

**Title:** Clinician Training on Tobacco Dependence for Respiratory Therapists

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Clinician Training on Tobacco Dependence for Respiratory Therapists  
Structured Abstract

**Purpose:** The overall goal of this project is to increase the proficiency of respiratory therapists in the 5A's (and AAR) model and in pharmacotherapy recommendations by utilizing modules specifically designed for the target population.

**Scope:** The target population includes currently practicing respiratory therapists. This population will have contact with patients who are current tobacco users and can benefit from the cessation conversation conducted by the respiratory therapist and subsequent referral to the formalized tobacco cessation program.

**Methods:** The training provided the RT with guidance for delivery of personalized, tailored tobacco cessation interventions, which may be offered in a variety of environments. This training built upon existing resources to improve the knowledge, behaviors and self-efficacy for providing brief interventions. The program addressed the need for tailored, interactive, behaviorally focused video examples to demonstrate appropriate interactions with the tobacco user.

**Results:** Preliminary results demonstrate that the training program met the needs of the participants and that the information was timely and engaging. Post-course evaluations revealed that 95% of the participants found the training effective, 97% felt they met course objectives, and 95% would recommend the training to others. The participants' post-study survey data is currently being collected to identify the change in practice regarding the cessation conversation and subsequent referrals.

**Key words:** respiratory therapist, cessation, training, education

**Purpose:**

The overall goal of this project was to increase the proficiency of respiratory therapists (RTs) for the 5 A's (and AAR) model and in pharmacotherapy recommendations by utilizing the Rx for Change materials and supplemental specialized RT modules created with grant funding. Utilization of an on-line training platform promotes access to the training by all practicing RTs. Grant funding for development of the structure, activities, outcomes and dissemination of the program allowed the American Association for Respiratory Care (AARC) to expedite the availability to RTs.

RTs have a plethora of opportunities to assist in preventative efforts and engage tobacco users regarding tobacco dependence. While ample intervention opportunities exist, there are no national training programs specifically designed for RTs to properly prepare for this significant interaction. The AARC's vision for this proposed training program was to provide a comprehensive, online tobacco dependence clinician training for RTs to assist tobacco dependent individuals. The primary goal of the training is to reduce the number of tobacco users nationwide using evidence-based educational and interactive approaches. This can be accomplished by increasing the number of RTs prepared to help tobacco users quit. The purpose of this training was to enhance RT knowledge, attitudes and self-efficacy for providing tobacco dependence counseling.

The key objectives for the training are:

- 1) Improve self-reported knowledge and self-efficacy for providing brief tobacco cessation interventions.
  - Few studies have examined the RT's knowledge and self-efficacy for providing tobacco dependence counseling. There is a gap in the literature, which can be attributed to the lack of formalized education in this area for currently practicing RTs. Therefore, there is a need to illustrate the effectiveness of training in improving knowledge and self-efficacy for providing brief interventions. This project allowed the researchers to create a training module to address these gaps and contribute pilot data for a larger study in this area.
- 2) Improve self-reported counseling and referral behaviors as part of a brief tobacco cessation intervention.
  - The USDHHS CPG recommends systematic and multidisciplinary cessation programs. The RTs completing this training now and in the future will be better prepared and more likely to contribute to tobacco cessation counseling and referral, connecting tobacco users to national quitlines or other appropriate community resources.

**Scope:**

This project was designed for respiratory therapists who have successfully completed entry-level respiratory therapy education and earned either the Certified Respiratory Therapist or Registered Respiratory Therapist credential. The target demographic, through these two milestones, qualifies for state licensure to practice as a respiratory care practitioner. As licensed respiratory care practitioners, this population has contact with patients who are current

tobacco users and can benefit from the cessation conversation conducted by the respiratory therapist and subsequent referral to the formalized tobacco cessation program.

This project is complementary to the Purdue University project. The Purdue University research group has designed interventions targeting the respiratory therapy educator, which will improve formal smoking cessation education in respiratory care entry-to-practice programs, improving the skill level of the graduate respiratory therapist. Through the synergistic efforts of the two projects, the entire respiratory therapy population has been targeted to improve knowledge, behaviors, and self-efficacy in initiating and conducting the smoking cessation conversation, referring patients to formal quit programs, and improving smoking cessation rates across the United States.

