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TRAINING FOR COMMUNITY HEALTH WORKERS: THE FIRST STEP TOWARDS A MODEL OF COMMUNITY ANTIRETROVIRAL THERAPY DELIVERY

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ABSTRACT

The Ethiopian health system is facing complex challenges in increasing the access of HIV-patients to antiretroviral treatment (ART) and managing a growing number of patients on ART. According to the World Health Organisation (WHO) guidelines on the use of antiretroviral drugs, trained community health workers (CHWs) can be successfully involved in the management of innovative models of community ART delivery. It is our hypothesis that new models of community ART delivery may also be developed in Tigray. Based on consultation with the Tigray Regional Health Bureau (TRHB) we started a training program addressed to CHWs aimed at reinforcing their communication and clinical skills. Training methods included both face-to-face and self-learning sessions, with the support of ad hoc didactic toolkits developed by a multidisciplinary team. In this paper we present and discuss the preliminary results of the training program.

KEY TERMS: HIV/AIDS; antiretroviral therapy; lost to follow-up; community health workers, Ethiopia

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INTRODUCTION

Over the past 20 years, the Ethiopian Government has implemented several effective strategies to control HIV/AIDS and improve access to antiretroviral therapy (ART). In 2003, it introduced its ART program and in 2005 it started to provide “free ART”. Since then, Ethiopia experienced a rapid increase in ART coverage, which in 2017 reached 71% of people living with HIV (PLHIV) (WHO, 2017; Antiretroviral therapy coverage]. This fast spread is expected to further increase, following the adoption by the Ethiopian Government of the World Health Organization (WHO) guidelines (2016) on “The Use of Antiretroviral Drugs for Treating and Preventing HIV Infection” because of the change of the ART eligibility criteria (ART is now recommended for all HIV-infected individuals, regardless of CD4 cell count) (WHO, 2016). The implementation of the new guidelines will result in a significant increase in the number of people who are eligible to begin therapy. At the same time, there is now a growing number of patients who have been on treatment for several years (WHO, 2016). Finally, the Ethiopian Government has recently approved the goal of reaching the Joint United Nations Program on HIV/AIDS (UNAIDS) 90-90-90 target: 90% of people with HIV diagnosed, 90% of diagnosed people on treatment and 90% of treated people with fully suppressed viral load by 2020 (WHO Regional Office for Africa, 2015). All these factors, defining a new scenario with an unprecedented increase of diverse needs among the HIV population, will lead to the local health systems tackling complex challenges, mainly related to additional efforts needed to increase access to treatment, but also linked to major difficulties in the management of a large number of patients on ART with different care needs.

According to WHO, a differentiated care approach, which is a client-centred approach reflecting the diversity of needs of people in care, should be supported to help countries and program managers in improving quality and efficiency of services (WHO, 2016). In such a complex scenario, WHO emphasizes the role of community health workers (CHWs): expert clients who can support other patients and reach people lost to follow-up [WHO, 2016; Guidelines on the use of antiretroviral drugs]. During recent years, in many high-prevalence countries, differentiated models of ART delivery have been piloted largely for stable patients [WHO 2016, Guidelines on the use of antiretroviral drugs; International AIDS Society, 2016].

It is our hypothesis that, to manage the growing number of stable patients on ART and improve retention innovative models of community, ARV delivery may also be developed in Ethiopia. Based on consultation with the Tigray Regional Health Bureau (TRHB), we started a training program addressed to CHWs aimed at reinforcing their communication and clinical skills. In the current paper, we present and discuss its preliminary results.

METHODS

Training program development

The training program was designed and implemented in partnership with the TRHB, the Mekelle University and the Italian National Institute of Health (Istituto Superiore di Sanità, ISS). The development process of the training went through the following steps: (1) review of existing literature on models of differentiated ART delivery; (2) selection of participants in the training program; (3) drafting of the training program contents and selection of teaching material; (4) implementation of the first training course (2015-2016); (5) evaluation of the first training course; (6) implementation of the second training course (2018-2020).

Review of existing literature on differentiated ART delivery models

The first step in the development of the training program was to review the existing knowledge on the implementation of models on differentiated ART delivery. Over the past 15 years, different countries in sub-Saharan Africa have already developed and adopted differentiated models of community ART delivery. Data from sites where these interventions have been introduced show that they not only increase the patient’s satisfaction level but can also be part of improving retention in care and adherence (WHO, 2014; Bemelmans M, 2014; Grimsrud A, 2015; Nglazi MD, 2011; Jaffar S, 2009; Kipp W, 2011; Mwai GW, 2013; Selke HM, 2010; Kredon T, 2013; Grimsrud A, 2016; Maryse C; 2015).

