

Do Health Worker Female and Traditional Birth Attendant Equipped to Provide Primary Health Care in Tribal Areas? Evidences from Tribal Andhra Pradesh

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ABSTRACT An attempt has been made in this paper to study the knowledge, skills and performance of Multi purpose Health Worker (Female) (MPHW-F) working in tribal areas of Andhra Pradesh, their self perceived training needs in various areas of Maternal and Child Health and the knowledge of Traditional Birth Attendants in providing maternal and child health services in tribal areas. The study found that in general the MPHWF were ill equipped to provide MCH services in tribal areas. The knowledge of health worker female in areas of MCH were very poor, especially in areas of intra natal, post natal and treatment of minor ailments. The skills were also far below satisfactory. Majority of them could not perform accurately even the basic skills like taking height and weight of pregnant women. The other skills like haemoglobin testing, urine testing for albumin etc were performed by gross error. Health worker over estimated their level of knowledge and skills and under estimated their need for training. The TBAs too were lagging behind in the correct knowledge and safe practices in conducting delivery. Hence there is an urgent need to redesign the basic training of health workers working in tribal areas.

INTRODUCTION

Primary Health Care is now universally recognised as the most effective intervention to achieve significant improvement in the health status of population especially in respect of infant, children and maternal care. The Alma Ata declaration of 1978 signed by most nations and the National Health Policy document (1983) of Government of India identify Primary Health Care as a key strategic intervention for providing universal access to health care. Subsequent to National Health Policy, which was adopted in 1983 the health infrastructure was reorganised to universalize Primary Health Care. The progress of establishing three-tier system of Primary Health Care in terms of establishing subcentres and primary health centres and community health centres have expected to help in reaching the rural mass the required services in health.

The net work has grown by vast proportions over the years. There was only one PHC for 1,00,000 population in 1953. In 1962 it was one PHC for 40,000 population. By 1983 the situation further improved to one PHC for every 30,000 population in plain areas and one PHC for 20,000 population in hilly and tribal areas. (GOI, 1994). In the same way the population size for each subcentre was 5,000 and 3,000 for plain and

difficult areas respectively. As a commitment towards universal primary health care in rural areas to make it more accessible and affordable massive infrastructure of subcenters and primary health centre were built up. The number of PHCs in 1953 were only 725 but rose to 21,024 by 1985. (Park, 1995). As on 1999 there were 1,37,271 functioning subcenters, thus arriving at an average figure of one subcentre for 4,579 population.

The subcentre is the most peripheral village based institution in the three-tier system of primary health care. It is the first contact point between the community and government health set-up; as such it has a pivotal role in providing primary health care to the population. It is manned by one Multipurpose Health Worker (Male) and one Multipurpose Health Worker (Female)/ANM as per national norms. These workers are auxiliaries and expected to have basic skills in health and family welfare with background of one and a half year and one-year basic training followed by continuous education and on the job training during service. These multipurpose health workers/ANMs have to take care of the basic health needs of the rural population and thus become back bone of the public health delivery system. Hence it is very important to study whether they are capable of delivering the

required services by assessing their knowledge and skills in delivering the services to the public.

In this paper an attempt has been made to assess the knowledge and skills of MPHw (F) and Traditional Birth Attendant (TBA) working in tribal areas of Andhra Pradesh in performing their task and their perceived training needs in various areas.

Objectives

- To assess the knowledge, skills and performance of MPHw (F) working in tribal areas of Andhra Pradesh in providing basic health needs
- To assess their self perceived needs of training in various areas of Maternal and Child Health, and
- To assess the knowledge of traditional birth attendant in providing Maternal and Child Health services in tribal areas

METHODOLOGY

A total of 11 districts from the state of Andhra Pradesh where the Integrated Tribal Development Agency (ITDA) was functioning were covered in the survey. A 10 percent sample of MPHw (F) working in the tribal areas in each of the ITDA districts were selected for detailed questionings, observation and practical testing. Total sample consisted of 90 MPHw (F) and 45 TBAs working in various ITDA districts.

The selected MPHw (F) were assessed by an open ended question paper to assess their knowledge, an observation guideline to assess the performance of skills in antenatal and child care through practical tests on pregnant women and children, home visits to assess the approach, rapport and attitude towards tribal community and a questionnaire to assess the opinion of what MPHw (F) thought they knew and what they felt they needed to be trained in. An interview schedule was used to assess the practices of TBAs in childbirth. Qualified research investigators with B.Sc. or M.Sc. nursing background did the data collection.

