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## A Literature Review on Vital Elements to a Successful Health Education Program in Central America

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# A Literature Review on Vital Elements to a Successful Health Education Program in Central America

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**Whitney Mills**

## **ABSTRACT**

*The prevalence of poor health in developing regions of Central America is a growing concern in the world today. Inadequate sanitation, unavailability of clean water, and fierce malnutrition are socially and culturally rooted issues that fuel poor health and medical problems in these regions. The purpose of this article is to review the literature on hygiene education programs in rural, impoverished communities of Central America. Research shows that NGOs and government-run health and hygiene education programs may vary in method and success. Regardless of their individual differences, there are four basic elements that help ensure a successful program. Research suggests that the core of successful health education programs is made up of 1) initial needs based evaluations, 2) local support, 3) long-lasting partnerships, and 4) low-technology resource tools. Unfortunately, research in this area is limited. While many programs are active, very few have been evaluated. Increased research efforts will undeniably improve the implementation of successful health and hygiene education programs in underdeveloped Central American rural regions.*

## **INTRODUCTION**

The prevalence of poor health in developing regions of Central America is a growing concern in the world today. In Honduras, only 44% of water provided to rural regions is effectively disinfected; in Nicaragua, only 34% of the rural population has access to sanitation facilities (WHO 2006). These statistics reflect the inadequate sanitation, unavailability of clean water, and fierce malnutrition that rural regions of Central America are currently experiencing. These are socially and culturally rooted issues that fuel poor health and rampant medical problems. In response to the poor status of health in these rural regions, implementation of health and hygiene education programs offer opportunities for communities to improve their lifestyles and overall health. This paper serves as a literature review focusing on the elements of hygiene education programs in rural, impoverished communities of Central America. It explores the ways in which the following elements are vital to an effective hygiene education program: specific needs-based evaluations, local support, sustainability, and low-technology resource tools.

## SPECIFIC NEEDS-BASED EVALUATIONS

More research is pivotal if Central American hygiene education programs are going to successfully meet the needs of its citizens. Using a model that aims to implement primary health care systems into rural communities of Honduras, Rennert and Koop<sup>1</sup> began their research by conducting background needs assessments which outline vital deficiencies in the current health care resources. The prevalence of certain medical problems varies from region to region in Central America. Evaluating the status of health in a needy village allows for the health education program to be customized according to those specific needs. The idea behind this approach is that a customized program will be more successful for meeting the needs of a community and ultimately, improve the overall quality of health.

Heck, Bazemore and Diller (2007) assert that Shoulder to Shoulder, a non-governmental organization (NGO), uses a similar evaluation approach. Shoulder to Shoulder sends representatives to visit villages and witness the pressing medical issues in a specific area. The representatives talk with villagers and community leaders to identify the problems and why those problems continue to persist. The representatives and community members work together to brainstorm solutions to decrease the prevalence of health ailments. Using this method to investigate the determinants of ill-health is essentially a way to evaluate and determine what specific needs a community of poor health and sanitation requires for improvement.

The importance of needs-based evaluations is not limited to revealing the medical problems of an area. While this aspect of the evaluations is significant, it must also be noted that assessing a community's need for health education presents a broader view of the medical problems at hand. Moll et. al. (2007) illustrate this perfectly in their evaluation of the American Red Cross's relief efforts in Honduras after Hurricane Mitch in 1998. The researchers assert that by implementing a basic infrastructure for water sanitation, health/hygiene education programs were given an advantage. Creating infrastructure for sanitary water is a crucial part of the health education dynamic and improving hygiene is facilitated by the availability of clean water. Programs implemented in places that have access to sanitary water are more likely to be successful and sustainable.

