

Development of a Co-Facilitator Training Programme to Conduct a Randomized Controlled Trial for a Health Promotion Programme at a Sub-Saharan African University

Heeren GA^{1,5*}, Batidzirai JM^{2,4}, Marange CS², Rumosa Gwaze A², Tyler JC² and X Mtose³

¹Department of Psychiatry, School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

²Department of Statistics, University of Fort Hare, Alice-5700, South Africa

³Department of Education, University of Fort Hare, East London-5201, South Africa

⁴Department of Statistics, University of KwaZulu Natal, Pietermaritzburg, South Africa

⁵Saint Joseph's University Department of Health Science, Post Hall 110, 5600 City Avenue, Philadelphia, PA 19131 USA

*Corresponding author: Heeren GA, Department of Psychiatry, School of Medicine, University of Pennsylvania, Philadelphia, PA, United States of America, Tel: 610-626-1807; E-mail: gheeren@sju.edu

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Abstract

The unique benefits of employing peer educators as specially trained co-facilitators have become increasingly popular in HIV risk and health promotion interventions. While several independent studies use peer educators alongside trained specialists, this intervention used co-facilitators to implement a health promotion program for university students at a rural South African university. A total of 16 postgraduate students, were trained as co-facilitators. The co-facilitators were randomly assigned to either of two intervention groups, the health promotion intervention or the health risk reduction intervention. This resulted in two successful interventions that educated university students on practicing healthy lifestyles, which included healthy diets, fruits and vegetables, how to prepare meals, physical activity, limiting alcohol consumption, reducing the number of sexual partners, condom use, effects of STD's and HIV/AIDS, prevention and abstinence.

Keywords: Co-facilitator training; Randomized control trial; Health promotion; University students; Sub-Saharan Africa

Research highlights

Training of peer facilitator as Co-facilitator for a Randomized Trial.

Health Promotion Programme for University Students in sub-Saharan Africa.

Intervention, prevention HIV risk behaviour, health promotion, physical activity, healthy diet.

Introduction

In South Africa, the infection rate for HIV is one of the highest in the world. This is also the case for non-communicable diseases (NCDs) with the highest rates in the country [1,2]. If there is no change of behavior, HIV and NCDs will remain the leading cause of death especially for young people in the age-group 18 to 24 years [2]. Change of behavior can be observed if young people receive adequate education at the right time [3-6].

Peer education is often used in developed and developing countries. In South Africa peer education has been accepted as an important tool within different departments such as health and education [7-9]. Peer education is seen as the teaching and sharing of health information, values and behavior in educating others who may share similar social background [10]. Peer educators are in most cases respected members from the community, hold a community leadership position or they might have reached a higher degree (post-graduate students as

compared to those still doing undergraduate studies). These "leaders" often lead by example, either in regard to alcohol consumption, general healthy lifestyle or safer sex [7].

In countries with limited resources, where the doctor-patient ratio is high (1 doctor per 100,000 people), it is particularly important to use other resources, than health professionals as trainers [11]. Examples of countries with such high doctor-patient ratios (1 doctor/100,000 people) include South Africa (77), Botswana (40), Namibia (30) and Tanzania (2). Due to lack of health professionals these countries often resort to the use of peer educators, which in many instances are members of the community in which an intervention would be conducted.

Health promotion programs, especially HIV prevention programs have often been implemented by peer educators [12-18]. The programs included a number of health-related areas like education on drug, tobacco and alcohol abuse prevention, nutritional promotion and sexual health education. The main aim of many peer education programs is to assist young adults to make informed decision while providing them with support and accurate information. It seems that young people, feel more empowered by peers than by adult trainers [10,19]. While peer education is supported by a number of studies, findings by Jemmott et al. [18] suggest that there is no difference in acceptance between adult trainer and peer educator [18].

University students are a group of young adults who are easy to reach and universities have a certain responsibility and opportunity to not only train the "elite of the nation" for the future but also influence their style of living in a healthy way by offering them not only academic knowledge. For universities, it is one of these opportunities

that provide training and teaching to young people as long as they are easy to reach whilst they are attending schools or universities [20]. The use of a theoretical framework which was established by Bandura [21]. This can be applied to peer education. The theory suggests that the similarity of experience between young people makes it easier to reach them and to lead discussions to avoid the typical “professional teacher-student” relationship [22,23]. Governments could take advantage by supporting the development and implementation of health promotion programs as well as effective interventions to prevent STIs/HIV and NCDs [24]. This is especially important since these university students are the future leaders who are role models in their community.

