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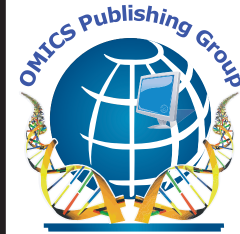

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Research Article Open Access

Assessment of the Newborn Care Practices in Home Deliveries among Urban Slums of Meerut, UP India

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Abstract

Background: Despite efforts by the government and other health agencies neonatal morbidity and mortality continues to remain high in India. In our community women receive information about neonatal care from family members, elders and traditional birth attendants regarding antenatal and postnatal care.

Objectives: To assess the newborn care practices in home deliveries this can affect the neonatal morbidity and mortality.

Settings and design: The community based, cross- sectional study was carried out in the field practice area of urban slums of Meerut, UP.

Materials and methods: The study was carried out from Jan 2011 to October 2011 In this study 280 mothers of infants up to 03 months of age were interviewed. A semi structured, pre tested questionnaire was used. All participants were informed regarding the purpose of study and their consent was obtained for data collection.

Results: The result of study showed that many harmful and un-indicated neonatal practices were prevalent in the community. 83.92% of the deliveries took place at home and 51.08 % were conducted by untrained birth attendant. New blade was used to cut cord in 63.82%. Turmeric powder with oil or ghee was applied frequently. Bathing the baby immediately after birth was commonly practiced in 76.60%. 68.08% mothers initiated breast-feeding within 24 hrs of birth and 29.92% initiated after 1 day. 62.50% mothers had not given colostrum to their baby, in majority the reason was it prohibited by family customs and elderly members. Immunization status was poor.

Conclusion: Practices regarding newborn care were harmful and knowledge was poor among mothers and this should be promoted through improved coverage with existing health services.

Keywords: Home delivery; Birth attendant; Newborns; Hypothermia; Birth asphyxia; Breastfeeding; Immunization

Introduction

The global burden of neonatal death is estimated to be 5.0 million of which 3.2 million deaths occur during the first week of life [1]. Each year, 26 million infants are born in India. Of these, nearly 1.2 million die during the neonatal period, before completing 4 weeks of life, amounting to one quarter of all the neonatal deaths in the world [2]. Newborn mortality is one of the world's most neglected health problems. It is estimated that globally four million newborns die before they reach 1 month of age and another four million are stillborn every year. Death during the neonatal period (the first 28 days of life) accounts for almost two-thirds of all deaths in the first year of life and 40% of deaths before the age of five [3]. India, thus contributes 30% of the 3.9 million neonatal deaths worldwide [4].

Global under five and infant mortality rates have declined over the past four decades, but high neonatal mortality rates have remained relatively unchanged. There is sufficient evidence to show that most of the basic neonatal care can be delivered at homes through primary care in a highly cost-effective manner. Hence, to reduce neonatal mortality, strategies must be developed for safe home deliveries including essential neonatal care, besides devising means of proper care of the neonate in domestic settings and ensuring proper referral of only those neonates who cannot be managed at home. Many of the life-threatening conditions could be prevented or treated with low technology, improved labor and delivery care, and attention to the physiological needs of the newborn. The causes of neonatal mortality, the organization and coverage of delivery care, resuscitation, low birth weight, hypothermia, low technology warming, reducing infection, etc. are some important areas that have to be addressed. Over the last three decades, the annual number of deaths among children less than 5 years old has decreased by almost a third. Although infant mortality has fallen in many developing countries over the past two decades, the rate of fall is slowing. One reason is the contribution of neonatal mortality, which has remained fairly steady over this period. As neonatal mortality contributes to over 64% of infant deaths in India, interventions to improve child survival must address the neonatal period [5].

The World Health Organization guidelines for essential newborn care encompass cleanliness, thermal protection, initiation of breathing, early and exclusive breast feeding, eye care, immunization, management of illness and care of low birth weight infants [6].

The objective of the present study was to know the knowledge and practices of mother in relation to newborn care viz. place of delivery, birth attendant, prevention of hypothermia, prevention of birth asphyxia, colostrum feeding, early initiation of breast feeding,

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and Immunization so as to improve neonatal survival and decrease morbidity and mortality in India.

