Studies
in
Population and Development

# No. 04-03
# Role of Obstetric Care Practitioner in the Management of Obstetric Emergencies

Mary Foss
Alok Ranjan [Chaurasia]

Shyam Institute

# Role of Obstetric Care Practitioner in the Management of Obstetric Emergencies

**Mary Foss**
**Alok Ranjan**

## Introduction

It is now universally recognised that the most effective strategy for reduction in the risk of death due to complications of pregnancy and delivery is to provide emergency obstetric care services (EmOC) within the reach of all pregnant women (World Health Organization, 1999). There are two reasons for the universal acceptance of this strategy. First, majority of female deaths due to complications of pregnancy and delivery are due to selected emergency situations that emerge after the onset of labour and immediately after the delivery. The second reason is that it is generally not possible to predict these emergencies well in advance so that appropriate care can be arranged well in time. There is however a gap of a few hours between the onset of an obstetric emergency and death. If adequate attention and care is provided to the woman in this period, she survives otherwise death is inevitable. This means that nearer the emergency obstetric services are to the woman in emergency, the greater is the probability that the woman receives necessary care ad treatment and greater is the probability that she survives. In other words, the time elapsed in making available emergency obstetric care services to the woman in distress is crucial in preventing majority of the maternal deaths. In a situation where majority of deliveries occur at home and are conducted either by the members of the family or by untrained persons or by minimally trained traditional birth attendants, ensuring that the emergency obstetric care is available to the women in obstetric emergency in the shortest possible time is perhaps the most important challenge to the prevention of unwanted maternal deaths and reduction of maternal mortality.

The above considerations constitute the rationale for including availability and use of emergency obstetric care services as one of the integral components of the safe motherhood programme. Availability and use of emergency obstetric services has been identified as one of the important process indicators of the safe motherhood programme (Maine et al, 1997).

Emergency obstetric care services have been divided into basic emergency obstetric care services and comprehensive emergency obstetric care services on the basis of 'signal functions' (Maine et al, 1997). A short well defined list of 'signal functions' is very useful in assessing the availability of emergency obstetric care services. There are eight 'signal functions' that have been suggested to assess the availability of emergency obstetric care services:

1. Antibiotics (injectable)
2. Oxytocics (injectable)
3. Anticonvulsants (injectable)
4. Manual removal of placenta
5. Removal of retained products
6. Assisted vaginal delivery
7. Cesarean section
8. Blood transfusion.

If any health care facility provides the first six 'signal functions' then the emergency obstetric care services being provided by that facility are termed as the basic emergency obstetric care services. If any health care facility provides all the eight 'signal functions' then the emergency obstetric care services being provided by that facility are termed as comprehensive obstetric care services. The difference between the

basic and the comprehensive emergency obstetric care services is the capacity to transfuse blood and perform surgery.

The short list of 'signal functions' given above does not mean that other functions are not important in providing care and support to women in distress. For example, at a health facility where basic emergency obstetric care services are available, administration of intravenous fluids can be extremely helpful in stabilizing the condition of the woman in distress before referring her to a health care facility where comprehensive emergency obstetric care services are available. Similarly, in a health care facility where comprehensive emergency obstetric care services are available, a number of other capabilities are necessary to perform surgery, the most important of which is administering anaesthesia. Obviously, if anaesthesia facilities are not availability, the availability of comprehensive emergency obstetric care services is of little use to those women in distress who require an immediate cesarean section.

The basic emergency obstetric care services have further been expanded to include cervical suturing, abortion and vacuum extraction. This expanded set of services has been termed as expanded basic emergency obstetric care services to distinguish it from the conventionally defined basic emergency obstetric care services.

