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**PARAMEDICS IN MR PRACTICE :  
A FEASIBILITY EVALUATION**

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# **PARAMEDICS IN MR PRACTICE: A FEASIBILITY EVALUATION**

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## **ABSTRACT**

This paper explores the feasibility of paramedic MR service providers in India. An effort has been made to compile experiences of paramedic MR service providers from developed as well as developing countries. The case of Bangladesh has been considered in particular because of its similarity to India with regard to socio-cultural systems, bureaucracy, concerns for population rise, health care system, women's general status & health status. Based on these experiences, a feasibility exercise has been suggested for India. The cost-effectiveness in medical and social terms is important while considering this option. MR as a method of abortion in early phases of pregnancy clearly offers women, especially rural women, more choices for fertility control/reproductive health care. The short term as well long term benefits may outweigh the perceived risks involved through non-coercive and woman-oriented means.

However, benefits of paramedic MR service providers will be realised only if a workable 'evaluation and monitoring system' is developed and implemented. Maintaining the quality of care becomes a prime responsibility of all those involved. Besides technical, financial and human power related factors, motivation & intention for conducting MR and the commitment to self-help approach will play a major role in MR training and its delivery.

## **INTRODUCTION & BACKGROUND**

The prime concern behind feasibility evaluation of paramedic conducting MR is to improve women's access to quality abortion care. Inadequate number of abortion care providers and skewed distribution of the available ones is one of the major obstacles in women having access to safe abortion care. Rural India suffers all the more. Not many qualified medical professionals feel attracted to establish their private practice in rural areas. The public health care system despite its outreach has not been able to keep up 'quality care'. However, the public health care delivery system in India provides a good network of grassroots health care workers, such as, Community Health Workers, Auxiliary Midwives (ANMs), trained Traditional Birth Attendants (TBAs). They have been mainly involved in reproductive health care which is extraordinarily overshadowed by family planning services. The paramedic MR providers, therefore, could be explored as a potential alternative to attend this particular aspect of 'poor access to abortion care'.

To understand feasibility of involving paramedics for conducting MR, a few of the following questions need to be considered - (1) What are the experiences of other countries where paramedics are involved in MR practice and how do they differ in developing countries & developed countries?, (2) How will it enhance women's access to abortion & health care services?, (3) What are the risks of involving paramedics in conducting MR? What are the advantages and disadvantages?, (4) Will it be woman-centred and woman-friendly ?

The review of literature on MR in last twenty five years highlights the concern of medical professionals, health activists, legal experts, research funders and agencies, population control lobby and social scientists regarding difficult access to abortion care service by adequately trained personnel. They suggest involvement of paramedics in MR service delivery to enhance an outreach. Studies to examine efficacy of the MR technique and paramedic MR service providers were taken up in parallel. These studies documented success stories of those trained as physicians' assistants in

abortion in developed and developing countries. Experiences of grassroots level paramedic MR providers in Bangladesh are also encouraging. The positive experiences of women's group practicing Menstrual Extraction too are worth noting for their unique self-help approach.

It is interesting to note that most of the participants in the MR conference held in Honolulu in 1973 agreed that paramedical workers could be taught to conduct MR, provided there was supervision and surgical back-up for difficult cases. According to International Fertility Research Program (IFRP), one of the US based groups which played an active role in popularising the technique and the concept per se, even auxiliary nurses can be trained to use the MR syringe. These studied impressions gathered at the outset of the MR movement were eventually proved right based on the field experiences conducted with certain riders for caution.

Karman's (1972) study emphasised the non traumatic rationale of MR technique which makes it possible for paramedic to practice MR. In fact, the Karman syringe and flexible cannulae that are being used today were designed by him with this motivation. In this particular study, he communicates his experiences with 45 volunteers who after undergoing the MR training conducted about 560 MR procedures. His communication indicates the close to self-help approach not only while imparting training to the volunteers but also while conducting the procedure. He also laid down the criteria to preclude a paramedic abortion. These include history of previous gynaecological or obstetric complications, any abdominal condition deviating from the normal, obesity sufficient to prevent reliable biannual examination, severe stretch marks suggesting the possibility of poor uterine tonality, any serious health deficiency, evidence of premature aging, overt expressions of hysteria. He emphasised the need for referral availability which could attend to the cases precluded for paramedic abortion. This work done during early seventies was unique in that its approach to the entire range of aspects of MR differed from the one that prevail in the medical education system and medical delivery system. The success of paramedic abortionist was attributed to non-medical indicators of quality of care, which are being talked of even within the mainstream medical care system, now.

