MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH AND SOCIAL SCIENCES

MPH DISSERTATION

FACTORS INFLUENCING PROVISION OF MATERNAL HEALTH CARE SERVICES BY TRADITIONAL BIRTH ATTENDANTS IN NZEGA DISTRICT

By

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A dissertation submitted in partial fulfillment of the requirements for the Degree of Master of Public Health of the University of Dar es Salaam

September 2004

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The undersigned certifies that she has read and hereby recommends for acceptance by the University of Dar es Salaam a dissertation titled "Factors influencing the provision of maternal health care services by Traditional Birth Attendant in Nzega district, Tabora region" in partial fulfillment of the requirement for the degree of Master of Public Health.

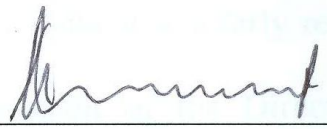
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DEDICATION

This work is dedicated to my mother, my beloved wife Pudentia K. Masemba, my beloved children Raymond, Denis, Cesilia and Desdelt.

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TABLE OF CONTENTS

	Page
Title	ii
Certification	iii
Declaration...	iv
Copy right...	v
Dedication...	vi
Acknowledgement	vii
Table of contents...	viii
List of tables...	ix
List of abbreviations	x
Abstract...	xi
Chapter I:	
Introduction	1
Problem statement	4
Rationale of the study	5
Chapter 2:	
Literature review	6
Objectives	10
Broad objective	10
Specific objective	10

Chapter 3:

Methodology 11

Study area 11

Background 11

Study design 13

Target population 13

Sample size calculation... 13

Sampling procedure 14

Data collection tools... 14

Data collection procedures 15

Data quality control 15

Data analysis procedures 15

Definition of terms... 16

Ethical considerations 16

Chapter 4:

Results 17

Discussion 32

Conclusion 35

Recommendations 35

References 38

Annexes

1. Informed consent form (English version)... 40

2. Informed consent form (Kiswahili version)... 41

3. Questionnaire (English version)... 42

4. Questionnaire (Kiswahili version)... 48

5. Focus Group Discussion themes... 54

6. Information checklist (District health authorities)... 55

LIST OF TABLES **PAGE**

Table 1: Socio-demographic characteristics of traditional birth attendants in Nzega District by training status 17

Table 2: Reproductive and child health services provided by traditional birth attendants in Nzega District.. 19

Table 3: Items used by traditional birth attendants in Nzega District when assisting mothers during delivery by training status 20

Table 4: Use of herbal medication by traditional birth attendants in Nzega District by training status 20

Table 5: Cultural practices performed on mother after delivery by traditional birth attendants in Nzega District by training status 21

Table 6: Cultural practices performed on baby after being born by traditional birth attendants in Nzega District by training status 21

Table 7: Management practices of pregnant women with complications by traditional birth attendants in Nzega District by training status 22

Table 8: Reasons for traditional birth attendants referring women to a health facility by training status 22

Table 9: Traditional birth attendants knowledge of danger signs during pregnancy by training status 23

Table 10: Traditional birth attendants knowledge of danger signs during delivery training status 24

Table 11: Traditional birth attendants knowledge of danger signs after delivery by training status 24

Table 12: Problems faces by traditional birth attendants in their provision of maternal health care services by training status 25

Table 13: Factors which make it easier to current tasks by traditional Birth attendants by training status 26

Table 14: Traditional birth attendants opinions on what should be done To improve their performance by training status... 27

LIST OF ABBREVIATIONS

AIDS	-	Acquired Immunodeficiency Syndrome
CHMT -	-	Council Health Management Team
D.C.	-	District Commissioner
DED	-	District Executive Director
DMO	-	District Medical Officer
HIV	-	Human Immunodeficiency Virus
MCHA	-	Maternal and Child Health Aide
MOH	-	Ministry of Health
PHC	-	Primary Health Care
RA	-	Research Assistant
STI	-	Sexually Transmitted Infections
TBA	-	Traditional Birth Attendant
TDHS	-	Tanzanian Demographic and Health Survey
TRCHS	-	Tanzanian Reproductive and Child Health Survey
UNICEF	-	United Nations Children's Fund
VEO	-	Village Executive Officer
VHW	-	Village Health Worker
WHO	-	World Health Organization

ABSTRACT

A cross sectional descriptive study was conducted in Nzega district, which is one of the districts in Tabora region. Data was collected over a two-week period in July 2004. The main objective of the study was to look into the factors influencing the provision of maternal health care services by traditional birth attendants in Nzega district. The study was also done to fulfill part of the requirements for the award of the Master's of Public Health (MPH) degree of the University of Dar es Salaam. A total of 196 traditional birth attendants were interviewed using an interviewer administered questionnaire and another 25 participated in focus group discussions. The sample size was obtained through multistage cluster sampling i.e. from the district to the village level all traditional birth attendants in the study villages were identified and registered by using village health workers and every traditional birth attendant was given an equal chance to participate in the study by simple random sampling. The sample was obtained from 20 villages in Nyasa Division, Nzega District. Data was collected by one researcher (the author) with the assistance of four research assistants.

The results showed that there were 10504 deliveries in the district in 2003. Among these 10366 were live births. Out of these deliveries 321 were reported by traditional birth attendants and it is most likely that they were assisted by trained traditional birth attendants. Also there were 20 (193/100,000) maternal deaths and 70 neonatal deaths reported. Rupture of the uterus, postpartum haemorrhage, puepural sepsis, EPH gestosis, eclampsia, anaemia, malaria and HIV were the causes of maternal

deaths. Nzega district has a total of 878 traditional birth attendants among these, 95 had received training.

Out of the 196 traditional birth attendants interviewed 23 (11.7%) were trained and 173 (88.3%) were untrained. Hygienic practices during delivery was noted to be common to both categories of traditional birth attendants but more with trained traditional birth attendants. This is shown by the use of clean gloves (78.3 vs 58.5%), new razor blade (95.7% vs 84.4%), soap (95.7% vs 90.1%), clean clothing or sheet (73.9% vs 46.5%) and clean water (95.7% vs 90.7%).

Referral to a health facility was more common among trained traditional birth attendants i.e. 100% vs 73.9% respectively. It was observed that trained traditional birth attendants provide a wider range of maternal health care services compared to untrained traditional birth attendants.

A higher proportion of trained traditional both attendant compared to untrained one reported that they provide family planning services (52.2% vs 18.1%), giving advice on infant and young child feeding (60.5% vs 12.7%) and examining pregnant women (30.4% vs 70.3%). These findings are statistically significant ($P<0.005$).

Factors that hinder traditional birth attendants in Nzega in providing their services include being labelled witches (99.5%) and poor community support (88.3%). Traditional birth attendants mentioned that the following would improve their provision of mother and child health services that is being provide delivery supplies

(100%), training (89.8%), recognition from the government (89.3%) and improved transport to the referral facility (72.4%).

