Training Course Framework Directed towards Persons who Stutter: Concepts and Reflections with Particular Reference to Saudi Arabia

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Authors’ contributions

This work was carried out in collaboration among all authors. Authors NAQ and AAA designed the study, wrote the protocol and the first draft of the manuscript. Authors NAQ, AAH and AMD managed the descriptive analyses of the study and the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Speech fluency disorder is a common problem among children across the world, though majority of stutters recover either spontaneously or with appropriate interventions including speech therapy and related knowledge and awareness upsurge. This paper describes a skeleton of a new training course intended for the teaching of different perspectives of speech fluency disorder (stuttering) leading to enhancement of knowledge of persons who stutter. Evidently, it is mandatory to
develop a comprehensive course before any training course is directed towards adults who have speech fluency disorder. For this purpose, our team discussed iteratively various methods and processes used in the construction of an effective training course framework. As a result, the concise needed short course should have a course framework and a distinctive rationale and justification with aims and specific objectives, important contents, teaching methods, proper evaluation, available digital infrastructure resources and a well-defined suitable time framework. The authors recommend that the semi-theoretical construction of the training course for advancing the knowledge of persons who stutter that is linked with improvement in SFD could be utilized in Saudi Arabia or possibly other Gulf countries with or without modifications.

**Keywords:** Speech fluency disorder; objectives; rationale; training course framework; teaching methods and evaluation; knowledge.

1. INTRODUCTION

Speech fluency disorder (SFD) is a common problem of children and adolescents around the world and it affects about 1% of children and adolescents globally and most of them recover with or without any interventions. However, some of the children continue to suffer from chronic SFD, about 1% of adults—both men (0.8%) and women (0.2%) and its persistent adverse consequences and need treatments in order to lead a good quality of life [1]. Recently, our team has comprehensively updated the relevant literature on SFD including its epidemiological, etiological, clinical, diagnostic, prognostic and treatment perspectives that in fact helped us to delve into a specific training course directed towards persons who stutters (PWS) [2].

1.1 Aims of the Study

The specific goal of this research is to reflect and develop a new training course for the teaching and enhancing basic knowledge of PWS. The other important perspectives of this research include the following; 1) the significance of this course for PWS is to be able to appreciate speech fluency disorder, its common intricacies and the available solutions to their problems; 2) to acquire the relevant knowledge, skills and attitudes and understand the present potential and limitations as far as stuttering is concerned, and to identify the possible areas or gaps where future developments are most needed; and 3) to have an opportunity to contribute actively to the development of the community members with SFD by means of their learned skills and buildup knowledge; and finally trained PWS could direct persons who stutter to join this 2-week training course. The relevance of this training course is that the SFD is less researched, and almost ignored as far as the training of mental health professionals, speech therapists, and neurologists, and this training course takes a bottom to top approach as it is first directed towards training patients with stuttering. The participants’ expectations including motivation, pre- and post-training program, are met when courses are delivered effectively by skilled leaders [3].
1.2 Expectations

The above expectations can be translated into educational objectives, the achievement of which by the end of the course should enable the persons with stuttering to apply the acquired knowledge and skills in the fulfillment of their own needs and associated adverse effects concerning speech fluency disorder and maintaining their professional/occupational activities including consistent motivation. To achieve these expectations, the course trainers need to concentrate on four main target groups: the persons who stutter, family members (or care givers), the community members and healthcare workers, the latter three groups serve as a support system for stutterers’ maintenance of health and for the prevention and treatment of related diseases and adverse consequences. Overall, trainers need to be highly knowledgeable in speech fluency disorders and its paraphernalia and should use their skills in imparting basic information to family care givers, healthcare workers and persons who stutter.

1.3 Training Course Development

The training course needs to be developed by a team of researchers and expert trainers associated with Riyadh Erada Stuttering Club and National Center for Mental Health promotion, Riyadh, Saudi Arabia. For this purpose, the team members should review pertinent literature and select relevant topics to be included for the training course directed towards PWS. The course timeline should be two weeks with 30 hrs each week, with tea and coffee breaks. The course should be designed to meet the needs of PWS and having various problems linked with stuttering. The course should meet the needs of the target population, i.e., chronic stutters, whose most common health problems and needs should be addressed and examined closely. The training course must explore and discuss behavioral, psychological, educational and medical aspects of health problems and their solutions including treatment interventions concerning stuttering and its various unfavorable consequences.

In order to achieve these particular perspectives of short training course, the following aspects should be considered: 1) development of a conceptual framework within which the training course should be located; 2) identification of the aims of the course; 3) identification and location of the target population (i.e., person who stutter and others) for whom the program will be designed; 4) planning of a relevant course structure; 5) appropriate course content; 6) development and preparation of training methods and materials; 7) staffing requirements, financial support and technical resources; 8) development of methods of course and participants’ evaluation in order to see the effectiveness of the course [4,5]; and 9) testing of the feasibility of the approach and the content and methods, as much as possible with the participants who stutter. Overall, the development of training course inclusive of all important components and delivered by expert trainers is associated with fair effectiveness.