The studies carried out at different points of time, at different places and in different set-ups demonstrated that properly trained paramedical personnel could perform the procedure as safely and effectively as physicians. There is no substantial difference between complication rates of medical professionals and paramedicals (Laufe et al, 1974 as cited in Laufe, 1979, Scotti & Karman, 1976; Bhatia et al, 1980; Begum et al 1985 : 61 & Begum et al 1987 : 32-33 as cited in Dixson-Mueller, 1988 : 129-140; OBOS, 1992). MR is safe, involves easy operation and can be performed not only by the doctors engaged in family planning work but also by the general practitioners after some training. (Chaudhuri, 1996). However, the differences of opinions prevailed regarding the degree of training, supervision, restrictions and ancillary facilities that should be required. Some studies have confirmed that not only MR (up to 6 weeks of gestation) but first trimester abortions by vacuum aspiration (VA) could also be conducted as safely and as efficiently by paramedics as by medical professionals. Experiences of advanced self-help groups of women in Western and European countries go beyond this and confirm that even lay women could be trained for successful MR procedures. Self-help approach, voluntarism and feminist perspectives that shape their efforts are the most distinguishing characteristics bringing an unique strength to the health care they provide. The overwhelming success of paramedic MR providers has important implications for women's reproductive health as well as the health care delivery system as a whole.

Success of paramedic MR providers opened new avenues for expanding women's health care services. But simultaneously a word of caution by many researchers needs to be taken seriously so as to maintain the reputation and success of paramedic MR providers. Gynaecologists who were engaged in MR research in early phases stressed the importance of experience to enhance proficiency and success rate of MR procedures. According to Brenner and Edelman (1977) experienced physicians have demonstrated a high success rate. Success rates vary from 90.1% to 100% at different clinics. According to Godlthorp (1977), a gynaecologist at a General Hospital in Lancashire, "With the history and several of the textbook signs of early pregnancy, one becomes surprisingly accurate in

assessing whether the woman is pregnant or not, particularly after examining more and more patients at this stage of pregnancy” (pp : 563). However, he emphasised that supervision of the trainees, though time consuming for seniors, is very important. Goldthorp adds that “Personal inclination and ability to achieve a good rapport with the patient is important. Even though simple, it is not a procedure to be handed to “any” resident.” (pp : 563)

For us, it will be useful to critically evaluate the MR experience of others so as to plan for its adoption through formal channel in India.

The Bangladesh experience rather than any other Western or European, will be more helpful due partly to its similarity to India with regard to socio-cultural, political and administrative systems. The abortion law in Bangladesh is more restrictive in nature and religious sanctions are also stronger.

## **PARAMEDICS IN MR PRACTICE : THE BANGLADESH EXPERIENCE**

**The role (contribution/initiative) of government and outside agencies in promoting MR in Bangladesh :** In its First Five Year plan (1973-1978), government of Bangladesh introduced MR services for the first time in urban family planning clinics and district hospitals. There are four major organisations through which MR service and training requirements in Bangladesh are met today. The Menstrual Regulation Training and Service Program (MRTSP) initiated with the help of Pathfinder Fund in 1978 is now completely supported by the government and has a Special Project status. It is a multi-centred set-up, situated at seven governmental medical colleges located throughout the country and two district hospitals. The Mohammedpur Fertility Service and Training Centre (MFSTC), also referred to as Model Clinic is based at Dhaka and has a Special Project status. Partially supported by the government. The Bangladesh Women’s Health Coalition (BWHC), a non-governmental feminist group offers woman-to-woman services in four urban and two rural clinic in the Dhaka area since 1980. The Bangladesh Association for the Prevention of Septic Abortion (BAPSA) established in 1982 basically to advocates MR. It conducts research on MR and disseminates information, identifies potential MR trainees and publishes a newsletter among other activities.

The various outside agencies who were involved actively in promoting MR movement in Bangladesh from 1978 onwards are Pathfinder Fund, Population Crisis Committee, Ford Foundation (US based), Swedish International Development Agency (SIDA), Sweden. The government offers in-kind type of support to these various programmes which are actively involved in MR service and training provision. The support is generally in terms of space, medicines, or supplies.

The common aim of the Bangladesh government and these programmes/organisations has been to ensure that all lady family planning visitors (LFVs) in government service at the *upzila* level are trained in MR and that in all district health complexes MR trained physicians are available.

