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Integrating Nutrition Education and Communication Programmes: Nutrition Assessment in Zomba, Malawi

**By Charlotte A. Pratt
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Abstract

This paper presents five propositions on excellence in nutrition communication programmes and proposes a coordinated communication model for nutrition communication in Sub-Saharan Africa. In identifying some of the communication problems in the region, it notes that malnutrition results from both a failure to communicate and from a de-emphasis of nutrition programmes on relationships between effective nutrition education and programmes that will facilitate the collaboration of nutritionists and communicators for the region's development. A nutrition-assessment project in Zomba, Malawi, is used to illustrate the model.

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L'intégration de la Politique Nutritive et des Projets de Communication: le cas de Zomba, au Malawi

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Résumé:

Dans cet exposé on essaye de présenter cinq propositions, qui soulignent l'importance des projets de communication, portant sur la politique nutritive. En effet, on propose un modèle de communication coordonné, en Afrique Sub-Saharienne. Dans le but de cerner quelques uns des obstacles régionaux, on remarque que la malnutrition est une conséquence inéluctable, d'un manque général de communication. Elle est également entraînée par le manque de projets de communication, soulignant le lien très étroit entre une bonne politique nutritive, et un projet facilitant la collaboration, entre les nutritionnistes et les spécialistes en communication, dans le but de promouvoir un développement intégral dans cette région. On se sert d'un projet d'essai réalisé à Zomba (Malawi), pour illustré le dit modèle de communication.

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Introduction

The importance of nutrition education to development is common knowledge to nutritionists worldwide. However, among development planners in Sub-Saharan Africa, nutrition communication has been given short shrift. This gap has been created in part because communication specialists often have not worked consistently with nutritionists to develop education programmes. This anomaly was observed more than two decades ago in the Western Hemisphere Nutrition Conference: "Nutrition educators have labored on their own for too long. . . They cannot be their own best communicator, anymore than communicators can be their own best nutritionists. They need the mass media. And they need help to use them properly" (Manoff, 1985, p. 13). The importance of nutrition to national health and development suggests that it is imperative for communicators to work with nutritionists to provide nutrition education to rural populations in Sub-Saharan Africa.

The purpose of this paper is to propose a community-based nutrition education programme that will facilitate the collaboration between nutritionists and communicators in national development. A nutrition-assessment project in Malawi, a land-locked Southern Africa nation, is used as a case study for applying communication techniques to the nutritional needs of the region's residents.

Development Issues in Africa

Since the attainment of political independence by a number of Sub-Saharan African nations, their economies have been tethering on the brink of collapse. Poverty and economic decadence are so endemic that Davidson (1992) argues that the dreadful 1980s have left many African countries worse off now than they were during colonialism. A similar point was noted by the Nigerian political economist, Ake (1991): "Africa's standard of living has been falling steadily, and its share of world trade and industrial output has been declining. Poverty in both relative and absolute terms is worsening so rapidly that Sub-Saharan Africa's share of the developing

world's poor will have grown from 16 percent in 1985 to 30 percent by the end of the century" (p. 5).

Additionally, *Time* magazine noted that "much of the continent has turned into a battleground of contending dooms: AIDS and overpopulation, poverty, starvation, illiteracy, corruption, war and the homelessness of wars' refugees" (Africa, 1992, p. 40). Inflation rate on the continent has increased steadily. For example, the annual inflation rate between 1970 and 1980 was 13.9%. Between 1980 and 1991 it was 18.4%, increasing by 2.1% annually. While per capita incomes in other Third-World nations have increased in the 1990s, that in Sub-Saharan Africa has dropped (Africa, 1992).

It is partly within this framework of grim economic realities that communicators bemoan the failure of governments to provide the social and political environments conducive to development.

Item: Equatorial Guinea's only major private newspaper, *La Verdad*, was banned in September 1993, following charges that it had published information embarrassing to, and subversive, of the country's popularly elected government.

Item: In Ghana, reporters on private daily newspapers and news-magazines often walk a tightrope in deference to its current popularly elected government.

Item: In Kenya, for example, governments undercut the desire of communicators to restructure and strengthen the media in attempts to make them active in discussing national issues.

Item: Liberia's armed forces and the insurgents under the control of Charles Taylor have dampened the expression of ideas and the exercise of basic human rights.

Item: In Malawi, the media have been tamed by the long, authoritarian rule of outgoing President Kamuzu Banda.

Item: In Nigeria, on-and-off publication censorship have occurred, most recently when the editors of *Newswatch*, a news-magazine, were huddled into jail for allegedly publishing material that insinuated a plan by the country's military to rule unconstitutionally for at least five years.

