

Nutritional Status and Feeding Practices of Infants

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Under-nutrition is implicated in more than half of all child deaths worldwide. India has the highest percentage of under-nourished children in the world. In any community under five children are one of the most vulnerable groups for nutritional deficiencies, owing to many factors ranging from low birth weight to maternal ill health to socio-economic and environmental factors.

Infant feeding practices in the community are strongly influenced by what people know, think and believe about these issues and by social circumstances, economic factors and other forces beyond an individual's control.

According to National Family Health Survey - 3 (NFHS-3, 2005-2006), in India percentage of children (under 3 years) who are stunted is 38 percent, wasted is 19 percent, and underweight is 46 percent and in Karnataka it is 38 percent, 18 percent and 41 percent respectively.

Objectives

This study was conducted to determine nutritional status of infants and effectiveness of Planned Teaching Programme (PTP) on Feeding Practices for Mothers of Infants in selected areas of Udupi District, Karnataka.

The objectives of the study were to: (i) identify the nutri-

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tional status of infants using WHO and NCHS standards, (ii) determine the feeding practices of infants, (iii) find association between nutritional status and selected variables such as: gender, birth order, number of siblings, age of mother, religion, education of mother and socio-economic status, (iv) find association between pre-test feeding practices and selected variables such as gender, birth order, number of siblings, age of mother, religion, education of mother and socio-economic status, (v) develop and validate PTP on feeding practices, and (vi) evaluate the effectiveness of PTP in terms of gain in post-test scores on feeding practices.

Research Methodology

The research approach used in the first phase of the study was survey approach with cross-sectional design and an evaluative approach was selected in the second phase to determine the effectiveness of planned teaching programme on feeding practices with one group pre-test post-test pre-experimental design. The samples selected for the first phase was 112 infants and their mothers and for the second phase, 38 mothers of infants in villages of Katpady Panchayat. Non-probability purposive sampling technique was used for this study due to time con-

straint and for the feasibility of the study. The data regarding sample characteristics and feeding practices were collected during the period 9 January to 4 February 2008.

Data collection instrument used by the researcher for the study were:

Tool 1: Part-A: Demographic Proforma
Part-B: Modified Kuppaswamy Socio-economic Status Scale

Tool 2: Nutritional Status Assessment (Anthropometric Measurements)

Tool 3: Section-A of feeding practices consisted of total 15 questions. Section-B of feeding practices consisted of total 28 questions. It was categorised as: Good, Average and Poor feeding practices respectively.

Results and Discussions

Frequency and percentage distribution of nutritional status of infants: Data shows that out of 112 infants, 53 (47.32%) were having normal nutritional status while 35 (31.25%) were under stunting category, 17 (15.18%) were under wasting category and 7 (6.25%) under stunting and wasting category.

The findings of the present study have been discussed with reference to other study in same district to determine the prevalence of malnutrition and its associated factors

among under five children in selected rural slums. In this study research approach used was descriptive corelational one, sampling method used was non-probability sampling (purposive sampling) and sample size was 150 under-five children and 117 mothers of under fives. The study showed the prevalence of malnutrition (87.33%) i.e. wasting (7.33%), stunting (36%) and wasting and stunting (44%) among under-five children between the age group of 6 months to 5 years. This supports the findings of our study.

Data shows that out of 112 infants, 39 (73.58%) under normal category, 25 (71.43%) under stunting category and 7 (100%) under wasting and stunting category represented age group of >6 to 12 months and 10 (58.82%) who were under wasting category represented age group of 0 to ≤6 months respectively.

Distribution of Feeding Practices (Section-A) of Infants by Frequency and Percentage

- Majority of the infants (n=86, 76.78%) were given breast milk as the first feed.
- Most of infants (17, 15.17%) were breast fed within 10 minutes after delivery (after shifting the mother to the ward).
- Majority of infants (96, 85.7%) were fed colostrum (though 86 mothers gave breast milk first but rest of 10 out of 112 mothers gave breast milk after giving some other feed as the first feed).
- Most of the infants (n=43, 38.39%) were breastfed at 30 minutes interval.

- Majority of the infants (n=77, 68.8%) were not given bottle feed when they were on breast feed.
- Most of infants (n=27, 30.68%) were started on complementary feed at the age of 4 months.
- Most of the infants (n=24, 27.27%) were given Cerelac as the first complementary feed.
- Most of the infants (n=25, 28.4%) were introduced new foods at 1 month interval.
- Majority of the infants (n=57, 64.77%) were fed complementary foods using spoon/hand.
- Most of the mothers (n=49, 55.68%) did not give preference to the child's likes and dislikes of food items.
- Majority of the mothers (n=82, 93.2%) showed to allopathy doctors when their child developed allergy or discomfort while eating some foods.
- Most of the infants (n=41, 46.6%) were given complementary feed 4 times a day.
- Majority of the mothers (n=56, 63.64%) made arrangements of leaving their infants with relatives in their absence so that child receives and eats food properly at time.
- Majority of mothers of infants (n=95, 84.8%) maintained cleanliness of kitchen and took hygienic measures for preparation and storage of food
- Majority of the mothers (n=88, 100%) preferred to check hotness or coldness of food before feeding the child.

