

SAFE MOTHERHOOD : APPRAISAL OF PRESENT STATUS IN INDIA

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SUMMARY

As maternal & perinatal mortality rates are still very high in India, present status to achieve safe motherhood in our country has been appraised. Comparison of MMR & PNMR of rural & urban areas of India and western countries has been made. Our MMR & PNMR are 5-300 times & 6-10 times higher respectively than in western countries. Both maternal & perinatal deaths are higher in rural than in urban areas of India. The MMR and PNMR of North Bengal Medical College & Hospital which are highly distressing, have been presented along with nature of ANC, nutritional, economic & educational status of mothers. Causes and prevention of poor outcome for safe motherhood have been highlighted. Apart from MCH care, better transportation and referral system, improvement of socio-economic and educational status of each family of our country should be the fundamental objective to achieve successful safe motherhood.

INTRODUCTION

Since safe motherhood is a birth right of a woman it is necessary to assess critically appraise how far we have achieved safe motherhood in India. Call to initiate safe motherhood and child survival programme was given by World Health Organisation

in 1987 at Nairobi and by FIGO in 1988 at Brazil. In India, National family welfare programme, which includes Maternal and Child health care, was launched in 1975.

It has been estimated by World Health Organisation that 5,00,000 mothers die every year in the world due to pregnancy & delivery related causes & 14 million infants die before the age of five. These are mostly in developing countries.

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As safe motherhood is ultimately reflected in maternal & perinatal morbidity & mortality, an overview of these parameters in different zones of India will give an assessment of the status of safe motherhood in India.

MATERIALS AND METHODS

The maternal & perinatal mortality rates of North Bengal College Hospital, a rural Medical College situated in North-East India during the period of 16 years (1977-1992) have been studied and compared with those of other rural & urban Hospitals of India. The total Indian picture from FOGSI multicentric study (Rao, 1982) has also been compared to the developed Western country figures to assess the present status of safe motherhood in India.

DISCUSSION

In North Bengal Medical College and hospital situated in a rural area, the picture is very distressing. The picture is more or less similar as in other parts of rural India where more than 70% population lives. During the last 16 years from 1977-1992, the MMR in our hospital has been ranging from 2205-2975/1,00,000 live births.

Though this high MMR is due to the fact that it is the only referral hospital in this Zone catering to 5 districts of North Bengal, part of Sikkim, Nepal and Bhutan, still it reflects the present status of available arrangements to ensure safe motherhood in these areas.

At the all India level the MMR varies from 54.82 to 3254.3/1,00,00 births

Table I

M.M.R.

Multicentric study by Rao in 4 zones of India and Western Countries (Dawn, 1992)

Zones	MMR/1,00,000 births
Multicentric study of FOGSI, Rao, 1982	54.82 to 3254.3
West - KEM Hospital & GS Med. College, Bombay, 1983.	300
South - Thanjuvar Med. College Hospital, Tamil Nadu, 1983.	800
East - Eden Hospital, Calcutta Med. College, 1991.	1,119
North - Institute of Med. Science, Varanasi, 1976.	1,700

Table II
Incidence of anaemia & hypoproteinaemia in pregnancy

Hb level	India	Western Countries
> 10 gm%	40 - 96%	10 - 20%
Hb level	N.B. Medical College	Serum Protein 100 cases
1.9 - 6 gm% = 40%		> 5 gm% = 40%
6.1 - 8 gm% = 44%		5 - 6 gm% = 40%
8.1 - 10 gm% = 12%		6.1 - 7 gm% = 20%

Table III

**Family income & educational status of 100 mothers of North Bengal
Medical College & Hospital**

Family income/month	Education status
Rs. 500 - 1000/- = 57%	Illiterate - 42%
Rs. 1001 - 1500/- = 25%	Upto 10th standard - 50%
Rs. 1501 - 2500/- = 18%	Above 10th standard - 8%

according to FOGSI study by Prof. K.Bhaskar Rao, 1982, from 41 teaching urban Hospitals. This rate is 5-3000/ times higher than the MMR of developed western countries. Though official figure of overall MMR in India is 340/1,00,000 live births (Baveja et.al., 1992), let us observe the figures from 4 Medical College Hospitals from 4 zones of India (Table-I).

