ORIGINAL ARTICLE

Impact of Nutritional Education on Feeding Related Knowledge and Practices among mothers of under 5 years children

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ABSTRACT

Background: Infancy is the crucial period in which adequate nutrition is essential for development of normal health of the child. Poor intake of nutrition means poor nutritional status. The effects of poor nutrition appear in the period of rapid growth of young infants which demands the extra nutrients. Mothers' having nutritional knowledge plays a vital role in the children's health and also to maintain the nutritional status of children.
Aim: To see the impact of nutritional education on feeding related knowledge and practice among mothers of under 5 years children.
Methodology: Quasi experimental study design was used. This was one group pretest-post-test study.50 mothers from rural community of Lahore participated in this study selected through convenient sampling technique. Interventions of 12 weeks were done to enhance mothers' knowledge.
Results: The results show that at first mothers have not proper knowledge and practices about complementary feed. After the educational intervention the knowledge and practices regarding complementary feeding were improved significantly.
Conclusion: Knowledge of mothers is significant factor influencing a child growth. Health of a child is health of a family. So, there is need to raise awareness through educational sessions.
Key words: Nutrition, Knowledge, Complementary feeding, Practice

INTRODUCTION

The child's birth is an important event in the family. Parents have great concern about health of their growing child. Early childhood is the most fundamental period of life when the foundations of mental and social development are laid down[1].

As a result of inadequate intake of food, health problems, or a combination of both, the disturbances in nutrition consistently affect the growth and development of children[2]. Nutrition means the providing of energy and nutrients to the cell of body according to the body requirements. Better nutrition means strong immune systems, less sickness, good health and learning abilities[3]. Nutrition plays an important role to make the foundation for healthy growth in early childhood[4].

Infancy is the crucial period in which adequate nutrition is essential for development of normal health of the child. Poor intake of nutrition means poor nutritional status. The effects of poor nutrition appear in the period of rapid growth of young infants which demands the extra nutrients result in infant mortality and morbidity. In Pakistan child (under 5 years of age) mortality rate is 81 per 1000 live births in 2015[5].

First 4 to 6 months excusive breast feeding is recommended by WHO. According to Pakistan demographic health survey, in the first 6 months of life breast feeding is necessary and beneficial for infant nutrition. The breast milk contains energy, protein, vitamin A and iron[6]. First few months of life, the child gets all nutrients and energy from the breast milk. But child in 6 months or old may not receive all the energy, iron and others nutrients. To meet the nutritional requirements of child after the 6 months of age breast milk is insufficient both in quality and quantity[7].

Deficiency in macronutrients or micronutrients or both can lead to malnutrition. 50 % of children under 5 years are suffering from malnutrition. Malnutrition is affecting children under five years of age badly because it is a chronic problem in Pakistan. Pakistan was third highest country with malnutrition and under 5 years age child mortality[8]. According to Pakistan Demographic and Health Survey 2017-18, in children under 5 years, 23% are under weight, 38% of children are stunted and 17% are severely stunted. Overall 7% and 2% of children are wasted and severely wasted respectively[9]. Rate of malnutrition increased between 6 to 18 months which is the period of complementary feeding. Maternal malnutrition, inappropriate breast feeding and complementary feeding practices are main contributing factors of child malnutrition[10].

According to the World Health Organization (WHO) the complementary feeding should be timely, adequate and appropriate. That means in addition to breast milk, infant should receive food which is sufficient in quantity that fulfills the needs of child from the age of 6 months[11]. Insufficient information about complimentary food and lack of food are causes of malnutrition. A mother is the foremost source of primary care during the first five years of the child. A mother having nutritional knowledge plays a vital role in the children's health and also to maintain the nutritional status of children. Mother's nutrition knowledge is associated to their educational level Mothers who have knowledge about nutrition can bring up their children in a more effective way.

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In developing countries, quality of life depends on mother's educational level, nutritional status and health because it provides significant factors of health, nutritional status, and behavioral aspects of her children's welfare[12].

Lack of nutritional knowledge and practice is the main cause of lower nutritional status of children. Nutritional knowledge is associated with maternal educational level. Pakistan is a developing country in which most of the mothers are illiterate so, due to lack of awareness most of the children under 5 are suffering from malnutrition[13].