## Current Approach to Emergency Obstetric Care

In India, the approach that is being currently adopted for providing emergency obstetric care is based on the availability of the specialist in obstetrics and gynaecology. A specialist in obstetrics and gynaecology is the one who has undertaken post graduation in the discipline of obstetrics and gynaecology after completing graduate study in medicine and surgery. The current policy of the government does not allow even a graduate medical doctor to do a cesarean section operation or an abdominal surgery even in emergency. This is in quite contrast to a number of countries in Africa and Latin America where graduate medical officers are allowed to do cesarean section operation after some practical training (Mavalankar, 2002). In theory a graduate medical doctor who is a general duty officer in the public health care delivery system can provide such emergency obstetric care as manual removal of placenta, suturing tears, assisted vaginal delivery, etc. Similarly, as a policy, anaesthesia training is given to doctors only with a view to provide very safe anaesthesia. This policy, however, very seriously limits the access to emergency obstetric care services, especially the comprehensive emergency obstetric care services.

The aforesaid specialist based approach of providing emergency obstetric care services to women in obstetric distress has a number of limitations which make this approach more or less ineffective in addressing the problem and in preventing unwanted maternal deaths. First, there is a paucity of specialists in obstetrics and gynaecology in a State like Madhya Pradesh. Because of the policies of the government pursued over the last 50 years, the scope for having specialisation in obstetrics and gynaecology has remained extremely limited. This specialisation is allowed to medical graduates only after a rigorous, at least, two years post graduate study in a medical college. In Madhya Pradesh, no new medical college has been established during the 30 years between 1970 and 2000. Similarly, there has been no increase in the number of seats available for post graduation in the existing medical colleges in the State during these 30 years. After the year 2000, one medical college has been started in the State in the private sector but this

college is yet to be recognised for post graduate education. Given the current scenario of the supply of specialists in obstetrics and gynaecology, it is very much doubted that this specialists based approach of reducing maternal mortality will really be effective in a State like Madhya Pradesh.

The specialist based approach of emergency obstetric care also requires a very comprehensive support set up in terms of support staff, instruments, equipments, infrastructure and facilities for providing emergency obstetric care. Availability of a fully functional operation theatre is a must in this approach. Similarly, availability of the anaesthetist is also necessary for the provision of emergency obstetric care services under this approach, especially the comprehensive emergency obstetric care services. Often, this comprehensive set up is not available even at the district hospital level, not to think of the community health centres which have been designated as the first referral units under the Reproductive and Child Health Programme of the Government of India and other lower level health care delivery institutions. A recent review of the availability of emergency obstetric care facilities in five districts of Madhya Pradesh highlights this fact in sufficient detail (Chaurasia et, al 2003).

In view of the above limitations of the existing approach towards emergency obstetric care, the availability of emergency obstetric care services in Madhya Pradesh are extremely limited and the impact of these services on the risk of death due to complications of pregnancy and delivery minimal. There are some districts in the State where comprehensive emergency obstetric care services are not available even in whole of the district. Although districts in Madhya Pradesh are very uneven in terms of the size of the population as well as in terms of geographical area, yet, according to the 2001 population census, a district in the State has, on average, a geographical area of more than 6800 square kilometres and a population of more than 1.34 million. Obviously, availability of comprehensive emergency obstetric care services in the district hospital only carries little meaning in terms of the provision of these services to all pregnant women of the State which is essential for preventing most of the maternal deaths. Compared to the comprehensive emergency obstetric care services, the availability of basic emergency obstetric care services is slightly better in the State but not satisfactory by any degree. The fact remains that majority of the population of the State remains devoid of even the basic emergency obstetric care services which are critical to reducing the risk of death due to complications of pregnancy and delivery.

Under the Reproductive and Child Health Programme of the Government of India, the Government of Madhya Pradesh is currently focussing on the development of the community health centres as the first referral units in an attempt towards addressing the problem of exceptionally high maternal mortality. A community health centres caters the health and family welfare needs of a community development block which, according to the 2001 population census, had a population of approximately 0.142 million, on average. Clearly, developing all community health centres as the first referral units for providing emergency obstetric care services may not help much in having a significant impact on the levels of maternal mortality in the State simply because the population covered by a community health centre is too large to cater all emergency obstetric care needs of the people. It is an altogether different matter that the Government of Madhya Pradesh has so far been able to establish only 223 out of the required 313 community health centres. Most of the community health centres that have so far been established in the State have serious deficiencies in terms of basic

infrastructure and facilities, instruments and equipments and staff with the result that the use of emergency obstetric care services in these units is extremely limited.