Among the recommendations of the study is that Council Health Management Team should plan training programmes for traditional birth attendants followed by frequent supportive supervision. Traditional birth attendants should also be provided with delivery supplies regularly.

CHAPTER 1

INTRODUCTION

Complications of pregnancy and childbirth are the leading causes of death and disability in women of reproductive age in developing countries. The World Health Organization estimates that every year 515,000 women die from maternal complications and that for every woman who dies approximately 30 more suffer from injuries, infections and disabilities in pregnancy and childbirth (Hill et al, 1997).

The risks of maternal death are highest in Africa where a woman's risk of dying from maternal causes is as high as 1 in 16 compared to 1 in 3 in Europe. A million or more children are left motherless each year as a result of maternal deaths. These children are 3 to 5 times more likely to die within a period of 2 years compared to children who live with both parents (UNICEF, 1995).

Maternal mortality is one of the major public health problems in Tanzania and according to TDHS (1996) it is estimated to be 529/100,000 live births. Most of the direct causes of maternal deaths like haemorrhage, sepsis, ruptured uterus and obstructed labour are preventable if they are diagnosed timely and appropriate management instituted without delay. Only 44% of women deliver in health facilities in Tanzania (TRCHS, 1999) this is small percentage and it has been established that about two thirds of the maternal deaths in Tanzania occur in women who deliver outside health facilities (TRCHS, 1999). According to TRCHS (1999)

women who deliver outside health facilities in Tanzania are assisted by traditional birth attendants (11 %), or by family members and friends (29%).

Traditional birth attendants form part of the traditional health care systems that exist in various parts of the world. They have been conducting deliveries from time immemorial; are familiar, recognized and well respected by the society in which they live. Traditional birth attendants have knowledge of indigenous practices, which have been acquired through apprenticeship with older traditional birth attendants. Kamal (1998), classified traditional birth attendants into four categories:

Category I: Professional traditional birth attendants

These are the ones who earn their living by conducting deliveries, they may be trained but not in a formal way.

Category II: Rural traditional birth attendants

These are often elderly female relatives or neighbors who are called upon to assist during childbirth. They do not make a living out of delivering women.

Category III: Traditional birth attendants who deliver babies of close relatives only. This category is found in most remote areas.

Category IV: Trained traditional birth attendants

These are traditional birth attendants who have had formal training to make childbirth as safe as possible in the given circumstances in which they practice.

Recognizing the important role that traditional birth attendants play in assisting mothers during childbirth, the WHO started implementing traditional birth attendants training programs in order to reduce the prevailing high rates of maternal morbidity

and mortality. Apart from conduct of safe and hygienic deliveries the training also includes equipping them with skills so that they can provide other services such as family planning, health education, immunization, nutrition, education, personal and environmental hygiene among others.

In Tanzania, the Ministry of Health also launched training programmes for traditional birth attendants in the early 1980's, and produced a set of three manuals to be used for training traditional birth attendants in the year 2000, in collaboration with WHO and UNICEF. These are guidelines on implementation of services by traditional birth attendants; traditional birth attendants' trainers' guidelines and a traditional birth attendants training manual that were written in English and then translated into Kiswahili. Following a two-week training, traditional birth attendants in Tanzania are expected to be able to: -

- Encourage pregnant women to attend antenatal clinics.
- Recognize danger signs during pregnancy, delivery and in the post- partum period.
- Give early referral to a health facility for all women with danger signs.
- Conduct safe delivery practices.
- Provide reproductive health advice to youths
- Provide advice on immunization and family planning
- Report on deliveries and deaths of mothers and infants
- Work with reproductive health workers in their communities to improve services
- Give health education and reproductive health advice to youths.

- Promote breastfeeding and give advice on infant feeding.
- Provide advice on reduction of sexually transmitted infections including HIV/AIDS

PROBLEM STATEMENT

The majority of pregnant women in Tanzania (97%) visit antenatal clinics at least once during their gestation period (TRCHS, 1999), however it has been observed that there has been a decline in the number of health facility deliveries over time i.e. from 52.6% in 1992 to 44% in 1999 (TDHS, 1992; TRCHS, 1999). Some of the reasons to explain why women are delivering their babies outside the health facilities include distance to health facility, lack of reliable transport, precipitate labor, labor onset at night, place of residence i.e. urban/rural; mother's level of educational, preference of traditional birth attendants, cultural factors (MOH annual report, TRCHS, 1999; Mlay et al, 2000; Hussein and Mpembeni, 2003). Data from the TRCHS (1999) shows that traditional birth attendants assist 11% of all births in Tanzania.

Traditional birth attendants in rural areas play an important role in providing maternal and child health services, especially in remote areas where health facilities are not readily accessible (Camey et al, 1996; Kamal, 1998; Mlay et al, 2000; Hussein and Mpembeni, 2003). Apart from providing assistance during delivery, traditional birth attendants are also known to be providing a wide range of services in their communities such as postpartum care to mothers, care of the newborn, family planning services/ advice, care and feeding of young children (Smith, 1997).

How well traditional birth attendants perform the duties that they have in their communities is dependant on several factors. These factors can be those that facilitate their service provision while others could be hindering factors. These factors can be operating at different levels such as the individual, community, environment and those related to the formal health care system.

The range of services that are provided by traditional birth attendants in Nzega district as well as the factors that facilitate or hinder them in their provision of maternal health care services have not been documented.

RATIONALE OF THE STUDY

In order to facilitate traditional birth attendants in their conduct of hygienic and safer deliveries as well as in the provision of other desirable maternal and child health care services especially in areas that are hard to reach; it is important to have an understanding of the various factors that influence them in their service provision. The findings of this study will be shared with the Nzega Council Health Management Team so that they can be used towards the improvement of maternal health care situation in the district. The study findings will also be availed to Ministry of Health officials as they could have important policy implications. This study was also done as a requirement of getting the Masters of Public Health (MPH) degree of the University of Dar es Salaam.

LITERATURE REVIEW

Traditional birth attendants in developing countries have been conducting deliveries from time immemorial. They are familiar and well recognized by the society. Although training of traditional birth attendants is currently a controversial issue, it has been documented that training is one of the important factors that have an influence on the traditional birth attendants conduct of hygienic deliveries and safer practices while assisting deliveries, as well as on their referral practices. In Tanzania, studies have shown that trained traditional birth attendants are more likely to practice safer deliveries compared to their untrained counterparts (Hussein and Mpembeni, 2003).

Following training, traditional birth attendants become more respected and gain status in the community, as they are seen to be more reliable and that they are formally recognized by the government (Leshabari, 1999; Sumbawanga District Annual Report, 2001). Some studies have however shown that, although traditional birth attendants might have undergone training, they might not be able to practice what they have learnt due to constraints such as advanced age and their inability to get some required materials and instruments (Hussein and Mpembeni, 2003).

