

Abstract

The present study was planned with the objectives of assessing the impact of an educational intervention on responsive feeding, on child feeding practices adopted by caregivers, and eating behaviour and growth of their children.

The study, which was a community based intervention study with a control group, comprised three stages, the first of which was a baseline cross sectional community survey.

The study was carried out in two MOH areas in the Colombo district in the Western Province of Sri Lanka. Padukka and Piliyandala MOH areas were selected for the study as they were the closest matching pair in terms of socio-demographic and health characteristics yet, suitably spaced apart so that cross contamination would be minimal. MOH area, Padukka was selected as the intervention area randomly and MOH area, Piliyandala as the control area. All primary healthcare providers of the two areas who are involved in maternal and child health were also included in the study.

For each of the intervention and control groups, 510 children aged 12 - 23 months were randomly selected from the Birth and Immunization Registers maintained by Public Health Midwives (PHMs) of the respective MOH areas. The Birth and Immunization Registers were updated for the purpose of the study. The number of children to be selected from each PHM area was decided according to probability proportional to size of the population of children who would be 12-23 months of age at the time of baseline survey. Of these selected children, 503 and 499 were available for the baseline survey and 472 and 471 for the post intervention survey respectively.

In the first stage of the study information was gathered on socio economic and demographic characteristics and child feeding practices of caregivers. Eating behaviour of children was assessed as perceived by their caregivers and lengths and weights of children were measured. Z scores were later calculated for the three nutritional indices of weight for age, height for age and weight for height. The main instrument used was an interviewer administered, pre coded, structured questionnaire. Information on feeding practices was elicited by way of extensive interviews. The interview questions on feeding practices and eating behaviour were developed under the guidance of a paediatrician, a consultant community physician

involved in child health and a nutritionist. A self administered questionnaire was used to obtain socio demographic and service related information from primary healthcare providers and assess their knowledge on young child feeding practices.

The second stage of the study was the development and implementation of an educational intervention on responsive feeding. The educational materials (a leaflet for the caregivers and guide for health care providers) were developed by the principal investigator in consultation with relevant specialists. The intervention was directed at caregivers of 12 - 23 month old children through the existing primary healthcare system. Primary healthcare providers involved in maternal and child health (Public Health Nursing Sisters, Supervising Public Health Midwives and Public Health Midwives) were trained to implement the intervention in the community. During training, the concept of responsive feeding was introduced and counselling skills reinforced among the above mentioned categories of healthcare staff.

The third stage was carried out six months after the implementation of the intervention to assess the impact of the intervention. The information gathered was the same as that of the baseline survey, collected from the same caregiver child pairs and primary healthcare providers.

The study revealed that there was no significant difference in knowledge on young child feeding practices among healthcare providers of the two areas at the baseline assessment. However a significant ($p=0.000$) improvement in knowledge on appropriate child feeding practices was observed among healthcare providers in the intervention area following intervention compared to the control group.

At the baseline survey, the control group reported significantly better feeding practices compared to the intervention group, but knowledge on young child feeding was similar in both groups. No significant difference was observed in the eating behaviour of children in the two groups at this stage. Regarding the nutritional status of the children in the two groups, except for the control group having a lower mean Z score for weight for height (more wasted) compared to the intervention group, no significant difference was observed in the other two anthropometric indices of weight for age and height for age.

Caregivers in both intervention and control groups showed significantly higher knowledge and better child feeding practices (reported) after the intervention. However, mean increase in knowledge score was significantly higher in the intervention group (20.4%) compared to that of their counterparts (4.2%), $p= 0.000$.

Mean increase in the scores given for child feeding practices too, demonstrated a similar pattern (16.0% vs. 2.6%, $p=0.000$). Feeding practices that would promote psychosocial development also improved significantly in the intervention group after the intervention as shown by the mean increments in the scores (15.6% vs 2.4%, $p=0.000$).

Eating behaviour of children significantly improved following intervention as shown by the significantly higher mean difference of scores in the intervention group (11.2% vs 2.3%, $p=0.000$). There was a significant effect on the growth of children in the intervention group. The mean increments in Z-scores for weight for age and height for age were significantly higher in the intervention group compared to the control group (weight for age, 0.25 vs 0.09, $p=0.000$ and height for age 0.37 vs 0.14, $p=0.000$).

The intervention carried out in the study was found to be effective in enhancing the knowledge on responsive feeding practices among health care providers and thereby the knowledge among caregivers. It also led to an improvement in feeding practices adopted by caregivers and eating behaviour and growth of their children.

Improving responsive feeding practices of caregivers through existing services is feasible and effective and leads to significant improvements in eating behaviour and growth of young children. Hence it is recommended that parents should be educated not only on providing good quality food in adequate quantities but also of the importance of adopting sound child feeding practices, with emphasis on responsive feeding.