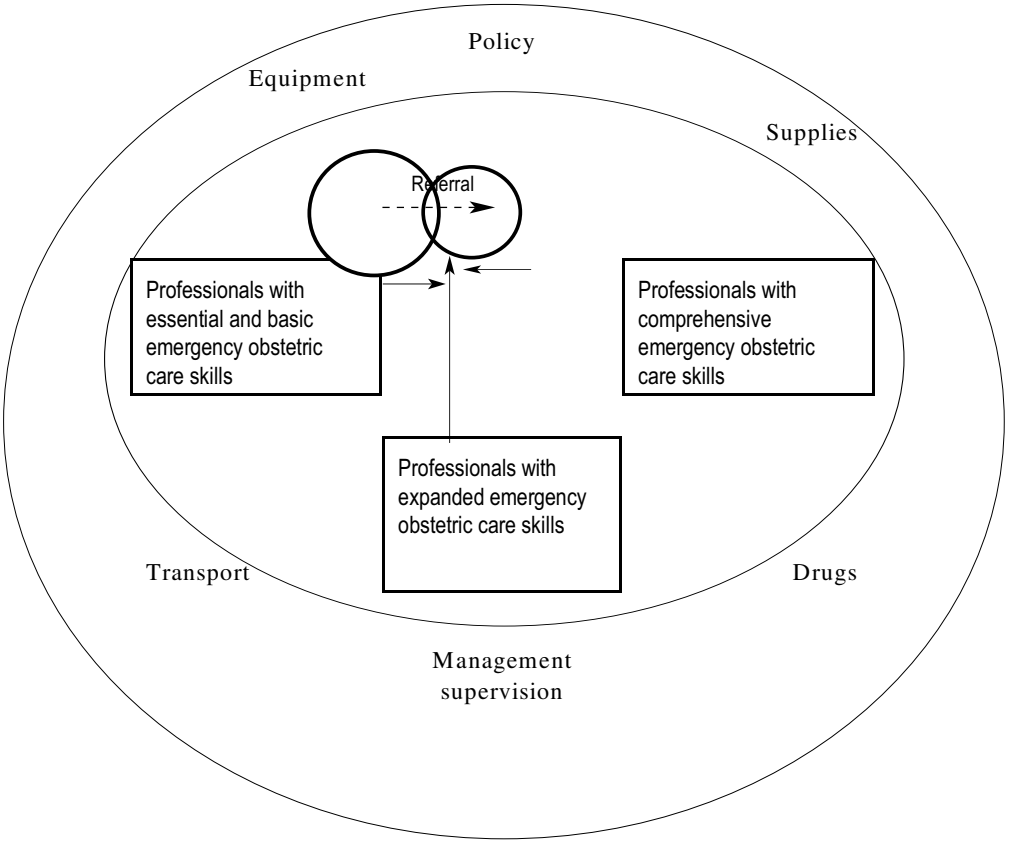
A historical account of obstetric care services in India, both before and after Independence has been given by Bose and Prakasamma (1998). They have highlighted the role of Auxiliary Nurse Midwife (ANMs) as obstetric care providers in reducing maternal mortality and improving women's health status. However, over time, ANMs have lost their obstetric care skills to target-oriented family planning programmes, as they were entrusted with a range of responsibilities in addition to their primary responsibility of providing obstetric care to the rural population. Bose and Prakasamma have also observed that the primary health centres have not been able to provide the required supervisory support to the sub-centres and villages due to a lack of qualified obstetricians or lady doctors who could handle obstetric emergencies. They argue that provision of skilled professional obstetric care practitioners or providers with training in life-saving procedures, and facilities to implement these, would be more practical in the long run, since an obstetrician for every primary health care seems an unlikely possibility in the present situation (Bose and Prakasamma, 1998).

