

# Nutrition education training of health workers and other field staff to support chronically deprived communities

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## Abstract

This paper focuses on the provision of adequate training in nutrition education to health and other community development workers for their improved performance and achievement. The difficulties encountered and special care needed when dealing with low-income, chronically deprived communities are raised. A brief analysis of past and present trends in nutrition education is presented to show the progress made from restricted, authoritative and not very successful proposals to more comprehensive and participatory approaches. The need to train and update regional and field-level personnel on the new approaches, theories and models offered by nutrition education is highlighted, but the scant availability of resources for training activities may be a great limitation for this undertaking. The contribution of educational, social, psychological and communication sciences, as well as marketing, in improving and broadening the performance of health and nutrition education is recognised. Some successful nutrition education projects, implemented in different regions, using various approaches, have managed to improve the nutrition situation of low-income groups and could be used as good examples to be followed. Recommendations for implementing nutrition education projects or activities need to consider some prerequisites, such as good knowledge and analysis of the nutrition situation, careful selection of the strategies and methods, careful planning and implementation, and clear definition of the procedures and instruments for follow-up and evaluation.

**Keywords**  
Training  
Nutrition education  
Participatory approaches  
Development workers  
Low-income groups

Proposals for training of nutrition education health workers and other community development workers (such as agricultural extension staff, teachers, community development and other local-level staff) are provided. The analysis of past and present trends in nutrition education shows the development of more comprehensive approaches, which produce better results and need to be promoted. The limitations of 'traditional' nutrition education, as well as the advances and performance of nutrition education in the last decades, are discussed. The contribution of the educational, social, psychological and communication sciences, as well as marketing, in improving the performance and in broadening the perspective of health and nutrition education are discussed.

Training regional and field staff working in low-income areas in these new approaches is found to be necessary to improve their performance. The lack of or the reduced resources available for in-service training for regional and local staff could be the main difficulty.

Finally, it is indicated that appropriate nutrition education intervention may have a positive effect in improvement of the food and nutrition conditions in chronically

deprived populations. Some recommendations for programme/project implementation are included.

## Past and present trends in nutrition education

The efficacy of nutrition education in improving the nutritional situation of communities was very much questioned during the 1970s and early 1980s. The review by Whitehead<sup>1</sup> found that nutrition education was directed to disseminate nutrition information in order to improve food habits. This approach was effective in increasing knowledge but did not have any effect in changing dietary behaviour or practices. Hornik's review<sup>2</sup> was critical of nutrition education activities performed by health services, indicating that health workers perform their tasks as a routine activity, which is not evaluated, and could be assumed to be ineffective.

Nutrition education activities were also undertaken by agricultural extension workers (home economists) and in the formal education sector by schoolteachers, although the major concentration of this activity was carried out in the health sector.

The main concerns with nutrition education were the

inadequacy of the approaches and methods used, and the lack of results. This type of nutrition education is called the 'traditional' type. It introduces nutrition concepts by utilising technical language, often not well understood by learners with low educational level. It privileges knowledge (assuming it will improve nutrition behaviour) in detriment to developing adequate skills and attitudes. The fact that most nutrition education activities were developed in institutions linked to the health sector may have influenced the attitude of health workers, leading them to prescribe solutions (assuming that information provided about adequate food practices would automatically result in the adoption of practices) and/or use fear as a way to overcome nutritional problems. The health belief model described by Rosenstock<sup>3</sup> emphasises threat as a motivating factor for influencing behaviour. He emphasises that people may be more likely to make changes when they perceive a high risk (health or nutrition threat) provided the proposed solution presents benefits, is feasible, the costs/barriers are low and they have the ability to perform it.

The other factor to be raised in traditional nutrition education is the little attention and importance given to the environmental (social, cultural, economic, physical, etc.) conditions that prevail in the community or the household, which influence and/or determine a given dietary behaviour or food pattern. The interpersonal interaction and the social context are important for promoting nutrition education; group norms and reference groups exert influence on individuals' attitudes, values and actions.

Traditional nutrition education is still in practice and may be observed in many countries in the Southern Hemisphere (no personal experience or information with regard to other areas). This practice is more common at local level but in some cases could even be promoted by regional-level personnel. This fact could be linked to:

- inadequate or insufficient training of regional staff;
- deficient in-service training of field staff;
- limited time and diverse tasks that condition a better performance;
- limited psycho-pedagogical and communication skills; and
- little possibility of being updated on new developments on nutrition education.

