and the puerperium. Even where such deaths are preventable, the problems of cultural taboos, ignorance, poverty, poor infrastructural facilities, activities of traditional birth attendant (TBAs), difficulty in accessing

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the few available health-care facilities, shortage of trained and skilled workforce will confront the woman. Religious beliefs, poverty, and delay in taking decision are other factors contributing to maternal deaths.[4]

The death of a woman during pregnancy or in pregnancy-related circumstances has an emotional impact not only on the attending health-care provider but also on the family. As a result, maternal mortality continues to generate serious public health concerns because of its social, economic, and political implications. It was estimated that in 2015, approximately 303,000 women died of pregnancy-related causes worldwide.[1] Ninety-eight percent (98%) of these deaths occur in developing countries, and for every woman who dies, at least 30 others suffer injuries and often, permanent disabilities.[4,5] The 2015 maternal mortality rate in Nigeria was put at 814/100,000 live birth by the United Nations Statistics Division, while that of neighboring Niger Republic was 590/100,000, Togo 360/100,000, and Angola 450/100,000.[6] This makes Nigeria the country with the second highest cases of maternal mortality in the world after India. Unfortunately, the report also pointed out that this is a reversal of the achievements recorded as at December 2013, when the rate was reported to have dropped to 224 deaths per 100,000 births.[7]

Since the adoption of the primary healthcare approach in Nigeria in 1979, the three tiers of government (federal, state, and local levels) have accepted the need to integrate TBAs into the primary healthcare (PHC) system and have consequently initiated TBA training programs. TBAs presently take delivery of the majority of women in Nigeria as in other developing countries. About 60%–80% of all deliveries in the developing countries occur outside modern health-care facilities, with a significant proportion of this attended by the TBAs. Since there are usually limited numbers of midwifery services in rural communities, the TBAs become more easily accessible to the people. It is believed that if TBAs are trained properly, they can offer a comparative means of protecting and improving the health of mothers and babies. When TBAs are appropriately trained and supervised, they can assume extra roles in family planning, referrals of complicated obstetric cases, prevention of mother-to-child transmission of HIV and reduction in postpartum infection by encouraging cleanliness and discouraging dangerous practices and other neonatal complications.[8,9] However, the assumption that training of TBAs would contribute greatly to reduce maternal mortality has been disproved in recent years.[9]

Apart from the midwives service scheme (MSS) introduced by the Federal Government of Nigeria with the aim of reducing maternal deaths, other Nongovernmental organizations and recently, the volunteer service scheme by the Society of Obstetricians and Gynecologists of Nigeria have all introduced programs aimed at assisting the government agencies in the reduction of material mortality, and the programs were geared toward the provision of skilled attendants to large proportion of rural women and training of health attendants in rural areas on life-saving skills. Health facilities and trained midwives are not enough to cater for the needs of women mostly in the remote areas of the state. The women are therefore left in the hands of unskilled TBAs who are untrained on general safety precaution and lack the knowledge in identifying danger signs in pregnancy, labor, or in the puerperium for prompt referral and interventions. Therefore, this study was aimed at determining the sociodemographic characteristics of TBAs and how the TBAs manage life-threatening obstetric cases. While the role of TBAs in managing maternal complications remains uncertain, it was expected that this study will give more insight on how to design a program to help in educating and encouraging TBAs to identify danger signs of life-threatening cases and promptly refer as long as they continue to function as delivery attendants.

Methodology

This was a prospective study over a 3-month period from February 1, 2014, to April 30, 2014. The data collected in this study was based on a questionnaire administered to the TBAs during a sensitization visit to all the 18 Local Government areas (LGAs) of Cross River state sponsored by the state ministry of health. Cross River State of Nigeria covers a large area with very difficult geographical terrains. The state has a population of 2,888,966 people, from the 2006 census, with a population growth rate of 3.0% and most of the population are rural dwellers.[10] The forum aimed at sensitizing the TBAs on identifying at-risk pregnancies and complicated postpartum cases and the need for early referral to a health center or hospital. Ethical approval was obtained from the state ministry of health before the study. The questionnaires were directly administered to the TBAs, and the Community Health Extension Workers assisted the illiterate ones to fill the questionnaires under the supervision of the obstetricians involved in the training.

