

# Role of Traditional Birth Attendants in improving Reproductive Health: Lessons from the Family Health Project, Sindh

A. Islam, F. A. Malik ( Department of Community Health Sciences, Aga Khan University, Karachi. )

## Abstract

**Objective:** Purpose of the Study: Despite strenuous efforts, the maternal mortality rate in Pakistan remains high. The national figure of 340 maternal deaths per 100,000 live births tends to hide the fact that in some rural areas it is as high as 700 per 100,000 live births. Not surprisingly, in Pakistan only 20% of births are attended by a trained health professional. In most rural areas, home to almost 70% of the population, traditional birth attendants (TBAs) deliver 90% of the births. TBAs, therefore, play a crucial role in the delivery of maternal health care in Pakistan. Realizing the importance of TBAs, the Family Health Project (FHP) of the Department of Health Sindh, financed by the World Bank, tried to enhance their knowledge and skills through comprehensive training programs. FHP provided training to 650 TBAs in 10 districts. The training was provided by the Department of Community Health Sciences (CHS) of the Aga Khan University (AKU) who acted as technical consultant to the project.

**Study Design:** A community-based qualitative post-intervention survey.

**Results:** Post-intervention survey of this seven-year project (1992-1999) revealed that (a) the training enhanced the knowledge and skills of the TBAs, (b) the trained TBAs provide more broader health care services and (c) they enjoy greater community acceptance and provide greater consumer satisfaction. It also showed that the TBAs remain the most available and accessible health resource in most rural settings.

**Conclusion:** It is imperative that TBAs and their continuing training should remain central to any reproductive health intervention along with an effective referral system linking them to well-equipped emergency obstetric care facilities. However, the assessment clearly demonstrated that an integrated referral system backed by effective emergency obstetric care is essential to the success of the TBA training program (JPMA 51 :218:2001).

## Introduction

At 340 per 100,000 live births, Pakistan's maternal mortality ratio (MMR) is still considerably higher than in most developing countries. Moreover, this national figure tends to hide the fact that MMR varies quite substantially across Pakistan. It is estimated that in some rural regions, the MMR is as high as almost 700 per 100,000 live births<sup>1</sup>. Similarly, the infant mortality rate (IMR) in Pakistan is 95 per 1,000 live births which is higher than most of the countries in the region<sup>2</sup>.

The factors responsible for this sad state of maternal health status in Pakistan, range from high level of illiteracy among women (75% in 1997), lack of access to health services (15% had no access to health services in 1997), sanitation (44% had no access to sanitation in 1997) to a high rate of anemia among pregnant women (40% in 1997). However, two of the most significant contributory factors to maternal mortality are lack of access to effective referral/support services and nonavailability of trained health professionals at the time of delivery. Overall, only about 30 percent of pregnant women in Pakistan receive any antenatal care and less than 20 % deliveries are conducted by trained health professional<sup>3</sup>, the number being much lower in rural areas. In some areas of rural Pakistan, more than 90% of deliveries are performed by untrained or semi-trained Traditional Birth Attendants<sup>4</sup>.

It was this overwhelming presence of the untrained Traditional Birth Attendants (TBAs) that prompted the Family Health Project, Sindh to put emphasis on their training and better utilization for more

effective maternal and child health care. The paper presents a “community-based” qualitative assessment of the TBA training program.

### **The Project**

The Family Health Project (FHP) Sindh, funded by the World Bank, commenced in 1992 and was completed by the end of December 1999. The FHP was designed to strengthen the existing public health care system in providing more effective and efficient services, particularly in the field of maternal and child health. FHP, therefore, was geared towards (a) comprehensive human resource development, (b) service integration and enhancement, and (c) institutional capacity building of the Department of Health (DOH). The Aga Khan University (AKU) provided technical assistance to the DOH in conceptualizing, planning and implementing the project. In a 7-year period, the project covered 21 districts. Following a mid-term review in 1995 by the World Bank, the project was restructured to confine its interventions to well-defined geographically limited areas. Following this Area Focus Approach (AFA), the restructured project concentrated on 106 health facilities, four or five in each of the 21 districts. Some activities were limited to a smaller number of districts. It was envisaged that once the project interventions demonstrate their utility, they would be replicated in other districts by the District Health Officers (DHOs).

