Original article

Awareness and Practice of Mothers Regarding Health Promotion of Under-Five Children in Urban Slum Area of Kathmandu

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ABSTRACT

Introduction: Breastfeeding is the ideal food for meeting the psychological and physiological needs during infancy and early childhood period. The health status of slum children is worst among all urban groups, due to faulty infant feeding practices, impaired utilization of nutrients due to infection, inadequate food intake and health security, poor environmental conditions and lack of proper child care practices. Therefore, this study aims to assess the awareness and practice regarding health promotion of under-five children residing in urban slum area.

Methods: House hold survey was conducted from 2013-12-30 to 2014-1-29 by using purposive sampling technique used as semi-structured interview schedule. 90 mothers having children aged less than 5years were selected for the study from Thapathali to sankhamul slum areas. Obtained data was analyzed by using descriptive statistics.

Results: All mothers were aware about breast-feeding where 98.8% mothers practiced on their children. 92.3% of them knew that initiation of breast milk secretion occurs soon after child birth but 81% mothers had initiated it within one hour of birth. 96.7% had idea on importance of colostrums and was fed by 97.8% mothers. 11% mothers gave prelactal feeding. 95.6% were aware of demand feeding where 97.8% practiced it. 74.4% knew the meaning of exclusive breast feeding but only 17% practiced exclusive breastfeeding till 5- 6 months, and 72% had practiced predominant feeding with breast milk. 98% mothers were practicing night feeds and 92.1% had breastfed even during child's sickness. 97.7% of the mother were aware of the complementary feeding, and 75.5% of mothers knew the appropriate time to start it but only 59% mothers had started complementary food at appropriate time of 5-6 months. 97.7% of mothers were aware and practiced immunization to their children. 97.7% of babies received BCG and 95.5% received polio and DPT vaccines.

Conclusion: Study concludes that slum areas' mothers were aware and practice regarding health promotion of under 5 was found adequate. However they had lack of proper awareness in appropriate time of starting complimentary food and use of predominant feeding with breastfeeding.

Key words: Awareness, Practice, Health Promotion, Under-Five Children, Urban Slum Area.

Introduction

Under five children's life is crucial in laying the foundation of good health. At this time certain specific biological and psychological needs must be met to ensure the survival and healthy development of the child into a healthy future adult. Food is one of the essential biological needs of the child and breastfeeding is the ideal food for meeting the psychological and physiological needs during childhood period1. Complementary foods started too lately are also risky as it leads to non fulfillment of nutritional gap leading to malnutrition and anemia. Malnutrition is responsible, directly or indirectly for about one third of deaths among children under five. About two thirds of these deaths, often associated with inappropriate feeding practices, occur during the first year of life2. Immunization is a high priority area in case of infants and children. A number of deadly and disabling infectious

diseases can be prevented by timely administration of vaccines when child is effectively immunized at the right age, most of these diseases are either entirely prevented or at least modified so that child suffer from a mild disease without any disability3. Globally, under-five mortality has decreased by 47%, from an estimated rate of 90 deaths per 1000 live births in 1990 to 48 deaths per 1000 live births in 2012. The average annual rate of reduction in under-five mortality has accelerated from 1.2% a year over the period 1990–1995 to 3.9% for 2005–2012 but remains insufficient to reach MDG4 [4].

Nepal also has high infant mortality rate in the five years preceding the survey as 46 deaths per 1,000 live births and the under-five mortality rate for the same period as 54 deaths per 1,000 live births. Nutrition and immunization are the important and essential components of health promotion of children. The poor economical condition, low ability to purchase nutritious food, low literacy rate of the mother and unawareness of importance of breast feeding and supplementary food at right time are side lying causes of malnutrition problem of children. The most common causes of death of the children are diarrhea and respiratory infection. The problems are related to inadequate (70 %) exclusive breast feeding (23 % complimentary food), lack of nutrition (29% under wt, 41% stunted), and lack (87%) of immunization. Socio-economic status and behaviors of family members, environmental factors are other determinants of health status of under five year children. Mother can prevent or minimize these problems by proper care of children[5].

The nutritional status of slum children is worst amongst all urban groups, due to faulty infant feeding practices, impaired utilization of nutrients due to infection, inadequate food and health security, poor environmental conditions and lack of proper child care practices. High prevalence of malnutrition among young children is also due to lack of awareness and knowledge regarding their food requirements and absence of a responsible adult care giver[6].