RESULTS AND DISCUSSION

Background Characteristics of the MPHw (F)

The average age of MPHw (F) is 30 years. The age distribution showed that almost three

fourth (75.5 percent) belonged to the age group between 20-34 years, and the rest were between 35 to 54 years. Three fourth of the ANMs were currently married, one fifth of them were never married and the rest were widowed. Regarding their educational qualifications, three fourth of them had completed matriculation, around 16 percent completed intermediate and 10 percent had an educational qualification below matriculation.

Around 86 percent of them had undergone MPHw (F) training for 18 months according the revised multi purpose syllabus and the rest had undergone two years ANM training. Three fourth of them had undergone training during 10 years and the remaining had been trained between 11 and 30 years. Regarding the service particulars, 52 percent of them had only less than 5 years of experience and the rest had more than 5 years of experience. Eighty eight percent of the MPHw (F) were living within or near their subcentre village. Only around one fifth (21 percent) of them had government building for sub-centre and majority (71 percent) had rented building as sub centre and a few stated that there was no sub centre building for them.

Forty percent of the ANMs had received inservice training like Child Survival and Safe Motherhood (CSSM) training, IUD insertion training and IPP skill training ranging in duration from three days to three months in various places. The rest did not receive any inservice training.

Knowledge, Skill and Training Needs of Female Health Workers

Female Health Worker's knowledge questionnaire consisted of simple questions dealing with antenatal, intranatal and post natal and child care services, family welfare, communicable diseases, first aid and treatment of minor ailments. The ANMs were asked to write short answers. A scoring key was prepared based on correct answers expected and this was used to score each sheet.

ANMs were divided into two groups based on their performance on the test- those who scored 50 percent or less and those who scored more than 50 percent. Table 1 indicates the scores of ANMs on the individual items of knowledge test. The areas in which the ANMs scored 50 percent or less was intranatal (86.6 percent), post natal (83.3 percent) and treatment of minor ailments (74.5 percent). The other areas

Table 1: Percentage Distribution of ANMs according to their scores in knowledge test

S. No.	Area	Less than or equal to 50 percent		Above 50 percent	
		No.	%	No.	%
1	Antenatal	39	43.3	51	56.6
2	Intranatal	78	86.6	12	13.3
3	Post natal	75	83.3	15	16.6
4	Child care	34	37.7	56	62.2
5	Family welfare	61	67.7	29	32.2
6	Communicable diseases	45	50.0	45	50.0
7	First aid	50	55.5	40	44.4
8	Treatment of minor ailments	67	74.5	23	25.5

in which most of the ANMs could not score even up to 50 percent were family welfare and first aid. Knowledge of ANMs was slightly better in the areas of antenatal and childcare where nearly 60 percent of the ANMs scored more than 50 percent. Regarding the knowledge of communicable diseases only half of the ANMs scored upto 50 percent. On the whole, about two third of ANMs could not score even upto 50 percent on the knowledge test.

Each of the 90 ANMs was given practical tests lasting for about half-a-day in performing certain essential skills in the care of antenatal women and children below five years. Twelve essential skills required by ANMs for maternal and child health amenable to rapid practical assessment were observed. These were:

- Measuring height of the pregnant woman
- Measuring weight of the pregnant woman
- Hemoglobin (Hb) testing
- Blood Pressure (BP) checking
- Abdominal examination
- Listening of foetal heart sound

- Urine testing for sugar
- Urine testing for Albumin
- Giving injection
- Growth assessment of an infant
- Oral Rehydration Solution (ORS) preparation
- Health education

ANMs were categorised into four groups based on their performance in these practical skills. The best performing group of ANMs had performed the skill with no error at all. Average performers were ANMs who had carried out the skills with minor errors, poor performers had performed the skills with gross errors and non-performers were those ANMs who did not perform the skill at all. Table 2 provides the results of skill on ANMs in performance of the above mentioned tasks. Surprisingly the skills of the ANMs were found to be far below satisfactory. Even 50 percent of the ANMs could not perform accurately even the simple basic skills like taking height and weight of pregnant women. The skills that were not performed at all by majority of the ANMs were Hb testing, Urine testing for albumin,

Table 2: Observation of skills of multipurpose health workers (F) in maternal and child health

Skills	3	2	1	0
Height	44.9	9.0	11.5	34.6
Weight	47.4	34.61	9.0	8.9
Hb testing	10.3	11.53	11.5	66.7
Urine testing for albumin	3.8	7.8	19.2	69.2
Urine testing for sugar	5.1	29.5	33.3	32.1
Abdominal examination	12.8	38.5	33.3	15.4
BP checking	10.3	11.5	29.5	48.7
Listening to foetal heart sound	19.2	28.2	25.6	26.9
Assessing growth of children	11.5	26.9	19.3	44.3
ORS preparation	64.1	26.9	9.0	0
Injection technique	20.5	41.1	24.4	14.1
Health education	21.8	53.8	16.7	7.7

3 = Perform without errors
2 = Perform with minor error

1 = Perform with gross error
0 = Does not perform at all

BP checking and assessment of growth and development of children. Other skills performed either with gross or minor errors. The practical testing of ANMs thus revealed huge gaps in the skills of ANMs in antenatal and childcare.

