

Comparative Study of Perinatal Mortality and Morbidity in the Community and at Medical College Hospital, Patna.

Perinatal mortality rate (PMR) is the most reliable index of the quality of obstetrical and neonatal services in a particular Center, Community or country. It also reflects the general health and important socio-biological features of mother and infant in that area. The present study attempts to document the mortality and morbidity pattern in Patna Medical College Hospital born and community-born babies to assess the impact of various ongoing programmes by the government to achieve the target of PMR of 30-35/1000 by 2000 AD.

The study comprised one thousand consecutive births selected at random in the Obstetrics Ward of the Women's Hospital, Medical College and the same number of cases from other sources in the community (Primary Health Centres and community hospitals in Patna district blocks where the ICDS programme was not being implemented). All babies whose gestational period was over 28 weeks or more and who weighed more than 1000 g at birth were included in the study (1,2). They were divided into following birth weight groups: 1001-1500 g, 1501-2000g, 2001-2500 g, 2501-3000 g, 3001-3500 g and more than 3501 g. Close observation of the newborn was done for one week and exclusive breastfeeding advised. High risk babies were brought under observation in the hospital or clinic and were examined

twice a day. Normal cases were discharged within 2-3 days from hospital and were advised to attend Well Baby Clinic at the end of the first week or immediately in case of illness. All cases, excluding deaths, had attended the clinic at the end of the first week.

Table 1 shows the perinatal death of babies born in PMCH and community in relation to their birth weight. Out of 1000 babies, 29 and 39 were still births and 21 and 26 were early neonatal deaths in PMCH and community born, respectively. PMR was 50/1000 in PMCH (due to high risk cases) and 65/1000 in community-born babies (where ICDS programme was not being implemented) which is statistically significant ($p=0.01$) whereas PMR in ICDS beneficiary blocks were 35-41 (Sample Registration System, Government of India, 1991). The lowest PMR was observed in 2501-3000 g birth weight group whereas maximum PMR was observed between 1001-1500 g birth weight groups. The lower PMR in PMCH can be attributed to better antenatal care. Trauma and stress of labor (24% of deaths in PMCH and 23.11% in community) were the leading causes of PMR in both groups. Other causes of perinatal deaths were toxemia of pregnancy, antepartum hemorrhage, septicemia, placental insufficiency, respiratory distress syndrome, congenital malformation, aspiration and abnormal labor in patients selected at random for delivery.

Amongst the community births, 24.4% suffered from various diseases including diarrhea (7.7%), hyperbilirubinemia (1.1%), umbilical sepsis, respiratory distress syndrome, hypoglycemia (0.5%)

TABLE I—Birth Weight and Perinatal Mortality Rate (PMR).

Birth weight (g)	PMCH					Community				
	No. of babies	Still birth	Early neonatal death	Pri-natal death	PMR/1000	No. of babies	Still birth	Early neonatal death	Peri-natal death	PMR/100
1001-1500	61	14	11	25	409.8	70	18	14	32	457.1
1501-2000	104	5	7	12	115.3	114	7	6	13	114.0
2001-2500	249	4	2	6	24.0	225	5	3	8	35.5
2501-3000	425	3	1	4	9.4	450	4	2	6	13.3
3001-3500	120	2	0	2	16.6	102	3	1	4	37.2
Above 3501	41	1	0	1	24.3	39	2	0	2	51.2
Total	1000	29	21	50	50.0	1000	39	26	65	65.0

The differences in PMR between the PMCH and Community births is statistically significant ($p=0.01$)

and moniliasis. Diarrhea and conjunctivitis (51.2% in PMCH and 51.5% in Community amongst all the diseases) constituted the major cause of morbidity in both groups. The impact of birth weight on fetal outcome is evident as PMR in 1001-1500 g group was maximum followed by a steep decrease as birth weight rose and was lowest in 2501-3000 g group. Again there was a slow rise in PMR above 3000 g. Hence, babies with birth weight group 2501-3000 g had the best outcome as was reported earlier(3).

Considering the high PMR in the College and community, appropriate measures, like good antenatal care, improvement in nutritional status of mother, increased awareness of health facilities, identification of high risk factors, reduction in the incidence of prematurity and low birth weight, maintenance of adequate asepsis in operation theatre and nursing, must be under taken to reduce PMR to achieve our national target of 30-35/1000 by 2000 AD.

Although improvement has occurred in antenatal, intranatal and postnatal care over the years, a lot still remains to be achieved.

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