The last two decades have seen much progress in nutrition education. The results of the meta-analysis undertaken by Johnson and Johnson<sup>4</sup> report improvements in knowledge, attitudes and dietary behaviour; the shortcoming in most of the 303 studies undertaken would be the failure to have a clear theoretical research base. The development of nutrition education approaches, theories and models was linked to developments in health education and benefited from

inputs from other fields such as educational, social, psychological and communication sciences, as well as marketing methods and techniques. Some theories and models were further refined to have a more rigorous approach towards research and programme implementation whereas others used the combination of two or more theories, presenting more comprehensive proposals. As a result the development of more systematically planned nutrition education programmes, projects or research was carried out, including well-defined methodological proposals and evaluation results.

Some nutrition education theories and models developed are the following.

1. Social learning theory<sup>5</sup> – behavioural change is mediated through cognitive processes and other personal factors and is influenced by environmental events and the perceived capability and skills to perform the behaviour. It requires positive reinforcement.
2. Stages of change<sup>6</sup> – this theory highlights different stages of readiness to change certain behaviour and will require motivational and other approaches. The stages are pre-contemplation, contemplation (the problem is acknowledged but no commitment to change), preparation, action and maintenance.
3. Communication models – these describe the process between the message sender and message receiver and imply the active role played by the message receiver (who could accept, reject or ignore the message). It includes individual (face-to-face) communication, mass media and multi-media communication.
4. PRECEDE-PROCEED framework<sup>7</sup> – this includes a diagnostic and needs assessment (PRECEDE) and planning of education, policy and organisational strategies (PROCEED). This model integrates many other theories and models.
5. Social marketing model<sup>8</sup> – this uses creative planning efforts, based in marketing, to address target audiences. It is centred in the identification and satisfaction of the needs and desires of the target population. Social marketing uses marketing concepts and tools (communication is one of them) to increase acceptability of the proposed practices, as identified by consumer research.
6. Community-based models – covering different areas, from needs identification, community planning, empowerment and participation to social action and critical consciousness development.

### **Contribution to nutrition education from various disciplines**

Some of the theories and models developed in health and nutrition education (only a few were mentioned above)

had an effect on positive behavioural changes in health and nutrition. This fact allowed nutrition education to go from a diagnostic–treatment phase to a more comprehensive proposal for more adequately dealing with nutrition problems. The recognition of the need to better understand and explain the causes and conditioning factors related to a nutrition problem, together with a more systematic planning and implementation of projects and programmes, has opened a much wider perspective to nutrition education. The complexity of the factors involved in determining dietary habits and food patterns, such as values, beliefs, traditions, social and economic factors, sufficiency and variety of food available, etc., can certainly be treated with broader perspectives.

The contribution to health and nutrition education from many technical fields (education, psychology, sociology, communication and marketing) was an essential factor for its further development.

Important changes were made in the educational sector with regard to formal and informal education. Teacher-centred education was substituted by learner-centred proposals and the use of more participatory and active teaching methods and techniques is promoted. Agricultural education and extension training has also reviewed the approaches and methods used to train extension workers and to address urban and rural populations. Guidelines for improving the training capacities of the staff<sup>9</sup> and the promotion of participatory curriculum development<sup>10</sup> were prepared and are available.

Social sciences provided a great input by highlighting the need for better knowledge and understanding of the causes that impair deprived communities to reach higher levels of development. Methodological proposals for developing participatory community research and action were provided and used with good results (participatory rural appraisal and planning, participatory learning and action, causal analysis – are some of these proposals). The importance of community participation from the appraisal phase to project/programme planning and implementation was raised. The various methods, techniques and tools provided were also used by nutrition educators and were very helpful to better understand the causes and factors involved in behavioural changes and the adoption of improved food habits.

The rapid development of communication sciences has also contributed to nutrition education. Mass media and interpersonal (individual and group) communication was used with good results. One of the best communication means for reaching rural or urban low-income communities proved to be the radio. Well-prepared radio programmes, including adequate content and targeting, could be used with advantage by nutrition educators. Better utilisation of this medium needs to be promoted with field-level personnel; this implies the need for specific training in this area.

The benefits of marketing were mentioned previously when discussing social marketing theory.

