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Assessment of the role of traditional birth attendants in maternal health care in Oredo Local Government Area, Edo State, Nigeria

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KEY WORDS:

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Abstract

Background: Since the adoption of the Primary Health Care (PHC) approach in Nigeria in 1979, government has recognized the need for integrating traditional birth attendants (TBAs) into the PHC system and had consequently initiated TBAs training programmes. In spite of the high patronage of traditional birth attendants, many of their practices during childbirth have been found to adversely affect the health of mothers. This study aimed at assessing the role of TBAs in maternal health in Oredo Local Government, Benin City, Edo-State, Nigeria.

Methodology: All the TBAs identified through snowball method within the LGA consented to providing information, through interviewer-administered questionnaires on their reproductive health practices.

Results: Of the 45 TBAs interviewed, forty-four (97.8%) were female. The majority (62.2%) acquired their skills through apprenticeship with relation, while 8.9% had no training at all. The services provided by the TBAs ranged from ante-natal care provided by 53.3%, child delivery, 97.8%, treatment of infertility, 60.0%, management of threatened abortion, 13.3% and circumcision of babies, 28.9%. Preparations used in the treatment of cord stump included methylated spirit used by 42.2% of the respondents, herbal preparations, 28.9%, dry heated sand, 11.1% and engine oil, 6.7%. Some of the medications used (animal dung, flies, scarification marks, and cow urine) to treat patients could serve as sources of infection. Methods of risk assessment during ante-natal care, management of delivery complications, record keeping among TBAs were found to be poor. Infection prevention methods used were also found to be poor, with more than half (51.1%) not using any form of preventive measures during procedures.

Conclusion: This study has revealed that the practices of these TBAs are not safe. There is need for improvement through a more holistic training programme including monitoring and supervision.

Introduction

Every year, approximately 600,000 women die of pregnancy-related causes.[1] Ninety- eight percent of these deaths occur in developing countries, and for every woman who dies, at least 30 others suffer injuries and, often, permanent disability.[1] Since the adoption of the primary health care approach in Nigeria in 1979, the three tiers of government (federal, state and local government levels) have accepted the idea of the need to integrate TBAs into PHC system and have consequently initiated TBAs training programmes.[2]

A TBA has been defined by United Nations as a person who assists mothers during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other TBAs.[3]TBAs presently deliver the majority of women in Nigeria as in other developing countries.[2] It is estimated that between 60 and 80% of all deliveries in the developing countries occur outside modern health care facilities, with a significant proportion of this attended to by TBAs.[3] In an eastern Nigerian study, it was found that although 93% of rural women who had a childbirth or a spontaneous abortion registered for pre-natal care, 49% delivered at home under the care of TBAs.[4] Similary, in a study of 377 women who delivered before arrival at the hospital in Ogbomosho, south western Nigeria, 65% of the mothers had been delivered by a TBA, while 73.7% had sought help from them for retained placenta with bleeding.[5] In Mexico, TBAs attend to approximately 45% of all deliveries.[6] In Chanchaga LGA of Niger State in north central Nigeria, 84% of households

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interviewed utilise the services of TBA or village health worker (VHW).[7] A study carried out in Benin City showed that mothers prefer TBAs because they provide home delivery.[8]

Several morbidities affecting mother and child during and after childbirth are as a result of poor birth hygiene and harmful traditional practices. One of such in the neonate is neonatal tetanus. Neonatal tetanus is a leading cause of infant mortality in developing countries.[9]

With the high maternal mortality ratio, rising prevalence of HIV/AIDS, and the high level of utilization of the services of TBAs, there is need to assess the practices of TBAs including their hygienic practices. Thus this study was undertaken to identify the services provided by TBAs and Their management practices as they relate to management of complications and the umbilical cord and their methods of infection control in Oredo LGA, Edo State in South South Nigeria. This study will provide background information from which to design effective programmes for TBAs.

Methodology

The study, which was cross-sectional and descriptive in design, was conducted in Oredo Local Government Area (LG A) in Edo-state, Nigeria from January to May 2002. Oredo Local Government Area is one of the three local government areas in Benin City, which is the capital of Edo- State, Nigeria. The LGA has an estimated population of 780,976, made up of 397,296 males and 383,680 females. It is bounded on the east by Egor and Ovia North East LGA, on the west by Ikpoba-Okha LGA, while on the south, it shares boundary with Delta state. Only ten TBAs were registered in the Primary Health Care unit of Oredo LGA. Of these, three were already dead while seven were still alive.