Co-facilitators

The study utilized co-facilitators who were specially trained peer educators in their field of study. The co-facilitators worked in pairs to facilitate in the program. These co-facilitators shared the lead roles by observing and supporting each other. They planned together the preparation and implementation of each module. Participants were engaged actively by participating in visual representations in the form of newsprints, role-plays, and practicing in the case risk reduction. For example they would learn how to use a condom by using a wooden penis and in the Health Promotion intervention they would learn to cook healthy food and they would be part of the discussion throughout the intervention. Multiplicity of tasks demanded that the co-facilitators “complement” each other throughout the modules in different ways. While one co-facilitator was leading, the other would keep time, assist with materials, writing, and/or summarizing discussion and all that would create an enjoyable learning environment. The co-facilitators would engage their group and actively deliver the content (knowledge and skills) as well as both facilitate the process of skills building and elicit content from participants; using an objective stance as often as possible. The co-facilitators would meet after each session to debrief about any progress, incidences and ways to improve future sessions. The co-facilitators worked with consistent groups.

This paper reports about the training of co-facilitators for a health promotion program for university students conducted at a rural sub-Saharan university. The results of the intervention study have been published elsewhere [25].

Methodology

Ethical approval

The Institutional Review Board of the University of Pennsylvania and the Ethical Committee of the collaborating University of Fort Hare, Alice, South Africa, approved all procedures of the study. The co-facilitators were paid for the training per session, which was held during the four week intervention program.

Selection criteria

The department of Teaching and Learning Centre (TLC) of the university gave access to a list of names of postgraduate students who had been previously trained as peer educators and mentors or tutors for other courses. These post-graduate students were screened in terms of gender, age and nationality. The goal was to balance gender, age and nationality since the university accommodates students of all ages, gender and different nationalities.

These post-graduate students were invited for an interview, which followed a strict protocol in regard to their willingness to be trained as co-facilitators, train peers and teach delicate subjects, such as sensitive health issues regarding sex education and condom use. During the formal interviews, the candidates were asked to demonstrate specific skills such as demonstrating condom use on a wooden penis. They had to be willing and show a positive attitude towards such demonstrations including cooking skills.

Co-Facilitator training

The training of the co-facilitators is summarized in Table 1 and Table 2. The training took place over a period of five days as suggested by Ajzen and Fishbein [26,27] a male and a female would work together to overcome any sensitive topics, which might occur during the different modules.

The training sessions were conducted separately, one for the sexual risk reduction intervention and the other for health-promotion intervention to avoid contamination between the two programs. The sexual risk reduction intervention was designed to educate participants on sexually transmitted diseases and HIV/AIDS, condom use and the influence of alcohol consumption and sexual risk behaviour. The health promotion intervention was designed to educate participants about health-related behaviour, including healthy diet, physical activity and alcohol consumption and their impact on health, which might lead to a reduction of NCDs.

The training developed communication and presentation skills and the techniques of working in pairs. The training also sought to train the peer-educators on how to conduct themselves as co-facilitators. The theory of planned behavior, the social cognitive theory, was applied. Formal teaching as well as informal discussions, and the use of videos and game plays were also administered [21].

Health Promotion Training
Overview of project
Background of the study
Purpose and Design
Theoretical Framework of study design
Discussion of Study
Importance of Fidelity in regard of the study and regard for participants treatment
Definition of peer co-facilitator
Review of verbal and non-verbal communication, knowledge, and values
Facilitator biases
Co-facilitation presentation skills, recap and discussion.
Review of skills assessment
Co-facilitation and time-management
Preparation of intervention sessions and debriefing sessions
Introduction about use of the manual
Random assignment of peer co-facilitator

Table 1: Training Overview. **Note:** The introduction Sessions were held in one group.