A study shows the effect of educational Programme on feeding knowledge and practice of mothers. The mother's knowledge was enhanced after educational intervention Practice of mothers was better than before for both intervention and control group[14].

A research was conducted to evaluate the attitude and knowledge of mothers towards food security in complementary feeding of 1 to 2-year-old children. The results revealed that mostly mothers had knowledge. Knowledge of mothers about food security was associated with various demographic variables like family income, educational level and maternal occupation[15].

Moreover, another study was conducted to evaluate feeding practices of mothers in children of 6 to 24 months age. The study results showed that optimal feeding practice was not practiced by all mothers. More than half of the mothers had knowledge about exclusive breastfeeding. There is need of enhancing the awareness on optimal infant feeding practices by educating mothers[16]. The aim of the study was to see the impact of nutritional education on feeding related knowledge and practice among mothers of under 5 years children.

METHODOLOGY

The research was conducted in a rural community of Lahore, Pakistan. Pretest post-test study design was used. Target population of the study was mothers of under 5 year old children of a rural community of Lahore. Convenient sampling technique was used in this study**.** Sample size was 50.A pre-tested semi-structured was used to assess the impact of nutritional education on feeding related knowledge and practice among mothers of under 5 year children.

The questionnaires were filled by the mothers of the children under 5 years Ethical consideration were followed strictly during entire study. The data was analyzed on SPSS software through pair t test with pre and post data.

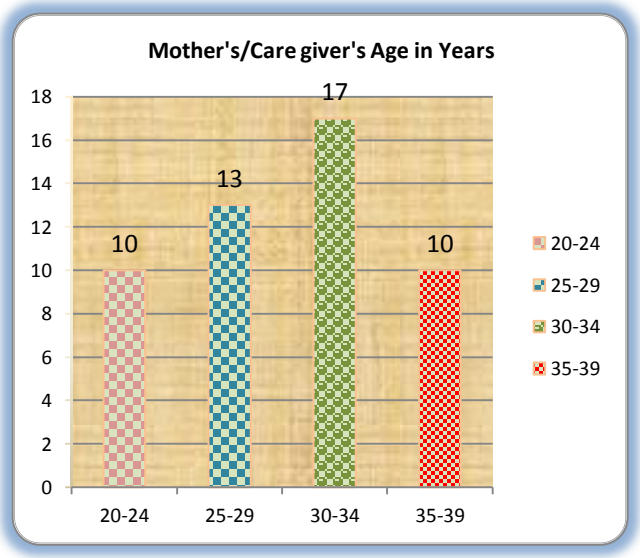
RESULTS

This section represents the demographic characteristics. The data is summarized in term of frequency and percentage. From the above table, it is assessed that 82% mothers were housewife and 16% were employed. 48% mother's education was higher secondary and 24% mothers were illiterate. 92% mothers watch TV. Only 10% households used unsafe water. 86% houses were made of concrete. 94% houses roofs were made of thatch or grass. 94% houses floor were made of concrete. 62% hoses had common toilet and 32% houses had traditional pit latrine. 76% mothers have 2 children under five years.

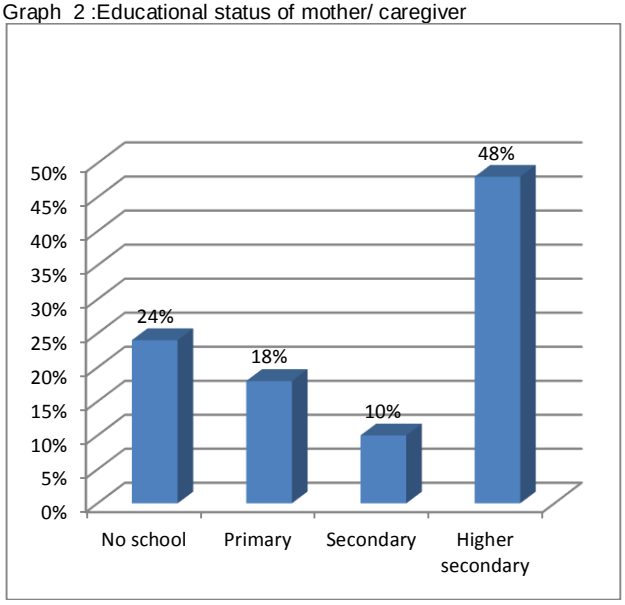
Table 1: Demographic data analysis and results