Trained traditional birth attendants are supposed to be able to recognize pregnant women with risk of developing complications during delivery as well as to recognize early, women who have developed complications and their timely referral to a health facility for appropriate care (Minden and Levelt, 1998). Studies that have evaluated the effectiveness of training traditional birth attendants in the improvement of the

quality of maternal health care that they provide, have yielded contradictory results (Nassa, 1995). While some have shown significant positive effects of training, others have shown minimal positive effects or no impact at all (Nassa, 1995).

In some areas the trained traditional birth attendants have performed well due to supervision, support, provision of materials for services provision, recognition by communities and the government, multisectoral support and improvement of transport. In other places they have not performed well due to pre-existing genital tract infection, prolonged labour, practice of repeated vaginal examinations, and poor collaboration between traditional birth attendants and physicians.

Greenwood et al (1990) while evaluating the impact of traditional birth attendants on the outcome of pregnancy in the Gambia noted that, there had been success in both villages with trained and untrained traditional birth attendants. They attributed this to continuous supportive supervision and the improvement of transport.

Goodburn et al (2000) did a study in rural Bangladesh to compare the difference in the occurrence of postpartum infection between women delivered by trained traditional birth attendants for clean delivery and those delivered by untrained traditional birth attendants. They found no differences and attributed this finding to pre-existing reproductive tract infection, prolonged labor or repeated vaginal examinations, which were most likely done by trained traditional birth attendant.

Holf (1997) in an article "evaluating four training projects of traditional birth attendants" done in Ghana, Mexico and Bangladesh found that the training was cost effective in providing essential and culturally relevant health services to communities. However there were hindering factors in the practice of traditional birth attendants. These were low literacy levels among traditional birth attendants and poor collaboration between traditional birth attendants and hospital physician. Kamal (1998) did a study to evaluate traditional birth attendants training programmes in 70 developing countries. He found out that there were some success of the training. However he noted that after the training of traditional birth attendants, they were left alone with no supervision and support so that their services were compromised. He recommended revision of training programmes, preparation of supervision guidelines for traditional birth attendants after the training to ensure accessibility of emergency obstetric care. Also help them to publicize their improved skills and receive compensation for their services.

Maimbulwa et al (2000) in their review of the cultural childbirth practices and beliefs in Zambia noted that there were women social support groups which were escorting pregnant women in labor to health units. Some of the women conducted deliveries but had no knowledge of any risks or complications during pregnancy, labor or post delivery. They also lacked knowledge on the management of normal labor. The authors recommended that members of these support groups needed to undergo training on safe delivery practices.

Minden et al (1996) in their study report titled "The right to know, women and their traditional attendants" contributed to the debate on the proper role of traditional birth attendants, their effectiveness in crisis management perspectives versus the community perspective. The crisis management emphasizes that the role of traditional birth attendants should be to refer pregnant women to medical centres, while the community health development perspectives' view traditional birth attendants as facilitating the natural process of childbirth and fostering women's well being. In this context, traditional birth attendants service gained support and recognition. However, the author recommended to broaden traditional birth attendants knowledge and skills including advising pregnant women on proper nutrition and hygiene, using preventive practices during delivery, managing certain limited complications and making referrals.

Nassa (1995) reviewed a training programme for traditional birth attendants in Bangladesh and found that they were performing well in providing antenatal and obstetric care. However their services were under utilized because they were not publicized. The author also established that the lack of education among most traditional birth attendants limited their health care training to rudimentary levels (Nassa, 1995).

Warren et al (1997) reviewed a training programme of traditional birth attendants in Ghana. They found that following training and field experience, traditional birth attendants were given examinations and those who performed well were allowed to practice at the hospital and the village level, handling deliveries and referring high-

risk cases. In this respect they were recognized and respected by community and hospital staff (Warren et al, 1997). Contrary to such good outcome, Smith et al (1997) in their study in Ghana found no evidence of good outcome for either mother or children following the training traditional birth attendants.

Salim (2004) reviewed the impact of maternal mortality interventions using traditional birth attendants as village midwives. Multisectoral support was ensured in the programmes, with supervision and support from the government. The study showed good outcomes of the programme which were a reduction in maternal mortality, increased knowledge on delivery skills as well as risks that may develop during pregnancy, delivery and after delivery.

OBJECTIVES

Broad Objective

To determine factors influencing provision of maternal health care services by traditional birth attendants in Nzega district

Specific Objectives

1. To establish the proportion of traditional birth attendants in Nzega district who have undergone training.
2. To establish the proportion of traditional birth attendants in Nzega district who use hygienic practices during delivery.
3. To establish the proportion of traditional birth attendants in Nzega district who refer women with complications to a health facility.
4. To determine the other types of services provided by traditional birth attendants in Nzega district.
5. To identify factors that facilitates traditional birth attendants in Nzega district in their provision of maternal health care services.
6. To identify factors which hinder traditional birth attendants in Nzega district in their provision of maternal health care services.

CHAPTER 3

METHODOLOGY

Study area

Nzega district is one of the districts that form Tabora region. Nzega district is located between 30° and 40° East of Greenwich and 3° latitude and 3° longitude South of the Equator. It is the junction of the roads from Dar es Salaam to Burundi, Uganda, Rwanda and Zaire and Shinyanga to Mwanza on the other side. It is about 500 kilometers from Dar es Salaam. The total area of Nzega district is 8220 square kilometers, which is 12% of the total area of Tabora region.

Nzega district has an equatorial climate with an average rainfall of 800mm per year. The early rains start in mid October up to January and the later rains start in late February up to April. The average temperature of the district ranges from 22° C to 28°C with a little variation during the month of June, July and August when it drops and ranges between 15°C to 22°C. Nzega district is characterized with plain plateau, which is covered by thick forest in the south and southwestern parts. The district is spread with sparse hills and mountains especially on the northeastern parts of the district.

Administratively Nzega district is administered under both local and central government. It is divided 4 zones - namely Nyasa, Mwanalundi, Puge and Bakai which are further subdivided into 37 wards and 134 villages. The district communication includes 3 airstrips, the central railway line and rough roads.

The total population of Nzega district is 451,206 and it has a growth rate of 3.1%. The residents of Nzega district are peasants, cattle headers and some are employed as civil servants or private employees. About 40% of the district population are holder of primary school certificates or secondary education leavers, 0.05% have high or university level of education. Almost 14% of Nzega residents are those who just know how to read and write. The remaining 30.2% are completely illiterate. The overall literacy rate estimated to be 35%, among which 65% are men and 54% are women. The district has 151 primary school, 6 secondary school, and 1 teacher training college, 2 folk development colleges, 1 home craft training college and 1 Swedish international school.

Nzega district has two hospitals, one government and one private owned, thirty-four dispensaries (26 government and 8 private). It also has 5 health centres (4 government, 1 private). The population per rural health centre is 561.3.

Study design

The study was a cross sectional descriptive study

Target population

All traditional birth attendants in Nzega district.