**Magnitude of MR in Bangladesh :** MR is widely used as an abortion method in Bangladesh. MR as a means of reducing female morbidity and mortality, associated with indigenous abortion has been part of the government’s health and family planning efforts since 1975. Accordingly about 3,000 doctors and 2,600 LFVs have been trained in techniques of MR. (statistics published by BAPSA in 1986 and extrapolated for yr. 1987, cited in Dixson-Mueller, 1988). There has been consistent increase in number of women who take recourse to MR as a measure of fertility control. From 1975 to 1983, this increase is as large as 13.29 times. (Management Information system, Ministry of Health and Population Control, Bangladesh cited in Tofayel et al, 1983). This is a clear indication that MR has become an increasingly accepted method of fertility control.

The magnitude of MR practice in Bangladesh can be seen from the following statistics that we have been able to avail.

- Since its inception in 1978, about 3, 000 physicians and 2,000 LFVs have been trained in MR at MRTSP.
- In 1986, about 400 doctors and 300 LFVs were trained and about 20,000 MR procedures were conducted at MRTSP centres.
- In another MR service and training centre about 5,000 women obtained MR. It offered training to about 100 doctors and 800 LFVs since 1975.
- A non-governmental feminist group BWHC founded in 1980 which trains only LFVs has trained about 200 LFVs between 1982 to 1987 and offered MR services to about 5,000 women in six of their clinics.

According to Bangladesh Directorate of Family Planning about 70,000 MR procedures are performed per year (Dixson-Mueller, 1988). About 400,000 MR procedures have been recorded since July 1975. The researchers' estimates based on providers interviews in a survey conducted by BAPSA are that a total of about 240, 000 MRs were performed from August 1985 to July 1986. These are considered to be conservative estimates for the reasons that some MR providers may have not been included in the sample and the providers may have underreported.

**Eligibility for MR training and its content :** In Bangladesh the paramedics who are eligible to undergo MR training are LFVs. They are already equipped with the knowledge in (1) general anatomy & physiology,(2) gynaecology & midwifery, and (3) public health. There are four major MR training centres. They are, International Centre for Diarrheal Disease Research, Menstrual Regulation Training and Service Programme (MRTSP), Mohammedpur Fertility Service and Training Centre (MFSTC) and Bangladesh Women's Health Coalition (BWHC). The MR course may be varying in four different training centres but in principle includes review of the basic knowledge and skills, pelvic examination, training to recognise the position of the uterus and its size and to detect the presence of pelvic abnormalities, pelvic inflammation. Trainees are taught to take menstrual histories and to verify them by careful pelvic examination. The signs of empty uterus, such as, gritty sensation, clamping around the cannula due to uterine contractions and the appearance of bubbles in the cannula - at the end of the procedure are emphasised. Cleanliness and asepsis during the procedure were emphasised. They are also trained to counsel woman for contraceptive and to insert IUDs during this training course. The 6-8 mm cannula sizes are required if the MR technique is used beyond 6-7 weeks from LMP. To enable paramedic to deal with these cases are taught to introduce a 4 mm cannula first, followed by progressive introduction of larger sizes, until the desired size (6-8 mm) is achieved. In addition, for procedures performed beyond six weeks, LFPVs are trained to keep an extra syringe ready in case the first one became filled with blood and tissue. When changing syringe they are advised to keep the cannula in-utero. In case a second syringe was not available, LFPVs were also trained to reuse a syringe after it had been emptied of its contents and a vacuum had been created. These precautions were also highlighted by the researchers in early phases of MR even for medical professionals during MR training. They are required to perform 8-10 MRs independently under medical supervision at International Centre for Diarrheal Disease Research. At other training centre - LFVs undergo three weeks training in MR during which they are required to perform 25 MRs. However, it was felt inadequate by the paramedics to gain the required confidence. MRTSP, MFSTC, BWHC now offer refresher training to keep the paramedic updated.

The studies have also shown that MRs are performed by medical professionals in private sector. LFVs too were found to be engaged in private MR practice. Besides other medical personnel and traditional practitioners are also practicing MR without formal training. Observing or assisting in government health facilities or from formally trained doctors were the mode of informal training. According to a BAPSA survey (cited in Dixson-Mueller, 1988) about one third MR providers were trained only informally and shared one-third of the work load of the total MR procedures conducted.

The BAPSA sample of doctors and LFVs reported from their memories only 1 to 2 per cent of all MR cases suffering from complications, the most frequent being incomplete MR, which required re-aspiration of the uterus. About 16 per cent of clients in the survey reported some complications with

**no difference between clients of doctors and LFPVs.** The most frequent complaint was heavy bleeding and/or abdominal pain following the procedure. In a study conducted to assess MR performed by paramedic in rural Bangladesh (Bhatia et al, 1980), it is found that no problems or complications associated with MR were encountered by the paramedics during the procedure. No case required intervention by the physician immediately following MR. The overall complication rate of this series of 212 MRs performed by Lady Family Planning Visitors (LFPVs) was 1.4 per cent (0.94% incomplete evacuation or prolonged bleeding and 0.47% pelvic infection). These are found to be comparable to those reported by other researchers in case of paramedics (Scotti & Karman, 1976) as well as physicians (Edelman et al, 1974).