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<sup>1</sup> Rennert and Koop (2009) conduct an investigation on the health education program(s) implemented by the non-governmental organization Shoulder to Shoulder; Shoulder to Shoulder seeks to implement effective health care education in rural communities of Honduras. The research concerns two health education programs (in Community A and Community B) that are largely operated by Community Health Workers (CHWs): citizens of the target communities that are trained to identify, treat, and record medical problems. Furthermore, the health education programs and the CHWs are re-evaluated over time and adjusted to meet the needs of the communities; results from this research show notable improvements in the performances of the CHWs. It should be noted that during the model's first fifteen months in practice, the Community Health Workers of Communities A and B combined to attend 2,347 patients, treating 3,025 health problems providing valuable services for health education, case management and preventive healthcare in a rural community.

Initially conducting background needs assessments in potential programming regions is crucial in discovering what core aspects of health and hygiene are/are not present (Moll et. al. 2007). The literature describing the application of this process suggests that successful programs follow thorough specific need-based evaluations. However, this is not to say that programs that do not administer needs-based assessments do not yield success. Unfortunately, research in this area is lacking and it is therefore difficult to make conclusions regarding these no-evaluation programs. One hypothesized disadvantage is that without taking the time and energy to learn and understand what medical problems and infrastructure needs a target community is facing, there is no way to adequately assess the true needs of the community. It is important to note, however, that is solely a hypothesis. Regardless, research surrounding the real importance of needs-based evaluations is widespread throughout the research world, and although there are other components that contribute to the success of these health education programs, having identified the core needs and medical problems is certainly a significant advantage.

## **LOCAL SUPPORT**

Research reveals that having local support is a vital component to successful health and hygiene education programs. In Rennert and Koop's (2009) study on implementing community health programs, the researchers discovered the value of community support in the form of Community Health Workers (CHWs). CHWs often take the form of citizens or elders of a community that are willing to commit their time and effort to better the health status in their communities. They are educated and trained to identify, treat, and make record of a number of different medical problems. Often times they are also instructed on how to instruct and educate other community members to take preventative measures to health issues (Rennert and Koop 2009).

Involving the community in this way can play a significant role in making health education programs successful. When stakeholders invest themselves in a common cause that benefits all, the likelihood of success increases. According to Rennert and Koop (2009), providing training to the CHWs in their rural Honduras programming gave the citizens a sense of investment in the health education program and helped bridge the gap between the westernized researchers and doctors and the developing community. In this way, the use of CHWs is an effective way to create a successful and communicative partnership with a target community.

Caniza et. al. (2007) illustrate the importance of local support in a more specific manner. In this example, the researchers ask for feedback from participants in a study that evaluates the effectiveness of using flipcharts to facilitate hygiene education. Asking for feedback from the participants after using the flipcharts to facilitate hygiene education gave the participants a chance to respond with their opinions on this tool for education. In doing so, the researchers gained the opportunity to improve their use of flipcharts, while at the same time giving the participants a voice in the education process and once again allowing the participants to invest

in the program. His aspect of health education programming has the potential to strengthen a partnership.

While the research highlighted by Caniza et. al.(2007) and Rennert and Koop (2009) focuses on health education programs that establish good relationships with local communities, there are others that do not foster as much local support. Lack of support poses a threat to people, agencies, and organizations that actively seek to implement health education programs throughout Central America. The lack of support can lead to loss of trust, loss of funding, and loss of partnerships for organizations that work internationally to implement health education programs. For example, Oxfam International, Project HOPE, and Shoulder to Shoulder are all high esteemed and well-renowned organizations that work internationally to implement health education programs. However, these organizations (like all others) risk opposition if they do not obtain and maintain local support.

Vázquez (2011) explores this potential opposition by examining the attitudes and perceptions towards non-governmental organizations (NGOs) held by students in higher education in Nicaragua and El Salvador. Vázquez discovered that although students are in overall support of NGO developmental aid, they are skeptical of the projects into which NGOs are putting money. The table below represents a portion of the data collected by Vázquez (2011) in his study:

**Table 4.** Agreement With Statements Concerning NGOs Among Central American Undergraduates

In your opinion,	M	SD
The work NGOs do is of great importance	1.42	0.90
NGOs are organizations worthy of trust	0.59	1.12
The effect NGOs' projects have is barely appreciable in the places in which they are located.	0.35	1.35
The projects NGOs undertake are unsustainable and are of little benefit to those they are meant to help	0.32	1.38
NGO personnel misappropriate a large part of the money and material allocated to the projects	0.23	1.22

Note: NGO = nongovernmental organization. -2 = *completely disagree*, 2 = *completely agree*.

