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Knowledge on practice of weaning among the mothers with infant below 6 months of age in Salem, Tamil Nadu

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ABSTRACT

Background & Objectives: Weaning is essential to child nutrition, which reduce infant mortality rate and related malnutrition with healthy feeding practice. Hence the mothers are expected to be knowledgeable on weaning. **Objectives:** To assess the knowledge on practice of weaning, to compare the knowledge on practice and to find out association between the knowledge scores of mothers with infant below 6 months with selected demographic variables. **Materials and Methods:** A descriptive design with cross sectional survey approach was undertaken to assess the knowledge on practice of weaning mothers with infant below 6 months of age in selected hospital, Salem, Tamil Nadu. Fifty mothers were selected by purposive sampling technique and data was collected by using structured interview schedule from 06/11/14 to 20/11/14. **Results:** Demographic characteristics reveal that highest percentage (84 %) of them belongs to the Hindu religion and had one child below the 6 months of the age.Comparisons of the knowledge score with demography highest mean and SD in relation to family income Rs 4001 - 6000 shows that (14.7 ± 1.16). The Overall Mean knowledge score was (11.5 ± 3.26)and (50 %) revealing average knowledge. However there was significant association between knowledge score and education & type of family (P = 0.0151 & P = 0.0091) revealing that maximum demographic variables do not affected the level of knowledge. **Conclusion:** The overall knowledge is average. However lowest percentage in the areas of "principles of feeding and storage" and "age of introducing on weaning" were attention seeking, implying the necessity to improve the knowledge in regard to prevent malnutrition.

Key words: Infant, Knowledge, Mothers, Salem Weaning

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INTRODUCTION

Today's children are the wealth of tomorrow. They are regarded as the future citizen of the nation. Every child has the right to have a healthy growth. Hence it is essential to nurture them to strive for their wellbeing. The physiological process of weaning is complex and involves microbiological, biochemical, nutritional, immunological and psychological adjustments. The introduction of new food is important both socially and nutritionally. The beginning of weaning is the beginning of a time of great change for both the mother and the child. Additional protein becomes necessary toward the end of the first year in the child and the infant also needs bulk of roughage about this time. Eating solids and learning to drink from a cup are important social achievements. The optimal approach of weaning matches the needs and requirements of a given child with the function and capacities of his body.[1]

The infant mortality rate in India is 69 per 1000, in Tamil Nadu 44/1000 live births and in Salem 52 per 1000 live births.[2] One of the major causes of infant mortality is malnutrition. It is high at the time of weaning due to rapid onset of infection and diarrhea.[3]Weaning is a gradual and difficult process. It is psychologically significant because the infant is required to give up major oral pleasure. They learn good thing come from a cup. If adequate amount is not provided, it leads to malnutrition[4] diarrhea and growth failure leading to kwashiorkor, marasmus, immunodeficiency and persistent infection that may be fatal.[5]

According to the WHO report, mothers are not aware of the special needs of the infant, and may not know how to prepare weaning food. Scarcity of suitable food, lack of purchasing power of the family as well as traditional beliefs and taboos about what the baby should eat often lead to an

insufficient balance diet, resulting in malnutrition.[2] Prevention is better than cure. A timely effective and appropriate nutritional educational programme for the mothers felt to be essential to combat against under-fives malnutrition which is common in India. Findings of the studies conducted by different researchers in different parts of the country also have emphasized on the importance of imparting knowledge to the mothers adequately about the important aspects of infant feeding.[6, 7]

One of the important responsibilities of the nurse whether in the hospital or community is to provide health care to the infants by educating the mothers. To bring the change of practice at the village level, the grass root level workers should be properly oriented on weaning practice, so that they may be able to emphasize the importance of weaning and food.[6] This study was conducted with objectives of assessing the knowledge on practice of weaning, to compare the knowledge on practice and to find out association between the knowledge scores of mothers with infant below six months with selected demographic variables.

MATERIALS AND METHODS

A descriptive design with cross sectional survey approach was used to assess the knowledge on practice of weaning mothers with infant below six months of age in selected hospital of Salem, Tamil Nadu. Fifty mothers were selected by purposive sampling technique in K.N. Rao Hospital, Salem and data was collected by using structured interview schedule from 06/11/14 to 20/11/14.

