A Study on Pattern of Infant Health Care in Baitadi District of Nepal

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Abstract— Background: Infant health is an important indicator of the country's socioeconomic development and quality of life. It can also help identify children who may be at higher risk of death and lead to strategies to reduce this risk, such as promoting birth spacing. Which presents information on levels, trends, and differentials in prenatal, neonatal, infant, and under-5 mortality rates, it also examines bio demographic factors and fertility behaviors that increase mortality risks for infants and children. This study was based on the primary data obtained from field survey Objective: To determine the knowledge and practice regarding infant health care among mothers. Materials and Methods: A descriptive study design was carried out with the sample of 280 mothers having less than 12 months old Child interviewed in Four Wards of Dasharathchand Municipality Baitadi district. Chi-square test was used to find out the significance of Infants Health care, its knowledge and practice. Result: Respondents were highly aware for the interval of exclusive breastfeeding 43.6%, colostrums feeding 71.1%, Approximately half of respondents 45.7% had knowledge regarding umbilicus cord care practice, approximately 60% respondents initiate breastfeeding within one hour after birth, 58.9% respondents had given first bath after 24 hours of birth, more than 42.9% mother give other food item than breast milk under six months and 99.3% babies was found fully immunized. Conclusion: study findings conclude that there was a significant gap between knowledge and practice on infants' health care.

Keywords: Infants Health Care, Knowledge, Practice

I. INTRODUCTION

Infant health is an important indicator of the country's socioeconomic development and quality of life. It can also help identify children who may be at higher risk of death and lead to strategies to reduce this risk, such as promoting birth spacing, which presents information on levels, trends, and differentials in prenatal, neonatal, infant, and under-5 mortality rates. It also examines bio demographic factors and fertility behaviors that increase mortality risks for infants and children. Neonatal period is immediately after birth to 28 days of life. This is a transition period from intrauterine life to extra uterine life[1]. Infant care is essential to reduce infant health problems, diseases, disability and death. Globally 4 million babies die every year before they reach the age of one month out of them 1.5 million newborns die in four countries of South Asia including Nepal[2]. The three major causes of neonatal deaths worldwide are infections 36%, which includes sepsis/pneumonia, tetanus, and diarrhea), pre-term birth 28% and birth asphyxia 23%. There is some variation between countries depending on their care configurations[3].

Nepal made progress in child mortality reduction in last few years. Neonatal Mortality rate was 39 per 1,000 live births, and now in 2016 it was 21 per 1,000 live births. The infant mortality rate has declined 46 to 32 per thousand live births in 2011-2016 period. Likewise in 2011-2016 periods under five mortality rates was declined from 54 per 1000 live births to 39 per 1000 live births.[4]

Baby is bathed immediately after cord cutting in almost all of the Nepalese communities. The female members of the house/community such as mother-in-law, sister-in-law, neighbor, woman health volunteer or traditional birth attendant would prepare the warm water, soap and old cotton clothes for bathing the baby. The baby bath is compulsory after birth because of the belief that the baby came from the dirty place being in contact with the blood and body fluids of the mother. Some people also believe that early bathing prevents from skin diseases. The baby is bathed on the 11th day (in some households on the 9th day for girl child) for the second time. Then it depends on family's choice and time. The baby is bathed once a week on Saturday.[6] Breastfeeding is culturally taken for granted in Nepalese society. The baby is put on the mother's breast immediately after the bath. If the mother is primipara and the milk is not produced for a few days, the family members look for lactating woman in the neighborhood and request to breastfeed the newly born baby. If there no any breastfeeding mother's in the area, they feed cow, Goat or Buffalo milk until the mother's milk is well-established Since new mother lack knowledge of the right technique and frequency of breastfeeding. Many studies suggest that major causes of neonatal death in Nepal are infections, birth asphyxia, preterm birth, and hypothermia, to identify, manage and prevent complications, the government of Nepal recommends at least three postnatal checkups for the newborn within seven days of delivery, which is considered a critical time period for neonates and mothers. Infant health care enhanced by providing essential care and rearing practices.

This study is important to describe the knowledge and practice of infant care among mothers in a community. Through such study, gaps between knowledge and practice among infant care can be identified and help in the conduction of health program to fulfill those gaps.

II. OBJECTIVES

To determine the knowledge and practice regarding infant health care among mothers.