Item: In both Rwanda and Burundi, civil war and economic chaos have made mere communication a life-threat-

ening activity. Communicators, then, are hard-pressed to fulfill even their basic news-gathering functions.

Item: And Zaire under Mobutu Sese Seko has been a freedom for authoritarianism and blatant fiscal abuse.

These examples signify the frequently threatened freedoms of Africa's mass communicators. In essence, media freedom has been fizzled by the anarchy into which a number of Sub-Saharan African countries have been thrust. Such media environments pose major challenges to the communication specialist in the region.

Nutrition Communication Issues in Sub-Saharan Africa

Historically, nutrition communication programmes in Sub-Saharan Africa have adopted the classic diffusion model enunciated by Rogers (1962). This model suggests that innovations originate from expert sources and trickle to nonprimary audiences. Schon (1973) notes that the model fails to relate to the complexity of diffusion systems, which involve social, political and biological networks. Examples of such a failure were reported in Dakar and Nairobi, where the training of national supervisors who in turn trained field staffs on how to prepare nutritious foods from foreign foods was found to be too sophisticated by the primary audience: the field staff (Recalde & Proja, 1984).

Because nutrition communication has not been a recurring feature of the region's development programmes, health specialists have confronted massive nutrition-related health issues. Foreign food aid from western countries is a key feature of African governments' responses to malnutrition. The crises in Rwanda and Somalia are cases in point. Nutrition communication on the preparation of some of the foreign foods has been minuscule. Consequently, poverty and malnutrition are exacerbated on the continent even though the West seemingly has serious intentions to help combat nutrition-related diseases.

Nutrition communication in most developing countries has often been approached from a "malady-remedy" situation, which means that nutrition information is communicated by nurses in health clinics to parents of malnourished

children. Often such professionals have had little or no training in nutrition, let alone in treating nutrition-related diseases. Further, women who produce more than 60% of the continent's food have often been excluded from training programmes and development projects (Recalde & Proja, 1984). Wealthy male farmers monopolize the services and resources of extension agents more than poor farmers (Jelliffe & Jelliffe, 1984). These scenarios make monumental the task of development agencies and exacerbate the nutritional challenges of the region.

Five Propositions

The environment for nutrition education and development makes the influence of cultural and infrastructural variables in development important. These variables suggest five propositions on the potential excellence of nutrition programmes for development.

P1: Excellent nutrition programs are an integral part of excellent communication programmes. Excellent communication programmes provide and nurture an environment conducive to excellent nutrition programmes.

P2: Excellent nutrition communication programmes can help address the declining nutritional status of Sub-Saharan Africans.

P3: Communication programmes for Africa's development are most likely to be effective when they are an integral part of the overall development programmes for the region.

P4: Nutrition programmes are managed and implemented most effectively when they assess the nutritional needs and status of Africans, when they are co-opted into programmes that specifically address the nutritional needs of the region, and when they are based on symmetrical communications that are modeled on balanced, win-win relationships with audiences.

P5: Nutrition communication programmes contribute to meaningful development in Africa when they help sustain the nutritional health of the region, far beyond the dropping of grain in an African airstrip or the shipment of food to and its receipt by the region.

Theoretical Framework and Model

Much of Africa's early development programmes reflect adherence to two development theories: evolutionary and functionalist - whose tenets have been called into question by latter-day development specialists. Evolutionary theory, on the one hand, holds that development is unidirectional and progressive and moves societies, which eventually look alike, from the primitive to the advanced stage (So, 1990). Rostow's (1960) theory of economic growth, by which societies move in stages of development, illustrates this perspective. One shortcoming of this theory is its equation of economic growth with development. Thus, to ensure economic growth requires the infusion of aid into the Third World.

The functionalist theory, on the other hand, views development as a systematic, a transformative, and an immanent process (So, 1990). While both the systematic and immanent processes have, at the very least, pragmatic relevance to the Third World, the transformative process, which holds that traditional structures and values must be replaced by modern values, has raised the ire of Third-World experts. If anything, the development and use of traditional communication values have been shown to be inherently fruitful in Africa (e.g., Awa, 1988; Riley, 1993; Ugboajah, 1979).

It is against this backdrop that the communication model proposed by Pratt and Pratt (1987) seeks to provide a framework for communicating nutrition information. That framework focuses on the social structure and local non government social institutions to address pressing developmental issues. It identifies three rural-based, gender-inclusive discussion groups:

(1) Community elders, civil servants, farmers, local businessmen, chiefs and other traditional title-holders. The involvement of this group lends credence to a nutrition communication programme and increases the dissemination and possible adoption of information on nutrition.

(2) A trained group, which consists of interested local government, farmers and local residents. Nutrition educa-

tors and extension agents will provide intensive training for this group. Extension agents focus on human resources at the local level.