## Search for the Alternative

The point that needs to be stressed here is that the goal of the provision of emergency obstetric care services to all pregnant women is difficult to be achieved through the current strategy of providing specialist-based, institutional emergency obstetric care services through community health centres and district hospitals only. It has been argued that the presence of an appropriately skilled obstetric care service provider at the childbirth, backed up by transportation facility in case emergency referral is required, is perhaps the most critical intervention for making motherhood safer (Starrs, 1997). International evidence also suggests that, barring a few exceptions, in almost all countries where more than 80 per cent of the births are attended by an appropriately skilled obstetric care provider, the risk of death due to complications of pregnancy and delivery has been estimated to be less than 200 maternal deaths for every 100,000 live births (Bergström and Goodburn 2001). The evidence indicates that timely access to quality obstetric care and an optimal professional mix is critical to preventing majority of the maternal deaths. This optimal professional mix may be defined as:

- Specialists in Obstetrics and Gynaecology for comprehensive emergency obstetric care. They may provide comprehensive emergency obstetric care services generally at the district and civil hospital level and preferably at the community health centre level.
- Graduate doctors for expanded basic emergency obstetric care to be provided at the primary health centre level, although ensuring availability of expanded basic emergency obstetric care services at the primary health centre level is difficult at the moment.
- Skilled obstetric care practitioners for essential obstetric care services and for basic emergency obstetric care services. These skilled obstetric care practitioners may be made available at the community level and they should be capable of providing basic emergency obstetric care services not in institutional settings but especially in the out-of-hospital settings.

Figure 1
Classification of skilled obstetric care




The scope for the skilled obstetric care practitioner to provide essential and basic emergency obstetric care services in Madhya Pradesh is substantial. Madhya Pradesh is the second largest State of India in terms of geographic area but only seventh largest in terms of population according to the 2001 population census. As the result, the population density in the State is only about 196 persons per square kilometre against the national average of about 324 persons per square kilometre (Government of India, 2001). Moreover, a very large part of the State is dominated by the tribal population which has its own settlement patterns; the tribal population generally lives in small settlements scattered over large forest areas and are generally beyond the reach of the traditional, institution based health care service delivery system. It has also been estimated that the average population of a village in Madhya Pradesh is well below the national average and a very large proportion of the villages in the State had a population less than 500 inhabitants at the 2001 population census. In such a situation, creating institution based obstetric care services does not appear to be a cost effective solution. The only way out is to evolve a hierarchical service delivery structure in which the skilled obstetric care practitioner at the level of the community takes care of normal deliveries and basic obstetric emergencies, the graduate doctor at the primary health

centre and even at the community health centre takes care of expanded basic emergency obstetric care services and specialists in obstetrics and gynaecology provide comprehensive emergency obstetric care services at the district hospitals.

Critical to the above thinking is the availability of a properly trained, thoroughly competent and skilled obstetric care provider at the level of the community. As an example, a properly trained competent and skilled obstetric care practitioner working at the community level can contribute to preventing deaths due to post partum haemorrhage, a widely common obstetric complication after delivery, in the following manner:

- identifying if the delivery process is deviating from the normal.
- understanding the factors that are influencing the normal delivery process.
- recognizing, as early as possible, indications that suggest that abnormal delivery process and taking appropriate preventive measures.
- use the evidence to support the procedure to manage uterine bleeding.
- refer as soon as possible for medical support with the support from the community.