Besides, the added advantages of medical care in general by paramedics remain unaltered even with regard to MR services. These include, better physical accessibility, more close culturally to the potential users of services, advantages to clients in terms of saving travel time and cost. It is also to be noted that majority of the paramedics are female workforce. Women in general and rural women in specific are more comfortable with female workforce when it comes to reproductive health care. This enhances the possibilities of women seeking such reproductive health care. Thus, we see that the advantages of paramedics getting into MR practice are multifaceted.

Paramedics getting into MR practice has been feasible necessarily because (1) MR is a simple technique and thus easy to learn, (2) it does not need elaborate operation theatre, it could be done with minimal clinical facilities and (3) it can be managed effectively and safely even in absence of electricity and emergency services. The other indirect advantages are (1) paramedics sharing the load of medical practitioners, (2) enhancing women's access to MR services. However, we need to be cautious about the increase in workload of paramedics as it has direct relationship with the quality of care that they provide. Additional workload without incentives will have negative consequences.

### **INVOLVING PARAMEDIC IN MR SERVICE DELIVERY : FEASIBILITY IN INDIA**

In India a large number of paramedics are employed in public health care system. The various factors that need to be taken into account while exploring the feasibility of paramedic MR providers in India are their levels of skills; their willingness to undergo such training and provide MR care to women; the budgetary implications of their training for MR technique; assurance of the back-up and quality referral; and development of evaluation and monitoring system for better results.

The programmatic changes in India regarding MR were suggested way back in 1975 by Dawn and Mullick, the Calcutta based researchers (Dawn & Mullick, 1975).

Will have to see as who all constitute 'paramedics'? Who all are eligible to undergo such a training? Which category amongst the paramedics for MR training would be most cost-effective?

Nurses, Auxiliary Nurse Midwives (ANM), Community Health Workers, Traditional Birth Attendants (TBAs) constitute paramedic force in Indian context. Of these the most eligible could be determined mainly by the levels of skills they have to date and by the level of their involvement in reproductive health care, for instance.

**Prospective eligible paramedics for MR training in India :** Nurses and Auxiliary Nurse Midwives (ANM) can be effectively trained in MR. The former undergo an intensive training for three to four years and ANMs for 18 months<sup>1</sup>. The training for nursing, the bachelor's course and ANM training course covers subjects like Anatomy & Physiology, basic Pharmacology, Sociology, Microbiology, Psychology, Hygiene, Nutrition, Fundamentals in Nursing, domiciliary midwifery, maternity nursing,

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<sup>1</sup> Duration of ANM training was reduced from 24 months to 18 in 1977. (Iyer et al, 1995).

family planning & welfare etc. Nurses and ANM seem to be the most eligible candidate to undergo MR training.

The implications of involving paramedic in MR service delivery will have to be weighed from the point of view of three major actors - women, the users of the service; the paramedics, the service providers; and the doctors, the ones whose skills are going to be shared by paramedics (it is not only off-loading the doctors workload but it also means paramedics acquiring power through expanding their knowledge and skills). Against this background the 'architecture of the training programmes for paramedics' will play a key role in achieving the best possible results. In this regard experiences of self-help groups will be useful.

**Experiences of self-help groups in India :** The self-help groups for women's health have been gaining popularity in India, though only in limited sense and more on experimental basis. The health activists are exploring these alternatives. A few of such experiments are (1) *Sadaphuli*, a Self-help group for Women's Health at *Mahila Sarvangin Uttkarsh Mandal* (MASUM), a community based development organisation in Pune district of Maharashtra, (2) the *Shodhini* network inspired by self-help approach to women's health which is active in Gujrat, Karnataka, Andhra Pradesh and New Delhi, (3) *Sabla Sangh* an urban based group, New Delhi, (4) Deccan Development Society (DDS) in Andhra Pradesh which has a network of large number of local groups of village women. These development initiatives are of integrated nature involving various kinds of programmes for women's empowerment. Women's health has been one of the concerns of these groups.

The self-help approach seems to have been serving more than one purpose. Sustainability, cost-effectiveness, self-reliance, indigenous alternatives and use of herbal medicines, sharing, confidence building & solidarity, non-hierarchical & relationship between the health care service provider and client and between trainers and trainees are few of the salient features of these self-help approach based training programmes.

