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Knowledge and Practices related to Newborn Care among Pregnant Women

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ABSTRACT

Background: In recent decades, though India has experienced progress in ensuring the survival of its youngest members of society, the newborns; today, deaths within the first month of life represent three-quarters of all infant deaths. **Objective:** to study the newborn care practices among pregnant of periurban area of Aligarh.

Material and Methods: This community based study was conducted in the Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh.

Results: 83% pregnant women were in the age group of 15-30 years 17% in the age group of 31-45 years. There was a poor newborn care practices i.e majority (91.5%) of pregnant women delivered at home by untrained dais, unhygienic delivery practices, low level of breastfeeding practices and practices to prevent hypothermia and knowledge of danger signs in newborns requiring medical consultation, among pregnant women in periurban area of Aligarh, Utter Pradesh India.

Conclusion: Neonatal survival is influenced much by care provided by the family before, during and after delivery, which in turn is influenced not only by mother's beliefs, but also perceptions of her immediate family.

Keywords: Newborn care practices, Periurban, breastfeeding, danger signs, hypothermia.

INTRODUCTION

Globally, approximately three million babies die in the first month of life; one million of these newborns die on the first day of life, which makes up 40% of the under-five mortality.[1] In India every year 26 million babies are born, of these 1.2 million die in the first 4 weeks of life accounting for 20% of global burden of newborn deaths. Three-quarters of neonatal death occurs in the first week-the highest risk of death is on the first day of life. Most neonatal deaths (99%) arise in low income and middle-income countries, and about half occurs at home.[2]

In India, about 2 million births take place annually among the urban poor.[3] Of these, 54.1%49 or approximately 1.1 million births take place at home in the debilitating environment and nearly 78,000 newborns die. Poor living conditions, ignorance and poverty

ISSN: 0975-3583, 0976-2833 VOL13, ISSUE 08, 2022

resulting in a large number of women in slums working outside the home results in inadequate care during pregnancy and neglect of the newborn.[4]

Rates of neonatal deaths have declined from 60 per 1,000 live births between 1978-1983 to 39 per 1,000 live births between 2005-2006. However, if India is to attain its Millennium Development Goal of halving infant mortality, the rate of neonatal mortality decline will have to accelerate significantly. This will require a renewed and intensified scale up of evidence-based interventions and programs focused on preventing deaths to newborns. 39 newborns die within the first month of life for every 1,000 live births throughout the country.[5]

In India, 56% births take place at home in the debilitating environment (NMR 34.9%, NFHS-3). Poor living conditions, ignorance and poverty resulting in a large number of women in slums working outside the home, results in inadequate care during pregnancy and neglect of the newborn.[6]

Despite a plethora of health institutions, over 50% births amongst the urban poor continue to occur in home settings and under the supervision of untrained birth attendants. Traditional practices, lack of perceived need for antenatal care, fear of hospitals, attitude and behaviour of the hospital staff, and the cost of hospitalization are deterrents to accessing hospital care. Late recognition of complications and delay in seeking medical help are also responsible for increased maternal-neonatal mortality. Even in neonatal illness, private practitioners in the locality are the first preference for receiving health care.[7]

When ill, only 19% of newborns are taken directly to the hospital and as many as 50% families do not comply with advice for hospitalization, reasons being lack of perception that the child was gravely ill, no secondary caretaker for other siblings at home, economic reasons and unpleasant past experiences. Those arriving at hospitals are often turned away, or diagnosed, treated, or referred inappropriately.[8]

Nearly three-fourths of newborn deaths occur among low birth weight (LBW) babies.[9] India harbors the highest number of LBW babies born each year worldwide: eight million (40%) of the total 20 million LBW babies.[10]

So the present study has been planned to study the knowledge and practices related to newborn care among slum dwellers in Aligarh city Uttar Pradesh.

MATERIAL & METHODS

The present community-based study was conducted in the field practice area of the Urban Health Training Centre, Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh. There were four slums i.e. Firdaus Nagar, Nagla Qila, Patwari ka Nagla, and Shahanshabad under UHTC. The population in this area was relatively stable and allowed for follow up visits. Approval for study was passed from the institutional board of study meeting. Purposive sampling was used. Two hundred pregnant women as observed from the previous records were chosen for the study. Duration of study was from September 2008 to August 2009.

Exclusion criteria were primigravida, high-risk pregnant women, pregnant women who opted to deliver outside Aligarh. Ethical considerations are local cultural values and ideas were respected. Confidentiality was assured. All pregnant women were approached individually and an informed consent was taken before collecting data. Proper management or referral was given to women who were found to have any health problem.