Written permission was obtained from the medical director, K.N. Rao Hospital Salem. Further informed consent was obtained from the mothers. The mothers who had infants below six months of age and able to speak and understand Tamil language were included in the study.

The tool consisted of 23 items. Each item has four options with one correct answer. Each correct option carries 'one score' and wrong option 'zero score'. Reliability of the tool was tested by implementing test - retest method and the reliability value (r) was 0.86.

All data collected were entered in data sheet and analyzed using the statistical software SPSS version 16.0. The collected data were planned to be organized, tabulated and analyzed by using descriptive statistics i.e. percentage, mean and standard deviation and inferential statistics. The chi - square test was used to test the association between demographic variables with knowledge scores.

RESULT

The highest percentage (84 %) of them were Hindus. Lowest and more or less similar percentage (6 % and 4 %) were in age group of 31 - 35 years, were doing the business and belonged to Muslim religion respectively. (Table no: 1)

The highest mean and SD of knowledge scores in relation to family income Rs. 4001 - 6000 shows that (14.7 ± 1.16) and lowest mean score and SD is (8.6 ± 2.43) was obtained in family income Rs.6001 - 8000. (Table no: 1) Association between knowledge score and demographic variables revealed that there was significant association between knowledge score when compared to their education (P = 0.0151) and type of family (P = 0.0091). It revealed that maximum demographic variables of the mothers with infant below 6 months of age did not affect the level of knowledge. (Table no: 1)

Out of the six areas related to weaning revealed that highest and more or less similar in the area of "common problem associated with weaning" (2.88 ± 1.21) and "Principles of preparation" (2.62 ± 1.20) However lowest mean score was obtained for "principles of Selection" (1.38 ± 0.72). Further, the overall mean and SD was (11.5 ± 3.26) which is 50% of the total score, revealing average knowledge of mothers. (Table no: 2)

A highest percentage (78 %) of the respondents knew the weaning mean fluids and food along with breast milk. However only (6%) of the respondents knew about introduction of non-vegetarian food at 9 months, increasing the calorie value by adding fats/ oils, use cup and spoon for feeding and malnutrition is the consequence of late weaning. (Table no: 3)

DISCUSSION

Demographic characteristics reveals highest percentage (52%) of mothers were between the age group of 21 – 25 years. It might be associated with early reproductive age group as the mothers selected for study were with infants below 6 months of age and average marriage in India for females is 21 years.[5] Religion wise distribution reveals that almost all mothers were Hindus which is due to the fact that majority of the population in India are Hindus.[8] The highest percentage (26%) of the mothers had higher secondary school education. It reveals that almost all the mothers are educated. However it is higher when compared to literacy status of females in India (54%) (India census report, 2012).The highest percentage (70%) of the mothers were house wife, present findings are

lower when compared to a study conducted by Shalini[8] on fever management of children among mothers in Coimbatore who revealed that most of mothers were housewives (86.3%). The highest percentage (62%) of the mothers were from joint family. However it is contradictory with the statement given by Park K[5] who reported that the joint family system is common in India.

Overall mean knowledge score reveals that the mean score was 11.5 ± 3.26 which is 50% of the maximum score revealing average knowledge. However, area wise comparison of mean knowledge score shows that out of the six areas related to weaning reveals that more or less similar in the area of "common problem associated with weaning" (2.88 ± 1.21) and "Principles of preparation" (2.62 ± 1.20) However lowest mean score was obtained for "principles of Selection" (1.38 ± 0.72). Further, the overall mean and SD was (11.5 ± 3.26) which is 50% of the total score, revealing average knowledge of mothers (Table 4.1). It is supported by the findings of Alison E[9] who reported in her study (44.28 %) of

Table 1. Demographic distribution of the respondents, Comparison of the knowledge scores of Mean ± SD and Association between the knowledge scores of mothers with their demographic variables. (n =50)