Characteristics	Category	Respondents	
		F	%age
Mother's/Care giver's age in years	20-24	10	20
	25-29	13	26
	30-34	17	34
	35-39	10	20
Religion	Islam	49	98
	Christian	1	2
Occupation	Employed	8	16
	Housewife	41	82
	Others	1	2
Educational Status of Caregiver/Mother	No school	12	24
	Primary	9	18
	Secondary	5	10
	Higher secondary	24	48
Mothers' TV Watching Status	Yes	46	92
	N0	4	8
Water Source	Safe	21	42
	Unsafe	5	10
	Filtered	24	48
Houses wall made of	Wood and mud	0	0%
	Bricks	7	14
	Concrete	43	86
	Only mud	0	0%
Houses roof made of	Iron sheet	0	0%
	Thatch or grass	47	94
	Wood	3	6
	Others	0	0%
Houses floor made of	Earth	1	2%
	Concrete	47	94
	Wood	0	0%
	Other	2	4
Type of latrine	Common toilet	31	62
	Commode	3	6
	Traditional pit latrine	16	32
	No latrine	0	0
Number of under-five children	2	38	76
	3	10	20
	>5	1	2
	>10	1	2

Graph -1 :Graphical Presentation of Mother/ Caregiver's Age in Years



Graph 2 :Educational status of mother/ caregiver



The table-2 shows the complementary feeding knowledge of mothers. The table shows the feeding practice of mothers/ caregivers. The mean ± [S.D] scores of mothers/caregivers practice of giving breastfeed in a day to their child on demand was 0.070 ± 0.4629. The mean ± [S.D] scores of mothers/caregivers about practice of giving breastfeed was increased and mean scores with S.D after the intervention was 0.88 ± 0.3283. 18% mean score was increased and 13.46% variation between scores of mother's practice of giving breast feed was decreased. The mean scores was statistically significant (P=0.002) different. The percentage mean scores of mother's practice of giving bread, rice and milk as complementary feeding was increased after the intervention from 26% (0.26± 0.4431) to 92% (0.92 ± 0.2741) and the mean scores was highly significantly (P=0.000) different. Mean scores of mother's practice of always wash their hands before feeding their child was increased 16% and there was significant (P=0.004) difference in mean scores of mother's practice of hand washing. So on the whole complementary feeding practice of the mothers/caregiver was enhanced significantly due to educational intervention. The mean practice score of mothers improved from 4.72±1.57 to 6.9±0.99 which shows the significant difference (P=0.000) between the mean score of feeding practice among mothers/caregiver. After the educational intervention score of mothers for feeding practice was increased. Educational intervention has great impact on mothers feeding knowledge and practice.

Table 2: Complementary feeding knowledge of mothers

Research Variables	Pre Knowledge	Post Knowledge	Enhancements	P value
What is complementary feeding?	0.54	0.84	0.14	0.001
How did you know about complementary feeding?	0.54	0.74	0.30	0.006
What age should complementary feeding be introduced?	0.56	0.78	0.20	0.001
When should breastfeeding stop?	0.64	0.82	0.22	0.028
How frequently should a child breastfeed after they start on other feeds?	0.58	0.82	0.18	0.002
What is the risk of starting Complementary feeding late?	0.60	0.80	0.24	0.003
Which of the items listed is appropriate in giving complementary feed to a child?	0.66	0.80	0.20	0.007