1.4 Training Objectives

As mentioned up, the specific objective of this short research is to reflect and describe the development of a new training course for the teaching and enhancing basic knowledge of persons who stutter (PWS). Accordingly, the
training objectives and knowledge buildup can be specified in terms of what the PWS should be able to do at the end of the course, such as: 1) appreciate speech fluency medicine in its historical context and be able to understand the reasons for, and the use of, different models and approaches which have been dominating the activities of persons who stutter at different periods of its development, in terms of the new role given to at present; 2) recognize the limited but vital role that PWS can and should play in the solution of their health problems which are prevalent today or are likely to become so; 3) become aware of both the different options that SFD treatment methods offer at present and also the need for new roles of recovered PWS to play in the general movement towards recognition of health problems including biased and discriminative attitudes and promotion and protection of non-stuttering activities; and 4) acquire competence in diagnosing stuttering health problems and prescribing effective direction, guidance and solutions, including their monitoring and evaluation concerning their efficacy leading to good quality of life.

1.5 Importance of Knowledge Acquirement

For these purposes, the PWS should acquire the necessary knowledge and skills which may enable them to do the following: 1) identify the structure and functions of the course training systems within which they operate, i.e. health, social and educational; 2) identify the structure and functions of the systems within which the client population (stutters) operates, i.e. colleges, social, occupational, and family; 3) define the part of a specific behavior or action plays within the more general concept a lifestyle of a certain client group; 4) translate the behavioral experiences of the client population into medical concepts of restoration of health without stuttering; 5) follow up the health educational diagnosis by prescribing, applying, monitoring and evaluating appropriate health interventions; 6) become acquainted with research methods and contribute to the future development and critical assessment of health practices effective in the management of PWS; and 7) develop skills necessary for self-directed learning, and be able to apply them as a part of the process of "on the job" continuous education concerning stuttering in their future careers. For more detailed knowledge concerning higher educational objectives, this source is highly recommended [6].

Overall, these training objectives should be viewed in the light of past experiences and the future role of the people who stutter. Speech fluency disorder medicine in this context is considered to be a generic term including a number of specialties including neurology, speech pathology, rehabilitation, psychiatry, and psychology it will be up to each recovered person to work out the contributions of SFD to his/her own specialty, either by using what already exists or developing new specialties. In addition to these institutional and educational/training objectives, training courses and related materials should have their specific aims and objectives should be laid down in training course structure [7]. Evidently, a great knowledge and awareness of SFD guide a person who stutters in the right direction including seeking right therapeutic interventions and maintaining speech health without any
shame and guilt in psychosocial and cultural environment.

1.6 Training Course Structure

The training course directed towards PWS should be based on a problem-solving approach [8,9] which requires the identification of the main problem areas in which SFD medicine can provide solutions. These are: 1) stuttering problems facing a healthy population in striving to remain healthy and prevent the occurrence of speech fluency illness including related multiple complications and neuropsychological difficulties and to apply primary preventive measures to reduce occurrence of stuttering in the community. People tend to learn stuttering by modeling; 2) (stuttering) problems facing a population experiencing acute ill health in its attempts to recognize symptoms and take appropriate actions to ameliorate them and, where self-help is not successful or appropriate, to seek timely psychomedical advice, comply with prescribed guidelines and treatment interventions if appropriate and consequently return to the state of health without stuttering, i.e., using secondary prevention; and 3) problems facing a population suffering from chronic stuttering and its adverse consequences in striving to manage such speech disorders, either with its own resources or with the help and support of its psychosocial environment, including special services provided by a multidisciplinary team of experts, i.e., through tertiary prevention.

These three problem areas should coincide with the two-week training course, so that the PWS will be engaged in exploring the contributions of SFD research and concerned experts in the following way: first 25 hours-biopsychosocial and cultural determinants related to the people having SFD and other related diseases and problems: next 25 hours-epidemiology, clinical types and their manifestations, and diagnostic tools of SFD: and the last 25 hours- various interventions used in the management of SFD and related health problems. During two weeks training course, the multidisciplinary team should have an opportunity to discuss with adults PWS each of their problem areas to be introduced by a workshop or discussion group on a relevant topic of interest to all participants with stuttering enrolled in the training course. In order to maintain the multidisciplinary nature of the training course, interactive presentations, workshops and problem-based learning will be structured into the course planning (Table 1). In this context, stuttering should be considered a problem with multiple clinical and nonclinical components and expert trainers should focus on each perspective of speech fluency disorder.

1.7 Course Content

To achieve the aims and the objectives of the training course, it should be planned in such a way as to provide the PWS with the following: 1) knowledge relevant to SFD and its various types, taking into account the participants’ educational background, and providing them with complementary knowledge on other relevant topics raised by PWS; 2) a historical perspective covering past developments and future demands in speech fluency disorder;
Table 1. Training course framework [10]

1. Course framework Course #
- Duration-two weeks
- Credit hours: from Saudi Commission for Health Specialties
- Title of the training course coordinator
- Details of expert trainers

2. Course rationale and justification
- Aims
- Specific objectives
- Significance and relevance of training course

2.1 Training/Teaching methods
- Problem-based tasks and group discussions,
- Interactive lectures,
- Workshops,
- Role play
- Self-learning
- Home assignments and exercises
- Audiovisual presentations
- Online training (future of teaching and training? Zoom App, etc.)