To be effective in the community level settings, these obstetric care practitioners must be able to provide both 'evidence based' as well as 'competency based' obstetric care as only this will ensure that the knowledge can be put into practice to prevent maternal deaths and reduce the risk of deaths due to complications of pregnancy and delivery. The evidence based practice may be defined as 'the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients (Sackett et, al 1997). Competency based practice, on the other hand, is defined as '.....the ability to practice safely and effectively without supervision' (United Kingdom Central Council of Nursing and Midwifery, 1992). To be effective, competency requires a greater understanding of the social, professional and ethical environment within with the obstetric care practitioners are supposed to work so that they have the confidence to perform the task in any situation. Competency and confidence requires that the obstetric care providers must maintain their knowledge and skills. This is possible only when these skilled obstetric care practitioners, after initial comprehensive training, are provided regular opportunities to sharpen their skills and update their knowledge. At the same time, in order to ensure that these obstetric care practitioners are able to provide high quality care in emergency situations, it is necessary to create an enabling environment which provides these practitioners with evidence based protocol to work with.

According to the World Health organization, skilled obstetric care practitioner refers exclusively to people with obstetric care skills who have been trained to proficiency in the skills necessary to manage normal deliveries and diagnose, manage or refer complications. The skilled obstetric care practitioner must be able to manage normal labour and delivery, recognise the onset of complications, perform interventions that are absolutely necessary, start treatment and supervise the referral for interventions that are beyond her or his competence or not possible in a particular setting. Here, obstetric care skills are defined as the set of cognitive and practical skills that enable the individual to provide basic health care services throughout the period of the perinatal continuum and also to provide essential and basic emergency obstetric care including life saving measures whenever needed. Thus a skilled obstetric care practitioner is not

just a provider who has been trained at some point in time to perform a set of skills. Being a skilled obstetric care practitioner has a number of implications:

- Having a certain level of skills
- Being technically up to date on the latest evidence based skills
- Maintaining practice in using these skills
- Having current proficiency in these skills.

A characterisation of different categories of obstetric care and their linkages in shown in figure 1. It is obvious that the traditional birth attendant cannot be characterised as the skilled obstetric care practitioner. As such, the current emphasis of the Government of Madhya Pradesh on training of traditional birth attendants may not led to significant reductions in the risk of death due to complications of pregnancy and delivery and in preventing maternal deaths to a substantial extent. There is now ample evidence to suggest that training in essential obstetric care alone is not sufficient to reduce maternal mortality. This, however, does not mean ignoring the role of traditional birth attendants in providing essential obstetric care to the community. In fact, the task of the provision of obstetric care can be divided between the traditional birth attendant and the skilled obstetric care practitioner. The traditional birth attendant may bear the responsibility of clean delivery, clean cord care and other post-partum care of the mother and obviously the new born while the skilled obstetric care provider may be responsible for essential and, if necessary, basic emergency obstetric care services.

The above arrangement is specifically suited in Madhya Pradesh because of the fundamental characteristics of the traditional birth attendants in the State. The traditional birth attendant in the typical rural setting is an illiterate woman preferably in the age group 35-45 years and belongs to the low caste which are untouchables in the Indian social system. Conducting delivery is the traditional profession of this community and the woman invariably learns these skills from the elder women of the family who were involved in the business in their prime days. In majority of the situation, she is called to cut the umbilical cord and dispose the placenta. In most of the situations, she has nothing to do with the woman and the delivery process as the process is normal in nine out of every ten deliveries. In case of emergencies, her role is extremely limited because of her poor knowledge and skills and because of her very low status in the society. Her role is extremely limited - cutting the cord and disposing the placenta. The fact is that the rest of the delivery process is handled and managed by the members of the family.

