

Evaluation of an HIV/AIDS Education Training Workshop in Honduras

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Abstract

The purpose of this study was to examine the impact of a training workshop on teacher outcomes. Teachers (n=532) attended a workshop in Tegucigalpa or in San Pedro Sula, Honduras. They were surveyed at the beginning and at the end of the four day workshop. Teachers increased their knowledge about HIV/AIDS, their comfort and confidence in teaching young people about topics relevant to HIV/AIDS prevention and commitment to implementing the curriculum. Keywords: teacher training, HIV/AIDS, international

Introduction

HIV/AIDS is a global problem. It has spread throughout the world affecting lives in communities everywhere. The majority of the new adult infections is found among 15-24 year olds, with more than 70 percent of the infections transmitted by means of heterosexual intercourse. Rates of HIV infection are high throughout much of the developing world. In Central America, Honduras accounts for more than 70 percent of the AIDS cases (American, 1997). Hearst and Mandel (1997) noted that widely varying cultures and patterns of behavior present a set of unique challenges for understanding and preventing HIV risk behavior. They emphasized the importance of AIDS prevention research in the developing world.

Regardless of the country, efforts to prevent infection must include educational interventions aimed at young people (Sevenson, Carmel & Varnhagen, 1997, Borgia, et al, 1997). Surveys on adolescents' knowledge and behavior show that many young people continue to have serious misconceptions about the ways in which HIV can be transmitted and prevented. Those adolescents reporting participation in sexual behaviors typically have less knowledge than students who choose to be abstinent (Brown, DiClemente and Beausoleil, 1992). Many HIV prevention programs have been implemented in school settings. The idea is that through such programs students will be helped to make informed decisions about their sexual behavior, which will reduce their risk of HIV infection. To provide effective instruction, teachers must have the

knowledge and skills necessary to effectively implement sexuality or HIV/AIDS prevention curricula. A national study conducted by the Allan Gutmacher Institute (1989) found, however, that most teachers who are responsible for teaching sexuality education do not identify themselves as sexuality educators. In addition, almost none have received graduate training relative to sexuality education. Finally, most felt ill-prepared to address many of the issues in the area.

In discussing the situation relative to teacher preparation in sexuality education, Bill Yarber (1994), a past President of the Society for the Scientific Study of Sexuality indicated "Inadequate teacher skill is one of the more valid criticisms from opponents of sexuality education". It is often true that, in this country, those assigned to sexuality education have little or no professional training in content relative to sexuality, HIV/AIDS or other sexually transmitted diseases or in methods of teaching sexuality/abstinence education or HIV/AIDS prevention.

Abbey (1994) also stated that "we seem no closer to the ideal goal of pre-service preparation for all sexuality educators than we were years ago. Few teachers understand the rationale for teaching sexuality education in the schools and even fewer are in any way prepared to teach it." While there are clear concerns about the lack of teacher preparation and training in the United States, lack of appropriate training is much more of a problem in developing nations.

In order to translate rhetoric about the importance of sexuality education and HIV/AIDS prevention into quality programming that benefits young people, teacher training is essential. Educators/leaders must know the material well and be able to communicate the material effectively. Research has demonstrated the importance of training in the implementation of programming in other health content areas. For example, Newman and his coworkers-workers (1984) found training to be a critical factor in drug education programming. These researchers found that trained teachers made more of an impact with students than did teachers who had not participated in training. Smith, McCormick, Steckler, & McLeroy (1993) indicated that intensive comprehensive training can have a very favorable impact on curriculum implementation. Lavin (1993) asserted that a dearth of quality teacher training can pose a significant barrier to comprehensive school health program implementation and effectiveness.

As part of an international effort in HIV/AIDS education, a curriculum was developed and a teacher training course, designed to prepare teachers to teach the curriculum, was developed, and implemented. We believed teacher training to be vital to the success of the project. Additionally, we believed that such training should help teachers become familiar with the subject and gain confidence in their ability to implement the curriculum. We also believed that training could address cultural barriers to communicating about sexual behavior. In addition, teacher training could help teachers learn to use interactive teaching strategies; a new concept for many teachers in developing nations. Finally, we believed that teacher training would be of value in gaining a commitment, on the part of the teachers, to implement the curriculum.

The purpose of this study was to examine the impact of a teacher training workshop on selected teacher outcomes. We were interested in changes in HIV/AIDS knowledge and attitudes and concerns about teaching an HIV/AIDS prevention. We were especially interested in the impact of the workshop on teacher confidence and teacher commitment to the program.

Method

Youth at the CrossRoads

The Youth at the CrossRoads program is a unique, innovative, international approach to HIV/AIDS education. The program has been provided in a number of countries including Gabon, Honduras, Sierra Leone, Hong Kong, Jordan, India, Mongolia, Lithuania. Altogether, as of September 2000, the program has been provided in 35 countries around the world. The program combines abstinence education with character development in helping young people make choices that will help them protect themselves and those about whom they care. The curriculum straightforwardly promotes sexual abstinence as the most effective means of preventing HIV/AIDS. The emphasis of the curriculum is character education.