(3) Adolescent group, which comprises 10- to 19-year-olds, who are major national resources.

A major component of the model is the use of non government agencies (e.g., the Nairobi-based African Council for Communication Education [ACCE]) as communication agents. Despite a deeply ingrained spirit of self-help and volunteerism in Africa, the region lacks strong indigenous voluntary agencies. However, there are many non government organizations (NGOs) which, because of their self-reliance, flexibility and close contact with the local people, enjoy their confidence and good will (Hyden, 1986). Such NGOs include the ACCE, The Tanzania Media Women's Network, and various cooperative societies, clubs and communication associations in the region.

The nutrition-communication model emphasizes small cultural groups that are the basic units of social arrangement in the sub-Saharan region. More than 70% of sub-Saharan Africa's estimated 400 million people live in rural areas. Thus, to make nutrition information accessible to the greatest number of people, nutrition educators should focus on rural settings in which NGOs confer with small groups and use culture-specific speech patterns.

Africa's rural poor, when organized in groups, also tend to have more bargaining power and are more likely to be able to advance their interests. Further, the use of the community organizations encourages broad access to, and direct participation in, nutrition programmes. Development should, therefore, occur as logical growth from the local structure.

Applying the Communication Model to Zomba, Malawi

Fifty-two percent of Malawi's eight million people are women and 90% of the country's population lives in rural areas. Malawi has a population density of 85 persons per square kilometre. Fifty percent of the population is in the 15- to 35-year-old category; 42 percent of the general population

has had primary school education.

Zomba is a rural town in southwest Malawi. Like in most African countries, children and young women have most of the major nutrition problems. Protein-energy malnutrition, iodine, vitamin A and iron deficiencies are common in Malawi.

Malnutrition is an ecological problem which encompasses biological, physical and social factors. It is within this context that a needs assessment was conducted in 1993 to determine the health and nutrition needs of its women.

Method

Sample

Our sample consisted of rural families residing in three major sections of the country: (1) families in Blantyre and Thyolo areas, which are located in the southern region of the country; (2) families in the village of Chikanda, which is about one kilometre from Chancellor College, a division of the University of Malawi, Zomba; and (3) families in the northern region, Mzuzu area. We selected the village of Chikanda because of its proximity to the university.

Community nutrition students on the Zomba campus conducted nutrition-assessment programmes in the village of Chikanda, which is near Zomba. Vitamin A and iodine deficiencies are common among residents in Zomba and in southern Malawi. These deficiencies lead to a prevalence of xerophthalmia and goiter in the region. The northern and southern regions have diverse family relationships. While patrilineal family relations are prevalent in the north, the population in the south is largely matrilineal.

Instrument

Our instrument had three parts: (1) family interaction variables; (2) dietary intake assessment; and (3) perceived health status.

Family variables: The Olson Faces 11 or family adaptability and cohesion instrument was used in a preliminary context (Olson et al, 1989). Twenty-six items on family

cohesion and adaptability were translated into Chichewa, Malawi's national language. The Chichewa version was reviewed by a University of Malawi linguist for clarity of meaning. We pretested this version on 15 rural families for clarity of questions and modified the questions accordingly. Some of the questions were rewritten to further explain the meaning and to elicit accurate responses. Because the families indicated some of the questions were repetitious, only 13 questions (instead of the original 26) were used to examine family interaction in the Malawian context. Responses were checked by the interviewer on a 5-point scale: "1" indicated almost never, and "5" almost always.

Dietary assessment: Food-intake data were collected by the food-frequency method, supplemented with actual foods purchased in the local village market to aid in the recall of food consumed. We used samples of actual foods and pictures of foods to assist respondents in recalling the food they frequently consumed. Students taking community nutrition courses purchased, prepared and weighed local foods to provide estimates of foods actually consumed by the villagers. Such estimates were also used to assess food consumed by Chikanda residents. All foods commonly eaten in Malawi were listed on the instrument.

Respondents were interviewed on the amount of food eaten and the frequency (in a day or within the week) that they consumed the food. Because of the difficulty in obtaining dietary-intake data, we limited our data collection on food intake to the Chikanda area, the village closest to the university.

Perceived health: The third part of the instrument assessed perceived health problems, barriers to health, and desired methods by which educators should communicate nutrition information to rural families. Respondents were provided with a list of health problems common in Malawi, and methods for communicating nutrition information. They were asked to indicate whether the problems were prevalent in their families, the action they normally took to prevent the problem, and to indicate their perceived barriers to their health. Similarly, they were also asked to indicate three most-desired methods for nutrition communication in the

village.