### **The Program**

In September 1995, an ambitious TBA training program was initiated by the FHP in response to the high maternal mortality in rural Sindh. They were mostly elderly women engaged in this profession through generations, by and large trusted by the community, and providing an array of services including delivery. The training program was aimed at improving the knowledge and skills of TBAs in (i) safe and clean delivery and (ii) recognizing high risk pregnancies so that timely referral could be made to a health facility and avoid further complications. The program also tried to create a linkage between the TBAs in the community and the female health staff at the First Level Care Facilities (FLCF) so as to sustain and institutionalize the benefits of the entire exercise. The goal was to make the TBAs a part of the existing health care system and enable the health facility staff to supplement the initial training and monitor the work of the TBAs.

The TBA training program covered 10 districts, two in Karachi and eight in other parts of Sindh. The 10 districts were Karachi South, Karachi West, Sanghar, Mirpurkhas, Tharparkar, Sukkur, Larkana, Shikarpur, Khairpur and Naushero Feroz. A three-phased approach was followed. In phase 1, the in-charges of the District Health Development Centres (DHDC) and medical officers (MOs) and women medical officers (WMOs) were given orientation to the TBA training program. WMOs and Paramedical Technicians (PMTs) were trained to become Master Trainers. This was followed by extensive training to all Lady Health Visitors (LHVs) and Female Health Technicians (FHTs) as TBA Trainers. While the training of master trainers was of eight days duration, that of trainers lasted for ten days. Simultaneously, Lady Health Workers (LHWs) at the FLCF level were provided orientation and training in monitoring the TBAs.

In phase 3, practicing TBAs selected from their catchment areas by the LHWs at the health facility level were given extensive training for 12-days. A Pictorial Mother Card was developed and distributed to the trainees for identification and referral of high risk pregnancies. The pictorial nature of this card helped overcome the lack of formal education among the vast majority of the TBAs. They were also given “red and white referral cards” to be used in referring high-risk pregnant women to the health facility. With a view to help TBAs perform clean and safe delivery (the second task), they were supplied with a “Disposable Birth Kit”. Facility-based LHVs and LHWs were trained and made responsible to provide support to the TBAs and follow them up. A total of 172 TBAs received knowledge and skills training. Along with them, 196 LHWs also received short orientation training in providing support to the trained TBAs.

At the end of the project in December 1999, a time-bound limited-focus impact assessment of the Family Health Project was carried out. Although the impact assessment study employed both

quantitative and qualitative approaches, the assessment of the TBA program was primarily qualitative in nature.

## Methodology

The techniques used to gather relevant information from a cross-section of villages/communities served by the FHP include: (a) focus group discussions; (b) semi-structured conversational interviews with key informants; and (c) non-verbal means of observation to document change in health seeking behavior, including Participatory Reflection and Analysis (PRA) technique (such as, social maps, impact diagram, flow chart, etc.).

**Table 1. Matrix of Techniques by Community Segments.**

| Technique                 | VHC Members | LHW/TBA | WMO/LHV/MO | Key Informants | PHDC/DHDC | Women |
|---------------------------|-------------|---------|------------|----------------|-----------|-------|
| Conversational Interviews | X           |         | X          | X              |           |       |
| PRA                       | X           | X       | X          | X              |           |       |
| Focus Group Discussions   | X           | X       |            |                |           | X     |
| Informal Discussions      |             |         |            |                | X         | X     |

Note: VHC (Village Health Committee) were all men.

Table-1 presents a matrix on the techniques used on different segments of the community. Out of the 21 districts in Sindh, 8 AFA districts were selected through purposive sampling for the impact assessment study. In selecting the districts, ensuring geographical (Upper, Lower, and Middle Sindh) and cultural diversity of the province, was one of the most important criterion. The selected sample of 8 districts included 8 Rural Health Centres (RHC) and 23 Basic Health Units (BHU). A strenuous effort was made to ensure that the data truly represents the people at large whom the program was supposed to reach. In selecting communities, therefore, their distance from the health facility was taken into account, taking care not to under-represent remote communities. Similarly, subjects from different social groups (ethnic, religious, linguistic) and different walks of life were selected. In all 93 villages around these 31 health facilities were covered. A total of 152 interviews, 121 focus group discussions and 55 PRA sessions were conducted at 124 sites.