The role of the traditional birth attendant during the antenatal period is also extremely limited and contributes little to avoiding the obstetric risk. Most of the traditional birth attendants come from the lowest class of the India society. As such, they are normally not allowed to examine and physically check the pregnant women. In most of the situations these traditional birth attendants make very casual enquiry with the pregnant woman and elder females of the family about the problems of the pregnant woman and gives some suggestions and advice that may or may not be accepted by the woman and her family members. It is therefore naive to presume that the traditional birth attendant, even if trained properly, is really in a position to provide essential and basic emergency obstetric care services that can help in preventing maternal deaths. Obviously, there is an urgent need of a person who is more educated, more informed, more skilled and more articulate than the traditional birth attendant and who is more effective in influencing the decision making at the society level to meet the obstetric

care needs of the people both essential as well as emergency. These services can be provided only by an skilled obstetric care practitioner who is groomed for the purpose.

## Initiatives in Madhya Pradesh

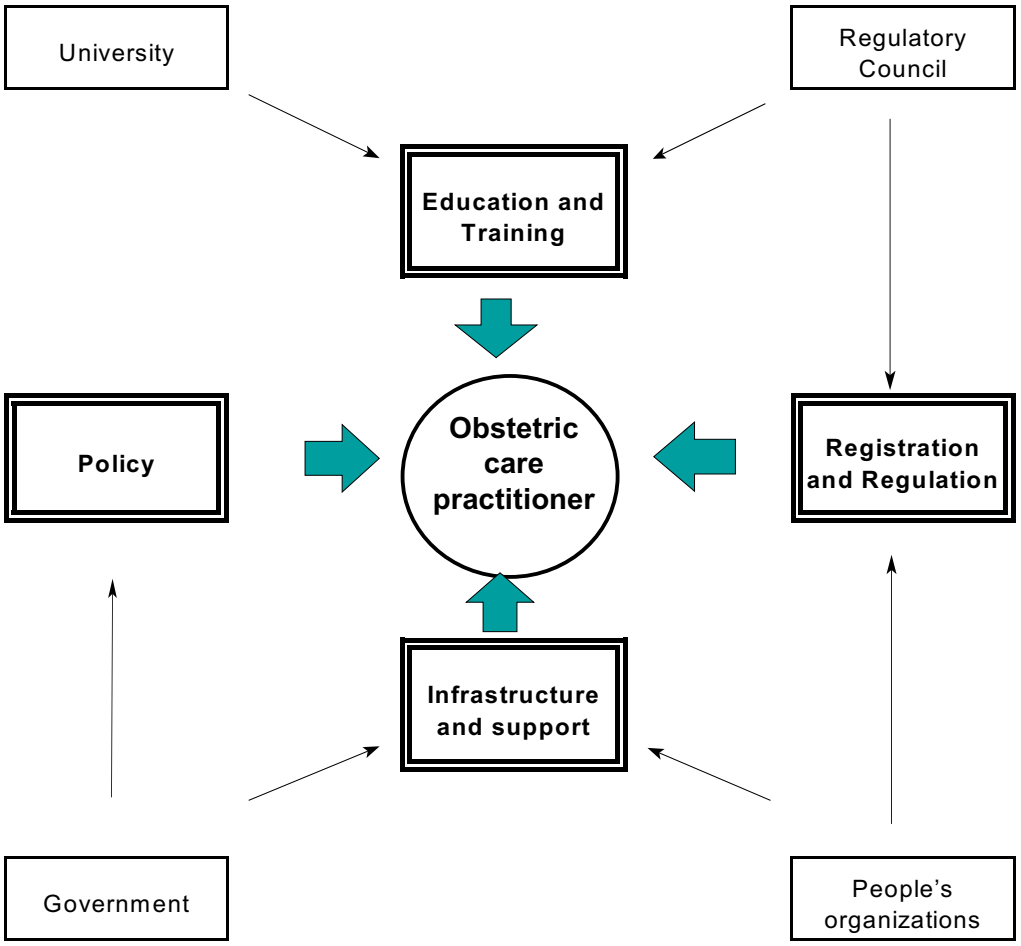
The need for having an skilled obstetric care practitioner to meet the essential and basic emergency obstetric care needs of the people of Madhya Pradesh was first expressed in a seminar on the quality of care in maternity services (Government of Madhya Pradesh 1999). It was stressed during the seminar that the current approach of providing minimal training to traditional birth attendants might not be effective in reducing the risk of death due to complications of pregnancy and delivery and in preventing maternal deaths because of a number of factors most of which are already known. The general opinion, during the seminar, was that the traditional birth attendants could, at best, be trained to conduct 'clean' deliveries in typical rural settings not the 'safe' deliveries. The seminar also observed that, at present, facilities for education and training in the field of obstetric care were almost non-existent in the State.