Sample size calculation

The size of the study sample was calculated using the following formula:

$$n = \frac{4 (P_1 . P_2)}{(0.05)}$$

Where:

P_1 = 0.135 (proportion of trained traditional birth attendants in Mkuranga (Hussein and Mpembeni 2003))

P_2 =0.865 proportion of untrained traditional birth attendants in Mkuranga (Hussein and Mpembeni 2003))

0.05= 5% error margin

Substituting in the above formula, the calculated minimum sample size was 187. However a total of 196 traditional birth attendants were interviewed.

Sampling procedure

Based on the administrative set up of the district, multistage random cluster sampling procedure was used to select the study villages. One division was randomly selected, from which a total of 40 villages were ultimately selected and included in the study. A list of all traditional birth attendants in all the study villages was made with the help of the Village Health Workers and Village Executive Officer. A minimum 5 traditional birth attendants in each village were then randomly selected for interview using the compiled lists.

Data collection tools

Multiple data collection methods were used. These included the following: an interviewer administered questionnaire to traditional birth attendants; a Focus Group Discussion (FGD) guide and a data collection checklist for district level data. The tools were translated into Kiswahili and pre-tested prior to field use to ensure that the

questions are clear and relevant. Data was collected with the help of 4 research assistants who were trained for three days.

Data collection procedures

Traditional birth attendants were interviewed in their homes. Village Health Workers in the study villages assisted the research team in tracing the selected traditional birth attendants. In case a traditional birth attendant was not found at home, she was followed up the next day.

A total of five FGDs involving 5 participants each was done. There was a random selection of villages where FGDs were done and the participants were different from those who participated in the interviewer-administered interviews. They were also selected randomly. Each FGD was facilitated by the author and the proceedings recorded on paper and audio taped.

Data quality control

Supervision of research assistants by the researcher was done regularly to ensure that questionnaires were filled well. Completeness of each filled questionnaire was checked every day of data collection. When mistakes were found correction were made even if necessary to re-interview the traditional birth attendants in question. Data validation was done following entry of data into the computer.

Data analysis procedures

Computer data entry was done using EPI Info program. It was also analyzed using the same program. Frequency distributions and cross tabulations were done. The information generated is presented in form of tables. To check for statistical significance of study findings, the Mantel Hansel chi-square test was used and in some instances the Fisher's Exact test when a recorded value was less than 5.

Definitions of terms

Untrained traditional birth attendant: this is a traditional birth attendant who states that she had not undergone training organized at the District level.

Trained traditional birth attendant: this is a traditional birth attendant who states that she had undergone training organized at the District level.

Ethical considerations

The proposal was submitted for ethical research clearance to the Muhimbili University College of Health Sciences, Research and Publications Committee. A letter seeking permission to carry out the study was sent to relevant regional, district and local authorities. Each study respondent was explained on the study purpose and their permission for being interviewed requested. Filled questionnaire did not bear names of the respondents and were assigned numbers instead to ensure confidentiality of information collected.

Resources needed during the fieldwork

Four research assistants, a vehicle and driver from DMO's office; study instruments audio tape recorder and audiotapes.

CHAPTER 4

RESULTS:

Data was collected during the first two weeks of July 2004. This involved collecting specific district information using a checklist, informal interviewer, administered questionnaire and focus group discussion.

4.1. Checklist Information

The total number of deliveries in Nzega district in 2003 were 10504 and the total number of live births was 10,366 (Annual Health Report Nzega 2003). Out of all these deliveries 321 were reported by traditional birth attendants. The total number of maternal death was 20 (193/000,000) and the causes were ruptured uterus (2), postpartum haemorrhage (3), puerperal sepsis (2), EPH gestosis (2), Eclampsia (1), Anemia (5), Malaria (2) and HIV/AIDs (2). The total number of neonatal deaths was 70 and their causes were birth asphyxia (10), hypothermia (4), low birth weight (3), prematurity (20), septicemia (120), congenital abnormalities (6) and birth trauma (15).

The district has a total of 878 traditional birth attendants of whom 95 have received training and the rest are untrained. Two traditional birth attendants training were reported to have been conducted by an NGO called World Vision in 2003 for a duration of two weeks each.

4.2.Quantitative Data

Table 1: Socio-demographic characteristic of traditional birth attendants in Nzega District by training status.

Characteristics	Training Status				Total (n=196)	
	Trained (n=23)		Untrained (n=173)			
	No	%	No	%	No	%
Married Status						
Married	16	69.6	94	54.3	110	56.1
Unmarried	4	17.4	48	27.7	52	26.5
Divorced	1	4.3	10	5.8	11	5.6
Widow	2	8.7	21	12.1	23	11.7
Level of Education						
Never gone to school	6	26.1	63	36.4	69	35.2
Not completed primary Education	1	4.3	23	13.3	24	12.2
Completed primary education	16	69.6	84	48.6	100	51.0
Form four	0	0.0	3	1.7	3	1.5
How learnt delivery skills						
Older female relative	5	21.7	102	61.0	107	56.3
Neighbor	3	13.0	38	22.8	41	21.6
Another traditional birth attendant	1	4.3	18	10.8	19	10.0
A health worker	14	60.9	8	4.5	22	11.6
Self taught	2	8.7	40	24.0	42	22.1
Duration of Practice						
Up to 4	11	47.8	71	41.0	82	41.8
5 – 9	7	30.4	43	24.9	50	25.5
10-14	4	17.4	36	20.8	40	20.4
> 15	1	4.4	23	13.3	24	12.3
Additional jobs						
Peasant	17	73.9	162	93.6	179	91.3
Housewife	6	26.1	8	4.6	14	7.1
Village Health Worker	0	0.0	1	0.6	1	0.5
Do not have another job	0	0.0	2	1.2	2	0.1
Average number of deliveries last year	5		2		3	

A total of 196 Traditional birth attendants were interviewed of whom only 23 (11.7%) had been trained (see table 1). Fifty one percent completed primary education and 56% were married. Acquisition of knowledge and skills was mostly from older female relative (21.7% vs 61.0%). Most (58.2%) traditional birth

attendants had 5 years or more working experience, with the range being 1 to 11 years. The average number of deliveries assisted in 2003 were 5 for trained traditional birth attendant and 2 for their counter parts.