Results and Discussion

Interviewee characteristics: About 50 percent ($n = 146$) of the interviewees have less than 5 years of primary-school education or none whatsoever. 87 percent of the interviewees are married. Male spouses are the major decision-makers and heads of households. Most families have three or more children.

Family variables: In general, Malawian families are highly cohesive. Sharing family responsibilities, supporting families, and discussing problems in the family with family members are encouraged. Children have minor decision-making roles and their suggestions are usually ignored. In most African cultures, older adults are perceived as "full of wisdom." Suggestions are often sought from the elderly.

Dietary intake: Seasonal variations in food intake are common in Malawi. Data on food intake were collected during the pre-harvest season. Sixty-two percent of the families indicated they consumed meals two times per day. The frequency of food intake by children varied from two to four times per day. Dietary-intake data indicated low intakes of vitamin A, calories, iron, calcium and zinc.

Perceived health: Malaria, diarrhoea, fever, whooping cough, worm infection were diseases most prevalent in the families and perceived to be most dangerous health problems of Malawians. Most families did not know the methods for preventing worm infection, measles, anemia, skin diseases, malnutrition and whooping cough. Families, however, indicated that, if taught, they would be confident in preventing the diseases.

Barriers to health were ranked as: (1) lack of money, (2) lack of food, (3) lack of storage facility, (4) lack of firewood, and (5) not enough time. **Desired methods for nutrition education** were ranked as: (1) food demonstrations, (2) use of plays and drama, (3) use of music and dancing/ and (4) agricultural demonstration.

Linking Findings to Tangible Nutrition Communication Projects

The preceding sections provide considerations for nutrition communication in rural areas of sub-Saharan Africa. Rural communication networks create "listening-in" situations, and encourage word-of-mouth communication. Nutrition communication projects should enable all groups to share information on a continuing basis as a means of controlling the spread of inaccurate information and of emphasizing healthful dietary practices. The prevalence of word-of-mouth communication in the sub-Saharan region also encourages group members to communicate information with other community residents in traditional group settings: the town square, the chief's palace, the market, the family, and the farm. Thus, various nutrition programmes can be coordinated by extension agents and communicators who are familiar with the culture in the community. Communicators and extension agents can also encourage residents to attend training sessions and community wide nutrition education sessions that involve community and organizational leaders. This strategy has the potential for increasing community interests in nutrition issues.

To reduce the likelihood of status conflicts and to provide an atmosphere conducive to open discussions, group members should be similar on demographic variables such as age and educational level. They should also have common cultural backgrounds. A common cultural background, that is, co-orientation, is also advantageous to group members because it encourages "group fantasy events": playing out dramatic situations, real or fictitious, in a lively, animated, and boisterous tone. Some of the dramatic situations can be based on creative interpretation of nutrition-related events by known, local volunteer actors; other situations may be based on selected group norms. For example, plays, drama and music can be used to demonstrate the problems associated with vitamin A deficiencies: night blindness, keratinization, and xerophthalmia.

Fantasy events can establish new nutritional "nodes,"

that is, foci around which a great deal of nutrition-related information is centred. They can also influence nutritional attitudes. The dramatization of a fantasy may be started by a communication expert, assisted by a volunteer village elder and nutritionists, who will subtly assume the moderator role, and later reinforced by one or two primed members of the village. Specific cultural artifacts may be used in such dramatization. For example, in Malawi, emphasis should be based on prevention of diseases such as malaria, diarrhoea, and worm infection, all of which are perceived by rural families as the most important health problems. The communication expert can play out dramatic situations that focus on the causes, prevention methods and benefits of taking preventive actions, using culture-specific terms. Because nutritional habits have cultural bases, group member awareness of the social and health problems associated with poor nutrition may be achieved through dramatic productions that include use of a litany of proverbs, folklore, or tales.

Conclusion

Relationships between nutrition and health suggest that nutritionists collaborate with communication specialists in bringing nutrition-related health benefits to Africans, among whom high birth rates have been identified. Such collaboration is important in light of the massive development challenges the region faces. It is all too simplistic to create role dichotomies between nutritionists and communication specialists. The need for a synergy between nutrition and communication programmes, as evidence in the communication model proposed in this essay is further underscored by the multidisciplinary nature of most national issues. A rationale for this argument, from a much broader development perspective, was provided by Moemeka (1994): "Community education and development involve the work of many agencies. . . . A coordinated approach toward relevantly educating the community for development requires concrete collaboration among . . . agencies . . ." (p. 138).

The similarity and interface among the challenges of communication specialists and nutritionists call for the integra-

tion of both areas. Rather than use separate, exclusive development agenda among exclusive target audiences, this paper proposes more coordinated efforts among agencies working among more inclusive audiences.

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