The seminar on the quality of maternity services was followed by a workshop on strengthening midwifery services in Madhya Pradesh in the year 2002 which was organized by the Department of Public Health and Family Welfare, Government of Madhya Pradesh and RCVP Noronha Academy of Administration and Management, the apex training and research institution of the State government (Government of Madhya Pradesh 2002). The workshop discussed at length the issue of strengthening midwifery services in the context of preventing maternal deaths. The workshop observed that

- maternal health care services in general and obstetric care services in particular in Madhya Pradesh were far from satisfactory and they required a re-engineering to ensure accelerated reduction in maternal mortality in the State and substantial improvements in the health status of women.
- there was a felt need of a professionally competent and adequately skilled obstetric care service provider who must be able to provide necessary supervision, care and advice to women prior to, and during pregnancy, labour and post partum period, to conduct deliveries on her own responsibility and to care for the new born.
- the care that the obstetric care practitioner may provide should include preventive measures, detection of abnormal conditions, procurement of medical assistance and execution of emergency measures in the absence of medical help.
- in order to build up the community capacity to address its own maternal health care needs, attention must be focussed on infrastructure, human resources and regulatory mechanism.

The workshop suggested that institutional support to obstetric care practitioners was critical to their effectiveness in reducing maternal mortality. In this context, the workshop evolved and adopted an institutional framework is given in Figure 2. According to this framework, improving the availability and provision of obstetric care services through the obstetric care practitioner should be the collective responsibility of the government, educational institutions like Universities, and the democratically constituted organizations of the people which represent the community.

Figure 2
Institutional framework
for strengthening obstetric care services




Following the workshop on strengthening midwifery services in Madhya Pradesh, the Government of Madhya Pradesh constituted a Task Force on Midwifery Education in Madhya Pradesh under the chairmanship of the Vice Chancellor of Devi Ahilya University, Indore. The Task Force has made the following recommendations in its report which has been approved by the State government (Government of Madhya Pradesh 2002a):

- The discipline of midwifery should be separated from the nursing discipline and a separate cadre of 'midwife practitioner' should be created within the public health care delivery system to effectively address the issue of the provision of essential and basic emergency obstetric care to the people.
- Government of Madhya Pradesh should take initiative to recognize midwife as a health and family welfare service practitioner. It is

suggested that the State government should constitute Midwifery Council through appropriate legislation for registering midwives as health and family welfare service practitioner and for regulating the midwifery services.

- Government of Madhya Pradesh should take initiative in establishing a comprehensive midwifery education and skills development programme. This programme must strive for academic and professional excellence so that midwifery services of the highest quality are made available to the people. In this context, a 3-year graduate programme in midwifery should be instituted in the State so as to meet the demand of well trained, thoroughly competent and highly skilled obstetric care providers in the community.
- Government of Madhya Pradesh should launch a comprehensive skills development programme for female health workers and females health assistants of the public health care delivery system focussed on the provision of essential obstetric care services.

Following the recommendations of the Task Force, the Government of Madhya Pradesh is currently working towards legislating an Act that will facilitate the constitution of Madhya Pradesh Council of Obstetric Care Practitioners. The constitution of the Council is expected to facilitate establishment of the university based education and training programme in obstetric care. It is expected that promulgation of the Act and starting of education and training in obstetric care will provide the necessary enabling environment for strengthening and expanding obstetric care services right up to the community level in the State which are critical to an accelerated reduction in the risk of death due to complications of pregnancy and delivery and in preventing the unwanted maternal deaths.