The child health status depends upon the mothers' knowledge, attitude and practice regarding knowledge of health promotion because mothers' hand is the first for the child care. If we increase the awareness of promotion of health among mothers who have under-five children, we will be able to succeed to decrease the child's mortality rate. Therefore, this study attempts to identify the Awareness and Practice of mothers regarding health promotion (breast feeding, complementary feeding and immunization) of under- five children in urban slum area of Kathmandu.

Methods

A descriptive study design was adopted to collect the information on awareness and practice regarding Health Promotion of Under-Five Children residing in urban slum areas of Kathmandu. At the bank of Bagmati River from Thapathali to sankhamul, there are around 250 huts; a door to door survey of households was conducted to identify all the mothers having children aged less than 5 years. Non-probability purposive sampling technique and interview schedule was used after taking permission from local authority. Informed verbal permission was taken from each respondent before collecting data from 2013-12-30 to 2014-1-29 by direct personal contact. Respondents who met the criteria and were available and willing to participate during data collection period were included in the study. The research instrument includes demographic variable, awareness and practice regarding breastfeeding, complimentary feeding, and Immunization. The subjects were informed that they would be allowed to refuse to participate in the study at any time if they wished. The investigator was ensured every possible attempt to reduce bias in data collection. All 90 mothers were interviewed to find out their awareness and practice about Health promotion of under-five children.

The collected data were reviewed daily for completion and accuracy. Edited data were entered into the SPSS version 16.0 for data processing and statistical analysis. The data was analyzed and calculated according to the nature of the variables, using descriptive statistics. The findings were presented in different tables.

Results

The findings shows that majority (72.2%) of the mothers belonged to age group of 21-30 years. Fifty eight percent of the mothers were Janajati and majority (62.2%) were Hindu. Likewise, 81% of the mothers and 93 % fathers were literate. Majority (80%) of the mothers were house makers, 45.5% of fathers were daily wage earners and some (15.5%) had gone abroad, and 74.4% family had economic sufficiency. Nearly sixty (59%) percent of the respondents migrated from districts within central development region and about 43% of the respondents had stayed in this slum area since 7 to 8 years.

Table 1: Distribution of Children according to Age and Sex

Age in Months	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
< 5	4	4.4	3	3.3	7	7.8
6 to 11	5	5.5	4	4.4	9	10.0
12 to 23	14	15.5	9	10.0	23	25.5
24 to 35	8	9.0	10	11.2	18	20.0
36 to 47	6	6.6	5	5.5	11	12.3
48 to 60	11	12.3	11	12.3	22	24.4
Total	**48**	**53.3**	**42**	**46.7**	**90**	**100.0**

Table 1 shows that just above fifty (53.3%) percent of the children were male among them 15.5% of them belonged to age 12-23 months. Similarly, both 12.3% male and female children were of age 48 to 60 months old. Only 4% male and 3% of female children were less than 6 months of age groups.

Table 2: Mother's Awareness about Breastfeeding n=90

Description	Frequency	Percent
Should breastfeed to child	90	100.0
Initiation of breast milk secretion soon after child birth	83	92.3
Demand feeding	86	95.6
Exclusive breastfeeding up to 5-6 months	67	74.4
Colostrums feeding	87	96.7
Reason for colostrums feeding - Nutritious & prevents from disease	65	72.0
No Prelactal feeding	18	20.0
Breast feeding during sickness	86	95.5

As the Table 2 revels that all (100.0%) mothers knew they had to breastfeed their children and 92.3% answered that initiation of breast milk secretion occurs soon after child birth. Likewise, 95.6% of the mothers said that breastfeeding is to be given on demand and 74.4% of them had knowledge of exclusive breast feeding up to 5-6 months for child. 96.7% of the mothers knew that colostrums feeding should be given to the child but only 72% of them knew that colostrums is nutritious & prevents child from diseases. One fifth (20%) of mothers replied that prelacteal-feeding should not be given to child and 95.5% said that breastfeeding should be continued even when child is sick.