The data above indicates that students support and are in favor of NGOs and the work they do. However, when asked more specific questions regarding NGOs, opinions begin to vary. Apparently, students are in favor of the idea of NGOs, but are skeptical of actual practicing NGOs. Furthermore, the summary data suggests that student participants were skeptical of the sustainability of programs, appropriation of money and funds, and trustworthiness of NGOs (Vázquez 2011).

Skepticism such as this indicates the importance of having local support when implementing a health education program. If lack of trust in a community or region prevails, NGOs and others who are trying to improve the health status will certainly run into disagreement with target villages. Lack of trust could someday mean loss of funding and loss of partnership for many NGOs and target communities. Hence, another reason project planners should work hard to gain local support and healthy, inclusive partnerships with their target communities.

Instituting a program simply cannot take place without the consent of the target community. Without agreement from the target community, a program implemented from an outside source risks suffering from lack of commitment and support from the target community. It also risks neglecting a community's area-specific needs as well as valuable insights. Therefore, obtaining local support and optimizing the reception of new programming translates into a richer community commitment over the long term.

### **LONG-LASTING RELATIONSHIPS**

A long-term partnership is not necessarily a requirement of hygiene education programs. There are a number of people, agencies, and organizations that do not return to the sites where they initially do health education work; follow-up is not required. However, the literature suggests that maintaining an established partnership over multiple years is an effective way to improve health issues in a specific community.

The importance of sustainable partnerships is discussed in Heck's (2007) research on Shoulder to Shoulder health education programs. Shoulder to Shoulder establishes the long term partnership at the very beginning; before any money is spent or project work is started (Heck 2007). They do this by talking with community members, working with elders, and asking these communities if they are willing to commit to a health education program for multiple years. In fact, the organization seeks only communities that can commit to a program for several years. However, beyond verbal communication and agreement, the literature does not indicate the exact criterion for how this long-term partnership is established. Regardless of this missing piece of information, Heck (2007) discovered that maintaining the relationships that Shoulder to Shoulder initially created with communities provided the opportunity for sustainable changes to take place over years of volunteer/education partnerships and project work.

This approach is quite sensible. First, by spending time and money on a limited number of communities, those communities have the advantage of receiving personal attention from the agencies implementing programs. Furthermore, the long-term maintenance of close partnerships over a span of years has the ability to create a large-scale impact on the overall status of health in a community that traditional short-term volunteer brigades do not possess (Heck 2007). The Shoulder to Shoulder programs illustrate this long-term approach and impact. Shoulder to Shoulder now has seven partnerships that effect several hundred smaller villages

and in turn, reach approximately 50,000 people. Furthermore, its projects have created educational opportunities for over 1,600 US Community Health Workers (Heck 2007).

The research conducted by Rennert and Koop (2009) also supports the maintenance of long-lasting relationships between provider and consumer. In their model, the researchers provide ongoing education and guidance to Community Health Workers (CHWs) over a period of fifteen months. Throughout those months, officials checked in with the CHWs and on the health program itself to see where improvements were needed. By doing so, the two communities participating in the study made statistically significant improvements on their rate of inaccurate treatment decisions between the months of six and fifteen. In fact, fifteen months after Shoulder to Shoulder's two programs had been first implemented the CHWs of Community A had increased their rate of treating patients accurately from 50% to 76% ( $P < .001$ ). Furthermore, the improper use of antibiotics for diarrhea and non-febrile upper respiratory tract infections decreased a significant amount. Likewise in Community B, the CHWs had improved their rate of accuracy from 27% to 93% ( $P < .001$ ), had been keeping more accurate records of height and temperature, and had also been prescribing the use of prenatal vitamins in an appropriate manner. By periodically re-evaluating the medical situation in the communities and continuing the education and training of the CHWs, researchers aided in facilitating the former improvements.