**Table 2. Selected Districts: Their broad characteristics.**

| Districts     | Cultural     | Geographical         | Economic            |
|---------------|--------------|----------------------|---------------------|
| Tharparkar    | Rural/Remote | Desert               | Poor/Lower Middle   |
| Larkana       | Urban/Rural  | Agriculture          | Middle/Lower Middle |
| Khairpur      | Urban/Rural  | Agriculture/Industry | Middle              |
| Nawabshah     | Urban/Rural  | Agriculture          | Lower Middle/Poor   |
| Dadu          | Rural/Remote | Mountainous          | Lower Middle/Poor   |
| Thatta        | Rural/Remote | Agriculture/Coastal  | Lower Middle/Poor   |
| Karachi West  | Urban/Rural  | Coastal/Fishery      | Middle/Lower Middle |
| Karachi South | Urban        | Coastal/Industrial   | Middle              |

Table-2 lists the districts covered and their broad socio-economic characteristics, that the “availability of services at the doorstep” was the source of their satisfaction with preventive care. However, anti-natal and post-natal care and family planning services, provided by LHWs and Village-based Family Planning Workers (VBFPWs) on an outreach basis, did not elicit similar enthusiastic acceptance. An overwhelming majority of the women expressed the opinion that the LHWs and The study had some obvious shortcomings. Short timeframe of only three months somewhat compromised its scope. It covered only health facilities and communities that the Family Health Project served. No attempt was made to gather information from non-A FA facilities/communities. Conclusions reached, therefore, may not be generalizable for the entire province and should be viewed with caution. Nevertheless, vigorous attempts were made not to compromise the quality of this qualitative assessment.

## Results

The services provided by the RFICs and BHUs were divided into three categories, preventive, curative and support services. The community expressed great satisfaction with the preventive services provided through LHWs and vaccinators. (Immunization coverage of almost 90% in most communities underscores the success of preventive services). More than 80% of the respondents said VBFPWs are not effectively supported by the health facility. In most cases this was attributed to non-availability of Women Medical Officer and/or Female Health Technician/Paramedic at the health facility. For example, only one-third of the health facilities surveyed had a female health technician. Non-availability of other essential equipment or mode of transport (such as, x-ray machine, ambulance) was also noted by community members as factors contributing to lack of linkage between the LHWs and health facilities. For example, only a quarter of the health facilities surveyed were found to possess an ambulance and only 25% of these ambulances were found to be “functional”.

These system deficiencies, to a large extent, seem to have made the community women dependent on the services of TBAs. The training given to TBAs, according to the community, improved their knowledge and skills. Women expressed great satisfaction with the services of these trained TBAs, especially their use of the “safe delivery” kits. The “toolbox” (safe delivery kits) carried by the TBAs,

to the villagers, became a symbol of "knowledge and skills". For example, villagers remarked "we know that our TBA is trained now when we see her carrying a toolbox." The trained TBAs, villagers reported, changed their practices for better. "For instance, previously they used to deliver on the floor where sand was spread to make a bed that could be cleaned easily afterwards. But now they used a bed (charpal) and sterilized kit. They visit the females three or four times after the delivery and give them advise on how to take care of themselves and the baby." Training seemed to have improved their knowledge on pregnancy related complications and skills in identifying high-risk pregnancies and referring them to the health facility. A group of women commented that "at night when a TBA is called for a delivery case with complications, she accompanies the patient to the RHC or the Tehsil Headquarter Hospital (THQ). She (the TBA) also motivates the mothers to take Tetanus Toxoid vaccine and start colostrum." In other words, trained TBAs were also becoming instrumental in raising health awareness among the community women.

In focus group discussions, TBAs commented that their knowledge and skills have improved following the training. For example, now they have acquired the habit of washing their hands with soap and brush before performing a delivery and use the birth kit for conducting a safe and clean delivery. "We now fill the mother cards during ante-natal period and hand them over to the concerned LHW." These completed "mother cards" were available in health facilities. Trained TBAs are not only providing antenatal care but are also becoming instrumental in developing a useful health information system. An overwhelming majority of women, particularly in rural Sindh, felt that TBAs were the only available and accessible resource to them. In focus group discussions, village women repeatedly stressed that the trained TBAs were not only more skilled, but were also more attentive to their complaints. Clearly, training seemed to have brought about a behavioral change in the TBAs and improved the relationship between them and the clients. The TBA training, in short, was creating positive changes in the quality of services available and accessible to the vast majority of women, especially in rural areas.

The study has also brought forward the most pervasive problems of the health care system in Pakistan -lack of women health professionals in first level health centres and inadequate technical facilities in these centres to cater to the basic emergency obstetric needs. Villagers' most common complaints were that "once we reach the health centre, there is no one that we can go to. It is not possible for us to see a male physician. Even if we find a female doctor (or health technician), what can she do? There is no drug, no facility.

## **Discussion**

The study demonstrated that the TBAs play a significant role in the maternal and child health care delivery system. It is apparent that given the reality in much of Pakistan, TBAs are likely to continue to be a major resource for the foreseeable future. The training provided by the FHP to the TBAs had greatly enhanced their knowledge in identifying high-risk pregnancies at an early stage so as to refer them to the health facility. The training also improved their skills in conducting "safe and clean" delivery and providing necessary counseling to mothers on such issues as post-natal care, vaccination and colostrum. The safe delivery kits given to the TBAs appeared to have evolved as a status symbol for them easily recognizable by the communities.