Thirty (30) TBAs were randomly mobilized from each of 18 LGA of the state (3 TBAs from over 180 council wards) by the coordinator of the PHC in each of the 18 LGA of the State (totaling 540 TBAs) to a designated meeting place, usually a school or town hall. Questions on the questionnaire centered on sex, age, occupation, level of education, number of deliveries conducted per month, difficult cases encountered, and their management. The data collected were analyzed using Epi Info version 7 manufactured in 2008 by

Center for Disease Control and prevention, Atlanta, USA and presented in tables in frequencies and percentages.

Results

A total of 540 TBAs participated in the study. TBAs are mostly the occupation of the female folks, i.e. 538 (99.6%) and only 2 (0.4%) of the TBAs were males [Table 1]. Majority of them were aged 50–59 years, i.e. 286 (53.0%), while only 6 (1.1%) were <30 years of age. Level of education is an important factor in attending to birth, and most 416 (77.0%) had primary education while 46 (8.5%) had no formal education. None had tertiary education. The TBAs were mostly married women, i.e. 396 (71.6%), widowed 128 (25.3%), while 16 (3.1%) were single mothers. Most TBAs have other occupation as the majority were farmers, i.e. 206 (38.1%) followed by petty traders, i.e. 147 (27.2%). Most TBAs were grand multiparous, i.e. 293 (54.3%) while only 5 (0.9%) were nulliparous.

Table 2 shows the monthly deliveries by the attendants. The largest proportion, i.e. 148 (27.4%) of the TBAs deliver 4 newborn monthly while 97 (18.0%) deliver 6 or more monthly. The mean number of newborn delivered monthly was 3.9.

Table 3 shows the difficult deliveries taken by the attendants and most of them have encountered more than one. All the respondents volunteered that they had encountered obstructed labor, i.e. 540 (100%). The mode of handling of the difficult cases revealed that majority of them, i.e. 338 (62.6%) have a nurse or midwife they always call for their assistance while only 147 (27.2%) refers the patients directly to a nearby hospital or health center.

Table 1: Sociodemographic distribution

Variable	Frequency (%)	Cumulative percentage
Age (years)		
20-29	6 (1.1)	1.1
30-39	48 (8.9)	10.0
40-49	108 (20.0)	30.0
50-59	286 (53.0)	83.0
≥60	92 (17.0)	100.0
Sex		
Male	2 (0.4)	0.4
Female	538 (99.6)	100.0
Education		
No formal education	46 (8.5)	8.5
Primary	416 (77.0)	85.5
Secondary (junior)	54 (10.0)	95.5
Secondary (senior)	24 (4.5)	100.0
Marital status		
Single	16 (3.1)	3.1
Married	396 (71.6)	74.7
Widowed	128 (25.3)	100.0
Principal occupation		
Farmers	206 (38.1)	38.1
Fishing	42 (7.8)	45.9
Petty trading	147 (27.2)	73.1
Fulltime TBA	145 (26.9)	100.0
Parity of female TBAs		
0	5 (0.9)	0.9
1-2	54 (10.0)	10.9
3-4	188 (34.8)	45.7
5 and above	293 (54.3)	100.0

TBAs - Traditional birth attendants

Table 2: Average number of monthly deliveries

Number of deliveries	Frequency (%)
1	27 (5.0)
2	58 (10.7)
3	122 (22.6)
4	148 (27.4)
5	88 (16.3)
≥6	97 (18.0)

Discussion

About 303,000 women died in 2015 worldwide because of pregnancy and childbirth.[1] Most of these women who died were from developing countries and most causes of deaths were preventable.[1] Although the highest maternal mortality rates are reported in the Sub-Saharan Africa, many women still die in comparatively developed Latin America mostly due to lack of access to professional care. These women must have relied on family members or TBAs for help. This study provides insights about TBAs and their practices that may impact on maternal and newborn health outcomes. Delivery practices to improve maternal outcomes remain a challenge given the lack of standardization among TBAs. The issue of maternal mortality has been addressed internationally, most notably through inclusion of maternal health as a millennium development goal.[4,5] Interventions needed to reduce maternal mortality by nearly 75% already exist, and the biggest challenge facing policymakers in low-income countries is to enhance access to skilled birth attendants and emergency obstetric care.[10,11]