Health Promotion Training	
Risk Reduction Intervention	Health Promotion Intervention
Epidemiology Differences Transmission Symptoms Treatment of STIs and HIV/AIDS	Epidemiology Non-communicable diseases (NCD) Cardio-vascular diseases Hypertension Diabetes Cancer Obesity
STD and HIV/AIDS Myth and facts Prevention	Nutrition and health 5 a day Food Pyramid Nutrients and health Serving size. Preparing food
Condom use Negotiation skills	Physical activity and health Types of exercises and health
Alcohol and risky sex behavior	Alcohol and health

Table 2: Training Overview. **Note:** The peer co-facilitator have been trained the same way for each intervention arm. Including presentation skills, teach back, discussion about activities, comfort level, discussion of material that was challenging.

Confidentiality

The special circumstance in this study was that the co-facilitators may know the participants and it was therefore important that the co-facilitators learned that they had to respect participants' privacy and confidentiality. This was addressed throughout the training. Also the co-facilitators had to request that all participants agreed to keep any personal information confidential.

Fidelity

During the training the significance of fidelity to the program was highlighted. This is important to be able to compare results across the program.

Certification

The trainees' performance was monitored and evaluated throughout the training by the master facilitators, the co-investigators and the principal investigator. The co-facilitators have been evaluated on the competence of their delivery, their presentation skills, and their ability to control a group and respecting the members of a group. Upon successful completion of the training and after demonstrating the ability to implement the intervention the peer-educators received a certificate as co-facilitators.

Data collection

Each co-facilitator had to complete forms after each intervention session. These forms collected information about: date, time, and attendance for each session. Information about content covered, whether or not they had been able to follow the script for the specific

sessions (also called fidelity), and any occurrence of any incidences during the sessions were recorded. Any challenges they came across during the training sessions were also recorded.

Debriefing

The co-facilitators met after each session to reflect on the course of the session, any incidences and problems occurring during each session. They also reported if they were able to maintain fidelity to the program.

Results

From the list provided by the TLC, a total of twenty-eight peer educators were interviewed. Of these, sixteen met the selection criteria and were chosen to attend the formal facilitator training sessions. The co-facilitators included ten male and six female peer educators. Their ages ranged from 24 to 49 with a mean of 28.5 years. Most of the co-facilitators were single (12) and four were married.

Two of the co-facilitators, were enrolled in a PhD program, thirteen in a Master's program and one was an honors student in his final year. Nine of the co-facilitators had been formerly trained as peer educators in HIV/AIDS education while seven had been working as peer educators in the field of life-skills educational programs. At the university where the health promotion program was conducted most post-graduate students were Non-South Africans, leaving the program with only four South Africans and twelve Non-South Africans as co-facilitators.

The training of the co-facilitators took five days. Prior to the training, the students were randomly assigned to be trained as co-facilitators in one of two interventions, either the sexual risk-reduction intervention or the health-promotion intervention. In this way, the random assignments fairly distributes the co-facilitators' characteristics across the interventions; hence, any effects of the interventions could not be attributed to the co-facilitators' pre-existing characteristics. The training covered the theory of planned behaviour, the goals, purpose, and design of the study. They learned how to apply the curriculum manual, and other related materials. The manual covered intervention-activity delivery issues and handling problematic participants. The program included information on prevention of NCDs, HIV and STIs. Also selected readings on theoretical concepts underlying the intervention were made available to the co-facilitators. During the training a group of specially trained master-facilitators facilitated the different modules in "mock sessions" with the trainees as participants. The co-facilitators learned each module and as part of the intervention training they participated in teach back and facilitating activities and modules. They received feedback from the master facilitator and from each other. This created common responses to potential issues that may arise during the implementation of the intervention. At the end of the training the co-facilitators were awarded a certificate of competence.

The co-facilitators conducted the intervention over a period of four-weeks. Each session concluded two modules. Table 3 shows the distribution of the sessions. For each intervention arm, the intervention consisted of 8, 45-minute modules, with 2 modules delivered over four weekly sessions. For each of these two intervention arms, there were a total of 10 groups. Within the groups there were from seven to eleven participants (mean=8.8 participants) and 8 paired peer co-facilitators. During the eight sessions conducted over 4 weeks the attendance was a total of 181 participants (98.3%) attended the

Intervention in week 1, and 159 (88.6%), 172 (91.5%), and 170 (96.6%) attended weeks 2–4, respectively. Make-up sessions were offered on Saturdays to the students who were unable to attend their session during the week due to one reason or another. Additionally make-up sessions were offered just before the post intervention data collection. In general the number of students who attended the intervention sessions did not significantly differ between the HIV risk reduction (mean=3.66) and health promotion (mean=3.85). The co-facilitators facilitated the same group of students each week, so that the students would feel comfortable to connect with their co-facilitator and feel free to express their ideas on topics discussed.