Materials and Methods

This Community based, cross- sectional study has been carried out in the field practice area of urban slum which is attached to the Department of Community Medicine, Subharti Medical College Meerut UP The study was carried out from Jan 2011 to October 2011 In this study 280 mothers of infants up to 03 months of age were interviewed. A semi structured, pre tested questionnaire was used. All participants were informed regarding the purpose of study and their consent was obtained for data collection. The Statistical data was recorded and analyzed using by the SPSS Software version.

Results

A total of 280 mothers were studied (Table 1). There were 57.14% Hindus and 39.28% were Muslims. Cast wise distribution was 57.17% belonged to OBC, 26.78% belonged to SC/ST and 16.08% belonged to general caste. The majority 64.28% of the mothers were from nuclear type of family. 53.58% of the mothers were illiterate. 30.35% of the mothers had educated up to primary level and 12.05% educated up to high school level. Majority of women 39.28% belonged to IV social Class and 33.92% women belonged to V social Class.

The study findings show that home deliveries were more common 83.92% as compared to institutional deliveries 16.08% and home deliveries conducted by untrained birth attendant 51.08% as compared to by trained birth attendant 19.14% A new shaving blade was used to cut cord in 63.82%, old blade, scissor and kitchen knife was used to cut cord in 21.28%. Turmeric powder with oil or ghee was applied to cut cord in 51.06%. Other applicants like Povidine Iodine 06.38%. Tincture Iodine 02.13% and Cold cream 04.26% were also used after the cut cord.

Practice about hypothermia and birth asphyxia was asked in case of home deliveries (Table 2). The majority of the newborns 76.60% were washed with warm water and dried up with a clean cloth immediately after birth, while only 10.63% of newborns were not given a bath and only dried up with a clean cloth. The majority 57.45% of the newborns cried immediately after birth. Out of those who did not cry immediately after birth, 43% of the mothers did not remember the steps taken to make baby cry. However, in 42% cases slapping the back and in 15% hanging upside down was done.

In this study 68.08% of the mothers initiated breast feeding within 24 hrs. There were 29.92% mothers who initiated after one day. Many reasons for late initiation of breastfeeding were given by mothers. There are many traditional and social beliefs such as baby to be fed in the presence of a married aunt 33.34% and prohibited by family members about 40%. 20% mothers who had not given the colostrum to their baby because they thought that it is harmful for the baby and 12% of mothers not given colostrum due to ignorance about advantages of this and 68% of mothers not given colostrum due to prohibited by elderly female. BCG, OPV and measles vaccine were given to 27.66% newborn who were delivered at home in early days. 72.34% mothers did not received any vaccine to newborns , reasons for not received vaccine to their children, 64.70% mothers suggested that family member not allowed, and remaining women thought that baby was sick 11.77% and baby was weak 17.65%.

Discussion

This study suggested that home deliveries were more common 83.92% and conducted by untrained birth attendants 51.08%. A new shaving blade was used to cut cord in 63.82%, Turmeric powder with oil or ghee was applied to cut cord in 51.06%. A study conducted by Rahi et al. [7] suggested that 56.01% home deliveries were more common and conducted by dais 91.3%. A new shaving blade was used to cut the cord in 78.3% of home deliveries. Applicants like turmeric with oil or ghee; just oil or ghee and cold cream were also applied in as much as 15 (32.6%) home deliveries [7].

In this study the majority of the newborns 76.60% were washed with warm water and dried up with a clean cloth immediately after birth. Similarly, Singh [8] in a study in rural area of Ghaziabad U.P. also reported that bath was given in 71.2% of the newborns.

Mothers who delivered birth a baby	Number	Percentage
Religion		
Hindu	170	60.72
Muslim	110	39.28
Others	00	00.00
Education of Mothers		
Illiterate	150	53.58
Up to Primary	85	30.35
Up to High School	35	12.05
Intermediate and above	10	03.52
Types of Family		
Nuclear	180	64.28
Joint	100	35.72
Socio-economic Status		
I	00	00.00
II	30	10.72
III	45	16.08
IV	110	39.28
V	95	33..92
Practices at Home deliveries		
Place of delivery		
Home delivery	235	83.92
Institutional delivery	42	16.08
If at Home, deliveries conducted by delivery (N=235)		
Trained Birth Attendants	45	19.14
Untrained Birth Attendants	120	51.08
Don't know	70	29.78
Methods used to cut cord at home delivery (N=235)		
New blade	150	63.82
Old blade/ Scissor, knife etc	50	21.28
Don't know	35	14.90
Local application to the cord (N=235)		
Povidine Iodine	15	06.38
Tincture Iodine	05	02.13
Turmeric powder with oil or Ghee	120	51.06
Cold cream	10	04.26
Don't know	85	36.17

Table 1: Socio- demographic Characteristics of the mothers (N=280).