TBAs are mostly females, i.e. 99.6% and only 0.4% of the TBAs were males. They were mostly (80%) older women of 50 years and above. Most (77.0%) of the TBAs had primary education, 8.5% had no formal education, and none had tertiary education. The level of education and state of ignorance of the provider contribute to the nature of care provided. Evidence from numerous studies has shown reduced maternal and perinatal morbidity and mortality when women have a

Table 3: Most difficult deliveries managed and methods of handling the difficulty

	Frequency (%)
Difficult cases encountered	
Breech delivery	241 (44.6)
Obstructed labor	540 (100)
APH/PPH	145 (26.9)
Multiple pregnancy	150 (27.8)
Teenage pregnancy	348 (64.4)
Cord/hand prolapsed	184 (34.1)
Handling of difficult cases	
Invite nurse/midwife/health-care worker	338 (62.6)
Referred to hospital/health center	147 (27.2)
Invite a colleague	55 (10.2)

APH - Antepartum hemorrhage; PPH - Postpartum hemorrhage

skilled attendant (a qualified health-care provider who has midwifery or obstetric skills) present at every birth.[2,12]

Most TBAs in this study were grand multiparous, i.e. 293 (54.3%) and most delivers 4 newborn monthly, i.e. 148 (22.6%) and the mean number of newborn delivered monthly was 3.9. These figures may reflect the population distribution of the various wards and number of TBAs in the community where the TBAs are practicing and the proximity of a health facility to the community. The experience and success of the TBAs are likely to determine their monthly delivery rate and patronage among several TBAs in the community. TBAs continue to play a role in managing pregnant women in the rural areas in the state.

TBAs in this study usually encountered life-threatening obstetric cases such as obstructed labor, i.e. 540 (100%), postpartum hemorrhage, and multiple pregnancy. Their understanding of theses complications may not be as in standard practice due to their ignorance and skills. Most TBAs work independently of the health system, and evidence from Africa suggests that TBAs are unable to cope effectively with either severe complication or pending potentially life-threatening conditions. Concerning the mode of handling difficult obstetric cases, the majority of them, i.e. 338 (62.6%) have nurses, midwife, or other health-care worker they always call for assistance while only 147 (27.2%) refer their life-threatening cases to the nearby hospital or health center. The number of referrals directly to the hospital volunteered in this study is low, and this delays the time necessary to attend to these emergencies in the hospital with resultant high morbidity and mortality. The reasons for low referral observed in this study may be due to poor knowledge of the severity of the cases and belief of spiritual origin of the cases. It was also observed in this study that the TBAs who accompany their clients to the hospital faced discrimination as was discovered during the sensitization visits. Most TBAs are often reluctant to take women with possible complications to the hospital because they are yelled at by some hospital staff and are made to feel guilty for the patient's calamity. Despite the tremendous resources invested in training TBAs over the past two decades, scientific evidence from around the world has shown that training TBAs has not reduced maternal mortality significantly.[9] Any improvement observed when TBAs training programs have been introduced was because of the associated supervision and referral systems and because of the quality of essential obstetric services available at first referral level.[13,14]

At the moment, formal health service utilization for essential maternal health services is inadequate, with very low coverage among the poor due to a host of barriers ranging from distance and cost of care to concerns about the quality of care and in some countries, cultural barriers.[12-14] Cross River State in Nigeria has a high maternal mortality ratio, and the state is burdened by a serious deficit in human resources.[15] The state is endowed with difficult terrains, both mountainous and riverine. Majority of obstetricians in the state are concentrated in Calabar, the State Capital, and the TBAs continues to play a major role in managing pregnant women in most rural areas. The few health facilities available in the state cannot handle most maternal complications, and the referral system is poor, hence the high maternal mortality rate. With the present economic hardship and increasing cost of living and healthcare in Nigeria, there is the fear that most pregnant women will be driven back to the TBAs. The National Safe Motherhood Programs, including the recently introduced MSS, and most recently, the VOS are supposed to focus on increasing the number of skilled attendants at birth, especially in the rural area, whether a woman delivers in a health facility or not, but the programs have been unsuccessful because of poor financial support and lack of political will by the government both at the national and state levels.

Conclusion and Recommendations

Nigeria contributes 2% of the world's population and 10% of world's maternal mortality. The reverse should have been the cases if the wealth of the country has been properly managed and corruption has not been part of society's norm.

The skills and status of the health workers the TBAs calls for assistance in cases of labor complications as observed in this study is in doubt as a lot of quacks parade themselves as doctors and health-care providers even in the urban areas.