### **Nutrition education training of field staff in low-income communities**

Food and nutrition problems in low-income populations are complex and require strategic proposals that adequately tackle the diversity of factors involved. Most low-income groups present nutrition problems related to deficiencies. Could nutrition education play a role in helping these population groups improve their nutritional situation? To answer this question it will be necessary to know what approaches and strategies are used. The role and limitations of ‘traditional’ nutrition education were presented earlier in the paper; the great possibilities for better performance of the new approaches and methods were also discussed. The following paragraphs<sup>11</sup> may provide additional answers to the question posed.

... When nutrition education for an impoverished woman concentrates on teaching her how to budget for food, she may learn to manage her resources effectively, but the social reality of poverty will not have been addressed. As long as nutrition educators place primary emphasis on changing individuals without consideration to their social context, the potential exists for victim blaming. Dogmatic nutrition messages do not assist the disadvantaged in making reasonable choices, and foster a sense of inadequacy and guilt ...

In contrast, an emancipatory nutrition education practice that explores the social roots of nutrition problems and works to address such issues...can recreate and transform the social world toward problem solution.

The brief description of some nutrition education projects will provide additional elements for analysis. The project implementation characteristics, the strategies and methods utilised will be the determinants for successful or less successful results.

1. Dominican Republic, Applied Nutrition Education Project<sup>12</sup> utilised the social marketing model and strategies. The main purpose of the project was to reduce infant malnutrition. To identify existing problems in infant feeding (breast-feeding and hygienic practices, weaning foods, etc.) formative research was done. Voluntary workers were trained to assess improvements in infant feeding, develop growth monitoring, develop and test educational messages, provide face-to-face and group nutrition education, as well as home visiting. The evaluation showed a reduction in protein-energy malnutrition by 43% within the four-year project duration.
2. India, Tamil Nadu Project<sup>13</sup> provided nutrition services integrated in a wider health and welfare intervention. The main purpose was reducing infant

malnutrition. Supplementary feeding (targeted), growth monitoring and nutrition education activities were carried out. The training was addressed to local mothers to act as community nutrition workers; women's groups were also organised. The impact evaluation showed 55% reduction in severe malnutrition; the incidence of diarrhoea and infant mortality was also reduced. The project duration was six years.

3. Tanzania, Iringa Nutrition Programme<sup>14</sup> was a community-based intervention and used social mobilisation. The main purpose was to reduce malnutrition and infant mortality. Growth monitoring, primary health care, water and sanitation, infant care and feeding (by trained care providers) and nutrition education activities were implemented. Another major project component was the building of capabilities, at all levels of the society, to assess and analyse the problems that contribute to malnutrition, and to design the appropriate action. Severe malnutrition was reduced by 70% and moderate malnutrition by 32%, according to data from the community-based monitoring systems. The project duration was five years.

## Conclusions

The information provided on positive developments and the different examples of successfully implemented projects provide sufficient elements to indicate that nutrition education could have an effect in improving the nutrition situation of chronically deprived communities.

The factor that requires serious consideration is the urgent need for training development of workers, to update their knowledge and provide them with necessary skills to better their performance. This matter becomes even more important when nutrition education action is addressed to chronically deprived populations. One limitation, which could always be overcome, is the reduced budget (financial resources) provided by most countries for training activities.

It is important to highlight some important prerequisites when dealing with community work:

- good knowledge and analysis of the nutrition situation;
- identification of the problem(s) that needs to be improved;
- careful selection of the strategies;
- careful planning of the activities and its implementation; and
- plan and define the follow-up and evaluation procedures and instruments.

As a result of experience gained by the Food and Agriculture Organisation (FAO) in project implementation and the review of projects developed by other

institutions, when dealing with low-income communities there are more possibilities for success when projects:

- include various components (sectors and disciplines);
- utilise participatory community approaches (for assessment, implementation and evaluation);
- promote and take into account community action and development;
- consider the sustainability of the action proposed; and
- take into consideration the educational level, socio-economic, cultural and physical conditions, and other factors.

In the case of free-standing nutrition education projects, it is advisable to combine two or more nutrition-related interventions, rather than concentrating on just one aspect. Interventions could include: breast-feeding; healthy eating habits; infant feeding; growth monitoring; personal hygiene; food and environment hygiene; food preparation, processing and preservation; and other aspects.

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