### **Methods:**

The training provides the RT with guidance for delivery of personalized, tailored tobacco cessation interventions, which may be offered in a variety of environments. Training materials include resources that can be used to tailor smoking cessation programs and activities for each environment as well as for audiences with various levels of health literacy. This training builds upon existing resources, including the AARC Clinician's Guide to Treating Tobacco Dependence, and the Rx For Change program, to increase the knowledge, behaviors and self-efficacy for providing brief interventions. The program addresses the need for tailored, interactive, behaviorally focused video examples to demonstrate appropriate interactions with the tobacco user.

Additional case scenario vignettes were developed to supplement the Rx For Change program. The training vignettes provide the learner with the opportunity to view, assess and evaluate the content which models appropriate behavior in a variety of care settings relevant to the RT. The Rx For Change program includes one RT-specific interaction. The researchers developed four new scenarios for the environments common to and uniquely relevant to RT: initiating the 5A's conversation during the assessment of the teen with asthma, after extubation for coronary bypass surgery, during the delivery of breathing treatments for chronic obstructive pulmonary disease, and during a consultation with a mother who is pregnant and her toddler is in the hospital with an asthma exacerbation. Two trigger tape reaction videos were developed in order to use the Rx for Change Trigger tape videos for our proposed online platform. The participants watched selected trigger tapes and then critically evaluated and selected an appropriate reaction statement. The learner was then directed to watch a scripted reaction to the trigger statement.

Considerations for specific populations including pregnant women, teens and adolescents, parents, and patients with cardiac disease were included, and practical information related to reimbursement and implementation of smoking cessation services were also addressed. This online, on-demand training is available to all RTs and is sustainable for several years to maximize the impact of training.

The training intervention includes the AARC Clinician's Guide to Treating Tobacco Dependence as required reading along with 3.5 hours of content including epidemiology of tobacco use; nicotine pharmacology and principles of addiction; non-nicotine pharmacology; nicotine replacement therapy; assisting patients with quitting; motivational interviewing; special populations: teens, patients with cardiac disease, and pregnancy; difficult questions; reimbursement; and systems and pharmacology. The training also includes a pre-course knowledge test, in-course self-assessment quizzes for every chapter, and 1 post-course knowledge test. With an expected completion time of 5 hours for all videos, quizzes, and tests, this course is approved for 5.0 continuing respiratory care education (CRCE) credits by the AARC. Successful completion is defined as completion of all course artifacts and at least a 70% passing score on the post-course knowledge test. Prior to completing the training, the study participant completed a pre-study survey regarding current practices in tobacco cessation. The participant was also invited to complete a post-study survey 30 days after completion of the course to determine what, if any, changes in practice were noted.

This training program is a pilot that provides the researchers with an opportunity to evaluate and refine the content for wider distribution. The target participation goal for the final product is 300 respiratory therapists within the first 2-year cycle of course availability. As hospitals strive meeting The Joint Commission's Tobacco Treatment Core Measures, the AARC will provide bulk package opportunities for respiratory therapy department managers to provide to their staff RTs.