Table 2: Types of services provided by traditional birth attendants in Nzega District

Services	Training Status						P-value
	Trained (n=23)		Untrained (n=173)		Total (n=196)		
	No	%	No	%	No	%	0.3008
Assist normal deliveries	18	78.3	117	70.5	135	71.4	0.6350
Advice on prevention of HIV/STIs	9	39.1	59	35.5	68	36.0	0.0534
Advice on immunization	12	52.2	55	33.1	67	35.4	0.0534
Provide postnatal care	7	30.4	53	30.6	60	31.7	0.9843
Provide family planning services	12	52.2	30	18.1	42	22.2	0.0000
Advice on infant and young child feeding	14	60.9	21	12.7	35	18.5	0.0000
Giving pregnant women herbal medications	3	13.0	22	13.3	25	13.2	1.0000
Reproductive health advice to youths	4	17.4	20	12.0	24	12.7	0.4943
Examining pregnant women	7	30.4	12	7.3	19	10.1	0.0003
Provide care to newborns	5	21.7	13	7.8	18	9.5	0.0268
Promote breastfeeding	4	17.4	13	7.5	17	9.0	0.4943
Assist complicated deliveries	0	0.0	5	3.0	5	2.6	-

Traditional birth attendants were asked to mention all the types of services that they provide in their communities (see table 2). Assisting in normal deliveries (71.4%), providing advice on prevention of HIV/STIs (36.0%) and advice on immunization (35.4%) were the 3 most commonly reported services, with higher proportions of trained traditional birth attendants reporting compared to untrained traditional birth attendants. A higher proportion of trained traditional birth attendants reported that they provide family planning services (52.2%), giving advice or infant and young child feeding (60.5%) and examining pregnant women (30.4%) compared to

untrained traditional birth attendants (ie. 18.1%, 12.7 and 7.3% respectively. These finding are statistically significant (P<0.05). Almost similar proportions of trained and untrained traditional birth attendants reported giving pregnant women herbal medications i.e. 13% vs. 13.3% respectively. While none of the trained traditional birth attendants reported assisting complicated deliveries, 5 untrained traditional birth attendants (3.0%) reported that they did.

Table 3: Items used by traditional birth attendants when assisting mothers during delivery by training status

Item	Training Status				Total (n=195)	
	Trained (n=23)		Untrained (n=172)			
	No	%	No	%	No	%
Clean gloves	8	78.3	92	58.5	110	56.4
New razor blade	22	95.7	152	88.4	174	85.2
Soap	22	95.7	155	90.1	177	90.8
Clean clothing/sheet	17	73.9	80	46.5	97	49.7
Clean water	22	95.7	156	90.7	178	91.3
Plastic bags	0	0.0	91	52.9	98	50.3

NB: One respondent missing

Table 3 shows the items used by traditional birth attendants during delivery. Generally a higher proportion of trained traditional birth attendants reported using the various items compared to untrained traditional birth attendants with the exception of use of plastic bags which were more reported by untrained traditional birth attendants. These findings are however not statistically significant with the exception of use of clean clothing/sheets (P<0.05).

Table 4: Use of herbal medications by traditional birth attendants

Use of herbal medications	Training Status				Total (n=195)	
	Trained (n=23)		Untrained (n=172)			
	No	%	No	%	No	%
To speed up labor	3	13.0	16	9.3	19	9.7
To treat umbilical stump	8	34.8	90	52.3	98	50.3

NB: One respondent missing

Table 4 shows that about half (50.3%) of traditional birth attendants reported using herbal medications to treat the umbilical stump. A higher proportion of untrained traditional birth attendants reported this compared to trained traditional birth attendants (52.3% vs 34.8%) respectively. Also herbal medication were used to speed up labour by (9.7%) the respondents.

Table 5: Cultural practices performed on mother after delivery by traditional birth attendants

Cultural practice	Training Status				Total (n=195)	
	Trained (n=23)		Untrained (n=172)			
	No	%	No	%	No	%
Herbal medication	14	60.9	122	70.9	126	69.4
Ritual ceremony for twins or breech delivery	6	26.1	35	20.3	41	20.9
Hot water compression of the back and waist to restore muscle strength	2	8.7	8	4.7	10	4.6
Given hot porridge to restore energy	1	4.3	8	4.7	9	4.6

NB: One respondent missing

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Table 5 shows that the commonest cultural practice done on the mother by both categories of traditional birth attendants is giving herbal medications to speed up uterine contractions so as to control bleeding after delivery.

Table 6: Cultural practices performed on baby after being born by traditional birth attendants by training status

Cultural practice	Training Status				Total (n=188)	
	Trained (n=23)		Untrained (n=165)			
	No	%	No	%	No	%
Ritual ceremony for twin delivery	7	30.4	12	7.3	19	10.1
Protective beads worn in the waist	16	69.6	153	92.7	169	89.9

NB: Eight respondents missing

Table 6 shows the cultural practices performed on the baby delivered by traditional birth attendants. These practices are performed by both trained and untrained traditional birth attendants and include ritual dance ceremony to give protection to twins (30.4% vs 7.3% respectively) as well as tying protective beads on the new baby's waist (60.0% vs 92.4% respectively).

Table 7: Management practices of pregnant women with complications by traditional birth attendants by training status

Practice	Training Status				Total (n=179)	
	Trained (n=18)		Untrained (n=161)			
	No	%	No	%	No	%
Refer to a health facility	18	100	119	73.9	137	76.5
Refer to a health worker residing in the community	1	5.6	29	18.0	30	16.8
I seek advice from another traditional birth attendant	1	5.6	26	16.1	27	15.1
I treat her	0	0.0	8	5.0	8	4.5
Refer to a traditional healer	0	0.0	4	2.5	4	2.2
Leave to "God"	0	0.0	4	2.5	4	2.2

NB: Seventeen respondents missing

Referral of complicated cases was mostly to a health facility (76.5%), although a few cases were reported to have been referred to health workers residing in the community (16.8%) and to other traditional birth attendants (15.1%). These practices were equally observed by both trained and untrained traditional birth attendants but the former referred more to health facilities (ie. 100% vs 73.9%)..

Table 8: Reasons for traditional birth attendants referring women to a health facility by training status

Reason	Training Status				Total (n=137)	
	Trained (n=18)		Untrained (n=119)			
	No	%	No	%	No	%
Had complications during delivery	8	50.0	70	81.5	78	75.7
Had complications during pregnancy	5	31.3	44	50.6	49	47.6
Had complications after delivery	7	43.8	10	11.5	17	16.5
Had a sick newborn	1	6.3	4	4.6	5	4.9

NB: Multiple responses

A total of 137 respondents reported that they refer women with complications to a health facility (see table 8). Table 8 shows that the most frequently reported reason

for referring to a health facility was due to complications during delivery (75.7%) followed by complications during pregnancy (47.6%). Higher proportions of untrained traditional birth attendants referred for these two reasons compared to trained traditional birth attendants (81.5% vs. 50%, and 50.6% vs. 31.3% respectively). A higher proportion of trained traditional birth attendants referred mothers with complications after delivery compared to untrained ones (43.8% vs. 11.5% respectively). A few traditional birth attendants referred mothers with sick newborns (4.9%).