Snowball sampling method was used to recruit the TBAs for the study. All the TBAs identified within the LGA consented to participate in the study and were thus included in the study. All seven TBAs on the register of the LGA were traced to their homes. Their assistance was solicited in identifying other TBAs. This process was repeated with each new TBA until no more TBAs could be traced. A total of 45 TBAs were discovered at the end. Informed consent was obtained from each TBA before data collection.

A structured, interviewer-administered questionnaire was designed and used to obtain information from the identified TBAs. Information collected included socio-demographic data, source of training, forms of medications offered to patients, and methods of risk assessment during ante-natal care. Other information collected included methods of management of obstructed labour, and delivery complications, the scope of the services provided and their practice of infection control including cord management.

A total of 45 respondents (TBAs) were interviewed and data generated were analysed using Microsoft Excel 97 and PEPI version 3.01.

Results

All but one of the 45 TBAs interviewed were female, predominantly illiterate (60%) and had a mean age of 49.9$\pm$8.1 years, ranging from 21 to 60 years (Table 1). Only 7 (15.6%) of the TBAs were registered with the Local Government.

Majority of the TBAs (62.2%) indicated that they had acquired their skills through apprenticeship with relation, while 8.9% had no training at all (Table 2). Forty- percent (18) of the TBAs claimed that they had some form of formal training, while 60% (27) of them claimed that they had not.

The services the TBAs provided and the proportions of the TBAs providing each service component ranged from ante-natal care (53.3%), delivery (97.8%), treatment of infertility (60.0%), to management of threatened abortion (13.3%) and circumcision of babies (28.9%). (Table 3). The types of medications given to patients by TBAs included leaves (64.4%), roots (62.2%) prayer and fasting (24.4%), scarification marks (22.2%), alligator pepper (20.0%), snail (20.0%) and hot drink (20.0%). Other types of medications given to patients by TBAs are shown in Table 4.Twenty (44.4%) TBAs used rituals in management of clients. More TBAs with no formal education, 16 out of 27(59.3%) were found to use rituals in patient management as compared to only 4 out of 18 (22.2%) with some education ; this difference was found to be statistically significant ($X^2 = 4.594$, df = 1: P = 0.032).

The methods used by TBAs to assess risk when providing antenatal care included careful observation of patients (31.1%), divination (17.8%), womb palpitation (15.6%) and using patients' history and complaints (13.3%). Ten (22.2%) TBAs made no comments on methods of risk assessment. Forty percent of the TBAs claimed they could handle all the different types of cases that are brought to them, including complications while 60% said there are cases they are unable to handle. Of these, twenty seven (60%) indicated that they usually advise the patients to go the hospital for the cases they are unable to handle, while others either advise patients to go elsewhere (8.9%) ,invite other TBAs (6.7%), appease the gods (6.7%), remain indifferent (6.7%) or contact a doctor (2.2%) .

Fourteen (51.9%) of the TBAs with no formal education and 17 (94.4%) of those with formal education have ever referred patients to the hospital. Reasons given by TBAs for referring patients and the proportion of the TBAs who gave these reasons included haemorrhage (28.9%), obstructed labour (17.8%), mal-position of the foetus (13.3%), mal-presentation (11.1%), prolonged labour (8.9%), spiritual revelation (6.7%), retained second twin (6.7%), retained placenta (4.4%) and maternal exhaustion (4.4%).

Methods of management of delivery complications by TBAs are shown in Table 5. Twenty (44.4%) TBAs refer cases of obstructed labour to hospitals. Ten (22.2%) TBAs use herbal preparations, 7(15.6%) encourage maternal effort, 5 (11.1%), manipulate womb manually, while 4 (8.9%) request patients to go on bed rest. Twenty- two

Table 1: Socio -demographic characteristics of respondents

Demographic characteristics	Frequency	Percentage (%)
Age distribution (years)		
21- 30	2	4.4 mean age =49.9 8.3
31- 40	3	6.7
41-50	13	28.9
51-60	27	60.0
Sex		
Female	44	97.8
Male	1	2.2
Level of Education		
No formal Education	27	60.0
Primary Education	11	24.4
Secondary Education	7	15.6
Marital status		
Single	1	2.2
Separated	1	2.2
Married	30	66.7
Widowed	13	28.9
Religion		
African Traditional religion	23	51.1
Christianity	21	46.7
Islam	1	2.2