The curriculum does not include lessons that promote the use of condoms; so in that respect, it is abstinence only. During the training teachers are provided information relative to condom use and reduced risk of HIV and other STDs. The philosophy of the curriculum is to promote abstinence from sexual involvement, not abstinence from information. Thus, teachers are encouraged to strive for a classroom environment that elicits student questions and promotes discussion of issues. The curriculum consists of five units containing a total of 30 lessons. The units are: (1) Relationships, (2) Character, (3) HIV/AIDS, (4) Decisions, and (5) Rewards. Each lesson includes a teacher preparation section which lists objectives, key concepts, key terms, materials, a lesson outline and background information. Next the lesson is presented in detail, with the actual words that the teacher might use in introducing the lesson, conducting the activities and providing closure. Notes to the teacher are provided in the margins. Each lesson also has a Parent-Teacher Team page which goes home to parents.

The Training

Training teams typically consist of three skilled educators, including at least one health educator who has experience in sexuality education/HIV/AIDS education and teacher training. Trainers go to a country three or four times over an approximately 18-24 month period to provide training and to help

countries initiate and eventually institutionalize the program. The training is designed to prepare teachers to implement the Youth at the CrossRoads curriculum. The training workshops in Honduras involved about 30 hours of training over a four day period. The training addresses both content and methods. Trainers provide factual information about HIV/AIDS and model lessons from the curriculum for training participants, who take an active role in these activities, including the development of culturally relevant examples that will be meaningful to their students. In addition, participants have opportunities to teach a lesson from the curriculum to students in area schools. In these two training workshop the trainers provided instruction in English, with translation into Spanish. All participant role plays, small group discussions and activities and questions for trainers were in Spanish, with translation, when necessary, into English. Both the language barriers and the large number of participants made conducting the trainings challenging. The trainers presented much material in lecture format to all participants, who were seated in small groups with a group leader. Group leaders were Honduran nationals. It was the job of each group leader to lead small group activities and to facilitate discussions within each group. Some skits/activities were modeled by the trainers in the large group setting. Some activities involved all participants. Several microphones were placed around the training room to facilitate questions from the groups. Trainers met with group leaders each evening to secure feedback about the training and to preview the next day's activities. This training format closely followed the model that has now also been used in 34 other countries.

Participants

Participants in this study were persons attending one of two teacher training workshops in Tegucigalpa or San Pedro Sula, Honduras. Complete data were obtained from 532 workshop participants. The Ministry of Education notified schools about the training and encouraged teachers to attend. Originally, only one workshop was to have been conducted, but there was such a overwhelming interest in the training, far exceeding anyone's expectations, that two workshops were held. This required that the training be modified enough to allow trainers to be in each city on alternate days.

The Testing Instrument

The 74 item questionnaire was initially modeled after the research by Levenson-Gingiss and Hamilton (1989), and included items designed to elicit information regarding demographic characteristics, and the key areas which the training was designed to impact: HIV/AIDS knowledge, comfort and confidence in teaching adolescents a number of topics relevant to HIV/AIDS prevention, and commitment to the program. Levenson-Gingiss and Hamilton (1989) reported internal consistency scores of .77 to .94 on different questionnaire subscales. Because the final questionnaire that was used in this study: (1) differed considerably from the questionnaire used by the previous researchers, (2) was administered in Spanish, and (3) was administered to teachers from a cultural that differs substantially from that of the United States, reliability information from previous work probably has little applicability to the present study. The authors are not aware, however, of an available comparable instrument which is in Spanish and is culturally relevant.

Procedure

Teachers were surveyed at the beginning and against the end of the four day workshop. Code numbers were used to match individual's pre and post test responses. Data were analyzed using appropriate SAS programs, including factor analysis, t tests, Cronbach's alpha and multivariate analysis of variance. Factor analysis was used to confirm that certain questionnaire items clustered together and appeared to measure specific constructs. Cronbach's alpha was used to measure the internal consistency of the responses to items comprising the different constructs. To determine whether there was a significant change, from pretest to post, in participants' scores for these constructs data were analyzed using t-tests. Finally, to determine whether changes in scores varied by several demographic variables data were analyzed using multivariate analysis of variance.