Selection of participants in the training program

Seven health facilities (HFs) located in Tigray, the northeastern region of Ethiopia, were involved in the training program: two health centers (Alamata Health Center and Mekelle Health Center), one university hospital (Ayder Referral Hospital), three general hospitals (Alamata General Hospital, Mekelle General Hospital and Lemlem Karl General Hospital of Maichew) and one primary hospital (Mehoni Primary Hospital). Participants in the training program were selected among CHWs working in the above HFs.

Training program contents and didactic material

A multidisciplinary team defined the training strategy, produced *ad hoc* didactic material, lead the training courses and carried out evaluation of the program at different steps. The first training course started in April 2016 and terminated in October 2016. The training topics included clinical aspects of HIV/AIDS and communication, keeping into consideration the skills of the target group as well as the existing language barriers. The didactic materials included 2 booklets, written by experts from ISS and medical doctors from University of Genoa in 2015/2016.

The topics analyzed were the following: communication (toolkit 1) and HIV/AIDS basics (toolkit 2). They were produced in English and translated into the local language (Tigrina). Teaching material was extremely user-friendly with take home messages, questions, and examples taken from real life situations. Pictures taken locally were also included in the booklets to reproduce familiar settings and promote major involvement of participants. All teaching material is now available free of charge on the project website (<http://www.casaproject.info>).

First training course

The first training course included a face-to-face training session and a six-month self-study course. The face-to-face training was held by ISS team and was aimed at 1. motivating the participants; 2. providing explanations on training objectives, contents and methods; 3. explain the importance of the role they would have within their communities as a result of new acquired skills; 4. evaluate participants' training needs and logistics to set up strategic, realistic and achievable goals. The six-month self-study course was supervised by a representative of ISS with the collaboration of a local coordinator. Participants received the first toolkit on "Communication" at the beginning of April and had two months' time to study it. The second toolkit on "HIV/AIDS Basics" was delivered at the beginning of June 2016. During the training course, the on-site ISS member and the local coordinator had regular meetings with the trainees, in order to have their feedback and collect their questions on the topics studied. Participants were encouraged to discuss in groups each topic and write down questions or observations. Feedback on the questions was then reported to the ISS experts which provided all necessary clarifications. As part of training activity, participants were also asked to collaborate to trace HIV/AIDS patients missing to follow up, talk to them to understand why they did not go to HF when required, provide explanations and then report the results of their work by filling in a written format which was designed for this aim.

Second training course

The second on-going course (2018-2020) has a total duration of 3 years. The annual program includes face-to-face training sessions, three times a year (every 4 months), alternated with a four-month self-study. The results of this training are not available yet.

RESULTS EVALUATION OF THE FIRST TRAINING COURSE

Forty-nine (49) CHWs participated in the training course, and only 42 of them completed it. After completing the course, a final examination (written and oral) was given. In order to pass the written exam, the participants had to answer at least 70% of the exam questions correctly. The written test was composed of 65 multiple choice questions including both questions on communication and on HIV treatment and care aspects. Twenty-nine (29) candidates passed the written test. Fourteen (14) out of 29 successfully passed the oral test (Table 1).

Table 1. Results of exams

	All Participant s	Completing the course	Passing the written exam	Passing the oral exam	Final selection
CHWs	49	→ 42 (out of 49)	→ 29 (out of 42)	→ 14 (out of 29)	→ 14

The oral exam was held on October 3, 2016 at Tigray Health Research Institute. The Examining Board consisted of one TRHB member and three ISS members. The purpose of oral assessment was to select the best candidates

for the second training course. After completion of the oral examination, a group discussion was held in order to receive feedback on pros and cons of the learning experience. The discussion was useful to understand the difficulties encountered, improve the strategy for the second training and select additional topics for new toolkits. Participants who regularly attended the courses and passed the exams received a certificate of attendance from the TRHB.

DISCUSSION

Results from this first course experience provided evidence that the methodology adopted for the training program development was effective and sustainable. The number of CHWs who dropped out from the course was very low (only 7 out of 49): this suggests suitability of the methodology for the trainees and the context. Specifically, the use of a self-learning approach gave the possibility to freely organize some parts of the training schedule, probably making easier to find time for learning activities and reducing interferences with work and private life. The same aspect ensures economic sustainability, reducing cost items such as trainers' payment, rent of venues, transport to reach the location of the training, etc.

