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Original Research Article

Natal and neonatal care practices of recently-delivered woman in rural areas of Lucknow district

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ABSTRACT

Background: The health of women and children are eternally linked and when the health of women and child improves, life improves by every measure. Deaths associated with child birth were so common that societies developed cultural coping strategies or traditional practices. The objective of the study is to assess natal and neonatal care practices in rural areas of Lucknow district.
Methods: The present study was carried out in the rural areas of Lucknow district. Study unit was recently delivered women (RDW), who gave birth to live newborn in last 1 year in rural areas of Lucknow for a period of 12 months. It was community based cross sectional study. A total of 368 RDW were interviewed. Multi stage random sampling technique was used to select RDW.
Results: Majority cited all the reasons for preferring institutional delivery (58.2%) followed by those citing it cheaper or better services (17.4%) each and incentive (7.4%) respectively. Weight of baby was 2.5 to 3.5 kg in maximum cases (88%) followed by <2.5 kg (10.3%) respectively. Majority did not have any complication at birth (87%). Exclusive breast feeding was reported by majority (81%).
Conclusions: Community needs to be appraised regarding performance and important positive achievement of MCH services in relation to health status of mother and neonate in their respective areas through community participation and will make the community more respective towards availing of accredited social health activist (ASHA) services. Proper provisioning of auxiliary nurse midwiferys, ASHAs and lady health workers would facilitate improvements in rural areas.

Keywords: Natal, Neonatal, Recently delivered women, Rural

INTRODUCTION

The health of women and children are eternally linked and when the health of women and child improves, life improves by every measure. Deaths associated with child birth were so common that societies developed cultural coping strategies or traditional practices by which to explain, avoid or accommodate them.

Maternal and child health related goals in millennium development goals included two third reductions in infant mortality rate, three fourth in maternal mortality rate and to increase the proportion of births attended by skilled health personnel. India contributes to one-fifth of global live births and more than a quarter of neonatal deaths. Nearly, 0.75 million neonates died in India in 2013, the highest for any country in the world.[1] 70% of total infant deaths and more than half of under-five deaths fall in the

neonatal period. Indeed, with the early neonatal mortality rate of 22 per 1000 live births, deaths in the first week alone account for ~45% of total under-five deaths.[2]

The objective of this study is to study the natal and neonatal care practices in rural areas of Lucknow district.

METHODS

Study design

This study was a community based cross sectional study.

Study area

The present study was carried out in the rural areas of Lucknow district.

Study unit

Study unit was recently delivered women (RDW), who gave birth to live newborn in last 1 year in rural areas of Lucknow and being served by ASHA and availing the benefits of Janani Suraksha Yojana.

Study period

For a period of 12 months since August 2014 to July 2015.

Inclusion criteria

RDW, who gave birth to live newborn in last 1 year in rural areas of Lucknow and being served by ASHA and availing the benefits of Janani Suraksha Yojana and residing in Lucknow for more than six months period.

Exclusion criteria

RDW with still birth. Residing in rural areas of Lucknow for less than six Months and RDW who refused for interview.

Sampling

Sample size

As per National Family Health Survey (NFHS) III (2005-2006), percentage of women receiving two or more TT during pregnancy was 64% in rural Uttar Pradesh.[3] Sample size was calculated by using formula,

$$Sample\ size = \frac{4pq}{d^2}$$

Where, p=percentage service utilization (64%), q=100-p (36%), d=allowable error (5%), sample size=4x64x36/5x5=368.

Sampling technique

Multi stage random sampling technique was used to select RDW with live birth in last one year. At first stage, two blocks were randomly selected out of 8 blocks in rural areas of Lucknow. At second stage, 10 villages from each block were selected randomly. Then total sample size was equally divided into these villages. About 20 RDW were interviewed from each village.

Selection of household

In village about 20 households were surveyed in which RDW was present, when 20 RDW were interviewed from one village then next village was surveyed.

Statistical analysis

Data was analysed using the software SPSS 17 for Windows. Discrete data was analysed using Pearson's Chi-square test.

Ethical approval

The study was approved by the ethical committee of the institute Era's Lucknow Medical College and Hospital, Lucknow.