Results

Factor analysis with varimax rotation was performed on responses to all attitude items. Factors with eigenvalues of 2.5 and above were retained. For each identified factor, a factor loading of .60 was used as the criteria for item inclusion. This resulted in the identification of two factors: (1) Comfort and confi-

Table 1. Results of Factor Analysis: Factors, Items and Factor Loading

<i>Factor 1</i>			
I feel comfortable teaching adolescents about sexually transmitted diseases.	Factor 1	0.615	Factor 2 0.277 Factor 3 0.262
I feel comfortable leading adolescents in discussions that involve sexual topics.	Factor 1	0.632	Factor 2 0.364 Factor 3 0.260
I feel comfortable leading adolescents in discussions regarding sexual attitudes and behavior	Factor 1	0.620	Factor 2 0.335 Factor 3 0.191
I feel confident that I can teach adolescents the skills necessary to make wise decisions regarding sexual choices	Factor 1	0.637	Factor 2 0.242 Factor 3 -0.079
<i>Factor 2</i>			
I believe that the CrossRoads curriculum will be effective in helping young people avoid HIV infection	Factor 1	-0.383	Factor 2 0.661 Factor 3 -0.148
I intend to teach the CrossRoads curriculum to adolescents	Factor 1	-0.478	Factor 2 0.716 Factor 3 -0.024
I believe that my school principal (if a teacher) or supervisor will support my involvement with the CrossRoads curriculum	Factor 1	-0.406	Factor 2 0.670 Factor 3 0.112
I believe that helping young people develop good character is an effective way to help them avoid HIV/AIDS	Factor 1	-0.429	Factor 2 0.671 Factor 3 -0.004
I believe that helping young people develop a personal relationship with Jesus Christ is an effective way to help them avoid HIV/AIDS	Factor 1	-0.327	Factor 2 0.675 Factor 3 0.052

dence in teaching young people about sexual issues (7 items) (Cronbachs alpha = .804), and (2) Curriculum "buy in" (5 items) (Cronbachs alpha = .847). To determine whether the workshop training had an impact on knowledge about HIV/AIDS and the two factors identified by the factor analysis, difference scores were calculated by subtracting pretest scores from posttest scores and t tests were performed, testing the hypotheses that the difference scores were greater than zero.

This analysis revealed that the participants in the training workshops increased their level of knowledge (t = 4.211, p = 0.001), comfort and confidence (t = 11.266, p = 0.001) and curriculum "buy in" (t = 2.740, p = 0.0065). Separate analyses were also performed for males and females. Figures for females also indicated increased knowledge (t = 3.599, p = 0.004), increased comfort and confidence (t = 9.269, p = 0.001) and

increased curriculum buy-in (t = 3.619, p = 0.004). Figures for males indicated increased knowledge (t = 2.248, p = 0.026), and increased comfort and confidence (t = 5.991, p = 0.0001), but no increase in curriculum buy-in (t = 0.143, p = 0.633).

To determine if there was a difference among various subgroups of participants in the degree to which scores of knowledge, comfort and confidence and curriculum buy-in increased, three separate multivariate analyses of variance were performed. Independent variables included gender, marital status, occupation, church attendance, and having an HIV positive family member. The analysis for knowledge yielded an overall F of 0.80 (p = 0.674). The analysis for comfort and confidence yielded an overall F of 0.46 (p = 0.951). The analysis for curriculum by-in yielded an F of 0.79 (p = 0.679).

Table 2. Results of t-tests: Testing the Hypotheses That Difference Scores Are Greater Than Zero

Variable		Pretest	Posttest	t-value	probability
All Participants					
Knowledge	\bar{x}	12.54	13.05	4.211	0.001
	sd	2.07	2.24		
Comfort & Confidence	\bar{x}	11.27	9.09	11.266	0.001
	sd	4.02	2.94		
Curriculum Buy-In	\bar{x}	23.15	23.7	2.74	0.007
	sd	2.47	3.18		
Females					
Knowledge	\bar{x}	12.54	13.05	3.599	0.004
	sd	2.06	2.27		
Comfort & Confidence	\bar{x}	11.31	9.11	9.269	0.001
	sd	4.14	3.01		
Curriculum Buy-In	\bar{x}	23.26	23.94	3.619	0.004
	sd	2.41	2.49		
Males					
Knowledge	\bar{x}	12.54	13.04	2.248	0.026
	sd	2.1	2.21		
Comfort & Confidence	\bar{x}	11.06	9.07	5.991	0.001
	sd	3.7	2.84		
Curriculum Buy-In	\bar{x}	22.94	23.13	0.143	0.886
	sd	2.63	4.3		

Discussion

The training workshops were found to have a beneficial effect on teachers, promoting increases in knowledge, comfort and confidence in teaching sexual issues to young people and curriculum buy-in. When data were analyzed relative to gender, however, it was found that males did not increase their level of commitment (buy-in) to the program and had post-test buy-in scores that were significantly lower than that of females.

It appears that the training workshops are of benefit and should be continued. It is not clear, however, how these benefits will translate into actual program implementation, improved teaching and positive student outcomes. Questions, which were beyond the scope of this study, but which should be considered in future evaluations include:

(1) does the increased comfort and confidence that comes from participation in training result in enhanced quality of teaching?

(2) does the increased level of curriculum buy-in due to the training result in a greater degree of program implementation and fidelity to the curriculum?

(3) does the curriculum produce positive, measurable student outcomes?

(4) do students who are taught the curriculum by teachers who have participated in training receive greater benefits from the curriculum than students taught the curriculum by teachers who have not participated in the training?

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