Table 2: Source of training of traditional birth attendants

Source of training	Frequency	%
No training	4	8.9
Church system	11	24.4
Apprenticeship with relation	28	62.2
Apprenticeship with non -relation	2	4.4
Total	**45**	**100%**

Table 3: Services provided by traditional birth attendants in Oredo Local Government Area

Activities of TBAs	Frequency	%
Delivery	44	97.8
Treatment of infertility	27	60.0
Ante-natal care	24	53.3
Circumcision of babies	13	28.9
Management of threatened abortion	6	13.3
Treatment of convulsion in children	4	8.9
Abdominal massage for women with abdominal pain	4	8.9

Responses not mutually exclusive

(48.9%) TBAs use herbal preparation to manage retained placenta, 18(40.0) refer patients to hospital, 4 (8.9%) TBAs press on the abdomen, while 4 (8.9%) never witnessed any. For severe bleeding, 22 (48.9%) gave herbal preparations to patient, while 33.3% of them refer to hospital (Table 10). Seven (15.6%) use ice pack on the genital tract while 5 (11.1%) of them tilt the head of the bed down to manage severe bleeding. One (2.2%) TBA packed the vagina with clean cloth; wore charms and 1 (2.2%) never witnessed severe bleeding in a patient (Table 5).

Ten (22.2%) of the TBAs kept records of their activities, while 35 (77.8%) did not. All of those who had formal training kept record while none of those with no formal training kept records. This was found to be statistically significant ($X^2 = 16.205$; df = 1, P = 0.000)

The methods of preventing infections used by the TBAs included use of gloves (44.4%), hand washing (37.8%), sterilization (17.8%), use of apron (2.2%) and application of oil to the hands (2.2%). Twenty- three (51.1%) TBAs did not use any form of infection control Thirty three (73.3%) TBAs did not recommend tetanus toxoid to the clients, while 26.7% of them recommended tetanus toxoid to the clients, Preparations used in the treatment of cord stumps by TBAs were methylated spirit (42.2%), herbal preparations (28.9%), dry heated sand (11.1%) and engine oil (6.7%),dry sand and native chalk (4.4%), dry sand and alligator pepper (4.4%), dusting powder and alligator (2.2%) . The respondents with formal education (72%) treated cord stump appropriately while (22.2%) TBAs with no formal education treated cord stump appropriately. This difference was found to be statistically significant ($X^2 = 9.113$; df = 1, P = 0.003).

Discussion

Majority of the traditional birth attendants (TBAs) were elderly females (97.8%). This is comparable to findings from various other studies, especially from the northern region of Nigeria where TBAs have been found to be generally elderly women[10-13] However, male TBAs exist in the Southwest Nigeria; a study in Atakumosa Local Government Area, in Osun State, revealed that 15.4% of the practising TBAs were males.[2]

Majority of the TBAs (60%) had no formal education; this is similar to the findings of a study in Offot clan, in South South Nigeria,[14] and India where the illiteracy rate among TBAS was 85%.[15] However, in Krabi Province in Thailand, a literacy rate of 53% was recorded.[16]

Only 7 (15.6%) of the TBAs were registered with the Local Government, a gross under-representation of the numbers in active practice in the LGA; this is probably indicative that the LGA has not fully intergrated the TBAs into the PHC programme. Majority of the TBAs (62.2%) acquired their skills through apprenticeship with relation while 8.9% had no training at all (Table 2). This is in agreement with the findings of the study by Ejembi in the northern part of Nigeria, which showed that majority of the TBAs (73.5%) were taught by their family members and a few by non-family members.[17] There is a need for formal Re-training of TBAs by orthodox health care workers as they play major roles in maternity services. This will strengthen their capabilities and provide them with skills to enhance their performance. Numerous process evaluation of TBA re-training programmes are reported in the literature and the results are mixed, though generally positive.[18]