2.2. Evaluation
- Training Course evaluation by using pre- and post-design questionnaire
- PWS evaluation at the end of the training course
  (verbal [audio/video taped] and written feedback)
- A neutral evaluator

2.3 Resources
- Digital Library
- Expert staff as a training guide
- Available teaching/training aids
- USB with written materials on SFD to be given to each participant

2.4 Timetable
- Title of the training course
- Date and time
- Contents and activities including prayer times and tea and coffee breaks, etc.
- Trainers/speakers names
- Supervisor
- Notes and observation, resources needed
- Discussion of problems/views raised by the persons who stutter
- Concluding remarks

3) a simple semi -theoretical framework within which past and emerging models of speech fluency disorders and related other comorbid conditions can be integrated in both their theoretical and practical aspects; 4) the knowledge and skills needed to put the SFD aspects of their occupational activities into practice and without facing any problems including shame or social stigma; and 5)
to develop the competence to plan, execute and evaluate a SFD perspective using scientific methods of understanding, collecting and interpreting related information and the selection of appropriate interventions, accompanied by monitoring of progress and evaluation of the outcomes. Kirkpatrick suggested that there are four areas that required measurement, when analyzing the effectiveness of training program which are emotional reaction, achievement of objectives, behavioral changes and organizational impact and further identified four level process of training evaluation [5]. In other words, the order of the levels is reaction, learning, behaviors and results.

1.8 Training Methods

There is converging evidence that traditional method of teaching or training of PWS by lectures has limited value in the present circumstances. The most important drawback of this model is the one-way delivery of the message without interactions concerning PWS. With continuing improvements and tremendous advances in technology, there is increasing emphasis on teaching methods which are simple and effective, coupled with interaction between the trainer and the participants and also associated with audiovisual presentations. In addition to interactive lectures, other methods of training involving the concept of group interaction and encouraging the neurocognitive faculties of participants for their skill development include the following; aptly well thought-out group discussions, workshops, round table discussions, self-learning and problem-based graded tasks with their final solutions. The self-learning should well be achieved by providing the participants with comprehensive manuals and they should search scientific websites and databases for self-learning concerning SFD and related differential conditions. Ultimately, the common objective of these training methods is to involve visually as well as aurally the training participants so that they can clearly receive and comprehend the important messages and relevant information regarding SFD from their trainers.

1.9 Methods of Evaluation

The evaluation of the short training course and its main components is extremely important from many perspectives. The evaluation is broadly categorized into: 1) the evaluation of training course; and 2) the participant evaluation prior to beginning and at the end of the course which should be carried out by verbal/oral and written feedback using a pre-and post-training questionnaire with multiple choice questions.

Besides highlighting several perspectives of training course effectiveness including processes, Kunche and colleagues (2011) described three types of evaluation methods including observation of trainees, using questionnaire and interviewing them for knowing the effectiveness of training courses and also discussed the implications of Back planning model (Fig. 1) which is same as Kirkpatrick’s model [11,5].
Level 4-Result or impact of training

↓

Level 3- Performance

↓

Level 2-Learning

↓

Level 1-Reaction

Fig. 1. The backwards planning model [11]

Fig. 2. Circular causality of backwards planning [11]

However, the process occurs in the reverse order and continues in a cyclic process [11] (Fig. 2). These evaluations should result in enhancing the knowledge of the persons who stutter and also reflect their overall satisfaction with the course and its contents. At the end of the evaluation, participants should have self-confidence in dealing with minor as well as major speech fluency disorder problems both from the preventive and therapeutic and rehabilitation perspectives. Persons with stuttering often encounter multiple problems at their place of work and in the community and these are shame, guilt, isolation, depression and anxiety, and phobias which should be addressed during training and evaluated at the end of the training course.

This research article has some limitations in terms of lacking detailed descriptions of methods and processes used in the construction of training course framework. Reliability and validity of this training course framework as advised by one of the reviewers is not done. However, the detailed evaluation of the psychometric properties of this training course framework is beyond this research article. The strength of this research is that it concisely highlights the need of this training course along with processes and methods scattered throughout this paper and other paraphernalia of effective training courses. For more details of methods and processes of constructing an effective training program, see these references [3,5,6,11].
2. CONCLUSION

The development of a training course for the persons who stutter is a scientifically sound idea and the course should include a distinctive framework and rationale and justification. Within these two important domains, relevant course structure, appropriate contents and evaluation are of tremendous educational significance. This study recommends that the training course designed for PWS needs to address the important highlighted concepts with particular reference to speech fluency disorder, its related conditions and integrated therapies. This paradigm of training course development concerning people with stuttering might be utilized as a model in Saudi Arabia and elsewhere in Arabian Gulf countries with or without appropriate modifications.

CONSENT

As per international standard or university standard, Participants’ written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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