RESULTS

Table 1 shows majority cited all the reasons for preferring institutional delivery (58.2%) followed by those citing it cheaper or better services (17.4%) each and incentive (7.4%) respectively. Counselor for institutional delivery was accredited social health activist (ASHA) in maximum (88%) followed by anganwadi worker (AWW) (4.3%) and auxiliary nurse midwifes (ANMs) (3.8%). No counseling was needed by 26 (7.1%) cases. Escort to place of delivery was made by ASHA in maximum (86.4%) followed by ANM (6.5%). Neither of these escorts was needed by 26 (7.1%) cases. In majority (60.9%) doctors conducted the delivery. Facilitator stayed till discharge was ASHA in most of the cases (90.8%) followed by ANM (4.3%). No facilitator till discharge was reported in 18 (4.9%) cases.

Table 2 shows in all the cases weight of baby were taken. Weight of baby was 2.5 to 3.5 kg in maximum cases (88%) followed by <2.5 kg (10.3%) and 3.5 to 4.5 kg (1.6%) respectively. Majority did not have any complication at birth (87%). Convulsion was most common complication (4.9%) followed by feeding problem (4.3%), fast breathing (2.7%) and fever (1.1%) respectively.

Table 3 shows exclusive breast feeding was reported by majority (81%). ASHA were the counselor for exclusive breast feeding in most of the cases (90.2%) followed by ANM (5.4%) and none (4.3%). ASHA were the counselor for initiation of breast feeding in most of the cases

(90.2%) followed by ANM (5.4%) and none (4.3%). Within 1 hr initiation of breast feeding was reported by maximum (48.4%) followed by <1 day (35.3%), 1-3 days (14.7%) and >3 days (1.6%) respectively. Feeding of colostrums was done in 93.5% cases. Table 4 shows for all the practices of RDW ASHA counseled maximum (90.2%) followed by ANM (5.4%) and none (4.3%) respectively.

Table 1: Distribution of RDW according to their natal care services received (n=368).

Components	N	%
Reason for prefer institutional delivery		
Incentive	26	7.1
Better services	64	17.4
Cheaper	64	17.4
All	214	58.2
Counsellor for institutional delivery		
ANM	14	3.8
ASHA	324	88
AWW	16	4.3
None	26	7.1
Escorted to the site of delivery		
ANM	24	6.5
ASHA	318	86.4
None	26	7.1
Delivery conducted by		
Trained birth attendant	144	39.1
Doctor	224	60.9
Facilitator stayed till discharge		
ANM	16	4.3
ASHA	334	90.8
None	18	4.9

Table 2: Distribution of neonates according to their birth weight and complication at birth (n=368).

Components	N	%
Is baby weighted		
Yes	368	100
No	-	-
Baby birth weight		
<2.5	38	10.3
2.5 to 3.5	324	88
3.5 to 4.5	6	1.6
Complication at birth		
Fever	4	1.1
Feeding problem	16	4.3
Fast breathing	10	2.7
Convulsion	18	4.9
None	320	87.0

Table-3: Facilitator for breast feeding practices of RDW (n=368).

Components	N	%
Exclusive breast feeding		
Yes	298	81
No	70	19
Counsellor for exclusive breast feeding		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3

Continued.

Components	N	%
Counselor for initiation of breast feeding		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3
Time of initiation of breast feeding		
<1 hr	178	48.4
<1 day	130	35.3
1-3 day	54	14.7
>3 day	6	1.6
Feeding of colostrum		
Yes	344	93.5
No	24	6.5

Table 4: Facilitator for new born care practices of RDW (n=368).

Counselled on	N	%
Prevention of hypothermia		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3
Cord care		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3
Recognition and management of diarrhea		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3
Recognition and management of ARI		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3
Subsequent immunization		
ANM	20	5.4
ASHA	332	90.2
None	16	4.3

DISCUSSION

In the present study there was significantly higher proportion of newborn complications types varied significantly according to person counseling the delivery (p<0.001). Postnatal complication after discharge was higher among ANM and others as compared to ASHA (p=0.019). Maximum counseling were given by ASHA (n=332) followed by ANM (n=20). With increasing period of initiation of breast feeding proportion of ASHA workers decreased significantly whereas that of uncounseled patients increased (p<0.001). Exclusive breastfeeding was significantly more common in ASHA workers as compared to ANM and others (p=0.001).

