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Tobacco Cessation Education for Community Pharmacists: A Comparison of Face-To-Face Presentations and Live Webinars

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Abstract

Objective: Online and face-to-face continuing education modalities have exhibited effectiveness, but little is known regarding the comparative effect of these various formats for training pharmacists to implement combined pharmacotherapeutic and behavioral interventions. The objective of this study was to assess the perceived effectiveness of tobacco cessation continuing education for pharmacists in face-to-face presentation versus live webinar modalities.

Methods: A continuing pharmacy education activity, “Do Ask, Do Tell: A Practical Approach to Smoking Cessation,” was offered in face-to-face and live webinar modalities. Upon completion of the activity, participants completed a brief questionnaire that assessed the anticipated impact of the activity on their smoking cessation counseling practices.

Results: A total of 819 (75%) pharmacists attended a face-to-face presentation, and 269 (25%) participated in a live webinar. Post-training ability to address tobacco use for each group was reported to be “very good” ($p > 0.05$ between groups), which was higher than post-training assessments of pre-training ability for each group ($p < 0.05$ for pre/post comparisons). Attendees of the face-to-face presentation reported higher likelihoods of providing each of the individual tasks required to provide an effective, brief tobacco cessation intervention ($p < 0.05$ for each).

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Conclusion: Attendees of the face-to-face presentations reported higher likelihoods of providing each of the necessary services for tobacco cessation. These data suggest that training for inherently interpersonal interventions is more effective in face-to-face settings.

Keywords

Continuing education; computer-assisted instruction; pharmacists; tobacco use cessation; internet

Objective

Lack of training has been identified as an important barrier to the provision of tobacco cessation services by pharmacists.¹ Although the extent of tobacco education provided by schools and colleges of pharmacies has increased in recent years,² licensed pharmacists who are currently in the work force report insufficient training.³ A common method for educating practicing clinicians is through continuing education programs, generally delivered as written or online self-study modules, face-to-face presentations, or live webinars. Although online and face-to-face continuing medical education modalities have been found to exhibit effectiveness,⁴ little is known regarding the comparative effects of these various formats for training healthcare professionals to provide brief tobacco cessation interventions. The purpose of this study is to assess the perceived effectiveness of tobacco cessation continuing education for pharmacists delivered through live, face-to-face presentations versus live webinar modalities.

Methods

From October 2008 – July 2009, a continuing pharmacy education (CPE) activity, “*Do Ask, Do Tell: A Practical Approach to Smoking Cessation*,” was offered at 28 settings throughout the United States by the CS2Day smoking cessation education collaborative (www.cs2day.org). The training was developed to focus on providing brief interventions as outlined in Clinical Practice Guideline for Treating Tobacco Use and Dependence.⁵ These interventions follow an abbreviated version the “5 A’s” tobacco cessation framework, known as “*Ask-Advise-Refer*,” which has been suggested for use in settings such as community pharmacies where time limitations are not conducive to provision of comprehensive tobacco cessation counseling. The programming, which provided parallel content, was offered as a 1- or 2-hour training, in either a face-to-face presentation or a live webinar. Program components included a lecture with a slide presentation, video segments demonstrating counseling techniques, and three handouts titled “Drug Interactions with Smoking,” “Pharmacologic Product Guide,” and “Tobacco Quitline Factsheet.” Training opportunities were advertised as they became available and pharmacist participation was voluntary. The protocol for this study was approved by the Human Research Protection Program at Purdue University.

Immediately following completion of the CPE activity, participants completed a brief survey assessing the anticipated impact of the activity and the usefulness of various components of the program; psychometrically sound survey measures, derived from prior research assessing tobacco cessation education programs, were applied.⁶ Specifically, we assessed participants’

self-rated abilities to address tobacco use with patients before (assessed post-training, “Prior to attending this training session, how would you have rated your overall ability to address tobacco use with patients?”) and after the program (“Now, how do you rate your overall ability to address tobacco use with patients?”; response scale, 1=poor, 2=fair, 3=good, 4=very good, 5=excellent) and whether participation in the program would result in increases in (a) the number of patients assisted with quitting and (b) the quality of the advice provided about quitting (1=definitely will not increase to 5=definitely will increase). A series of items evaluated the likelihood that, as a result of the training, participants would conduct the individual steps required for a brief, tobacco cessation intervention (1=not likely to 5=very likely; Table 1). Another series of items evaluated the usefulness of the various program components utilized in the CPE activity (1=not at all useful to 5=very useful; Table 1). Finally, one item evaluated the participants’ level of agreement with the statement “the pharmacy profession should be more active in helping patients to quit smoking” (1=low agreement to 5=high agreement). Data were analyzed using SAS version 9.2. Descriptive statistics were reported as frequencies with percentages or means with standard deviations (sd). Comparisons between CPE program training format (live webinar vs. face-to-face) were made using generalized linear models. All comparisons were adjusted for duration of training (1 hour vs. 2 hour). The regression models were fitted using general estimating equations (GEE) to adjust for possible clustering of intervention effects associated with the class settings. Statistical significance was defined *a priori* as $p < 0.05$.