Besides, the results of the first training course were encouraging even though only 14 out of 49 trainees passed all the tests. It must be emphasized that the level of learning required was high for the purpose of the project. A strong recommendation was made by WHO guidelines that only trained and supervised CHWs can distribute ART to adults, adolescents and children living with HIV (WHO, 2016).

According to the WHO guidelines [WHO, 2016; Guidelines on the use of antiretroviral drugs] trained and supervised CHWs can be successfully involved in the management of innovative models of community ART delivery. CHWs need to be trained to manage basic HIV treatment and cure aspects and they also need to be equipped to assist patients in dealing with the social problems of the community where they live, such as stigma (WHO 2016). The topics provided in the training programme mainly focused on two aspects: communication and clinical and therapeutic aspects of HIV infection. The "Communication" course helped people to become fully aware of specific roles and responsibilities and showed how helpful good communication can be to achieve the best results. The "HIV/AIDS basics" course provided essential information on the clinical aspects of HIV/AIDS (e.g. how HIV transmission works; why starting and continuing ART; how to safely approach sexual and reproductive life) with the primary goal of helping CHWs to develop a positive and effective relationship with patients and, secondly, of teaching them how to communicate that information in a clear and persuasive way. This training program had both strengths and challenges.

The main strength was that it was determined from a multidisciplinary team composed both of local and Italian experts in the HIV field and communication aspects. The full consent and cooperation by TRHB should be also considered. In addition, it is worth pointing out that most trainees showed a very good level of commitment. Their feedback was gathered in informal ways through discussions at their workplace. Some of the participants underlined the importance of "toolkit 1" and the topics of communication. In fact, they already had a basic knowledge about HIV clinical aspects, but they were not trained on how to interact and communicate with the patients. They considered the topic important not only for their work, but also for social situations in their daily life.

The training program also promoted a joined participation and involvement of CHWs and health professionals, thus enhancing exchange of perspectives, alignment and mutual recognition of roles. At the HF level this could be translated in neat and organized interactions not only between CHWs and health professionals, but also with clients. This aspect is very important since quality and clarity of communication are recognized to be among the factors that strengthen relationship between clients and health providers (Chesney, 2000).

Furthermore, empowering CHWs and health professionals could contribute to increase mastery of their tasks. According to self-efficacy theory (Bandura, 1986), there could be positive implications for cognitive self-evaluation and motivation.

One of the main challenges was related to the language barrier. Some CHWs reported problems in understanding both English and Tigrina (some of them in fact speak Amharic). Some problems were reported regarding the understanding of the Tigrina version of the toolkits because the translation was sometimes considered not clear enough. Besides, there were difficulties in organizing some logistics aspects. Some of the participants, due to work commitments (meetings, trainings) or other personal issues, were absent when toolkits were distributed. It was therefore sometimes necessary to organize supplementary sessions with extra work load for organizers. A further challenge was the general resistance from participants in reporting their learning difficulties. Some of them decided to abandon the training without discussing problems and possible solutions with the training staff. Others continued the course but did not communicate the difficulties they were facing (these were found out by chance).

The results achieved and the overall general considerations about the first training course, generally match the reports of similar experiences in other parts of the world as appearing on the HealthCare Information for All (HIFA) website (www.hifa.org).

CONCLUSIONS

The training gradually fostered a more active role of both nurses and CHWs, involving them in implementation of activities based on new knowledge.

Based on such considerations, a new three-year training started in January 2018. The main topic regards communication, organizational issues and clinical aspects on HIV. It envisages both face-to-face lessons and self-study, including homework, peer evaluation and implementation of activities. From the third year, a cascade approach will be used: trained nurses will teach CHWs and CHWs will disseminate the knowledge acquired within their colleagues. Topics to be taught will be selected according to feedback received during the courses, face-to-face workshops, monitoring visits and all the interactions between trainers, facilitators and trainees. These steps might help to move forward to the decentralization model which will require experienced and knowledgeable CHWs, ready to play a leading role for stable ART clients.

AUTHORS' CONTRIBUTIONS

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Responsible for training and teacher:	De Castro P
Conception and design of the study:	De Castro P, Godefay H, Bucciardini R
Training courses implementation:	De Castro P, Bucciardini R, Tatarelli P
Design and selection of teaching materials:	De Castro P, Tatarelli P
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