Table 3: Mothers' Awareness about Complementary Feeding n=90

Description	Frequency	Percent
Complimentary feeding means		
Additional food along with breast milk	88	97.7
Stop breast milk & start other solid food	2	2.2
Felt need for complimentary feeding after 6 month	85	94.4
Reason for complimentary feeding		
Need for growth & development	55	61.0
Insufficient breast milk for baby	30	33.3
Don't Know	5	5.5
Suitable time for starting complimentary feeding		
Less than 5 Months	20	22.2

5 to 6 Months	68	75.5
More than 6 months	2	2.2
Heard about Sarbottam Pitho	80	88.8
Composition of Sarbottam Pitho (n=80)		
Mixing 2 parts Pulses & 2 Parts Cereals	3	3.8
Mixing Different Types of Pulses & Cereals as available	60	75.0
Don't Know	17	21.2

Above table 3 shows that 97.7% of the mother were aware of the complementary feeding. Majority (94.4%) of them felt the need for complementary feeding to proper growth and development of child. Similarly 75.5% of mothers were aware about starting complementary feeding within 5-6 months, and 88% were known to Sarbottam pitho but they were unaware of its compositions.

Table 4: Mothers' Practice on Breastfeeding and complimentary feeding n=90

Description	Frequency	Percent
Breastfeed	89	98.8
Initiation of breastfeeding within 1 hours	73	81.0
Colostrum feeding	88	97.7
Demand feeding	88	97.8
Duration of exclusive breast feeding		
1month	11	12.0
2month	4	4.4
3month	5	5.6
4month	16	18.0
5 to 6 months	15	17.0
Prelactal feeding practiced (Honey & Ghee)	10	11.0
Predominant feeding practiced	65	72.0
Night feeding	88	98
Breast Feeding during sickness	83	92.1
Continuation of breast feeding up to 2years	32	35.5
Time of complimentary feeding (5 to 6 Months)	53	59.0
Type of complimentary feeding *		
Lito/ Sarbottam Pitho	20	22.2
Jaulo	68	75.5
Mashed rice	65	72.1
Cerelac	7	7.8
Health problem arises with complimentary feeding	27	30.0
Had enough time to feed their child	76	84.4

*Multiple responses

Table 4 shows that almost all (98.8 %) mothers practiced breastfeeding on their children. Above eighty percent (81%) of the mothers had practiced initiation of breastfeeding within one hour of delivery and 97.7% had given colostrums feeding to their children. It was found that 97.8% had demand feeding practice but only 17% of mothers practiced exclusive breastfeeding till 5- 6 months, and 72% had practiced predominant feeding with breastmilk. 98% practiced breast feeding

even during child's sickness. Likewise, Only 35.5% of the mother practiced on continuous breastfeeding up to 2 years of age.

The Table 4 also reveals that 59% of the mothers had started Complementary food at appropriate time of 5-6 months. Most of the mothers (75.5%) feed "Jaulo" to their child. Majority of the mother initiated family food to their child after 1year. About 30% children had health problems after starting complementary food while 22.2% children refused complementary foods. Most (84.4%) of the mothers had enough time to feed their child.

Table 5: Awareness and Practice about Immunization n=90

Description	Frequency	Percent
Mothers felt need to Immunization	88	97.7
Importance of vaccination		
Reducing illness	68	75.6
Decrease childhood mortality	2	2.2
Promote the child's health	3	3.3
Don't know	17	18.9
Immunization received against		
BCG	88	97.7
Polio	86	95.5
DPT + Hepatitis B+HIB (Pentavalent)	86	95.5
Measles	77	85.4
Measles & Rubella	5	5.5
Measles, Mumps & Rubella(MMR)	3	3.3
J E Vaccine	1	1.1

The above table shows that 97.7% mothers have felt the importance of immunization for their children for the purpose of reducing illness (75.6%). The Immunization practiced was satisfactory due to the accessibility of health service and they had positive attitude towards vaccination as 97.7% of babies received BCG; whereas polio and DPT immunized children were 95.5 % but only 1% of child received JE immunization.