Third method of assessment focussed on their attitudes and communication skills. Each of the 90 ANMs was asked to do a home visit in the tribal area. Their approach, behaviour and the content of the visit were noted down. This revealed that the ANMs could not do home visit systematically. The visit lacked planning, organisation or improvisation. On the attitudinal level, ANMs were unable to understand tribal culture or treat tribal people with dignity. They failed to show concern for the people and indicated a desire to finish the visit quickly.

Besides assessing knowledge of ANMs, the study was covered a self-assessment of training needs in different areas. In the antenatal areas most of the ANMs felt they did not require training, especially in recognizing anemia and edema (91 percent and 88 percent respectively). In the case of recognizing stomatitis and high-risk mothers 45 and 34 percent of the ANMs respectively said that they require training.

In the case of intranatal care a much higher percentage of ANMs said that they require training. The need for training in managing abnormal labor that is performing episiotomy, suturing episiotomy, conducting twin delivery, breech delivery and managing retained placenta was expressed by majority of the ANMs. However, knowledge test as well as observation revealed that they were poor in normal labor as well. The perceived need for training was much less in the area of recognizing signs and symptoms of labor (26.6 percent), resuscitation of asphyxiated baby and identifying danger signals during labor.

Regarding postnatal care ANMs felt a need for training mainly in estimating fundal height (75 percent). More than 50 percent felt that they do not require training on observation of lochia, post natal exercises and diet and advise on breast milk and personal hygiene. It is contradictory that though the knowledge of ANMs was poor in the area of postnatal care and studies have repeatedly indicated that ANMs do not follow-up women after the delivery, they did not give high priority to this area of training. This indicates that ANMs were not even aware that they did not know this fact and over estimated

their knowledge due to lack of awareness.

In the area of child care 73 percent of the ANMs felt that they require training in the management of mild and moderate ARI at home. About 50 percent of them stated that they need training in assessing growth and development of children and identification of malnutrition. Most of them said they did not require training in immunization, treating mild and moderate diarrhea and identifying skin diseases.

In the area of family planning only insertion of IUD was considered to be an area in which training was required (77 percent). About 50 percent of the ANMs felt that they require training in STDs, AIDs and reproductive hygiene.

ANMs said that they did not require training in talking with village leaders, angawadi workers and *dais*, conducting MCH and immunisation clinics, getting drugs and other supplies and maintaining records and reports. But observations showed that their relations with villagers were not cordial and they could not write records and reports accurately. About 50 percent of them said that they needed training in displaying materials in subcentres.

Traditional Birth Attendants (TBAs) in Tribal Areas

Dais are the traditional birth attendant who conducts the delivery mostly in tribal and rural areas where home deliveries are very common. According to WHO a traditional birth attendant (TBA) is a person who assists the mother during childbirth and initially acquires her skills through self taught by delivering babies themselves or informally trained or trained from their other family members or through apprenticeship with other traditional birth attendants. The role of *Dai* in primary health care, particularly women's and newborn's health care, is aptly recognized and emphasized in various WHO and other national and international health care policy documents. Because TBAs generally hold a position of respect and influence within their communities, they are uniquely equipped to inform and assist women and their families in preparing for birth. Although, it is advocated that every pregnant woman seek care from a skilled provider, it also acknowledges the important role of traditional birth attendants in providing additional services, practical help and education and counseling to women. Although TBAs cannot substitute for

skilled providers, they can contribute to the survival of mothers and new born by facilitating access to needed information, clinical services and support.

The role of TBA started to be taken seriously in the early 1950s when high maternal mortality rates became a concern and India started training TBAs in clean and safe home delivery and some other healthcare-related roles. An intensified TBA (Trained Birth Attendant) Programme was launched in early 70's, the training was supposed to be organized at the nearby PHC for a period of 30 days with an emphasis on recognition of complications and aseptic measures during delivery. Subsequently a six days training Programme of TBAs was also launched under the CSSM program. As per the programme as many as 660,996 *Dais* have been trained in the country by March 1996.

Now that TBAs and ANMs have to work as a team in providing maternal and child health services, it is very important to assess the knowledge and practices of TBAs in conducting delivery and taking care of the new born. Moreover, during the past 40 years, even though the government has successfully established a countrywide network of health services, the vast majority of deliveries in India are still conducted at home by Traditional Birth Attendants (TBAs). As recently as in 1998-'99, no more than 24 percent of all rural births were conducted in institutions and as many as two-fifths were delivered by TBAs (International Institute of Population Studies, 2000).