Results

Of 1,088 pharmacists who participated in a tobacco cessation education activity and completed the survey, 819 (75%) attended a face-to-face training and 269 (25%) participated in a live webinar. There were 20 face-to-face training classes and 8 live webinars. Face-to-face training classes ranged in size from 8 to 126 persons with a mean number of 41.0 persons (sd = 33.9). Live webinar attendance ranged in size from 15 to 49 persons with a mean of 33.6 persons (sd = 12.2). Participants in the face-to-face and webinar trainings typically rated their pre-training ability to address tobacco use as “good,” with means \pm SD of 2.65 ± 0.94 and 2.73 ± 0.91 , respectively ($p > 0.05$). Participants rated their post-training abilities (means \pm SD of 3.78 ± 0.76 and 3.87 ± 0.74 for face-to-face and webinar training, respectively) to address tobacco use higher than they rated their pre-training abilities ($p < 0.05$ for each within-group comparison, $p > 0.05$ between groups).

Participants reported that the number of patients whom they assist with quitting would increase as a result of the training, with means \pm SD of 3.82 ± 0.93 vs. 4.01 ± 0.89 , respectively for face-to-face presentations and live webinars ($p > 0.05$ for group comparison). Similarly, they reported the quality of the advice provided would increase (4.10 ± 0.80 and 4.25 ± 0.79 , respectively; $p > 0.05$ for group comparison). With regard to specific aspects of providing smoking cessation interventions, those participating in the face-to-face presentations were significantly more likely than were those participating in the webinars to report a higher likelihood for asking more patients about tobacco use, advising more tobacco users to quit, recommending medications for quitting more often, providing counseling for medications for quitting more often, and referring patients to the tobacco quitline more often (Table 1). The two groups perceived similar levels of usefulness for the various components

of the program and associated counseling tools (Table 1). Respondents from both groups reported, with high levels of agreement, that the pharmacy profession should be more active in helping patients quit smoking, with means of 4.43 ± 0.74 and 4.45 ± 0.75 , respectively ($p > 0.05$).

Discussion

The results of this analysis suggest that while both training modalities are likely to lead to an increase in the number of patients counseled and the quality of the counseling, pharmacists trained in face-to-face settings are more likely to perform the unique tasks required for implementing brief tobacco cessation interventions than those trained via a live webinar. Such information might indicate value in providing training for inherently personal and interactive skills in a face-to-face setting.

Limitations

This study was conducted using a convenience sample of pharmacists who elected to participate in tobacco cessation continuing education. In addition, pharmacists were not offered both options (i.e., face-to-face and web-based formats), nor were pharmacists randomized to training modality. As such, it is possible that the observed differences were due to underlying between-group characteristics. No data were collected to characterize the sociodemographic attributes or practice environments of the participants. Although this analysis provides insight regarding training formats, future research is needed to evaluate the different formats using a randomized group design, and longitudinal studies are needed to determine which training modality leads to greater enhancements in the quality and quantity of patients who receive tobacco cessation counseling.

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Table 1.Participants' responses about provision of specific tobacco cessation activities.^a

Questionnaire item	Face-to-face presentation Mean (SD)	Live webinar Mean (SD)	p-value
<i>As a result of the training, how likely is it that you will...^b</i>			
Ask more patients about tobacco use	3.83 (0.99)	2.89 (1.41)	0.03
Advise more tobacco users to quit	3.98 (0.92)	2.85 (1.50)	0.02
Recommend medications for quitting more often	3.98 (0.85)	2.89 (1.47)	0.02
Provide counseling for medications for quitting more often	3.98 (0.86)	2.94 (1.50)	0.02
Refer patients to the tobacco quitline or other resources more often	4.07 (0.90)	2.89 (1.59)	0.02
<i>Please rate the usefulness of the following program components^c</i>			
PowerPoint slide presentation	4.28 (0.75)	4.28 (0.78)	0.71
Video segments	4.00 (0.95)	3.70 (1.11)	0.13
"Drug Interactions with Smoking" handout	4.28 (0.78)	4.13 (0.92)	0.22
"Pharmacologic Product Guide" handout	4.27 (0.77)	4.10 (0.92)	0.17
"Tobacco Quitline Factsheet" handout	4.31 (0.77)	4.19 (0.86)	0.26

^aAll comparisons between live webinar vs. face-to-face were adjusted for duration of training (1 hour vs. 2 hour) and tested for significance using GEE to adjust for clustering of intervention effects.

^bResponse scale from 1=not likely to 5=very likely.

^cResponse scale from 1=not at all useful to 5=very useful.