In this study we found that exclusive breast feeding was done in 81% cases and 19% children were not exclusively breast fed. In this study, ASHA counseled 90.2% RDW to follow exclusive breast feeding and initiation of breast feeding and ANM 5.4% RDW and others 4.3% RDW. We also found that 48.4% RDW started breast feeding within one hour of delivery and 83.7% RDW started breast feeding within twenty four hour of delivery. Similar findings are reported by different authors also.

In one study done at Bareilly by Mahmood et al reported that 71.2% women exclusively breast fed their kids while Shroff et al reported 75% of exclusive breast feeding in rural areas of Nalgonda in Andhra Pradesh. The differences between studies could be attributed to regional and geographic variations associated with these practices.[4,5]

Gupta et al reported that only 46% children of <6 months of age get exclusively breast feeding in India which is much lower than the findings of the present study.[6] Mahmood et al reported initiation of breast feeding within one hour of delivery in rural women of Bareilly was 22%

while Madhu et al reported that total of 44% of the mothers initiated breastfeeding within 30 minutes with home delivery and 38% with Caesarean delivery.[2,7] The authors also reported that 97% of the mothers initiated breastfeeding, 19% used pre lacteal feeds, 90% had hospital deliveries and 10% had home deliveries.[7]

Our study has reported similar findings to study by Singh et al done in rural areas of Lucknow district. The above author reported 25% of RDW initiated breast feeding within one hour of birth.[8] The findings are also in accordance with NFHS III, India (2005-06) that reported very few children were put to the breast immediately after birth.[3]

Neonatal complications

In the present study 95.6% RDW were counselled to prevent hypothermia, diarrhea, respiratory tract infection, cord care and subsequent immunization. Majority (more than 90%) of these women were counselled by ASHA. Only 4.3% RDW were not received any counselling from health care worker. We also found that polio vaccine was given at birth (that is before discharge from delivery set up preferably within 7 days of birth) to 97.3% babies of RDW while 2.7% babies didn't receive polio vaccine at birth. BCG vaccine was given to 87.5% babies at birth while another 12% also received in one month. In this study 87% babies did not develop any problem after delivery while 13 % feels some problem including fever (1.1%), feeding difficulty (4.3%), breathing difficulty (2.7%) and jaundice (4.9%).

As per NFHS III, India (2005-06) 26% of children who suffered from diarrhea in the two weeks preceding the survey did not receive any treatment at all. Advice or treatment was sought from a health provider for 6 in 10 children.[3] Baseline Facts-Uttar Pradesh, Government of U.P. Document (2005-07) revealed that use of O.R.S. ranged between 8 to 61%. Overall figure for the state was only 32.2%. Use of Govt, facility for treatment of diarrhea ranged between 0-31% and for pneumonia it ranged between 1.43-33%. Overall figure for the state was 8.31% for diarrhea and 9.93% for pneumonia/ARI.[9]

Rajiv et al in their study on infant feeding patterns and risks of death and hospitalization in the first half of infancy found no significant difference in risk of death between exclusively breast fed and predominantly breastfed children. However non breastfed infants had a higher risk of dying.[10] Baseline Facts-Uttar Pradesh, Government of U.P. Document (2005-07) also revealed that bathing the baby immediately after birth was a common practice in both urban and rural areas of Lucknow, with the figures being 80.6% and 71.6% respectively.[9]

In a study by Singh et al reported that 68% RDW didn't receive any counselling on prevention of hypothermia, 80.6% for recognition and management of diarrhea, about 94.9% for ARI and nearly three fourth 76% for cord care. ASHA was the major motivator 61.43% only for immunization of the newborn. ASHA was still the major counselor for all neonatal complication.[8].

CONCLUSION

Community needs to be appraised regarding performance and important positive achievement of MCH services in relation to health status of mother and neonate in their respective areas through community participation and will make the community more respective towards availing of ASHA services. Proper provisioning of ANMs, ASHAs and LHVs would facilitate improvements in services in rural areas.

Limitations

As the study was cross-sectional in design, so it could not establish clear cut causal relationship. There was relatively small sample size, which is not true representation of whole district.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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