III. METHODS

A. Study Design:

A community based descriptive study with quantitative techniques method.

B. Study Area:

Baitadi, district is located in the Mahakali zone, is one of the most remote hilly Districts of the Far western region (province 7) It shares it's boundary with other Districts, namely Bajhang and Darchula, to the east, Uttarakhanda

India, to the West, Darchula to the north and Dadeldhura to the South.

Fig: Map of Baitadi district Showing study area

C. Sample Size:

District health report Baitadi (2015/16) reported IYCF practice of district was 76% on the basis of this statistics the sample size determined using the following formula

$N = Z^2*p*q/e^2$

$= (1.96)2*0.76*0.24/(0.05)2$

=280 Total sample size is 280

n = samples size

z = 1.96 for 95% confidence interval (CI)

p = Prevalence =76% (0.76)

q = 1-p = (0.24)

e2= permissible error =5% (0.05)

Thus a total of 280 Infant's mothers were selected for the study.

D. Sample Procedure

- First stage- Baitadi district was selected purposively.
- Second stage- Dasharathachand municipality was selected purposively because there are more population living than other municipal area and this is the headquarter area of Baitadi district.
- Third stage- Dasharathachand municipality has 13 wards out of which wards no 5,8,9 and 11 was selected randomly.
- Fourth stage-Samples of household were selected by random sampling with snow ball sampling method till completion of 280 sample size of mothers with infants.

E. Tools and Techniques of Data Collection:

Interview schedule is to be used as a tool for this study. Hence, the data collection tool for this study was interview schedule. The interview schedule had open closed and semi closed types of questions.

IV. RESULTS

Finding of the present study described as following

Characteristics	Frequency	Percentage
Age of infants		
0-6 months	96	34.3
7-12 months	184	65.7
Type of Family		
Nuclear	99	35.4
Joint	165	58.9
Extended	16	5.7
Cast of respondents		
General caste	195	69.6
Scheduled caste	85	30.4
Educational status of mother		
Just literate	67	23.9
Primary	95	33.9
Secondary	75	26.8
intermediate	42	15
Graduation	1	0.4
Family Annual Income		
10,000-20,000	65	23.2
20000-50000	49	17.5
50000-100000	71	25.4
>100000	95	33.9
Major source of income		
Agriculture	114	40.7
Service	21	7.5
Labour	103	36.8
Business	42	15

Table 1: Socio- demographic Characteristics of study population (N=280)

Above table describe the overall socio demographic information of the respondents; majority of the respondents belongs to age of infant group 7-12 months that is 65.7%, most of the respondents 58.9 % were from joint family and majority belonged to general caste 69.6%. Most of 33.9 % of the respondents were from primary education, followed by secondary education that is 26.8 percentage. Most of 33.9% respondents' family annual income was in the range of more than one lakhs. Most of the respondents 40.7% had source of family income was agriculture.

Characteristics	Frequency	Percentage
Breastfeeding knowledge		
Initiation within 1 hour	168	60
Above 1 hour	112	40
Colostrums Feeding knowledge		
Yes	199	71.1
No	81	28.9
Knowledge about frequency of infant feeding		
2-4 times	92	32.9
5 or more	188	67.1
Immunization of Child		
Yes	278	99.3
No	2	0.7
Time of first bath of newborn		
After 24 hour	165	58.9
Before 24 hour	115	41.1
complementary food consumption		
Homemade product	142	50.7
Market Product	11	3.9
Both	71	25.4
Not started	56	20
Instrument kit use cord cutting		
Safe delivery kit	145	51.7
knife	10	3.7
sterile scissors	125	44.6

Table 2: Knowledge about Infant health care

Above table revealed that 60% of respondents had knowledge on initiation of breastfeeding within one hour of birth. Most of mothers 71.1% had knowledge on colostrums feeding. Most of mothers 67.1% had knowledge on 5 or more times infant feeding time whereas 32.9% respondents had knowledge about 2-4 times infant feeding and maximum number of respondents 99.3% had knowledge about immunization of their infants. Maximum respondents 58.3 had proper knowledge on bathing after 24 hour and 50.7% the mothers' used homemade product as complementary feeding; similarly 51.7 % of respondents had knowledge on instrument safe delivery kit used for cord cutting.