## Conclusions

The obstetric care practitioner or the midwife may be perceived as an expert in normal birth and a person who provides competence and expertise to obstetric care services, especially in the out of hospital settings. The education of the practitioner provides her with the knowledge to understand the normal physiological processes and her clinical work with women gives her a unique insight into normal childbirth. While the focus of the obstetric care practitioner is on the normal process, she is also required to provide preventive measures in case of childbirth deviating from the normal process (World Health Organization, 1992). The success of the practitioner lies in identifying those who are at the potential risk and referring the women for expert care rather than dealing with life threatening situation in an unfavourable environment. It has also been envisaged that the obstetric care practitioner must be able to detect abnormal conditions and execute emergency measures in the absence of the medical help (World Health Organization, 1992). It is obvious that the support of the community and the system is necessary for the obstetric care practitioners to prevent maternal deaths.

Critical to the effectiveness of the obstetric care practitioner or the midwife is her education and training. The education and training to obstetric care providers must be able to develop the ability to perform her task in a safe and competent manner. The application of the best evidence available to the practice situation will not only help the

obstetric care practitioner in establishing herself among the masses but will also give the women at large the best chance of survival.

## References


Bose Prakasamma (1998) Midwifery in India: Past, present and future. *India Journal of Nursing and Midwifery*, 1(3):5-12.

Bergström S, Goodburn E (2001) The role of traditional birth attendant in the reduction of maternal mortality. In De Brouwere, Wim Van Legerghe (eds) *Safe Motherhood Strategies: A Review of the Evidence*. Antwerp, Studies in Health Services Organizations and Policy, 17.

Chaurasia AR, Gulati S, Pandey MK, Upadhyaya P, Verma PK (2003) Emergency obstetric care facilities in Madhya Pradesh. Bhopal, Population Resource Centre Madhya Pradesh, RCVP Noronha Academy of Administration and Management, Government of Madhya Pradesh. Working Paper No. 3 of 2003.

Government of India (2001) *Provisional Population Totals. Census of India 2001. Series 1, India.* New Delhi, Registrar General of India. Paper 1 of 2001.

Government of Madhya Pradesh (1999) *Report of the Workshop on Quality of Care in Maternity Services*. Bhopal, Madhya Pradesh Academy of Administration.

Government of Madhya Pradesh (2002) *Report of the Workshop on Strengthening of Midwifery Services in Madhya Pradesh, India*. Bhopal, Department of Health and Family Welfare and RCVP Noronha Academy of Administration.

Government of Madhya Pradesh (2002a) *Report of the Task Force on Strengthening Midwifery Education in Madhya Pradesh.* Bhopal, RCVP Noronha Academy of Administration and Management.

Maine D, Wardlaw TM, Ward VM, McCarthy J, Birnbaum A, Akalin MZ, Brown JE (1997) *Guidelines for Monitoring the Availability and Use of Obstetric Services*. New York, United Nations Children's Fund.

Mavalankar DV (2002) Policy and management constraints on access to and use of life saving emergency obstetric care in India. *Journal of American Women's Medical Association*, 57(3): 165-167.

Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson CS (1997) *Evidence Based Medicine: What It Is and What It Isn't*. Edinburgh, Churchill Livingstone.

Starrs A (1977) *The Safe Motherhood Action Agenda: Priorities for the Next Decade*. New York, Inter-agency Group for Safe Motherhood and Family Care International.

United Kingdom Central Council of Nursing and Midwifery (1992) *Fitness for Practice*. London, United Kingdom Central Council for Nursing and Midwifery.

World Health Organization (1992) *Definition of Traditional Birth Attendant: Joint WHO/ICM/FIGO Statement*. Geneva, World Health Organization.

World Health Organization (1999) *Reduction of Maternal Mortality: A Joint WHO/UNFPA/UNICEF/World Bank Statement*. Geneva, World Health Organization.