Feeding Practices (Section-

B) Interview Schedule

Data shows that 29 (25.9%) mothers of infants out of 112 samples follow good feeding practices while 83 (74.1%) mothers follow average feeding practices.

Association between Nutritional Status of Infants and Selected Variables : Fisher's Exact Test (FET) was computed between nutritional status of infants and birth order of the child (FET = 14.758, $p < 0.05$), number of siblings of the child (FET = 20.081, $p < 0.05$) and educational status of the mother (FET = 13.668, $p < 0.05$), which showed significant association whereas no significant association was found between nutritional status of infants and age of the child's mother (FET = 2.809, $p > 0.05$), gender of the child (FET = 1.342, $p > 0.05$), religion (FET = 0.750, $p > 0.05$) and socio-economic status (FET = 5.577 $p > 0.05$).

Effectiveness of PTP in terms of Gain in Feeding Practices Scores

a) Gain in feeding practices scores of mothers of infants: In the pre-test out of 38 mothers of infants, 24 (63.16%) had average feeding practices, 14 (36.84%) had good feeding practices and none had poor feeding practices.

b) Significance of difference between median of the pretest and post-test:

Feeding practices scores of mothers of infants. Data was analysed using, Wilcoxon test (z), Wilcoxon value -5.376, $p < 0.05$ ($p < 0.001$), median of post-test feeding practices score (51) and inter-quartiles

range (24, 61.25) which was greater than pre-test feeding practices score (35.50) and inter-quartiles range (18, 43.5).

c) Association between Feeding Practices of Infants and selected variables : There was no significant association.

Conclusions

The study indicated that majority of infants were malnourished and majority of the mothers of infants followed average feeding practices.

Planned teaching programme was found to be effective as change in feeding practices was found in the post-test. Even though mothers know about Feeding Practices it becomes necessary to emphasise on positive and good Feeding Practices which helps children to grow in a healthier way so that nutri-

tional disorders can be prevented.

Recommendations

- ♦ Education programmes conducted at hospital and community settings must help in imparting knowledge to mothers help to control occurrence of malnutrition.
- ♦ Existing health programmes and services must be strengthened to combat malnutrition.
- ♦ A similar study can be replicated on a larger sample or can be undertaken with a control group.
- ♦ A comparative study can be undertaken to find out the knowledge level and practices of urban, rural and slum dwelling mothers regarding feeding practices.
- ♦ The study can be replicated for under-fives.

- ♦ Similar study can be conducted by investigating all aspects of baby care other than feeding practices.

References

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St Joseph's College of Nursing, Anchal, Kollam (Kerala) : The Graduation Ceremony of 13th batch of GNM students was held on 30 Jan 2010. Rt Rev Dr Selvester Ponnunmuthan, Bishop of Punalur, inaugurated the function and delivered the presidential address. Rev Sr Lily Thomas, DM, Director St Joseph's Institutions welcomed the gathering. Mrs P Mercy, Principal, Dr Nair's SON, Kollam delivered the special message of the day. Rt Rev Fr Thomas Kumbukatt distributed the certificates to the graduates and presented the endowment to Ms Reena P for the bedside nurse. Rev Sr Alex DM, Asst Provincial, St Mary's province presented the Mar Ivanios Gold Medal to Ms Liji Abraham for the best outgoing student. Rev Sr Sobhitha, DM, Asso Prof SJCON and GNM programme coordinator administered the Nurses' Pledge. Mrs Subhalekshmi V (Principal, SJSON) presented the report for the year 2009. Vote of thanks was rendered by Ms Nithya Nelson.



Vinayaka Mission's Annapoorana College of Nursing, Salem (TN) : The Annual Alumni Meet was conducted on 30 Sept 2009 with participation of 180 members. The President, Dr (Mrs) Laxmi Rana inaugurated the programme followed by Alumni report and financial report presentation by Secretary Mrs M Sumathi and Treasurer Mrs A Meena respectively. Cultural competitions were held for the alumni members. A seminar on 'Nursing Process' was also conducted for 2 hours. Executive committee meeting and general body meeting were held in the afternoon. Various aspects related to the welfare of passed out and present students as well as college welfare topics were discussed. Suggestions were noted and prizes were distributed to the winners of cultural competitions. The programme ended with a vote of thanks.