Table 9: Traditional birth attendant's knowledge of danger signs during pregnancy by training status

Danger signs	Training Status						P-value
	Trained (n=23)		Untrained (n = 172)		Total (n = 195)		
	No	%	No	%	No	%	
Anemia	22	95.7	117	68.0	139	71.3	0.000
Swelling of feet	20	87.0	107	62.2	127	65.1	0.019
Fever	17	78.3	91	52.9	108	55.4	0.057
Convulsions	19	60.0	82	47.7	96	49.2	0.001
Vaginal bleeding	15	65.2	81	47.1	96	49.2	0.103
Previous caesarian delivery	2	8.7	44	25.6	46	23.6	0.072
Para 5 and above	9	39.1	11	6.4	20	20.3	0.0001
Maternal age (too young)	9	39.1	18	10.5	27	13.8	0.0009
High blood pressure	3	17.4	17	9.9	21	10.8	0.639
Severe headache	2	18.0	11	6.9	14	7.2	0.678
Abdominal lie	2	8.7	10	5.8	12	6.2	0.590
Four smelling vaginal discharge	1	4.3	11	6.4	12	6.2	0.70
Absent fetal movements	2	8.7	6	3.5	8	4.2	0.238
Multiple pregnancy	4	17.4	3	1.7	7	3.6	0.0001
History of previous stillbirth/ neonatal death	0	0.0	7	4.1	7	3.6	0.321
Height below 150cm	1	4.3	5	2.5	6	3.2	0.70
Maternal age (too old)	2	8.7	5	2.9	7	3.6	0.162
History of previous abortion >3	0	0.0	5	2.9	2	2.6	0.40

Table 9 shows that anemia (71.3%), pedal edema (65.1%), fever (55.4%), convulsions (49.2%) and vaginal bleeding (49.2%) were the danger signs most commonly recognized by all traditional birth attendants but more so by trained traditional birth attendants these findings are statistically significant ($P<0.05$). Other statistically significant differences in knowledge of danger signs during pregnancy among trained and untrained traditional birth attendant include parity of 5 and above, too young maternal age and multiple pregnancy.

Table 10: Traditional birth attendant's knowledge of danger signs during delivery.

Danger signs	Training Status				Total (n=195)	
	Trained (n=23)		Untrained (n=172)			
	No	%	No	%	No	%
Heavy bleeding	23	100.0	155	90.1	178	91.3
Maternal exhaustion	21	91.3	124	72.1	145	74.4
Convulsions/fits	14	60.9	67	39.0	81	41.5
Abnormal presentation	12	52.2	41	23.8	53	27.2
Rupture of the uterus	2	8.7	43	25.0	45	23.1
Exhausted (weak) baby	3	13.0	25	14.5	28	14.4
Perineal tear	1	4.3	23	13.4	24	12.3

Table 10 shows that the danger signs during delivery that are recognized by a larger proportion of traditional birth attendants were heavy bleeding (91.3%), maternal exhaustion (74.4%) and convulsions/fits (41.5%). None of the traditional birth attendants mentioned prolonged labor.

Table 11: Traditional birth attendants knowledge of Danger Signs after delivery

Danger signs	Training Status				Total (n=196)	
	Trained (n=23)		Untrained (n=173)			
	No	%	No	%	No	%
Heavy bleeding	23	100.0	173	100.0	196	100
Fever/chills	20	87.0	154	89.0	174	88.8
Foul smelling vaginal discharge	16	69.6	114	65.9	130	63.3
Don't know	8	34.8	99	57.2	107	54.6
Severe abdominal pain	9	39.0	93	53.8	102	52.0
Severe headache	14	60.9	80	46.2	94	48.0
Swelling of face/hands	15	65.2	74	42.8	89	45.4
Convulsions/fits	7	30.4	59	34.1	66	33.7
Retained placenta	3	13.0	19	11.0	22	11.2

Table 11 shows knowledge of traditional birth attendants on the danger signs after delivery by training status. This table shows that generally trained traditional birth

attendants are more knowledgeable on the danger signs after delivery than their untrained counter parts. Heavy vaginal bleeding following delivery was recognized as a danger sign by all traditional birth attendants irrespective of their training status. Other signs, which were recognized by similar proportions of trained and untrained traditional birth attendants were fever/chills and foul smelling vaginal discharge. Severe headache was considered as a danger sign (61%) of trained traditional birth attendants compared to (46.2%) the untrained traditional birth attendants.

Table 12: Problems faced by traditional birth attendants in their provision of maternal health care services by training status

Problems encountered	**Training Status**				**Total (n=196)**	
	Trained (n=23)		**Untrained (n=173)**			
	No	**%**	**No**	**%**	**No**	**%**
Labeled as being witches	23	100	172	99.4	195	99.5
Poor support in the community	14	60.9	159	91.9	173	88.3
Poor relation with health workers	14	60.9	114	65.9	128	65.3
Lack of recognition by govt.	2	8.6	112	64.7	114	58.2
Health facility being for away	14	60.9	69	40.0	83	42.3
Lack of training	9	39.1	59	34.1	68	34.7
Not paid a salary	5	21.7	58	33.5	63	32.1
Lack of maternal needed doing delivery	17	73.9	15	8.7	32	16.3
Lack of support from health workers	9	39.1	14	8.1	23	11.7

Being labeled as witches (99.5%) featured out as a big and common problem among traditional birth attendants irrespective of their training status, poor support in the community (88.3%) and poor relationship with health workers (65.3%) were the second and third major problems reported to be facing traditional birth attendants in Nzega district.

Traditional birth attendants are labelled as witches as their age advances to the extent that they became the oldest in the community, they are seen to have red eyes in association with occurrence of death of children in the family or neighbours. Similarly as age advances they loose their values in the community, so that they do not get support.

Table 13: Factors which facilitate traditional birth attendants in their provision of maternal health care services by training status

Opinion	Training Status				Total (n =196)	
	Trained (N=35)		Untrained (n=173)			
	No	%	No	%	No	%
Community respect	18	78.3	112	64.7	130	66.3
Good relation with health workers	2	8.7	112	64.7	114	58.2
Given support in the community	14	60.9	69	40.0	83	43.2
Get recognition from government	8	34.8	74	42.8	82	41.8
Do not lack items needed during delivery	8	34.8	66	38.1	79	40.3
Given a salary by community	11	47.8	61	35.3	72	36.7
Health facility close by	11	47.8	53	33.5	64	32.7
Given support by health workers	5	21.7	58	33.5	63	32.1
Good training	17	74.0	15	8.7	32	16.3
Availability of emergency transport	1	4.3	15	8.7	16	8.2

In table 13 it is seen that community respect (66.3%), and a good relationship with health workers (58.2%) were reported as facilitating factors by more than a half of all traditional birth attendants interviewed. Community respect (78.3%) and good training (74%) were the top two facilitating factors reported by trained traditional

birth attendants while these were community respect and good relationships with health workers for untrained traditional birth attendants i.e. 64.7% for both.

Table 14: Traditional birth attendants' opinions on what should be done to improve their performance.