Graph -3 : Graphical Presentation of Feeding related Knowledge of mothers

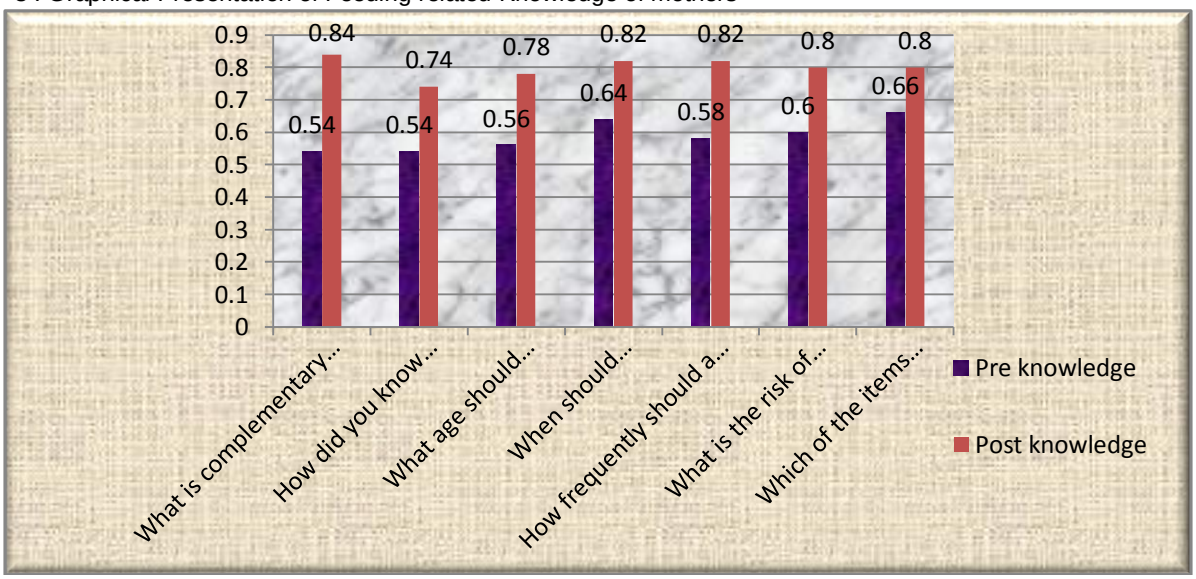


Table4: Feeding related practice of mothers

		Mean	P-value
Pre practice	How many times do you breastfeed your child in a day?	0.7	0.002
Post-practice	How many times do you breastfeed your child in a day?	0.88	
Enhancement		0.18	
Pre practice	What age did you introduce from following foods?	0.26	0.000
Post-practice	What age did you introduce from following foods?	0.92	
Enhancement		0.66	
Pre practice	What do you use to feed your child?	0.6	0.001
Post-practice	What do you use to feed your child?	0.88	
Enhancement		0.28	
Pre practice	Which of the items listed is appropriate in giving complementary feed to a child?	0.74	0.001
Post-practice	Which of the items listed is appropriate in giving complementary feed to a child?	0.94	
Enhancement		0.20	
Pre practice	Describe the thickness of your child's food?	0.54	0.003
Post-practice	Describe the thickness of your child's food?	0.74	
Enhancement		0.20	
Pre practice	Do you wash your hands before feeding your child?	0.70	0.004
Post-practice	Do you wash your hands before feeding your child?	0.86	
Enhancement		0.16	
Pre practice	Do you wash and sterilize feeding utensils after use?	0.60	0.007
Post-practice	Do you wash and sterilize feeding utensils after use?	0.74	
Enhancement		0.14	
Pre practice	How do you feed your child when sick and has lost appetite?	0.58	0.000
Post-practice	How do you feed your child when sick and has lost appetite?	0.94	
Enhancement		0.36	

DISCUSSION

In this study, the educational intervention shows a significant change in feeding knowledge and practice of children's mothers. 54% of the mothers/caregivers know about the complementary feeding. After the nutrition education, mean knowledge scores about complementary feeding increased from 54% to 84% and there was significant (P=0.001) difference between score. Similarly, in a study mean difference between before and after intervention was significant and positive effect of educational interventions was depicted. (P= 0.001)[17].

Only 70% mothers/ caregivers give breastfeed to their child on his/her demand in a day. This percentage increased up to 88% after nutritional education and mean scores was significantly (P=0.002). 60% mothers/caregivers use bowl and spoon to feed their child and after the nutritional education 88% mothers/caregiver use bowl and spoon to feed their children this shows the significant (P=0.001) difference between mean score. Mother's complementary feeding practice before and after education was improved. So nutrition education has great impact on mother's feeding knowledge and practice. Similarly in a study educational interventions were effective in improving complementary feeding practices. After educational programme mean knowledge scores were increased with enhancement in feeding practices[18].

CONCLUSION

The study concluded that the nutritional knowledge and practices were improved through educational measures. Knowledge of mothers is significant factor influencing a child growth. Health of a child is health of a family. So, there is need to raise awareness through educational sessions. Such interventions will also help to lower health related cost.

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