NUTRITION EDUCATION IN THE 80s

AIDS TO PROGRAMMING UNICEF ASSISTANCE TO EDUCATION

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NUTRITION EDUCATION IN THE 80s

The art and science of nutrition education has reached a milestone in its development. Since the early eighties, growing attention has been paid to improving the effectiveness of nutrition education. Nutrition education has evolved from a micro-level emphasis on teaching and a concern with simple dissemination of knowledge and information primarily on a one-to-one basis in the classroom or clinic, to the strategic use of education, communications and marketing techniques for the transmission of problem-specific messages through various channels of communications.

Nutrition education has become a creative and challenging discipline whose roots are only partially in nutrition and whose real source of inspiration comes from fields such as the social and behavioural sciences, anthropology, market research and modern communications. The new nutrition education encompasses a whole new vocabulary that includes such terms as formative research, message design, materials development, media planning. This vocabulary resembles more that of development communications than nutrition. But when taken as a total, it becomes an array of highly effective techniques for changing nutrition behaviour and practices and, if well done, nutrition and health status.

Today's nutrition education begins by asking what is the nutrition problem to be solved? It begins by going out into the community to find out if the problem is really what those responsible for nutrition education think it is, or if it is something different. Is protein-energy malnutrition a problem, is vitamin A deficiency a problem, or is diarrhoeal disease a problem? Which of the problems is amenable to an educational intervention?

Education alone cannot bring potable water to a community, but it can help reduce the risks of water-borne diarrhoeal diseases. The new nutrition education begins by identifying individual behaviour and practices related to the problem that needs to be changed by the target audience, and then attempts to detect "resistance points" or problems that the target audience may have to changing critical practices. Once having pinpointed these resistance points, the new nutrition educator then goes out into the community to solicit its participation in developing practical solutions that will overcome the resistance. Solutions once identified are tested out in the community for their nutrition soundness and doability.

This changing nature of nutrition education places greater responsibility on the nutrition educator who needs to understand the nature of behavioural practices in target population groups and the socio-cultural constraints that inhibit change. The nutrition
educator needs to know how to identify new nutrition practices that will improve nutrition and health status and which will be acceptable to communities; he must then be able to design and implement an educational strategy to promote the desired behavioural change.

The advent of this behavioural change approach to nutrition education offers tremendously effective techniques for creating educational interventions based on real learner needs and desires. Designers of nutrition education of the 60s and 70s would apply the same educational programme, technology or solution everywhere; they would specify curriculum and teaching content, number and type of materials needed often without ever stepping out into the community of their learner audience. Those involved in school nutrition education would, for example, when faced with such problems as student fatigue, weakness and poor school performance, deliver standard nutrition lessons based on standard messages like "eat more protein", or "energy rich foods". Today's nutrition educator faces the problem differently, accepting no standard recommendation before exploring with learners the feasibility of different solutions, problems or resistances they may have to changing practices and adopting new ones.

The nutrition situation around the world in the 80s is demanding new approaches to nutrition education. Malnutrition is widespread - several million people suffer from protein-energy malnutrition; hundreds of millions more suffer from vitamin A deficiency, iron deficiency, anaemia, or iodine deficiency. The human cost of malnutrition in physical and possibly mental retardation, debilitating illness and low-energy levels affecting scholastic performance, productivity and earning capacity is awesome. The effects of malnutrition are particularly prevalent among children.

If we want to lower infant and child mortality, improve child survival and raise a generation of children free from malnutrition and its deleterious effects on physical, mental and cognitive development, serious and sustained efforts are needed to improve educational interventions and the quality of teaching and learning to ensure that people learn about, believe in and adopt a relatively narrow but absolute critical set of new beliefs and skills that will impact on mortality, morbidity and the quality of child survival.

**Behavioural Change Approach: Application of Social Marketing Principles to Nutrition Education**

Perhaps the most effective of the new approaches to nutrition education of the 80s involves the application of social marketing principles and techniques to the design and implementation of nutrition educational interventions. The term "social marketing" was coined a little over ten years ago by civic-minded members of the marketing, mass media, and advertising professions. It was
intended to refer to activities that applied principles of modern marketing, commercial advertising and broadcast media to the pursuit of social goals.