The trainees are village women who were not necessarily literate. However, their levels of motivations were high enough to sustain through the rigorous year long (varied between 12 - 20 months in different organisations) self-help training in women's health care.

The training programmes adopted a holistic approach while conducting these programmes. Besides training in skills, these programmes focused on feminist orientation while delivering health care to fellow women. The methodology of these training programmes was participatory and process-oriented. Gender sensitisation, politics of health & population, body politics, fertility awareness and sexuality, self-help and self-examination, gynaecological disorders & healing and counselling constituted the self-help training.

Evaluation of the training programme was the process and continued throughout. Self-critique and openness helped to improve upon. The women trained through these programmes are running women's resource centres in their own villages by sharing their knowledge and skills with fellow women and helping them realise their own strengths in the process of empowerment.

The book titled *Na Shariram Na Nadhi* (1995) documents the experiences self-help training at DDS, Andhra Pradesh.

**Exploring the cost-benefit ratio for involving paramedic in MR service delivery :** An exercise to understand and evaluate the existing utilisation pattern of paramedics is required to be undertaken. Data on number of ANMs, Nurses - professionally trained and in-house trained, traditional birth attendants, their basic qualification as of today etc. will tell us about the scope for promotion of paramedic MR providers. The outreach of paramedics and opportunities that women get to interact with these paramedics to take an advantage of early evacuation could be worked out. Their profiles in terms of - period of training, if any, type of experiences, job responsibilities, type of backup and

emergency expertise available, infrastructural facilities available - this exercise will help us to arrive at cost-benefit ratio, viz. : how many women will be served by these paramedics, the proportion of the resources saved by doing so, number of hospital admissions saved, quantum of physician work that is off-loaded etc.

**Involvement of paramedic in MR practice & Quality of care :** Quality of MR care being provided by paramedic will be one of the important determinants of whether it should be advocated. Quality of care is a multifaceted concept which includes medical as well as non-medical indicators. The determinants naturally are the quality of training, the technical/infrastructural facilities that they are provided with and attitudes and temperament of paramedics towards women and women's health. However, the tangible and measurable indicators are rate of complications, competence and the extent of paramedics to manage the immediate complications, successful post-MR contraception for women by informed choice. As stated earlier the complication rates of MR conducted by paramedics are comparable to those of doctors.

Availability of referral and back-up will enhance quality of MR service delivery by paramedic. Besides, the issues regarding quality of MR care by paramedic from public and private health care delivery system will perhaps require separate strategies to deal with. It is necessary that paramedic MR service providers constitute part of the larger health care delivery system so that systemic regulation and monitoring is made possible,

The advantages of MR attributed to non-requirement of elaborate operation theatre and 'office-procedure' nature has the potential for its misuse in absence of effective monitoring and regulation system. Such practices will have to be guarded against so as not to lose on advantages of MR and involving paramedic in MR service delivery.

### ISSUES OF CONCERN FOR DISCUSSION

The experiences world over and specially those in the developing countries regarding paramedics getting into MR practice lead us to consider the option for (a) it has positive implications for public health per se and (b) it will widen women's reproductive choices. While doing so the concerned constituencies need to ponder over the following so as to optimise returns of such policy level changes in the reproductive health care delivery system :

- What are the reservations that the concerned constituencies - health professionals, paramedics, health activists, bureaucrats and policy makers - will have about paramedics getting into MR practice? How could they be resolved?
- Which paraprofessionals will be eligible to get accommodated in this health care delivery system if at all consensus on this is reached among the above mentioned constituencies?
- What should be the training module (duration, content, profile of trainers) that the paramedics will have to get through to enable women to have access to quality care? Emphasise on non-medical indicators of quality of care, such as, interpersonal interactions, empathy with the woman client, respecting woman's decision and dignity while treating her. Self-help approach will have prime role to play while designing and conducting these training modules and training itself.
- What happens to the workload of these paramedics if they are to be providers of MR and allied services? Will it ensure the appropriate incentives - may not be in monetary terms alone but could be in terms of their positions in the hierarchy of medical care system - to the paramedics for off loading doctors of these responsibilities?
- What will be the implications for budgetary allocations for health care services? For example training of the paramedics may mean additional financial burden on the health budgets.
- What will constitute the monitoring and evaluation system to ensure sustained quality of MR service delivery system, especially by providers?



- Given the present poor implementation status in general, what will the scope for a 'self-regulatory' mechanism and its efficacy?

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