Hypothermia	Number	Percentage
Washed with warm water & dried a clean cloth	180	76.60
Not bathed and completely dried with clean cloth	25	10.63
Wrapping/ clothing	10	04.25
Don't know	20	08.52
Birth asphyxia		
Baby cried immediately		
Yes	135	57.45
No	100	42.55
If no, What steps taken to make baby cry? (N=100)		
Slapping the back	42	42.00
Hanging upside down	15	15.00
Other methods	00	00.00
Don't know	43	43.00
Practices regarding breast feeding (N=235)		
Initiation of breast feeding		
Within 24 Hrs	160	68.08
After One Day	75	29.92
Reasons for delayed breast feeding		
Traditional & social customs	25	33.34
Prohibited by elderly	30	40.00
Other reasons	13	17.33
Don't know	07	09.33
Given Colostrum (N=160)		
Yes	60	37.50
No	100	62.50
If no , What was reasons (N=100)		
It is harmful for a baby	20	20.00
Prohibited by elderly	68	68.00
Due to ignorance about advantage	12	12.00
Don't know	10	10.00
Initiation of Immunization (N=235)		
Vaccinated	65	27.66
Not Vaccinated	170	72.34
If no , What was reasons		
Family members not allowed	110	64.70
Baby was sick	20	11.77
Baby was weak	30	17.65
Don't know	10	05.88

Table 2: Practices of Mothers Regarding Hypothermia & Birth Asphyxia.

These findings show that there was very less awareness in community regarding prevention of hypothermia. In the community if they had the information that the bathing immediately after birth causes hypothermia and may lead to death. Such practices should be discouraged. Bathing the newborns in the first hour after resulted in significantly increased prevalence of hypothermia in a randomized controlled trial conducted in Uganada [9].

Another major cause of neonatal mortality is asphyxia, which is usually due to mishandling of the baby at birth. It was observed that regarding the methods of prevention of birth asphyxia, practice of the mother was limited to about hanging the baby upside down and in slapping the back immediately after birth. In this study the majority 57.45% of the newborns cried immediately after birth. Out of those who did not cry immediately after birth, 43% of the mothers did not remember the steps taken to make baby cry. However, in 42% cases slapping the back and in 15% hanging upside down was done. A study conducted by Pratibha et al. [10] majority 90.4% of the newborns cried immediately after birth. Out of those who did not cry immediately after birth, 46.2% of mothers did not remember the steps taken to make their baby cry. However, in 42.3% cases slapping the back and in 11.5% hanging upside down methods were practiced to make the baby cry [10].

In this study 68.78% of the mothers initiated breast feeding within 1- 24 hrs, and 29.92% mothers who initiated breast feeding after one day. Ramkrishna et al. found that 64% of mothers initiated breast-feeding within 24 h of birth [11].

37.50% mothers who were given the breast milk as the first feed. In this study as compared to 47.5% in a study conducted in Ho Chi Minh City in Vietnam [12].

Such a practice, by delaying initiation of breastfeeding, may adversely affect establishment of lactation and introduce enteric infections if pre-lacteal feeds are not given in hygienic manner [13].

BCG, OPV and measles vaccine were given to 27.66% newborn who were delivered at home. Immunization was poor due to lack of awareness, Illiteracy, traditional customs and family attitudes were the main factors.

Conclusion

In majority of cases, correct practices regarding newborn care were poor among mothers and this should be promoted through improved coverage with existing health services.

In spite of the fact that most of the mothers were literate, harmful newborn care practices were common. This can be attributed largely to dias as most deliveries were at home and harmful practices were observed most often in these cases. Besides traditions, community practices also seem to be important contributors as harmful practices were observed even in some institutional deliveries or after discharge from the institution. There is an urgent need to educate mothers and train health care providers including traditional birth attendants and anganwadi workers on newborn and early neonatal care. Various behavioral change communication strategies through mass media and interpersonal education during antenatal visits may be studied for their effectiveness. Prevailing unhealthy practices in the area also should be discussed with health care providers including dais and local practitioners, so that they take special action in preventing these. The Government should take necessary steps in terms of increasing awareness of mothers through IEC activities about the safety measures for handling infants.

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