In more recent years, the types of activities that have been referred to as 'social marketing' have expanded and now include a range of skills derived from the social and behavioural sciences, anthropology and ethnography, non-formal education, curriculum design and public administration. Skills borrowed from these various fields include concept testing, focus group interviews, target audience segmentation, target group analysis, message design and testing, materials development and media planning. The social marketing approach to nutrition education emphasizes understanding the learner audience to be addressed, and carefully designs educational messages to promote new nutrition behaviours that have been tested out for their nutritional soundness, doability and acceptability by the target audience.

Social marketing is the adaptation of marketing, itself a neutral methodology, to the solution of public health problems. The difference between social marketing and marketing is in substance and objective not methodology. Social marketing of nutrition for example, should not be confused with product marketing of a food company which markets foodstuffs for the profit of stockholders. The goal of social marketing-oriented nutrition projects or programmes is people's nutritional health.

During the last decade social marketing has been effectively used for family planning. Social marketing-oriented family planning programmes are characterized by their good adaptation to target audiences' behaviour and practices and local conditions in addition to their solid management. Social marketing of nutrition and health has only come into being since the late 70s - early 80s. Yet despite this short time, a number of countries have organized and carried out very effective educational campaigns that have demonstrably altered nutrition and health-related behaviour and improved nutritional health status of target population groups.

**Recent Successful Non-formal Nutrition Education Interventions**

In the developing world, a number of nutrition education projects are worth mentioning.

The **Indonesian Nutrition Communications and Behavioural Change Project** has succeeded in demonstrating on a fairly large scale that education alone - without the provision of supplementary food - could improve the nutritional status of nutritionally "high risk" target groups.

The Indonesian project has effectively applied social marketing principles to non-formal education and relied on carefully constructed messages designed to promote new nutrition behaviour.
which has been well-tested among the target audience. Villagers were involved in preparatory inquiries into nutritional and health problems. Project designers worked hand-in-hand with villagers in identifying the particulars of problems, proposing and testing solutions. Villagers contributed to decisions about nutritional messages, educational materials and the way these materials were used for instruction. These messages and materials were then transmitted through multiple channels of communication, including village-level nutrition educators, rural press and local radio.

Another unique feature of the project was the way that the community nutrition educators were trained to focus on priority nutrition issues and minimize on all extraneous factors and information.

The project's evaluation found that children in the target area had grown significantly better than children in the control area. Furthermore, the food intake of children in the target area was also greater, reflecting a newly acquired ability of mothers to make better use of family foods for feeding young children.

The success of the Indonesian project can be attributed to the social marketing approach used to carefully construct messages and materials that were behaviour-specific, practical and acceptable enough for rural mothers to put to use every day.

In Gambia and Honduras, nutrition/health education campaigns based on social marketing have been underway to teach families how to prepare and administer oral rehydration fluids to treat diarrhoeal disease. Different educational strategies have been developed for each country. In Gambia, emphasis has been placed on a set of colour-coded pictorial mixing instructions for audiences who were unable to read and write, while in Honduras, the programme relied heavily on a combination of printed materials and instruction on the local radio.

In the late seventies, Honduras reported that nearly one-quarter of all infant deaths resulted from dehydration due to diarrhoeal disease - diarrhoeal disease being the single greatest cause of infant mortality. The Honduran educational intervention thus focussed on those most "at risk" - children under five. After extensive social marketing research, an educational strategy using mass media combined with systematic training programmes for village workers focussed on teaching village mothers about oral rehydration therapy and how they could use it at home. Results of the project have been dramatic: deaths resulting from diarrhoeal dehydration among children dropped by 40% during the first year and a half of project implementation.