Discussion

The present study reveals that all mothers knew they had to breastfeed their children and 92.3% of the mothers answered that initiation of breast milk secretion occurs soon after child birth. Only 33.3% of mothers believed that suckling of breast by child can produce more milk. Likewise, 95.6% of the mothers were feeding their child on demand. In practice, 98.8 % of mothers practiced breastfeeding, and 81% of them had initiated breastfeeding within one hour of delivery. Similarly 97.8% of mothers gave demand feeding to their child. 96.7% of the mothers knew importance of colostrums feeding while 97.8% of mothers had feed colostrums to their neonates knowing or unknowingly. According to Nepal Demographic Health Survey, Breastfeeding is nearly universal in Nepal, with 98 % of the mothers had had breastfed their children. Breastfeeding within one hour of birth was more common in urban areas (51 %) than in rural areas (44%). 70% of children less than age six months are exclusively breastfeed and the median duration on of exclusive breastfeeding is 4 months[7]. The Present study showed that 74.4% of the mother had knowledge of exclusive breast feeding up to 5-6 months but only 17% of mothers practiced exclusive breastfeeding till 5- 6 months. 11% of mothers had practiced prelactal feeding and 72% of the mothers had practiced predominant feeding with breastfeeding. Likewise, 98% mothers had knowledge and practice about night feeding and 92% practiced even during child's sickness. Study findings revealed that 84.5 % of the respondents were aware of the correct meaning of exclusive breastfeeding and 49.5 % of the respondents practiced exclusively breastfeeding to their children up to 6 months[8]. Similarly low prevalence of exclusive breast feeding at six months of age (12%) has been found in Kathmandu with a median duration of exclusive breastfeeding being 3.8 months. Also low prevalence of 9% has been found in a recent study done in Bhaktapur District by Ulak et al[9].

The present study showed that less than fifty percent (43.3 %) of mothers had planned to continue breastfeeding till there is enough breast milk but in practice 35.5% of the mother had continued breastfeeding up to 2 years. The data shows that slum areas mothers had uncommon practice of bottle feeding. There are no differences in the timing of initial breastfeeding by sex of the child, parity, socioeconomic status and education of the mothers. The mean of frequency of breastfeeding duration in Nepal is 30 months and median is 34 months7. The study shows a significant different and higher mean of 43 months and median of 42 months of breastfeeding [10].

Complementary Feeding is necessary after 5/6 months of child. The present study showed that 97.7% of the mother were aware about complementary feeding, similarly 94.4% felt need for Complementary feeding to child in appropriate time for the proper growth and development. In practice, 75.5% mothers were aware about starting Complementary feeding within 5-6 months but only 59% of the mothers had started Complementary food at appropriate time of 5-6 months of child age. Most of the mothers (75.5%) feed "Jaulo" to their child and 88% were known to Sarbottam Pitho, but they did not know about composition of sarbotam pitho. Majority of the mother had initiated family food to their child after 1year. About 30% children had health problems after initiation of Complementary food while 22.2% children refused foods. 84.4% mothers had enough time to feed their child. According to study of Department of Pediatrics, Manipal College of Medical Sciences, Pokhara[10], shows that 12.7% mothers had introduced complementary fed before 2 months. The complementary foods included formula foods (10.4%), cow's milk (71.8%) and sugar water (two mothers). Only 3.4% mothers had introduced more than one complementary feed.

Immunization is the means of protection against the results of infectious diseases within the human body. WHO recommended that, children received the complete schedule of vaccination before 12 months of age. In present study, 97.7% slum areas mothers felt importance of immunization to their child, most of the mothers (75.6%) felt need to reducing illness by proper immunization. 97.7% of mothers' babies received BCG; whereas polio and DPT immunized children were 95.5 % but only 1% of mothers' child received JE immunization.78.9% mothers were aware about regular weighing of the baby to identify the normal growth (80%) pattern of the baby. Nearly sixty (58.9%) percent of mother felt need to monthly weigh the child for monitoring the health promotion of child. Bulletin of the WHO by Kirkwood B. Bahl R. Martines J.[11] found that nearly half 46.4% of higher educated mothers gave vaccination at time compared with 50% of illiterate mothers who didn't give their children vaccination at time. And the majority of not working mothers 84.6% didn't give their infants vaccinations at time. According to Sanaa M. Ahmed,Tarek A. Abd-El Rahman and Eman S. Masoed (2013)[12], It was found that the most of the mothers (68.0 %) had adequate base line information about immunization, received against polio, measles and hepatitis "B" by 89%, 53% and 27% respondents, respectively. The figures were 42%, 25% and 12% respectively in terms of immunization of respondent's children against these diseases.

Conclusion

From this study we can conclude that mother's awareness regarding nutrition and immunization was adequate but there was some gap between awareness and practices. The areas of awareness lacking are duration of exclusive or predominant breastfeeding up to 5-6months, Importance of night feed, colostrums feeding, and complimentary feeding. Some of the mothers did not fed their child immediately after delivery because of lack of Awareness about initiation of secretion of milk time and mothers believed that suckling of breast by child can produce more milk. Most of the mothers had practice on predominant feeding, and early in introduction of weaning foods. Similarly some mothers had well practice for Complementary feeding of Sarbottam pitho but they were unaware of its compositions.

Conflict of interest: None declared

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