A house to house visit was made to get the information about pregnant women till 200 pregnant women were enrolled in the study (purposive sampling). The data were collected by using pre-designed and pre-tested semi structured questionnaire. It included information regarding identification, socioeconomic status, delivery practices – safe and clean delivery practices, physiological variants, prevention of neonatal infection, and prevention of

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hypothermia, breastfeeding, pre-lacteal feeds, and danger signs in newborns. Socioeconomic status was assessed using Modified Kuppuswami Scale.[11]

Statistical Analysis

Data entry and statistical analysis were carried out using software Epi Info version 3.5.1. Epi Info is a series of freely distributable programs for use by public health professionals in conducting outbreak investigations, general database and statistics applications. Significant difference was determined using Chi- square test. Chi- square test is a non-parametric test, tell about whether it significant or not P-value was calculated using chi-square test and difference was accepted significant at more than 95% (p-value <0.05).

RESULTS

83% pregnant women were in the age group of 15-30 years 17% in the age group of 31-45 years. Most of the pregnant women (90%) were Muslim and rest of them belonged to Hindu community. 75% of pregnant women were illiterate. Majority of the families (64.5 %) were nuclear. Education of husbands of pregnant women was also low i.e. 54% illiterate. 99% pregnant women were housewives. 48.5% pregnant women were belonged to upper lower class according to Modified Kuppuswami Scale of socio-economic status. (Table1)

Table 1: Delivery Practices

Delivery practices		**n=183**
Delivery conducted by	Trained Dai	01 (1.1)
	Untrained Dai	182 (98.9)
Clean hands	Yes	65 (34.8)
	No	118 (65.2)
Clean surface	Yes	33(16.3)
	No	150(83.7)
Clean instrument	Yes	57 (28.3)
	No	126 (71.7)
Sterile cord tie	Yes	17 (8.7)
	No	166 (91.3)
No application of cord	Yes	12 (5.4)
	No	171(94.6)

Figures in parentheses are percentages

Delivery Practices: The majority of pregnant women 91.5% delivered at home. All the home deliveries except one were conducted by untrained dais. Untrained Dai washed their hands only in 35.5% of home deliveries. Clean surface was used in 18% deliveries. The cord was cut with a new blade in 31.1% of deliveries. Umbilical cord tied with clean and sterile (boiled) thread in 9.2% deliveries. Nothing was applied on the cord of 6.5% deliveries (Table 2).

Table 2: Breast Feeding Practices

Variables		**N=200**
Breastfeeding initiation within 1 hr	Yes	32
	No	168
Colostrum given	Yes	82

ISSN: 0975-3583, 0976-2833 VOL13, ISSUE 08, 2022

		No	118
Exclusive Breastfeeding		Yes	40
		No	160
Induction of burping	Most of the time	Yes	29
		No	171

Prelacteal feeds given	Yes	160
	No	40
Pacifiers given	Yes	145
	No	55

Prevailing Breastfeeding Practices: Initiation of breastfeeding within 1 hour was done only in 16% of babies. Colostrum was given by 41% mothers. 20% babies were exclusively breastfed. 14.5% mothers had induced burping most of the time in their babies after breastfeeding. Prelacteal feeds were given in 80% and pacifiers in 72.5% babies. (Table 4).

Practices to Prevent Hypothermia in Home Deliveries: All newborns were wiped dry immediately after birth, given bath within 6 hours of birth and 98.9% mothers and newborns were kept together. Vigorous removal of vernix caseosa after birth was practiced by 29% of untrained dais. 45.3% deliveries were conducted in warm room. Abnormal temperature of baby was checked by 92.9% of mothers after birth. Only 25 % mothers had correct knowledge about cold extremities. 24.5 % mothers had knowledge about cold abdomen as a sign for medical consultation. Low level of knowledge regarding blue extremities (9.5%) was present in both the groups. only 33.5% of mothers had knowledge of skin-to- skin contact (kangaroo mother care). Breastfeeding during transportation was done by 47 % mothers. Majority (85%) of the mothers had knowledge about stabilization of temperature of baby during transportation to hospital (Table 5).

