
Brief Reports

Evaluation of Training Programme for Traditional Birth Attendants in Newborn Care

A.S. Daga
S.R. Daga
R.V. Dighole
R.P. Patil
M.R. Patil

It is estimated that 60-80% of births in developing countries occur outside modern health care facilities. Majority of these births are attended by untrained persons and some are even unattended(1). In earlier days, the training of traditional birth attendants (TBAs) was confined largely to conduct of aseptic deliveries. Later on, newborn care found a place in the training curriculum. We report the evaluation of a programme involving training of TBAs in newborn care in this communication.

Subjects and Methods

The Rural Neonatal Care Programme was started by the Government of Maharashtra in a tribal block, Dahanu, 150 Km north-west of Mumbai in 1987(2). One primary health center (PHC), Ganjad, formed the *intensive area* with a population of 20,000. Two PHCs, Kasa and Saiwan,

were the twilight areas with a population of 30,000 and 20,000 respectively. In the intensive area, the Medical Officer, Lady Health Visitor (LHV) and all the ANMs from the sub-centres were trained in newborn care at the J.J. Hospital, Mumbai. The PHC was equipped to deliver special care for a short period. A baby requiring long term care was shifted to the rural hospital. The consultants visited PHC headquarters and field area every fortnight. A birth was registered at PHC headquarters by a TBA along with a foot print of the baby. She was paid Rs 5/- for this to compensate for the loss of wages for the day. A TBA was also paid Rs 5 /-for attending a training session.

In the twilight areas, only Medical Officers and LHV were trained in newborn care. The consultants visited the PHC once a month. A TBA was paid Rs 5/- for attending a training session but births were not registered with foot print and nor was there any remuneration for birth registration.

Under the programme, TBAs as well as their assistants, usually their daughters, daughter-in-laws or close relatives, were also trained. The training, which began in January 1988, pertained to; (z) Keeping a baby warm; (it) Resuscitation of an asphyxiated baby; (Hi) Identification of a very small sized baby; and (iv) Safe transportation of such a baby to the health center.

Re-evaluation of the TBAs was done 2 years later from amongst randomly selected TBAs (14 out of 67 from Ganjad, 18 out of 81 from Kasa and 12 out of 62 from Saiwan) by the LHV, Medical Officer and the Block Health Supervisor. During this period they had undergone reorientation

From the Departments of Preventive and Social Medicine and Pediatrics, Grant Medical College, Mumbai and Primary Health Centre, Ganjad.

Reprint requests: Dr. A.S. Daga, 1/11, Staff Quarters, J.J. Hospital, Mumbai 400 008.

Manuscript received: February 7, 1997;

Initial review completed: March 20, 1997;

Revision accepted: May 1, 1997

approximately, once a month, which included oral questions as well as demonstrations. The data was analyzed by the Cochran's Q test(3).

Results

The comparison of the re-evaluation responses in the different intervention areas is summarized in *Table I*. Cochran Q was 22.6, 51.8 and 141.2 for Ganjad (intensive area), Kasa and Saiwan, respectively ($P=0.05$). The responses in the intensive area were near-perfect as reflected in the insignificant difference in the responses. In the twilight area, the performance in the key areas like recognition and prevention of hypothermia as well as management of asphyxia was good. The TBAs in twilight areas took footprints correctly in a significant proportion but could not identify a small baby for referral from the foot print.

Discussion

Training programme for TBAs have generally emphasized conduct of clean and safe deliveries and detection of pregnancy at risk(3,4). Some programmes have included resuscitation of newborn and emphasis on early breastfeeding(5). Provision of warmth and resuscitation of asphyxiated babies are generally regarded as the most important interventions for enhancing neonatal health. It is also essential to identify and safely transport the babies requiring referral services. In this area early and exclusive breastfeeding is a regular feature.

The steps expected to be taken by a TBA in keeping babies warm included immediate drying, wiping and covering the baby after birth; avoiding bath for first 4-5 days; detecting hypothermia by feeling the feet; and rewarming a hypothermic baby at home by giving warm fomentation using Chullah and Tawa(6). The measures to resuscitate an asphyxiated baby included

cleaning the oral cavity with the help of a piece of cloth wrapped around little finger followed by mouth-to-mouth breathing. In these aspects of newborn care, the performance of TBAs from Both the areas was good. A significant proportion of TBAs from both the areas took foot prints correctly. The interpretation was not correctly done by a significant proportion of TBAs from twilight areas. This was because under the programme, they were not expected to register a birth with foot print.

