Nutrition Education in the 1980s

The art and science of nutrition education have reached a milestone in their development. Since the early 1980s, growing attention has been paid to improving the effectiveness of nutrition education. Nutrition education has evolved from local teaching and a concern with simple knowledge and information, disseminated primarily on a one-to-one basis in the classroom or clinic, to focus on strategic use of problem-specific messages through various channels of communication.

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" and "media planning". This vocabulary resembles that of development communications more than nutrition. Taken as a whole, these become an array of highly effective techniques for changing nutrition behaviour and practices and, if well done, nutrition and health status too.

Today's nutrition education begins by asking what the nutrition problem to be solved is. 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 behaviours
and practices that the target audience needs to change and then attempts to detect "resistance points" or problems that the target audience may have in changing former practices. Once having pinpointed these "resistance points", the new nutrition educator then goes out into the community to solicit the community's participation in developing practical solutions that will overcome such resistance. Solutions, once identified, are tested out in the community for their nutritional soundness and their feasibility, that is to say, can the community actually carry them out?

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 as well as the socio-cultural constraints that inhibit change. The nutrition educator needs to know how to identify new practices that will improve nutrition and health status, particularly those that are acceptable to communities, before designing and implementing an educational strategy to promote desired behavioural change.

The advent of this behaviour-change approach to nutrition education offers tremendously effective techniques for carrying out activities based on real learner needs and desires. Designers of nutrition education of the 1960s and 1970s would apply the same educational programme, technology or solution in all situations. They would specify curriculum and teaching content, number and type of materials needed - often without ever stepping out into the community where their learner audience lived. 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 universal messages like "eat more protein", or "eat more energy rich foods". Today's nutrition educator faces the problem differently, accepting no standard recommendation. The feasibility of various solutions is explored, and problems or resistances the local community might have to changing practices and adopting new ones are identified.

The nutrition situation around the world in the 1980s is demanding new approaches to nutrition education. Malnutrition is widespread - several million people suffer from protein-energy malnutrition; hundreds of millions more suffers from vitamin A deficiency, iron deficiency anemia and 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 nutrition education and the quality of teaching and learning to ensure that people learn about, believe in and adopt a relatively narrow, but absolutely critical, set of new beliefs and skills that will reduce mortality and morbidity, while increasing the quality of child survival.

Behaviour change approach: the application of social marketing

Perhaps one of the most effective of the new approaches to nutrition education in the 1980s involves the application of social marketing principles and techniques. 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; educational strategy; and media planning. The social marketing approach to nutrition education emphasizes understanding the group of people - the learner audience to the addressed - and carefully designs educational messages to promote new behaviours that have been tested out for their nutritional soundness, “do-ability” 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 the product marketing of a commercial company which markets foodstuffs for profit. 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 adaption to target audience behaviours 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 1970s/early 1980s, yet, despite this short time, a number of countries have organized and carried out very effective educational campaigns that have altered nutrition and health-related behaviours and improved the nutritional health status of target population groups.

Recent successful non-formal nutrition education interventions

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

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

The Indonesian project effectively applied social marketing principles to non-formal education. It relied on carefully constructed messages designed to promote new nutrition behaviours that had been well tested among the target audience. Villagers were involved in the preparatory inquiries into nutritional and health problems. Project designers worked hand-in-hand with villagers in identifying particular problems, and in 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, the 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 thus to minimize 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.

Success of the Indonesian project can be attributed to the careful application of a social marketing approach to construct messages and materials that were behaviour-specific, practical and acceptable enough for rural mothers to put to everyday use.

In the Gambia and Honduras, social marketing nutrition/health education campaigns 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 the 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 combined with instruction on the local radio.

In the late 1970s, 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 focused on those most “at risk” - children under 5. After extensive social marketing research, an educational strategy using mass media combined with systematic training programmes for village workers focused 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 the 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 Education 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 well-designed public service announcements carried by national television networks. These sixty-second television spots, featuring leading Brazilian sports and entertainment personalities, reached an audience of over 50 million 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 United States 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 significant increase in awareness among those suffering from hypertension 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 behaviours and practices.
2. In every case, the approach to education is comprehensive and systematic and relies on a complex of methodologies drawn from the fields of modern marketing, advertising, social and behavioural sciences, and applied education.

Nutrition education in recent years has been transformed. No longer is nutrition education confined to activities in classroom or clinic, such as
lectures on food groups, or the development of an audiovisual presenta-
tion. Although these traditional micro-level nutrition/health education
activities are still extremely worthwhile, practical nutrition education
today has come to mean much more.

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 every-
where, overcome by budgetary restrictions and assaulted by dissonant
educational messages from outside the classroom. School curricula are
increasingly overloaded, while the mass media are pre-empting a major
share of children’s attention and intellectual energy. Around the world,
Ministers of Education are struggling with such problems and issues affec-
ting 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 a collaborative project involves the Ministry of Education, the
International Nutrition Communication Service of the Education
Development Centre, Unesco and the United States Agency for Inter-
national Development. The social marketing-oriented primary school
nutrition education project is attempting to incorporate nutrition concepts
into the language curriculum of the primary school 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 informa-
tion 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.
During the initial research, the reading component focused 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, the curriculum should place emphasis on: (a) how different foods affect the body; (b) the concept of mixing a variety of foods for balanced meals; and (c) the concepts 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 and resource persons to develop educational materials. Participants provided their ideas and suggestions as to the content and design of the materials. A series of learning activities were also prepared that could be carried out by children themselves to improve their understanding and practice of better eating habits.

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 then further adapted based on comments from reading and education specialists, nutrition educators and children’s book designers. A prototype student workbook, 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 to say they were capable of improving their own health by following the nutrition behaviour presented in the manual.

The student workbook 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 question 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: (a) comprehension for the story's message; (b) clarity of stories and illustrations; (c) interest provoked by pictures and stories; (d) likes and dislikes of certain aspects of the materials; (e) ease of reading and appropriateness of reading level; and (f) relevance of the nutrition-related behaviour that was being 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 teachers needed more information in the packages in order to be better prepared to 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 improvement 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 throughout Jamaica.

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 learner 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 an existing school curriculum 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 that require resources and time that are for the
most part not available to curriculum planners and teachers.

Nutrition education in the 1980s 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 and social behavioral sciences. There are now a number of successful experiences to serve as precedents and models for countries to follow and build upon.

References


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