This study makes it clear that providing valuable services for health education requires more than initial implementation. The program and the partnership require nurturing and maintenance for optimal, long-lasting effects in a community. Moll et al.'s (2007) study on water sanitation and hygiene programs supports the same conclusion: long lasting solutions to sanitation and hygiene in developing countries requires long-term commitment from both parties. All of the former research studies demonstrate how a sustainable partnership is vital to the impact of a health education program. This is not to say that traditional programs without long-term components are not successful. The literature is simply asserting that projects that are nurtured and maintained are not as likely to fall apart over time, and are more likely to make long-term differences in a community.

## **LOW TECHNOLOGY RESEARCH TOOLS**

Implementing a health and hygiene education program in rural regions of Central America must recognize and account for the resources that target communities have available. Although the literature on this topic is limited, implementing programs that use low-technology resource tools communicates clear and effective messages to participants. Caniza et. al.(2007) demonstrate this element very well in a study regarding the use of flip charts to teach basic hand hygiene. Flip charts as a method of training proved to be the most well received method (other forms of training included video presentations). Furthermore, it is low-cost method that meets the needs of most developing countries in the sense that educational flip charts do not demand any outstanding technological resources; they are a smart, feasible and effective way to educate people in developing nations that require little to no translation.



Yet flip charts are not the only low-cost, low-tech method available. Video presentation is also effective (Caniza et al. 2007), and art as a tool may also have merit. For example, basic illustrations using specific colors may help communicate how to identify certain medical problems, whether a medical problem requires medical treatment, methods of treatment, etc. In addition, if working on implementing a hygiene education program for children, the use of art and/or play would likely enhance the learning experience for the participants.

Using song as a medium for communicating healthy living practices is also a potential method for education. Bastien (2009) researched the use of music in AIDS education in Tanzania; in her research, she discovered that using song narrative that is historically and culturally bound to an area of poor health is an inexpensive and entertaining method that can stimulate awareness and attitudes of the target community. And although this research focused largely on radio communication, Bastien (2009) suggests that simple, live song interaction in a group setting may also prove effective and enjoyable for the target group. In this case, using educational songs to decrease any stigma surrounding health issues, as well as to serve as a memory tool for proper hygiene practices, might warrant merit if more research was conducted in this area.

More importantly is the idea that the use of high-tech education tools in the rural areas of Central America would not be effective. Simply, tools like PowerPoint presentations, email, online training modules and DVDs require a level of technology that is not likely to be available in the areas that are being discussed. And if these technologies are not available resources, it is unlikely that their use—and the program in general—could effectively not survive over time. Hence, low-technology tools are a vital element to the implementation and success of a health and hygiene education program in rural Central America.

## **CONCLUSION**

Hygiene education programs in developing regions of Central America vary in method and success. Yet despite their individual differences, there are four basic elements that programs can seek for success. Research suggests that the core of successful health education programs is made up of low-technology resource tools, long-lasting partnerships, local support, and initial needs based evaluations. However, research in this area is still limited. In relation to how many programs are active, very few have been evaluated. Furthermore, more information regarding what teaching tools are effective and still low-tech would help layout options for someone looking to implement a health education program of their own. More research would also be valuable on the attitudes of the local community regarding health education programs in their region. Efforts to improve the status of health in developing countries mean to do well, but what potential target communities actually think and feel about receiving help is unfortunately unknown at this point.

Ultimately, research on this topic is important because the poor health status fostered by Central America and other developing regions is a threat to the well-being and survival of hundreds and thousands of individuals. The rampant medical problems that Central Americans are facing should not be ignored—especially by highly-developed nations like the United States. Knowledge about how to implement a successful health and hygiene education program creates the opportunity for health status improvement in these areas. By working with one village at a time to create infrastructure for sanitation, small steps are taken towards a healthier future for thousands of rural, impoverished, and unhealthy Central American communities.

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