Thus, the TBAs can be trained in newborn care in maintenance of warmth, resuscitation of an asphyxiated baby and identification of a small baby for hospital care. This can strengthen the domiciliary care of newborn babies where home deliveries are common. The effectiveness of the training programme was reflected in the declining neonatal mortality(2).

REFERENCES

1. Traditional Birth Attendants. A Joint WHO/UNFPA/UNICEF Statement. Geneva World Health Organization, 1992.
2. Daga SR, Daga AS, Dighole RV, Patil RP, Dhinde HC. Rural neonatal Care: Dahanu experience. *Indian Pediatr* 1992; 29: 189-193.
3. Neumann AK, Nicholas DD, Ammonoo-Acquah, Peasah M, Boyd DL. Evaluation of a programme to train traditional birth attendants in Ghana. *In: The Potential of the Traditional Birth Attendant*. Eds. Maglacas AM, Simons J. Geneva, World Health Organization, Offset Publication No. 95,1986.
4. Swaminathan MC, Nadamuni Naidu A, Prasanna Krishna T. An evaluation of dai training in Andhra Pradesh. *In: The Potential of the Traditional Birth Attendant*. Eds. Maglacas AM, Simons J. Geneva, World Health Organization, Offset Publication No. 95,1986.
5. Tin Tin HD. An evaluation of the training

TABLE I—Comparison of Re-evaluation of TBAs' Responses in the Three PHCS.

Questions and choices	Responses of TBAs			Total (n=46)
	Ganjad (n=14)	Kasa (n=18)	Saiwan (n=14)	
1. Which baby needs extra warmth?				
Preterm	14	17	12	43
Full term	—	1	2	3
2. What should be done immediately after birth so that baby does not become cold?				
Drying & Wiping	14	5	14	33*
Wrapping	14	13	14	41
Warm water bath	—	—	—	—
3. How many pieces of cloth will you keep ready before conducting a delivery?				
One	—	—	—	—
(Two)	9	—	13	22
Four	5	18	1	24
4. What happens to a baby following bath? (Becomes cold)	14	18	14	46
Nothing untoward	—	—	—	—
5. How will you wrap a baby? To be demonstrated on a mannequin (Correct when head is covered)				
Correct	14	18	14	46
Incorrect	—	—	—	—
6. How to rewarm a cold baby at home? To be demonstrated on a mannequin				
Correct	14	18	12	44
Incorrect	—	—	2	2
7. How to know if a baby is warm or not				
Touching forehead/abdomen	—	—	1	1
(Touching feet)	14	18	9	41
8. What is the color of an asphyxiated baby?				
Red/Pink	—	1	—	1
(Blue/Black/White)	14	17	14	45
9. What will you do for such a baby?				
Sprinkle water	—	—	—	—
(Mouth to mouth breathing)	14	18	14	46
Slap the soles.	—	—	—	—
10. How will you take the foot print of a baby? Demonstration-				
Correct	14	18	13	45
Incorrect	—	—	1	1

(Contd...)

TABLE I (Contd.)—Comparison of Re-evaluation of TBAs' Responses in the Three PHCS.

Questions and Choices	Responses of TBAs			Total (n=46)
	Ganjad (n=14)	Kasa (n=18)	Saiwan (n=14)	
11. How will you identify a small baby from foot print? (for referral) Demonstration: The length falls in red zone of a plastic ruler.				
Correct	14	15	8	37
Incorrect	—	3	6	9
12. Can a very small baby survive at home?				
Yes	1	3	—	4
(No)	13	15	14	42
13. How will you transport such a baby to the primary health center?				
Wrap only	1	5	3	9
Wrapped in thermocol box.	—	5	—	5
(Prewarmed, in thermocol box)	13	8	11	32

Correct choices are shown in parentheses.

*Remaining TBAs gave no answers.

of left-thes in Burma. In: The Potential of the Traditional Birth Attendant Eds. Maglacas AM, Simons J. Geneva, World Health Organization, Offset Publication No. 95, 1986.

6. Thermal Control of the Newborn: A practical Guide. Geneva, World Health Organization WHO/PHE/MSM/93.2, 1993; p 35.