In Gambia, after the first year of the educational programme, two-thirds of the mothers in the target area already had a good understanding of and were beginning to use oral rehydration therapy.
These significant increases in awareness and knowledge of oral rehydration therapy in a relatively short time in both countries were attributed to the systematic use of social marketing techniques and the effective use of interpersonal and mass communications.

The Brazilian National Breastfeeding Educational Programme carried out since 1981 by the National Institute of Nutrition of Brazil, with UNICEF assistance, is a leading example of a successful educational promotion programme. One of the reasons for the success of this education intervention has been a series of well-researched and designed public service announcements for national television networks. These 60-second television spots featuring leading Brazilian sports and entertainment personalities reached an audience of over half a billion viewers. A key factor contributing to the success of this campaign has been the creation and organization of community-based mother support groups which provide important face-to-face education and interpersonal contact with mothers wanting to nurse their babies.

In the industrialized countries, too, there are a number of examples of successful nutrition/health projects which have taken a social marketing approach, and their success can be attributed to effective application of social marketing principles.

In North America, the U.S. High Blood Pressure Education Programme has been in existence since 1972 and makes use of social marketing techniques for mass media promotion coupled with face-to-face education at the workplace. A striking result of this educational programme has been the increase in awareness among hypertensives of their health risks and ways to keep their blood pressure under control. Furthermore, there has been a strong correlation between this programme and a decline in stroke deaths. Stroke deaths began declining at a remarkable rate since the inception of the programme, dropping by almost half.

What all these successful projects have in common is:

1) they all stress education (along with modern communication techniques) as a major intervening factor in the promotion of new behaviour and practices;

2) in each case, the approach to education is comprehensive and systematic and relies on a complexity of methodologies drawn from fields of modern marketing, advertising, social and behavioural sciences and applied education.

Nutrition education in recent years has been transformed. It no longer means merely classroom or clinic activities such as lectures on food groups, or the development of an audio-visual presentation. Although these traditional micro-level nutrition/health education activities are still extremely worthwhile, nutrition education today in practice has come to mean much more.
HONDURAS NUTRITION/HEALTH EDUCATION CAMPAIGN

Prevention and Treatment of Diarrhoea

Promotion of Oral Rehydration Therapy
GAMBIA NUTRITION/HEALTH EDUCATION CAMPAIGN

Prevention and Treatment of Diarrhoea

Promotion of Oral Rehydration Therapy
Nutrition Education Through the School: A New Approach

One of the greatest challenges facing nutrition education is to develop more effective ways of communicating nutrition concepts and practices through formal education. School systems are proving inadequate everywhere, overcome by budgetary restrictions and assaulted by dissonant educational messages from outside the classroom. School curricula are increasingly overloaded, while mass media are pre-empting a major share of children's attention and intellectual energy. Around the world, ministries of education are struggling with such problems and issues affecting the quality of education.

An innovative school-based nutrition education project in the Caribbean is now in the process of developing a model for incorporating social marketing principles into the design of formal nutrition education.

In Jamaica, the social marketing-oriented primary school nutrition education, a collaborative project involving the Ministry of Education, the International Nutrition Communication Service of the Education Development Centre, and Unesco, is attempting to incorporate nutrition concepts into the primary language arts curriculum in order to determine whether primary school children can increase their nutrition knowledge and understanding at the same time as their reading skills. This project has involved a participatory process whereby teachers, parents, resource persons and the Ministry of Education develop locally relevant nutrition teaching-learning materials.

During the first phase of the project, research was carried out to measure primary school students' reading abilities and knowledge of nutrition. This baseline formative research provided clues to the messages and information that should be included in the curriculum design. It also served as a pre-test against which a change in knowledge and reading ability could be measured at the end of the project. The reading component of the research survey instrument focussed on word recognition, structural analysis (synonym/word definition) and reading comprehension while the nutrition component examined students' awareness of general food-related issues and concepts, including specific knowledge of the values and functions of certain foods. Research findings indicated that in terms of nutritional messages, emphasis in the curriculm should be placed on (1) how different foods affect the body (2) the concept of mixing a variety of foods for balanced meals and (3) the idea of food substitution (i.e. using plant protein sources as substitutes for animal proteins).