Background Characteristics of the TBAs

Out of the 45 Traditional Birth Attendants interviewed 43 of them belonged to different tribal groups and two of them were non-tribal women. The age group of the TBAs indicated that around 11 percent of them were below 30 years, 51 percent of them were in the age group 31 to 50 years and the remaining were above 50 years. Forty percent of the TBAs were practicing for the last 10 years, 24 percent of them were practicing 11 to 20 years and the remaining had an experience of more than 20 years in conducting deliveries.

When they were questioned about from whom they learned the technique of conducting delivery, 42 percent of them stated that they learned from senior family members like mother, mother-in-law, sister etc., 31 percent of them

stated that they were self taught and almost one fourth of them learned it from health personnel like ANM or female health supervisor.

Since training of the TBAs were an important component in their competency development, it is very important to know the level of training received by these TBAs. Nearly half (48 percent) of the TBAs had undergone some form of training ranging from two days to three months in government health system and the rest did not have any formal training.

Knowledge and Practices of TBAs in Midwifery

The TBAs in the survey were interviewed within the homes or the subcentre for their knowledge and practices in midwifery. The finding showed that 61 percent of them conducted less than 10 deliveries and 11 percent of them conducted more than 25 deliveries.

Considering the crucial role that they play in home deliveries, it is important that they recognise the signs of difficult or obstructed labour. Only 44 percent stated that prolonged labour or strong pains without progress as the signs of obstructed labour and only 35 percent stated malpresentations as signs of obstructed labour. Regarding the action taken in case of problems during labour, 55 percent of them stated that they referred the patient to the hospital, 24 percent stated that they accompanied the woman to hospital and 20 percent said that they called ANM/doctor.

When asked about the precautions to be taken during delivery to prevent puerperal sepsis, only 40 percent stated that they washed hands before conducting delivery, nearly half of them stated that they gave herbal medicine during postnatal period to prevent sepsis. Only 31 percent said that they cleaned the area where delivery is to be conducted and 22 percent mentioned about the importance of immunisation and regular antenatal check-ups to mother to prevent tetanus. This finding shows that there is great need to train these tribal *dais* intensively in the methods of safe delivery.

Regarding cutting the umbilical cord, 64 percent of them stated that they used a new blade and the rest of them were practicing the unsafe methods like using bamboo stick, knife, sickle, arrow with copper coin etc to cut umbilical cord and this may cause neonatal tetanus of the new born.

Regarding post natal care, 88 percent of the

TBAs had a practice of giving bath to mother and child on certain days like 3rd, 5th and 7th days of delivery according to the request of the family, 31 percent stated that they observed lochia and gave perinial care during the post natal visits. Only 13 percent encouraged mothers to give breast feeding and only 4 percent of them mentioned about child immuniation.

Questions were also posed to know about the relationship between TBAs and government health functionaries especially the Multi Purpose Health Worker (F). Regarding this 85 percent of the TBAs stated that they had a positive relationship with MPHWS (F). They worked together mostly in providing services of conducting delivery, immunisation, home visits and ante natal check-up

CONCLUSIONS

Female Health workers over estimated the level of their knowledge and skills and under estimated their need for training. The difference in knowledge and observed performance on one hand and ANMs opinion on the other hand seems to be because of poor self-assessment of gaps in knowledge and skills by ANMs. Actual testing showed that they need training in almost all areas of the ANMs job functions. Training required especially in conducting safe delivery and care of women in intranatal and postnatal stages, assessing growth and development of children, assessing malnutrition and providing care and treating ARI at home. An urgent need exists to redesign the basic training of ANMs in tribal areas including some additional components specific to tribal population. In the meantime it is necessary to design and organize inservice training programme for ANMs already working in tribal areas.

The Traditional Birth Attendants too were lagging behind in the correct knowledge and safe practices in conducting delivery. Hence there is an urgent need to reinforce the training of these TBAs to improve their ability to perform safe deliveries in the tribal areas. The training should focus on the necessity of clean and safe methods of delivery and on the early recognition of high risk antenatal women and the danger signs during delivery.

A strong and positive working relationship should also be built between TBAs and MPHWS (F) for the smooth delivery of Maternal and Child Health Services in Tribal areas. Although TBAs cannot be considered as skilled providers they hold a special position in many communities and should be considered as part of the community's informal health care system. The TBAs should be included in community education and mobilisation efforts so that they can convey vital information to families and communities in a culturally appropriate way that will help families understand how to recognise danger signs during pregnancy and where to go for help. Since women and communities look to TBAs for advice and information, TBAs must be given correct information about and supported in their understanding of safe motherhood messages.

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