Opinion	Training Status				Total (n=196)	
	Trained (n=23)		Untrained (n=173)			
	No	%	No	%	No	%
Supply of items needed for delivery	23	100.0	173	100.0	196	100
Training	17	74.0	173	100.0	190	89.8
Recognition by government	2	8.7	173	100.0	175	89.3
Improved transport	22	95.6	120	69.4	142	72.4
Dispensary to be nearby	12	52.2	85	49.1	97	49.5
Seminars	5	21.7	80	46.2	85	43.4
Allowance	0	0.0	30	17.3	30	15.3
Recognition by Health Workers	0	0.0	25	14.5	25	12.8
Continuing Education	1	4.3	10	5.8	11	5.6
Salary Payment	0	0.0	10	5.8	10	5.1

The major opinion for both traditional birth attendants on the way to improve their working conditions were provision of items and supplies needed for delivery (100%), training (89.8%), recognition by the government (89.3%) and improved transport (72.4%).

4.3 Qualitative Data

Focus group discussions was also conducted in Nzega district. The procedure was as follows:-

1. Five groups were formed in five villages, namely Mwakalundi, Nzega Ndogo, Mbogwe, Miguwa and Nata.

2. Each group consisted of five participants all of whom were traditional birth attendants
3. The discussions were tape recorded and transcribed.
4. The transcript were reviewed and the stories which emerged are as follows:

Theme 1 : Major causes of maternal ill health and death in their community.

Group I: Mwanalundi

- Anaemia
  - Excessive bleeding before delivery
  - Foul smelling vaginal discharge
  - Oedema
  - Delivery by operation
  - Teenage pregnancies
  - Multiparity
  - Elderly primagradiva

Group 2: Nzega Ndogo

- Anaemia
- Malnutrition among mother and children
- Oedema (lower limb and face)
- Eclampsia
- Malaria

Group 3: Mbogwe

- Malnutrition among pregnant mothers and children

- Anaemia
- Oedema
- Living far away from the facilities
- Malaria
- Lack of transport

Group 4: Miguwa

- Malnutrition
- Anaemia
- Lack of equipment and resources in health facilities
- Lack of transport
- Lack of MCH clinics in the health facilities

Group 5: Nata village

- Anaemia
- Oedema
- Excessive bleeding during pregnancy (antepartum haemorrhage (APH)
- Malposition of baby
- Eclampsia

Oedema, anaemia were noted in all groups followed by malnutrition were noted in all the 4 groups. Malaria, eclampsia excessive bleeding before delivery were noted in two groups. Foul smelling vaginal discharge, delivery by operation, multiparty teenage pregnancies, elderly primigravida, far from health facility, lack of transport, lack of items, lack of clinic, malposition of the baby were noted in one group.

However it can be noted that the participants know the problems which affect mothers and children and these are the same as those recorded in health facility statistics.

Theme 2: Danger signs during pregnancy, childbirth and during the post delivery period.

Group 1: From Mwanalundi

- Excessive bleeding before and after delivery
- Eclampsia
- Breech presentation
- Early placenta separation
- Prolapse of the placenta or arm
- Multiple pregnancy (twins)
- Face presentation
- Retained placenta

Group 2: Nzega Ndogo

- Anaemia
- Excessive bleeding before delivery
- Eclampsia
- Early separation of the placenta
- Foul smelling vaginal discharge
- Excessive pains during delivery

Group 3: Mbogwe

- Excessive bleeding before delivery

- Early separation of the placenta
- Malposition of the baby
- Retained placenta
- Multiple pregnancy
- Elderly primigravida
- Teenage pregnancies
- Delivery by operation
- Eclampsia
- Height below 150cm

Group 4: Miguwa

- Anaemia
- Vaginal bleeding
- Constipation
- Eclampsia
- Excessive bleeding after delivery
- Retained placenta
- Oedema
- Breech presentation
- Height below 150cm
- Elderly primigravida
- Multiparity
- Three consecutive abortions
- Delivery by operation

Group 5: **Nata**

- Anaemia
- Excess bleeding after delivery
- Elderly separation of the placenta
- Retained placenta
- Multiple pregnancy
- Crippled

On this theme it was noted that most danger signs are known by participants in all groups. This also indicates that traditional birth attendants can be used to improve maternal health care services because what they knew is actually what is expected of them to know so that they can provide better services.

Theme 3: **Opinions on the quality of care that traditional birth attendants provide to women during pregnancy and, or childbirth.**

Group 1: **Mwanalundi**

- Advice to mothers to attend clinics and get vaccinations
- Advice on issues of daily living in order to avoid negative outcomes of pregnancy

Group 2: **Nzega Ndogo**

- Advice for mothers to go early to clinic for the assessment of their health and to receive vaccination.

- Advice on issues of daily living in order to avoid negative outcomes of pregnancy

Group 3: Mbogwe

- Advice to mothers about early clinic reporting for investigation and vaccination
- Advice on issues of daily living in order to avoid negative outcomes of pregnancy

Group 4: Miguwa

- Advice to mothers about early clinic reporting for investigation and vaccination

Group 5: Nata

- Advice to mothers about early clinic reporting for investigation and vaccination

The participants gave the impression that they provide good services to pregnant women in their communities.

Theme 4: Factors that facilitate provision of maternal health services by traditional birth attendants

Group 1: Mwanalundi

- Good cooperation with the community
- Cooperation with health workers

Group 2: Nzega Ndogo

- Good cooperation with the community
- Cooperation with health worker

Group 3: Mbogwe

- Cooperation with community
- Recognision the community
- Cooperation with health workers

Group 4: Miguwa

- Commitment by traditional birth attendants to their work
- Good cooperation with the community
- Recognition by the community

Group 5: Nata

- Acceptance of the advice traditional birth attendants give
- Cooperation with the community

These functions are focused on the community and authorities in the health sector need to foster them.

Theme 5: Factors that hinder the provision of maternal health services by traditional birth attendants

GROUP 1: Mwanalundi

- Lack of training
- Lack of transport
- Lack of items needed for delivery
- Health facility being far away
- Lack of communication with health facilities
- Not valued by the government
- Low acceptance by the community

- No allowance

Group 2: Nzega Ndogo

- Not recognised by health authorities
- Lack of cooperation with village leaders
- Lack of education
- Lack of transport
- Lack of recognition by the government

Group 3: Mbogwe

- Lack of items needed for delivery
- Lack of transport
- Health facilities far from the residential areas
- Lack of recognition by the government
- Lack of more training

Group 4: Miguwa

- Lack of training
- Lack of item needed for work
- Lack of transport
- Lack of recognition by the government

Group 5: Nata

- Lack of education
- Lack of items needed for work
- Lack of transport
- Lack of recognition by the government

These factors were noted in all groups as hindering and thus the need efforts from the relevant authorities to take action of improving them, so that traditional birth attendant can provide maternal health care services better than now.