Table 3: Practices to prevent hypothermia in home deliveries

Variables		**n=183**
Baby wiped dry immediately after birth		183(100.0)
Vigorous removal of vernix caseosa	Yes	53 (31.5)
	No	130 (68.5)
Warm delivery room	Yes	83 (42.4)
	No	100 (57.6)
First bath given to the baby within 6 hrs	Yes	183 (100.0)
	No	00 (0.0)
Rooming-in	Yes	181 (98.9)
	No	02(1.1)
Check for abnormal Temperature	Yes	170 (90.2)
	No	13 (9.8)

Figures in parentheses are percentages

Table 4: Knowledge of mothers about danger signs in newborns requiring medical consultation

Variables		**N=200**
Cold to touch	Yes	28
	No	172

ISSN: 0975-3583, 0976-2833 VOL13, ISSUE 08, 2022

Hot to touch	Yes	182
	No	18
Chest in drawing	Yes	149
	No	51
Loose stool	Yes	32
	No	68
Palm and sole yellow	Yes	51
	No	149
Convulsion	Yes	72
	No	128
Draining pus from umbilicus	Yes	86
	No	114
< 8 feed in 24 hrs		00
10 and more skin pustules or big boil	Yes	55
	No	145

Danger Signs: Correct knowledge about cold to touch was present in 14% mothers whereas correct knowledge of hot to touch and chest in drawing were present in 91% and 74.5 % mothers respectively. 37% mothers had correct knowledge regarding loose stool. Correct knowledge of drainage of pus from umbilicus 43%, convulsion 36%, and multiple boils/pustule 32.5% on skin and palm and sole yellow 25.5% were found in mothers. No mother had knowledge about minimum numbers of 8 feeds given to the baby in 24 hours.

DISCUSSION

There was a poor newborn care practices among slum dwellers in Aligarh. A study from Gadchiroli[12], India revealed that large number of women (94%) gave birth at home. A cross-sectional descriptive study was conducted in an urban slum of Aligarh, reported that the majority of women (67%) preferred to have delivery at home.[13]

During present study only one birth was assisted by a trained birth attendant, when compared to NFHS-3 India where birth was assisted by a doctor/nurse/ANM/others health personals was 48.3% of deliveries.[5] In a study on delivery practices in west UP, only 3.1% deliveries washing of floor was done, in 43% deliveries the cord cutting instrument was not sterilized. Blade was the commonest (90.8%) cord cutting instrument.[14] The difference in result may be due large samle size. Another community based survey was conducted in urban slum of Delhi.[15] It was revealed that unsterile threads were used in 71.7% of home deliveries. Nothing was applied to the cord in 63% of home deliveries. Findings were higher from the present study due only 82 mothers of newborn in the study area were interviewed. In a study on maternal and newborn care practices among the urban poor in Indore found that Clean cloth/washed sun dried polythene was laid on the delivery surface in 46% homes. 61.4% birth attendants washed their hands with soap and water prior to delivery, Nearly all families (96.6%) used a new blade for cutting the cord, an unsterilized yet new cotton thread was used to tie the cord in nearly all families. The cord stump was left clean with no applicant in 50% of families.[7] Delivery practices were better in indore than peri-urban area of Aligarh.

In the present study, initiation of breastfeeding within 1 hour was done in 16% of babies. Lower percentage of initiation of breastfeeding within 1 hour was reported by other researcher Banapurmath[16], Mandal.[17] Higher percentage of initiation of breastfeeding within 1 hour (63%, 57.9%) were presented by Osrine[18] and Sreeramareddy[19]) respectively. Colostrum was given by 41% mothers where as Ganjoo[20] reported that 57% of mothers

ISSN: 0975-3583, 0976-2833 VOL13, ISSUE 08, 2022

believed colostrum to be unhygienic and did not give it to their infants and these findings are comparable to present study.

In the present study 20% babies were exclusively breastfed. Higher percentage of exclusive breastfeeding was reported (72.2% and 60.5%) by Kulkarni[21]) and Subba. Prelacteal feeds were given in 80% of mothers or family members. Higher percentage (100%) of prelacteal feed was reported by Banapurmath.[16] Lower percentage of practicing prelacteal feed was reported by Singhania[22] 51.7 %. Pacifiers were given to babies pacifiers in 72.5% babies. Researcher from Brazil Ledo Alves da Cunha[23] reported that 60% of the children were using pacifier by the 1st month.

Kumar[24] reported that risks of newborn like low birth weight, fever, cough /rapid breathing and hypothermia were known to 20.2%, 31.6%, 17.7% and 1.3% of the TBAs respectively. In the present study, knowledge of danger signs was also low.

CONCLUSION

It was concluded that there was a poor newborn care practices among slum dwellers in Aligarh. Thus there is an urgent need to educate adolescent girls, mothers and train health care providers including ANM, ASHA and CMC workers etc. about newborn care. Doctors and staff of the centre should be involved in the educational sessions along with the elderly females; mother-in-laws, dais and reproductive age group women and efforts should be made to address the harmful socio-cultural beliefs and practices prevalent in the community. Behaviour change communication (BCC) package should be designed focusing on changing the adverse behaviour of pregnant women regarding neonatal care. BCC should be applied through health workers in the community to improve neonatal care that can decrease the morbidity and mortality among mothers and infants.

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