Integrated Approach to Address Food and Nutrition Security in the Philippines

The Effects of Nutrition Education on Knowledge, Attitude and Practice Among Schoolchildren and their Parents
The school as a platform for nutrition education for children and parents

Introduction

Nutrition related knowledge, attitudes, and practices (KAP) of both parents and children are important determinants of nutritional status and are probable contributors to malnutrition. In delivering health and nutrition services, schools are appropriate settings to provide these services to children because of their potential to reach millions of children and adolescents. Apart from the participation of school leaders and teachers, involvement of parents and guardians is important since they are responsible for meal preparation at home. The lack of correct nutrition KAP among parents and guardians may put the nutritional status of family members at risk.

One of the strategies used to prevent child malnutrition and to address this gap in KAP is nutrition education. Andrien (1994) defined nutrition education as "that group of communication activities aimed at achieving a voluntary change in nutrition-related behaviors to improve the nutritional status of the population". In the Philippines, its high efficiency rate led to the implementation of various nutritional education programs headed by the Nutrition Foundation of the Philippines (NFP). One of which is the Nutrition and Health Kiddie Class (NHKC) which aims to educate children aged four to six about the importance of food and nutrition. NHKC teaches students on food and nutrition that will enable them to: (a) learn the importance of food in relation to health; (b) know the various nutrients needed by the body and its sources; (c) practice personal hygiene; (d) be an advocate of environmental sanitation; and (e) help improve their nutritional and health status. Also in a study by Agdeppa et al. (2012) in modeling the commercialization of iron fortified rice in selected districts of Zambales, a significant increase in percentage on knowledge of parents in knowing what iron is (30.2-97.5%), identifying good food sources of iron (28.3-95.0%) and what iron fortified rice is and can do (5.6-81.9%) have been observed. Increments on good practices have also been acquired when the percentage of parents who have bought the iron-fortified rice have significantly increased (2.4-51.4%). Likewise same increase in knowledge and practices regarding iron and iron-fortified rice among participating mothers were obtained in the research results of pilot scale commercialization of iron-fortified rice by Agdeppa et al. (2011) too.

Internationally, a program by Cornell University, Ithaca, New York on International Nutrition uses nutrition education among children or parents as one of their tools in mitigating malnutrition and hunger (Cornell University, 2014). Improved nutrition education has been one of the key factors to prevent 12,000 deaths a year worldwide according to the UN Millennium Campaign (United Nations, 2012).

The findings of the study could serve as a model for administering nutrition education in schools both for parents and children for scale-up programs.

This KAP study was a collaborative effort of the Food and Nutrition Research Institute (FNRI), the International Institute of Rural Reconstruction (IIRR) and the Department of Education (DepEd) with funding support from the International Development Research Centre (IDRC), Canada.
Approaches

This was a qualitative type of study employing purposive sampling techniques. This involved the assessment of KAP of children who were participated in a supplementary feeding activity and their parents.

This study was one of the components of a bigger study, results of which are published elsewhere. There were 2 schools in Cavite purposively selected as the intervention schools for the nutrition education component. These selected schools also served as the study site for the supplementary feeding activity; a co-project component of this study.

The subject children were 6-8 years old, underweight and/or anemic who also served as participants in the supplementary feeding activity. One hundred forty six children (146) participated in the nutrition education activity. Gender balance in the sampling of children was ensured. One hundred forty five (145) parents/guardians of the children also served as study participants.

Various forms of information, education and communication (IEC) materials were developed for both children and parents. For children, nutrition concepts and principles were integrated in the lesson plans of trained teachers and these topics were discussed by the teachers for a period of 3 months (a total of 50 hours).

For parents/guardians of children, various types of IEC materials were also developed: recipe booklet, modules, which include health, nutrition, and gardening; and themed posters. The modules were administered by trained teachers and trained research staff. These were done in the schools for 5 non-consecutive days; two modules were covered per 2-hour session.

The questionnaire for children was composed of 10 knowledge items, 10 attitude items, and 10 practice items, whereas that for parents/guardians consisted of 15 knowledge items, 15 attitude items, and 15 practice items. Every item was a closed-ended statement. Baseline questionnaires for children and parents were utilized at endline.

Limitations

The process and manner how teachers delivered the lectures to children was not observed, hence quality of teaching & actual time allotted were not directly observed and recorded by the research team.

Results

The results of the study which compared the before against after test scores showed various improvements on nutrition KAP of children and their parents/guardians.

Among children:

- Increased knowledge (65.3% to 76.2%) and attitude (78.2% to 89.1%) of children on the importance of having home gardens and improved attitude towards consumption of variety of foods (74.1% to 84.4%).
• Improved recognition of the negative effects of worm infestation (42.8% to 47.6%).

Among parents:

• Improved parental knowledge on the importance of consumption of fruits and vegetables to prevent sickness (93.9% to 100%), serving breakfast for children (42.4% to 78.8%), having home gardens (78.8% to 93.9%), and the negative consequence of worm infestation (33.3% to 60.6%).

• A more positive attitude (63.6% to 93.9%) and practice (27.3% to 87.9%) on proper preparation and serving of fruits and vegetables; and improved attitude (51.5% to 66.7%) and practice (51.5% to 93.9%) on the purchase of fortified foods for children.

• Significantly increased baseline-to-endline mean scores concerning lessons in: constraints and challenges in sustaining nutrition in home settings; proper nutrition guidelines and nutrition practices; encouraging children to eat vegetables; vegetable preparation and cooking; food fortification; and personal hygiene and health.

**Conclusion**

The school can serve as a good venue for inculcating the correct KAP on health, nutrition, and gardening through appropriate and sustained nutrition education activities for both children and parents.

**Recommendations**

• Nutrition education among children can be delivered through the classroom teaching approach; however, this should be conducted in an intensive and attractive manner in order to capture the interest/attention of children.

• The quality of teaching efforts needs to be improved via training support if this delivery model is to be scaled-up.

• The regular conduct of nutrition education among parents during PTA meetings and other appropriate opportunities should be given due attention. Parents play a significant role in the improvement of the children’s nutritional status.

• To translate gained knowledge into better attitude and practice among parents they must be encouraged to attend health and nutrition classes.

**References**