It is very much evident from Table-I that our picture is far away from Western figures. But the causes for which the MMR is high in India are avoidable in 69% cases, as evaluated by Rao, 1982.

Perinatal mortality is also very high in our country ranging from 60-109/1000 total births, whereas it is only 10-22 in western countries (Dawn, 1992), So, in India PNMR is 6-10 times higher than in western countries. Though the PNMR has been brought down to 41.5/1000 total births in an urban Medical College at Kottayam (Sudha and Rajan,1993), but in a rural Medical College like ours, PNMR is 153 during 1989-1992. Causes prevailing are more or less the same in different zones of India, namely, low birth weight, perinatal hypoxia and infection with a background of high incidence of maternal

under nutrition and anaemia.

In our Hospital, 35% babies were born with birth weight below 2.5 kg. during 1989-1992 with PNMR of 360; similar is the picture in Eden Hospital, Calcutta, a big urban teaching Hospital-30% LBW babies (below 2.5 kg) during 1989-1991 with PNMR of 312 (Samaddar, 1992).

Poor antenatal check-up reflects the health awareness during pregnancy in a community when high-risk cases can be screened out by proper ANC. In our Hospital 36% mothers had no ANC, 40% had 1-2 check-ups and 24% had more than 2 check-ups during '89-'92. Badole et al, 1992 reported similar figures from Wardha district of Maharashtra. From an urban teaching Hospital of Bombay, Nayak and Dalal 1993, reported that 76.92% of maternal deaths had no ANC.

Of the direct causes of maternal deaths, sepsis including septic abortions, intrapartum and postpartum sepsis, haemorrhage including obstructed labour, rupture uterus, retained placenta, APH, PPH and eclampsia are still very high in our country. In some centres, criminal abortions alone account for 20-25% causes of maternal deaths (WHO, 1992).

From Indian studies it is observed that each group of these causes, contribute on the average 10-30% of maternal deaths in India. From comparative review of literature we find that in India the incidence of eclampsia is 10 times higher and that of rupture uterus is 5-20 times higher than in western countries; and obstructed labour, which is practically eliminated from developed countries, is still prevalent in India, the incidence being 1 in 100-150 deliveries.

This reflects the poor obstetric care and paucity of referral system in our country.

Anaemia alone is directly responsible for maternal deaths in 20% cases and as a predisposing factor in another 20% cases in our country (Menon et al, 1982). In India, anaemia in pregnancy is the commonest high-risk pregnancy having an incidence of 40-96% (Menon et al, 1982 & present study) with Hb% level below 10 gm.%(Table III). An ICMR study, 1992 has observed Hb level below 11 gm.% even in 98.3% cases of pregnant mothers at Udaipur. Incidence of anaemia during pregnancy in western countries is 10-20% (Dawn, 1992).

In our Hospital 100 random mothers were studied in July 1993:80% mothers had serum total protein below 6 gm% (Table-II).

We have also studied 100 mothers in July 1993 in our Hospital for the economic status of their families and educational status of the patients, and following are the observations (Table-III). Our patients were found 42% illiterate, in India overall illiteracy among female population is 61% as reported by Mehata and Abouzaha, 1993 from Population Crisis committee Report, Washington, 1992.

An ICMR study conducted by Saxena, 1988 surveyed 198 PHCs throughout India and observed that in majority of PHCs there is no facilities either for routine examinations of pregnant mothers or weight & B.P. check-ups & estimations of Hb%, urine, and in the village only 1/3 cases are delivered at PHCs, rest are home deliveries by TBA. Coverage for infant immunisation is 30-80% or even less.

CONCLUSIONS

Poverty and illiteracy are the main background contributing factors for high maternal & perinatal deaths in our country. Apart from obstetric care at level I, II & III including infant immunisation & screening of high-risk cases, better transportation & referral system and motivation for family planning, improvement of socio-economic & educational standard should be fundamental objective to achieve the successful safe motherhood i.e. to achieve healthy mothers and healthy babies. The responsibility to reach to this goal lies not only on the medical profession alone but also on the social & political leaders and on the policy of the National Government.

As the target has been fixed up to reduce MMR & PNMR to below 200 & 30-35 respectively by 2000 A.D. in India, we are far away from our goal, we have a long way to go.

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