TBAs are community-based maternal care providers, some of whom received short training in childbirth and postnatal

care. Due to failure of the health system, the TBAs are highly regarded by their communities. As long as unsupervised TBAs continue to practice and there is continued shortage of skilled midwives and doctors to provide the necessary care, the maternal morbidity and mortality will not reduce. It is therefore necessary that TBAs are repeatedly trained and retrained, encouraged, and enabled to play a role in improving maternal health in the state pending when the health system is repositioned to attain skilled care in pregnancy and labor for all women. TBAs should be taught during the trainings on how to identify danger signs of life-threatening cases and promptly refer directly to the hospitals and discourage seeking the assistance of co-TBA, nurses, and other health-care workers to reduce delays in appropriate management of obstetric complications. Government should stop the activities of TBAs who do not undergo training or refused to be retrained to reduce obstetric complications. Widespread training and deployment of health professionals with midwifery skills (skilled attendants), attainment of close to 100% skilled attendance in pregnancy/delivery, and emergency obstetrics backup support are critical in the reduction of maternal mortality.

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Conflicts of interest

There are no conflicts of interest.

References

1. Alkema L, Chou D, Hogan D, Zhang S, Moller AB, Gemmill A, *et al.* Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: A systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. Lancet 2016;387:462-74.
2. Bankole A, Sedgh G, Okonufua F, Imashiagbe C, Hussain R, Wulf D. Barriers to Safe Motherhood in Nigeria. New York: Gutmacher Institute; 2009.
3. Obiechina NJ, Okolie V, Okechukwu Z, Oguejiofor C, Udegbunam O, Nwajiaku L, *et al.* Maternal mortality at Nnamdi Azikiwe University Teaching Hospital, Southeast Nigeria: A 10-year review (2003-2012). Int J Womens Health 2013;5:431-6.
4. Jokhio AH, Winter HR, Cheng KK. An intervention involving traditional birth attendants and perinatal and maternal mortality in Pakistan. N Engl J Med 2005;352:2091-9.
5. World Health Organization, Skilled Attendants at Birth 2006 Updates. Available from: http://www.emro.who.int/emrinfo [Last accessed on 2006 Mar 20].
6. Trends in Maternal Mortality 1990-2010 Estimate Developed by WHO, UNICEF, UNFPA and World Bank. World Bank Report; 2015.
7. Ndep AO. Informed community participant essential to reducing maternal mortality in Nigeria. Int J Health Psychol Res 2014;2:26-33.
8. Sibley LM, Sipe TA, Barry D. Traditional birth attendant training for improving health behaviours and pregnancy outcomes. Cochrane Database Syst Rev 2012;8:CD005460.
9. De Bernis L, Sherratt DR, AbouZahr C, Van Lerberghe W. Skilled attendants for pregnancy, childbirth and postnatal care. Br Med Bull 2003;67:39-57.
10. Ottong JG, Ering SO, Akpan FU. The population situation in Cross River state of Nigeria and its implication for socio-economic development: Observation from the 1991 and 2006 censuses. Journal of emerging trends in educational research and policy studies (JETERAPS) 2010; 1:36-42.
11. Goodburn EA, Chowdhury M, Gazi R, Marshall T, Graham W. Training traditional birth attendants in taking delivery do not prevent post-partum infection. Health Policy Plan 2000;15:394-9.
12. Mpembeni RN, Killewo JZ, Leshabari MT, Massawe SN, Jahn A, Mushi D, *et al.* Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania: Implications for achievement of MDG-5 targets. BMC Pregnancy Childbirth 2007;7:29.
13. Sibley LM, Sipe TA. Transition to skilled birth attendance: Is there a future role for trained traditional birth attendants? J Health Popul Nutr 2006;24:472-8.
14. Gill CJ, Guerina NG, Mulenga C, Knapp AB, Mazala G, Hamer DH, *et al*. Training Zambian traditional birth attendants to reduce neonatal mortality in the Lufwanyama Neonatal Survival Project (LUNESP). Int J Gynaecol Obstet 2012;118:77-82.
15. Agan TU, Archibong EI, Ekabua JE, Ekanem EI, Abeshi SE, Edentekhe T, *et al.* Trends in maternal mortality at the university of calabar teaching hospital, Nigeria, 1999-2009. Int J Womens Health 2010;2:249-54.