	Day	Health Sessions	Promotion	Risk Sessions	Reduction
Week 1–Week 4	Monday	4 Sessions (Groups 1–4)		4 Sessions (Groups 1–4)	
	Tuesday	4 Sessions (Groups 5–8)		4 Sessions (Groups 5–8)	
	Wednesday	3 Sessions (Groups 9 and 10)		3 Sessions (Groups 9 and 10)	
	Thursday	4 Sessions (Groups 2–5)		4 Sessions (Groups 2–5)	
	Friday	5 Sessions (Groups 6–10)		5 Sessions (Groups 6–10)	
	Saturday's	Make-Up Sessions			
		Make Up Sessions Prior Post Intervention			

Table 3: Weekly session over a Four-Week Period.

The co-facilitators had also the responsibilities to meet prior to each session; set up materials for the session; discuss content and divide roles; and discuss/prepare/anticipate how best to assist participants to reach goals. They also attended a debriefing session after each session and reported on the progress of the sessions and any challenges encountered.

Evaluations of the Interventions

Participants' evaluative ratings of the interventions were high (means for both intervention arms were greater than 4.6 on 5-point scales) and did not differ by intervention arm. Non-South African students as compared with South African students said they liked the interventions more (means=4.71 and 4.60, respectively; $F [1, 166]=4.68, P=0.032$) and learned more (means=4.94 and 4.83, respectively; $F [1, 166]=7.36, P=0.007$) from the study.

Discussion

In summary, the modules covered during the interventions sessions were conducted by the specifically trained co-facilitators. The co-facilitators were post-graduates students who were peer educators in their fields of study or had a prior training on HIV/AIDS issues. The co-facilitators knew about the general campus lifestyle and knew, through their own experience, how life on campus was and had therefore a good understanding of the students' circumstances. Whilst conducting formative research the participants in the focus group

sessions, held with the target population, suggested that the co-facilitator would rather be mentors or tutors from the campus than outsiders who might have lacked familiarity with the campus [25]. The students believed that they would feel more comfortable with someone from campus, who might be a post-graduate student.

It is believed that the South African students could easily go home and accordingly were less of a captive audience than non-South African students, who may have been motivated to take part in on-campus extracurricular activities since their off-campus opportunities might have been limited. Another difference might be that the non-South African students tended to be of higher socioeconomic background than the South African students, which might reflect a different motivational tendency for involvement in health promotion opportunities. Some of the Non-South African students received scholarships from their country of origin and seemed to be more eager to participate in extra-curricular programs. Future research will have to explore empirically the reasons for the difference in attendance of students in that environment.

The designed co-facilitation approach enabled sharing of tasks, mutual support, use of complementary skills and training opportunities for less skilled co-facilitators. The size of the groups was considerably smaller existing between seven and eleven participants per group and therefore easy to manage. The co-facilitators were able to build a rapport with the students over the weeks of their group participation. The experience of the debriefing sessions held after each intervention session became a valuable tool to improve their co-facilitation skills. This might have influenced their facilitation style within their groups, giving and receiving feedback on co-facilitation skills, reviewing evaluation forms, recording issues discussed, sharing concerns they may have about individual participants and deciding on further actions. Keeping records about their experience in the group also helped to reflect on and improved their day-to-day engagement with the participants. The rapport between the co-facilitators and the study participants might have played a role in the reasons for the high attendance of the participants.

In developing countries peer educators have been proven to become an important factor in steering health promotion programs especially in tertiary educational settings [28]. The co-facilitators, who were specially trained for conducting the intervention, enhanced their skills in communication and working as a team. Their level of respect, non-judgmental and trust was noted over the time of the intervention period. The attendance of the program was high. The implementation of program by co-facilitators proved to be successful [18].

Conflict of Interest Statement

None declared.

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