

Abstract



ABSTRACT

Nutritional inadequacies and infections during childhood can result in hampering of the development of the body leading to irreversible undesirable changes. Adequate and safe food lays the foundation stone for future health of the child. The present study was undertaken with the broad objective of reducing undernutrition amongst tribal children of Gujarat using a package of nutrition, health and food safety intervention.

The first phase involved conducting a baseline survey to assess the nutritional status of the 536 children. Knowledge and practices of the mothers with respect to hygiene and sanitation; IYCF and childhood diarrhoea were assessed using a semi structured questionnaire. Observations were carried out to assess the personal hygiene of mother and child along with environmental hygiene of the household.

Results of the baseline survey revealed that only 2.1% families belonged to the upper high SES group and 43.7% belonged lower middle group. Only 16% mothers and 7% fathers were illiterate. High percentage of families (60.6%) resided in semi *pakka* houses and 64.4% households had open drainage system. Safe source of water was used by almost all the households for all the activities.

Anthropometric analysis revealed that 43.09% children were moderate to severely underweight, 50.93% were stunted and 25.38%. Diarrhoea was reported in 35.3% children in the past one month of survey.

Majority of mothers (71.3%) had excellent scores for knowledge on environmental hygiene and about 50% were graded as poor for practice on environmental hygiene. About 48% mothers scored fairly on knowledge on food hygiene and 79% were ranked as “very good” for practices on food hygiene. Excellent scores were obtained by 76.5% mothers for knowledge on personal hygiene but only 29.7% mother had excellent scores for personal hygiene practices. Forty nine percent household had good environmental hygiene observation scores. More than 90% households had soap or ash at the hand washing place and had all the drinking water containers covered. Sixty seven

percent mothers had excellent to good scores for personal hygiene observations as compared to 56.8% children.

Seventy percent mothers had poor knowledge on breastfeeding and only 36% were categorized as having excellent practices. Complementary feeding knowledge of mothers was better as 58.2% mothers were categorized as excellent.

Only 1.87% mothers were graded as excellent and majority 64.37% were categorized to have poor diarrhoea cause and management knowledge. Almost 90% mothers whose children suffered from diarrhoea were graded to have poor diarrhoea management practices.

Weight for age z scores of the child were affected by age of the child, SES of the family, personal hygiene observation scores of the child, health seeking behaviour of the mothers, PH knowledge scores of the mothers and age of the father. HAZ was determined by age of the child, environmental hygiene practice scores of the mother, health seeking behaviour of the mothers, diarrhoeal morbidity in children, sex of the child and personal hygiene score of the mother. Weight for height z scores were predicted by only 3 factors namely age of the child, SES of the family, PH knowledge scores of the mothers.

The factors which affected occurrence of diarrhoeal morbidities in children included SES of the family, religion of the family, diarrhoea management practice scores of the mother, age of the child, PH scores of the child, height for age z scores of the child, personal hygiene practice of the mothers.

Phase II involved imparting nutrition, health and food safety education to the mothers using a short film. Information on optimal child feeding practices, childhood diarrhoea management and prevention were imparted using short take away messages. Growth monitoring was carried out for a period of 5 months to assess the change in nutritional status of the children.

Post intervention significant improvements were observed in the nutritional status of children in both the EG and CG after a follow up period of 5 months. The percent improvement in the WAZ, for EG was 20.7% higher than the CG, and WHZ was 43.16% higher. In contrast the HAZ for CG showed a percent decrease of 13.98% after a period of 5 months. Significant differences were observed in the z scores for WAZ and HAZ of the children in the experimental and control group before and after the intervention.

The average number of days for which a child suffered from diarrhea in the control group was significantly higher than in experimental group (5.71 vs 7.67). More percent reduction was found in the number of diarrheal episodes (65.88% vs 58.69%) and the number of days (69.23% vs 60.45%) for which the child suffered in the EG as compared to CG. Nutritional status of the children in the experimental group showed negative significant correlation with number of diarrhoeal episodes and days of suffering. No such correlation was observed in the CG.

The knowledge scores of the mothers improved significantly by high percentages in the EG as compared to CG post intervention for all the aspects studied. Percentage knowledge scores for EH improved by 12.49%; FH by 20.7%; PH by 5.77%; BF by 99.59%; CF by 44.78% and CD by 348.62%. While the practice scores for EH improved by 3.27%; FH by 3.53%; PH by 6.76%; CF by 25% and DM by 156.82%. Household EH observation scores showed no significant changes post intervention. Personal hygiene scores of mothers and child improved significantly by 5.38% and 8.51% respectively.

Hence the module used as an intervention tool proved to bring about significant desirable changes in terms of improving the nutritional status of the children and the knowledge levels of the mothers. The study proposes to adopt the module at community levels so as to disseminate the message to larger populations and help tackle the problem of undernutrition amongst children.