The TBAs were found to provide a broad range of reproductive health services that included ante natal care, child-delivery, treatment of infertility, management of threatened abortion and circumcision of babies. Unfortunately, the infection control methods employed by the TBAs was found to be poor; with 51.1% of them without any form of infection control method in use This is at variance with the finding of a study in Thailand where 80%

the TBAs claimed that sterilization of instrument were performed,[16] but similar to a study among midwives in Guatemala which showed that rural midwives worked without gloves, soap or running water.[19]

Majority of the TBAs (73.3%) did not recommend tetanus toxoid to their client and cord management was poor as only less than half (42.2%) used methylated spirit to treat the cord. It is frightening to note that some used sand which could readily be a source of neonatal tetanus infection. This kind of practice was also observed in Thailand[16] where dressing of the umbilical cord was done inappropriately using various kinds of powder by about 40% of the TBAs. More TBAs with formal education (72%) treated cord stump appropriately (use of methylated spirit) than TBAs with no formal education (22.2%). This was found to be statistically significant. Poor cord management showed strongest association with neonatal tetanus mortality in a study in Northern Nigeria.[20]
showed strongest association with neonatal tetanus mortality in a study in Northern Nigeria.[20]

The major types of medications given to patients by TBAs were leaves and roots. It is interesting to note that waste products (animal dung and cow urine) and flies were also used as medications. These can serve as a source of infection. Scarification marks which is also a type of medication used by the TBAs can also be a source of infection especially for blood-borne infection such as HIV/AIDS and hepatitis if blade is shared among patients.

The various methods of risk assessment during ante-natal care by TBAs were poor as only 13.3% mentioned use of patients history and complaints and only 31.1% of them mentioned carefully observing the patients. Education was found to be significantly related to the possibility of the TBAs referring difficult cases with the more educated TBAs more likely to refer patients. Haemorrhage was a major reason for referral of patients by TBAs. This is not surprising, as haemorrhage is a major cause of maternal death. Identification of high-risk cases and appropriate referrals should be part of the TBAs training programmes.

Management of delivery complications by TBAs cases was poor as only 44.4% will refer cases of obstructed labour and 40% of them will refer cases of retained placenta to orthodox health care system. Only 33.3% will

Table 4: Types of medications given to patients by TBAs

Medications	No of TBAs	Percentage (%)
Leaves	29	64.4
Roots	28	62.2
Prayer and fasting	11	24.4
Scarrification marks	10	22.2
Alligator pepper	9	20.0
Snail	9	20.0
Hot drink	9	20.0
Ashes	7	15.6
Palm kernel pomade	6	13.3
Wood	5	11.1
Lizard	4	8.9
Animal dung	3	6.7
Fresh fish	2	4.4
Flies	2	4.4
Cow urine	2	4.4
Native chalk	1	2.2
Dry rabbit	1	2.2
Petroleum jelly	1	2.2

Table 5: Management of delivery complications by TBAs

What TBAs do in cases of obstructed labour	Frequency	%
Refer to hospital	20	44.4
Use herbal preparation	10	22.2
Encourage maternal effort	7	15.6
Doesnt know what to do	6	13.3
Manipulate womb manually	5	11.1
Bed rest	4	8.9
Management of retained placenta		
Give herbal preparation	22	48.9
Refer to hospital	18	40.0
Press on the abdomen	4	8.9
Never witnessed any	4	8.9
Management of severe bleeding		
Give herbal preparations	22	48.9
Refer to hospital	15	33.3
Use ice pack on the genital tract	7	15.6
Tilt bed head down	5	11.1
Pack vagina with clean cloth	1	2.2
Wear charms	1	2.2
Never witnessed one	1	2.2

Table 6: Methods of treatment of cord stump by TBAs

Treatment of cord stump	Frequency	%
Use of methylated spirit	19	42.2
Herbal preparations	13	28.9
Dry heated sand	5	11.1
Use of engine oil	3	6.7
Dry sand and native chalk	2	4.4
Dry sand and alligator Pepper	2	4.4
Dusting powder and alligator pepper	1	2.2
Total	45	100%

refer cases of severe bleeding to the hospital. Record keeping was also poor among the TBAs as only 22.2% of them kept records of their activities. Those who kept records all had formal education.

The study has further brought to the fore, the need for improvement in the activities of TBAs through more holistic training programme including monitoring and supervision. It is recommended that LGAs health department should be more involved in the activities of these workers to protect the lives of their clients who invariably ' must' patronize them.

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