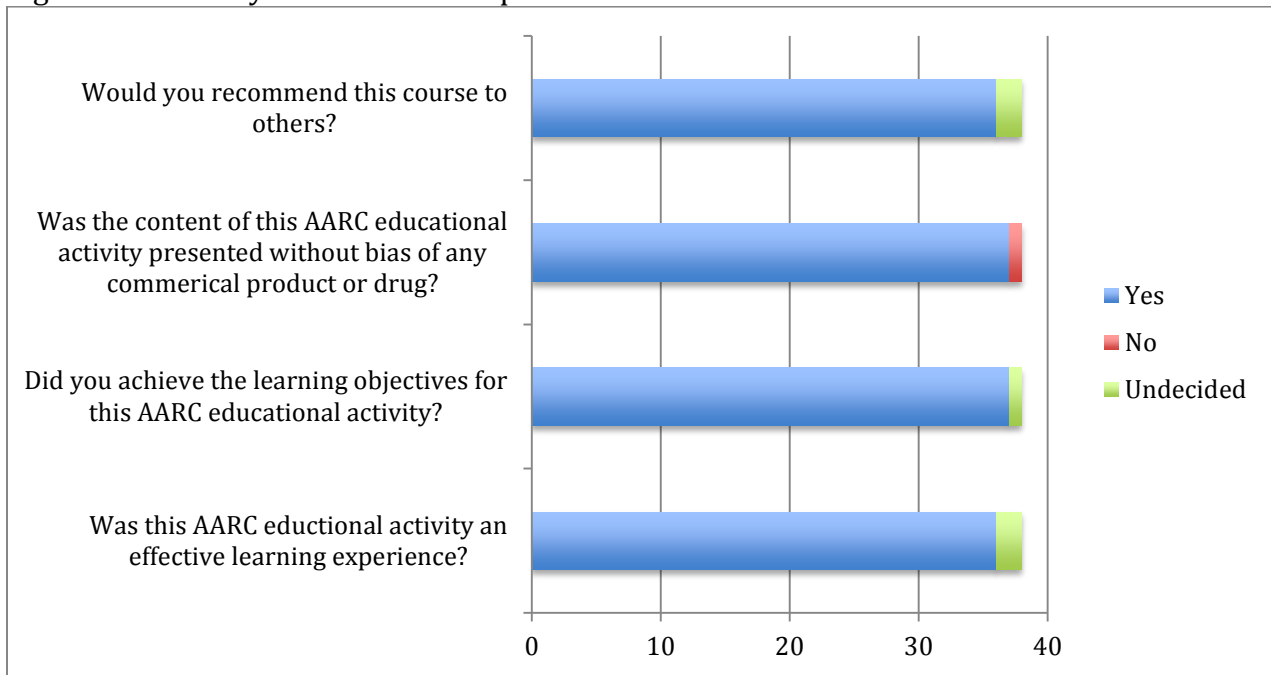
**Results:**

Determination of the impact on the practice gap was evaluated with pre and post intervention evaluation measures to determine perceived level of knowledge as well as self-reported behaviors and self-efficacy in providing counseling. The pre and post training evaluation measures are derived from several similar interventions described in the literature. Participants were asked to rate their perceived level of knowledge, effectiveness and preparedness regarding performing tobacco cessation interventions. They were also asked to self-report their ability to counsel patients using the 5As and to indicate the frequency with which they perform the 5As. Self-efficacy of the participants was measured with a series of situation-specific items.

As of December 31, 2015, 50 participants have been enrolled and 38 have completed the training program. The average pre-course knowledge test score was 55.95% and the average post-course knowledge test score was 77.3%. All but one participant demonstrated an increase in the post-course knowledge test score over the pre-course knowledge test score.

The post-course evaluation demonstrated that the content was effective and well developed. The evaluation questions and summary of responses are provided in Figure 1.

Figure 1. Summary of evaluation responses



The evaluation allowed the participant the option to free-text comments about the training program. These comments are provided below.

- Course was very interesting, now I'm able to explain to my patients better, when helping them to quit smoking.
- Great combination of videos, lecture, graphs, and power point
- Great course I learned a lot. Thank you
- I found it useful and learned a lot of new facts and statistics I can use to educate and encourage my patients to quit smoking.
- I found this course to be very helpful.
- I learned quite a bit of useful information that I can apply at the Healthcare facility where I work
- I think I can talk to the patient but not in detail
- I would have like less at looking at the speakers and more at looking at the words while they talk.
- It is a bit lengthy and can be distracting and monotone
- Learning about different strategy models, such as the AAR model, is very beneficial. Watching the RT-Patient interaction scenarios was very helpful to see how to use the different strategies at work. I also learned more about the differences between tobacco products as well as more about the different NRT products and how they are used. Very informative and helpful. I have already begun implementing information I have learned from this course with my patients.

- Length of time on the videos could be decreased; videos were very lengthy.
- It was good but very lengthy
- Promotion of Chantix
- Well done!

As of December 31, 2015, 16 of the 38 participants who completed the training have completed the post-study survey. Reminders have been sent to the participants to ensure that data is collected as soon as possible. The comparison of the pre-study and post-study surveys is pending.

In addition, one site notified the principle investigators in mid-November 2015 that they would not be able to participate due to extenuating circumstances. An alternate site has been identified and the investigators are awaiting the participant roster from the site contact. The investigators continue to remind study participants to complete the training and are working toward the recruitment goal of 60 participants.