Parameters	Number	Percentage	Knowledge score of Mean ± SD	χ^2 value	P value
Age (years)					
< 20	4	8	9.25± 2.21	0.13	0.7184
21 - 25	26	52	12.46± 3.19		
26 - 30	17	34	10.29± 2.84		
31 - 35	3	6	12.6± 4.17		
Religion					
Hindu	42	84	11.38± 3.64	2.04	0.1532
Christian	6	12	10.66± 2.80		
Muslim	2	4	11± 1.41		
Education status					
No formal education	10	20	10.5± 2.9	5.9	0.0151
Primary	10	20	9± 2.9		
Secondary	9	18	13± 3.3		
Higher secondary	13	26	12.38± 2.7		
Graduation and above	8	16	12.6± 3.6		
Occupational Status					
House wife	35	70	11.3± 3.4	0.25	0.6171
Government employed	2	4	12.2± 2.18		
Private employed	3	6	11.5± 4.2		
Self employed	7	14	11± 4.76		
Business	3	6	11.5± 4.2		
Family Income per month in rupees					
< 2000	31	62	11.8± 3.1	0.06	0.8065
2001 – 4000	11	22	9± 4.2		
4001 – 6000	4	8	14.7± 1.16		
6001 – 8000	4	8	8.6± 2.43		
Type of family					
Nuclear	31	62	10.8± 1.83	6.8	0.0091
Joint	19	38	12.6± 3.46		
No of children below 6 months of age					
One child	42	84	11.5± 3.4	0.30	0.5839
More than one child	8	16	11.1± 2.5		
Residence					
Urban	17	34	11.3± 3.53	0.01	0.9203
Rural	33	66	11.6± 3.17		

the mothers were known about weaning.

Association of demographic variables with the knowledge score shows that there was significant association between education (P=0.0151) and type of family (P=0.0091). However, no significant association was found between knowledge scores with age, religion, occupation, monthly income, number of children below 6 months of age and residence.

CONCLUSION

The present study will help the mothers to prevent the malnutrition and nutritional deficiency diseases. However lowest percentage in the areas of "principles of feeding and storage" and "age of introducing on weaning" were attention seeking, implying the necessity to improve the knowledge in regard to prevent malnutrition.

Table 2: Area wise distribution of Mean and SD of knowledge on practice of weaning (n=50)

Area	Max Score	Knowledge score of Mean ± SD
Meaning and importance of weaning	2	1.42± 0.53
Age of introducing of weaning	4	1.48± 0.92
Principles of selection	2	1.38± 0.72
Principles of preparation	6	2.62± 1.20
Principles of feeding and storage	5	1.7± 1.02
Common problem associated with weaning	4	2.88± 1.21

Table:3. Item wise distribution percentage of mothers according to their correct responses (n = 50)

S.N	Item wise distribution	Frequency	Percentage
	Meaning and importance of weaning		
1	Fluids and food along with breast milk	39	78
2	Attain normal growth and development of the child	32	64
	Age of introducing of weaning		
3	Weaning will start at 6 months of age	28	56
4	When the weight of the child does not increase with breast milk alone	30	60
5	Normal diet is given at 12 months	10	20
6	Introduction of non vegetarian food at 9 months	6	12
	Principles of selection		
7	Initially will select cereals and pulses	34	68
8	Easily digestible, less roughage and non spicy	35	70
	Principles of preparation		
9	Initial stage with liquid	28	56
10	Proportion is cereals 3: pulses 2: jaggery 1 parts	22	44
11	Mixing the roasted, powered cereals, pulses and jiggery	12	24
12	Increasing the calorie value by adding fats/oils	6	12
13	Increasing the quality by adding cooked vegetables and fruits juice	33	66
14	Prior to feeding both mother's and child's hands should be washed with soap and water	30	60
	Principles of feeding and storage		
15	Gradual increase of weaning diet with breast milk	21	42
16	Start with one to two spoons and gradually increase the quantity	30	60
17	Weaning foods should not be stored	18	36
18	Use cup and spoon for feeding	6	12
19	Add one new item for 4 to 7 days	10	20
	Common problem associated with weaning		
20	Hand washing by mothers, preparing fresh foods every time and serving in clean container before and after the feeding	37	74
21	During vomiting, give less food, gradual and slower	37	74
22	Motivate and feed as much as the child needs	31	62
23	Malnutrition is the consequence of late weaning	6	12

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