CHAPTER 5

DISCUSSION

Study findings show that most of the traditional birth attendants in Nzega district were untrained, with the proportion of trained traditional birth attendants being about one eighth of untrained ones, that is 11.7% vs. 88.3% respectively. One of the reasons for having such a low proportion of trained traditional birth attendants is because of there has been minimal training activities conducted in this area in the district for quite a long time. Government training for traditional birth attendants in Nzega was last conducted in the late 1980's. However in 2003 an NGO (World Vision International) conducted two 2-week training sessions for its own interests.

The need for providing training to traditional birth attendants in order to improve their practices has been well discussed in the article "The traditional birth attendant, a reality and challenge" by Kamal (1998). He argues that if given training, traditional birth attendants would be able to conduct safer deliveries as well providing other basic health services in their communities (Kamal, 1998). In this study it has been established that only just over a half (51%) of the traditional birth attendants had completed primary education, with trained traditional birth attendants being more likely to have achieved this compared to their untrained counterparts (i.e. 69.6% vs. 48.6% respectively). It has been established elsewhere that low literacy level among traditional birth attendants could be a limiting factor during their training (Nasa, 1999). This emphasizes the need for designing and using appropriate training materials and approaches as had been done in Bangladesh (Nasa, 1999).

Findings of this study show that trained traditional birth attendants were more likely to have learnt their skills from a health worker (60.9%), while untrained traditional birth attendants were more likely to have learnt their skills from an older female relative (61%). A possible explanation for this observation could be that completion of primary school could have been one of the criterion that was used to select individuals for traditional birth attendants' training.

When the management of deliveries was compared, it was seen a higher proportion of trained traditional birth attendants were using hygienic practices compared to untrained traditional birth attendants. For example, use of clean gloves was practiced by 78.3%of trained traditional birth attendants compared to 58.5% of untrained ones; while use of clean sheets/ clothing was 73.9% vs. 46.5% respectively. It was further observed that while over a half of the untrained traditional birth attendants reported using plastic bags for protection, none of the trained ones reported this. Conduct of unhygienic practices could result in puerperal sepsis and other complications. While the occurrence of puerperal sepsis following deliveries assisted by traditional birth attendants by training was not assessed in this study, it is likely that its occurrence would be much higher among those women who were assisted by untrained traditional birth attendants. This would be contrary to the observation by Goodburn (2000) who established that training traditional birth attendants in clean delivery practices does not prevent postpartum infection.

Study findings have shown that all trained traditional birth attendants referred pregnant women with complications to a health facility compared to 73.9% of

untrained ones. A higher proportion of untrained traditional birth attendants referred complicated cases to another traditional birth attendant compared to trained traditional birth attendants, i.e. 16.1% vs. 5.6%. These findings are similar to those established by Minden et al (1999).

Apart from assisting deliveries, traditional birth attendants in Nzega district also provide other maternal and reproductive health services. Statistically significant differences ($p<0.05$) in the provision of these services among trained and untrained traditional birth attendants include examining pregnant women (30.4% vs. 7.3%), providing family planning supplies and advice (52.2% vs. 18.1%) and; advice on infant and young child feeding (60.9% vs. 12.7%). These findings conform to those reported by Holf et al (1997).

Traditional birth attendants are also known to carry out certain cultural practices, some of which could be harmful and even potentially life threatening to both mother and newborn. The main cultural practices reported to be carried out by both trained and untrained ones are the use of herbal medications to treat umbilical stump (50.3%), the use of herbal medications to speed up labor (9.7%) and to stimulate the uterus to contract after delivery (69.4%). Higher proportions of untrained traditional birth attendants reported herbal medications for treating the umbilical stump and for stimulating uterine contractions so as to reduce blood loss following delivery. Both these practices leave a lot to be desired. The use of herbal medications that are sometimes mixed with cow dung is an unsafe practice as it could result in a septic umbilical stump, which could lead to neonatal septicemia or neonatal tetanus. The

indiscriminate use of herbal medications that are likely to contain oxytoxic substances, is also not a good one as over dosage could result in uterine rupture.

Knowledge of danger signs during pregnancy, delivery and after delivery was generally not high among the study respondents. However trained traditional birth attendants were more knowledgeable on most danger signs compared to untrained traditional birth attendants. The three most commonly reported danger signs during pregnancy were reported as anemia (71.3%), pedal edema (65.1%) and fever (55.4%). Statistically significant differences ($p<0.05$) in knowledge of danger signs during pregnancy among trained and untrained traditional birth attendants were for the following signs anemia (95.7% vs. 68%), convulsions (60% vs. 47.7%), parity of 5 and above (39.1% vs. 6.4%), too young maternal age (39.1% vs. 10.5%) and multiple pregnancy (17.4% v.s.3.6%). All the reported danger signs during delivery and postpartum were also generally more well known by trained traditional birth attendants. The danger signs that were mentioned conform to those that are in the Ministry of Health's traditional birth attendants training manual (MoH, 2000).

Another area of concern in the study was to look into the factors that hinder traditional birth attendants in their provision of maternal health care services. It was found that there are several factors with the main ones being labeled as witches (99.5%). Poor support in the community was also noted to hinder both categories of traditional birth attendants (88.3%). These two factors were also associated with the age of the traditional birth attendant. With advancing age, the traditional birth attendants undergo normal aging physical changes. Women are known to survive

longer than men, and older traditional birth attendants are likely to be widowed. Their having shrunken skin and red eyes compounded by increasing occurrence of deaths among young children in their family or their neighbors' families makes older traditional birth attendants highly likely to be labeled as witches.

The participants in the study were asked to give their opinions on what should be done to improve the working conditions in order to enable them to perform better. The most common issue (100%) that was raised, is being provided with supplies of items used during deliveries. Being provided with training was also noted to be important by both categories of traditional birth attendants (89.8%). Most traditional birth attendants in this study recognize their limitations that include lack of education and lack of facilities. They also expressed the need for recognition by the government and closer collaboration with health workers in their communities.

CHAPTER 6

CONCLUSION

In this study it has been observed that traditional birth attendants provide maternal health care services especially in remote areas where under normal circumstances modern health care delivery systems are either not available or inaccessible. It has also been found that training of traditional birth attendants can have positive effects in their provision of maternal health care services. However training should be supported by other aspects in the community such as improving transport and support of these traditional birth attendants after training so that they can easily get the items/ supplies that they need.

RECOMMENDATIONS

Recommendations from this study fall into two groups:

1. **At the District level.**
    a) CHMT should put into their plan training programmes for traditional birth attendants. Also make supervision schedules for traditional birth attendants and provide them delivery supplies regularly.
    b) The DC, DED offices should assist the CHMT in their implementation of their plans for traditional birth attendants.
    c) Health facilities in the district should devise a method of supervision and support traditional birth attendants in their catchment areas.

2. At National Level.

The government should make a policy in which traditional birth attendants will be recognized as it has been done so for traditional healers.

A further research on factors influencing the provision of maternal health care services is needed so that a better approach on dealing with traditional birth attendants can be achieved.

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