Characteristics	Frequency	Percentage
Immunization of Child		
Yes	267	95.3
No	13	4.7
Breastfeeding practice		
Initiation within 1 hour	150	53.57
Above 1 hour	130	46.43
Colostrums feeding practice		
Yes	170	60.71
No	110	39.29
Practice about frequency of infant feeding		
2-4 times	82	29.28
5 or more	198	70.72
Time of first bath of newborn		
After 24 hour	115	41.07
Before 24 hour	165	58.93
Complementary food consumption		
Homemade product	142	50.7
Market Product	11	3.9
Both	71	25.4
Not Started	56	20
Instrument kit use cord cutting		
Safe delivery kit	133	47.5
knife	4	1.4
sterile scissors	143	51.1

Table 3: Practice about Infant health care

Above table clearly shows that practices regarding infant health care ,maximum number of infants 95.3% was found immunized, 53.5% newborn breast feeding within one hour, 60.71% mother colostrums feed to their neonates, 70.72% mothers feed their infants more than five times in a day whereas 41.7 % bath after 24 hours of birth, 50.7 % of the mother feed complementary food to their infant a homemade products Similarly to a question on umbilical cord care, 47.5% had used safe delivery kit to cutting umbilical cord.

Education of respondents	Infant care practice		Total
	Yes	No	
Just literate	63(94.02%)	4(5.97%)	67(100%)
primary	92(96.84%)	3(3.15%)	95(100%)
Secondary	75(100%)	0(0%)	75(100%)
Intermediate	41(97.61%)	1(2.38%)	75(100%)
Graduation	1(100%)	0(0%)	75(100%)
Total	272(97.14%)	8(2.85%)	75(100%)
χ^2 = 13.30,	df= 4	p-value = 0.32	

Table 4: Relation between Education of respondents and infant care practice

Above table shows that majority of respondents (5.97%) who were just literate and (3.15%) mother, who were primary education did not support better infants care practice. In contrary, 100% mother who had passed Graduation level had support it. Here P value greater than 0.05 therefore, there is no association between education of mother and infant care practice is found insignificant.

V. Discussion

To assess the demographic and socio-economic status, knowledge and practice of respondents about infant health care of Dasharathchand Municipality, A total of 280 respondents were taken. The age of the child between 0-12 months were selected. The study observed that, most of the respondents 69.6 % were general caste (Brahmin,Chhetri), Majority of respondents 33.9% annual family income was more than one lakhs Nepalese ruppes. Present study represent that 58.9 % respondents were from joint family. Most of the respondents 40.7% were belonged to agriculture and no one is illiterate. Nepal Demographic and Health Survey (2011) indicates that two-thirds of women in Nepal 67 per cent are literate and the level of literacy is much higher among women age 15-19 than among women in other age. This suggests that younger women have had more opportunity for learning than older women. Literacy varies by place of residence. Similarly, Nepal Demographic and Health Survey also highlighted that literacy is higher among women living in the hill zone 73% than women living in the mountain and terai zones 58% and 63% respectively. This study was conducted in hill district and most of the respondents were from 25 to 29 years of age group. Present study revealed that result from the Nepal Demographic and Health Survey (2011) showed that less than half of children 45 per cent are breastfed within one hour of birth. In this study 60 per cent respondents were breastfeeding within one hour of birth and 71.1 per cent respondents feed colostrums. Similarly 50.7 per cent respondents' infant consumed homemade food as a complementary food. The present study showed that most of the children 99.3 % had received vaccination 58.9 % respondent's bath their infants after 24 hours, and 52.5 per cent respondents had used sterile blade for cord cutting of neonates.

VI. Conclusion

On the basis of findings following conclusion is drawn. Most of the respondent's source of income was agriculture. Majority of the family type was found joint family. Study concluded that respondents had adequate knowledge about the infant care most of the respondents had proper knowledge on colostrums feeding, breastfeeding timing and vaccination of infant. Majority of the respondents in study area had proper practices on time of new born bathing complementary feeding and vaccination of infants, relation between educational level of respondents and infant health care practice found insignificant.

VII. Recommendations

On the basis of the findings of this study the following recommendations are suggested.

- Infant care practice program should be conducted with maximum use of appropriate channel.
- Awareness program should be conducted through culture activities.
- Counseling cell should be established for the reproductive age mother to promote infant health care and seeking behavior.

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IX. CONFLICTS OF INTEREST

The authors declares no conflict of interest

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