The second phase of the project involved materials development. A community workshop was organized for teachers, parents, resource persons, to develop educational materials.
"Nutrition Magicians" - theme of the Jamaican Nutrition Education Project
Examples of Nutrition Education Materials in Use in Jamaica

Vocabulary

breastmilk    formula
mangoes      running belly
mash

Questions

1. Why do you think the baby asks for mangoes or fish or cow's milk?

2. Tell in your own words what the best food is for a new baby. Give two reasons why it is best.

NUTRITIOUS FOODS FOR ALL

I'm Roger and I'm nine months old. I still drink breastmilk, but I'm growing so fast I need more food. I eat plenty of thick porridge. I don't have many teeth, so my food must be soft or mashed. My mother gives me plenty of mashed go, grow, and healthy helper foods. She feeds me with a clean cup and spoon. Because I'm growing so fast I need lots of food to give me energy and to build muscles.

What do I eat?

You've read about what a new baby should eat. Now see what other people need to stay healthy.
Participants provided their insight, ideas and suggestions as to format, message, content and other factors affecting design. A series of learning activities were also formulated that could be carried out by children themselves to improve their understanding and practice of better nutrition.

This community-based approach to the design of educational materials minimized the usual "top-down" way of providing curriculum and teaching materials to teachers. Teachers and parents were directly implicated in the design of the educational materials.

After the community workshop, educational materials were further refined by a group of Ministry of Education personnel, including curriculum developers, writers, artists and technical resources persons. Prototype materials were further adapted based on comments from reading and education specialists, nutrition educators and children's book designers. A prototype student work-book, teachers' guide and supplementary materials were prepared. "Nutrition magicians" was the theme chosen for the educational package, implying that children could become nutrition magicians, that is that they were capable of improving their own health by following the nutrition behaviour emphasized in the manual.

The student work-book incorporated both relatively simple, highly visual reading materials, and more abstract, print-centred stories, poems and essays. Each section introduced nutrition-related vocabulary; and included a series of questions and student-centred exercises. This work-book accommodated a broad range of reading abilities and the project evaluation assessed the degree to which different reading formats were comprehended.

Materials were pre-tested with students in order to check: (1) comprehension of the story's message (2) clarity of stories and illustrations (3) interest provoked by pictures and stories (4) likes and dislikes of certain aspects of the materials (5) ease of reading and appropriateness of reading level (6) relevance of the nutrition-related behaviour promoted.

Children's feedback provided valuable insights for further refining materials, adjusting some of the illustrations, and sequencing the cartoon sections. It also became apparent from students' reactions that more information should be provided to teachers to allow them to better address certain nutrition-related questions and beliefs.

Use of the educational package is now being monitored in order to determine how well teachers are adapting the lessons, and how well children are reacting, and what improvements could be made. A summative evaluation will be carried out at the end of the project to assess the extent to which students' reading abilities and nutritional knowledge have improved. A dissemination
meeting will then be held to discuss lessons learned, to receive teachers' feedback and recommendations and plan for the promotion of the project island-wide.

An important lesson already learned, of critical importance to other curriculum development projects, relates to the necessity of gathering solid qualitative information on dietary practices, attitudes and behaviours of the target audience. This information is needed to serve as a basis for developing clear, relevant educational and motivational messages for instructional materials.

The Jamaica primary school nutrition education project represents an innovative way in which nutrition education can be effectively incorporated into already existing school curricula and serves as a good example of how the social marketing approach can be applied to school-based nutrition education. This approach to primary school nutrition education is an alternative to the more complex traditional process of developing separate nutrition courses requiring resources and time that most curriculum planners and teachers do not have.

Nutrition education in the 80s is a new discipline with a new set of priorities. There is a growing commitment to the systematic use of skills from a range of fields including anthropology, communications, marketing, social and behavioural sciences. There are now a number of successful experiences to serve as precedents and models for countries to follow and build upon.
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