However, TBA training must be accompanied by an effective referral system and enriching the first level health centres with female medical/paraprofessional personnel and facilities for essential obstetric emergencies. Studies have repeatedly shown that postpartum hemorrhage and eclampsia are the two leading direct causes of maternal deaths in Pakistan<sup>5-7</sup>. In other words, TBA training (other such attempts) will produce optimum results only when first level health centres are strengthened with female medical/paraprofessional personnel and essential facilities to deal with the most basic obstetric

necessities of women. Without such a system improvement, TBA training will fail to achieve its full potential. It is evident that TBA training is a wise investment. The reality of rural communities in Pakistan makes it imperative that TBAs, with appropriate training, are used as an important health care resource. This is consistent with the observation made by The World Development Report 1993 that the most cost-effective means of providing essential health care is through a combination of public health interventions and a package of essential primary care services most of which can be provided by nurses and midwives<sup>8</sup>. The World Health Assembly in 1992 passed a resolution (WHA Resolution 45.5) that called on member states to strengthen their “nursing and midwifery in support of strategies for health for all.” The resolution stressed that without further strengthening of nursing and midwifery services, the goal of health for all could not be achieved<sup>9</sup>. A subsequent international study concluded that only a few WHO member states took concrete steps in fully implementing the WHA Resolution 45.5<sup>10</sup>. Strengthening the TBA services through additional training would be a step in the right direction and partially fulfill Pakistan’s commitment to the WHA Resolution 45.5. With appropriate training, continuing education, an effective system of linkage with the local health facilities and availability of essential emergency obstetric care, TBAs can play a very important role in the delivery of maternal and child health care in Pakistan. Health care reform strategies being contemplated by the government must take into account the realities of rural communities and develop appropriate policies and plans to better use this traditional resource.

## **Acknowledgements**

A team of social scientists and community health workers from the Department of Community Health Sciences of the Aga Khan University, carried out the assessment of the Family Health Project. A number of faculty members and staff at the Community Health Sciences Department, including Ms. Kausar S. Khan, Drs. Syed Muhammad Israr, Muhammad Afzal Mahmud, Shehia Zaidi, Dr. Azra Mubarak and others contributed to the FHP assessment study. The authors acknowledge the contribution of all these faculty members and staff. Professor Ali Muhammad Ansari, an eminent health professional and retired Director General Health, Sindh contributed immensely to the conceptualization and implementation of the Family Health Project and in designing the assessment study. The authors are indebted to him. Dr. Asma Fozia Qureshi, a senior Professor at CHS was kind enough to review an earlier draft of the paper and suggest improvements. Her valuable contribution is respectfully acknowledged.

## **References**

1. Fikree, F. ‘Maternal Mortality in Different Pakistani Sites: Ratios, Clinical Causes and Determinants’ *Acta. Obstet. Gynecol. Scand.*, 1997; 76: 637-45.
2. The Human Development Centre. *Human Development in South Asia 1998*. Karachi, Oxford University Press, 1998.
3. UNDP. *Human Development Report 1999*. New York, Oxford University Press, 1999.
4. UNICEF. *The State of the World’s Children 1997*. New York, Oxford University Press, 1997.
5. Samad NJ. “Hemorrhage - a major killer in obstetrics”, in S. Zaidi ed. *Maternal and perinatal health*. Karachi, Proceedings of Workshop, Twel Publishers. 1992, pp. 57-62.
6. Bashir, A. “Maternal Mortality 1990: Results from a Survey of Faisalabad Metropolitan.” *Gynecologist*, 1993; 3: 75-85.
7. Jafarey SN. “Maternal mortality in Pakistan: an overview”, in S. Zaidi ed. *Maternal and perinatal health*, Karachi, Proceedings of Workshop, Twel Publishers, 1992, pp. 21-31.
8. World Bank. *The World Development Report 1993: Investing in Health*. Washington, Oxford

University Press, 1993.

9. Brien Pallas, L., Hirschfeld, M. Islam, A, et al. *Strengthening Nursing and Midwifery: A Global Study*. Geneva, World Health Organization, 1997.

10. Brien Pallas, L., Hirschfeld, M. Islam, A, et al. "An Evaluation of WHA Resolution 45.5: Health Human Resource Implications". *Can. J. Nurs. Res.*, 1999;3 1:51-68.