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## Effectiveness of a Web-Based Smoking Cessation Training Program for Health Care Professionals within an Acute Psychiatric Facility

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Effectiveness of a Web-Based Smoking Cessation Training Program for Health Care  
Professionals within an Acute Psychiatric Facility

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing Practice at  
the University of Kentucky

By  
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Lexington, KY  
2022

## **Abstract**

**Background:** Tobacco use is the leading preventable cause of death and disease in the United States, with the prevalence remaining especially high among people with mental illness. Mental health providers often lack training in smoking cessation and feel uncomfortable addressing the issue with this patient population. Studies show that educational training offered to providers can lead to increased knowledge that improves the provider's confidence and attitude about delivering smoking cessation treatment to patients. Mental health professionals must receive training on smoking cessation treatment modalities so they can effectively provide holistic care needed for recovery for patients with mental illness.

**Purpose:** The purpose of this DNP project was two-pronged. The first step evaluated the effectiveness of a web-based simulated smoking-cessation scenario training for mental health professionals to evaluate if this intervention would promote providers' intentions to adhere to the U.S. Preventative Services Task Force (2021) Tobacco Treatment Practice Guideline. The second step assessed face validity of the video intervention.

**Design:** A one group pretest-posttest design was conducted at an acute psychiatric hospital to evaluate the web-based simulated scenario training.

**Methods:** The web-based simulated scenario had 3 components: 1) A presurvey to assess knowledge, attitudes, subjective norms, perceived behavioral control and intentions toward implementing smoking cessation interventions for patients with mental illnesses 2) A 20-minute video with education on tobacco use and mental illness and a simulated patient-provider scenario, and 3) A postsurvey to reassess knowledge, and intentions toward implementing smoking cessation interventions for patients with mental illnesses. In addition, an assessment of the videos within the training program by field experts was completed to analyze desirability, applicability, and acceptability.

**Results:** In the first prong, eighteen participants enrolled and completed the schizophrenia scenario training ( $N= 18$ ). Low participation rate in the ADHD scenario led to analysis focused solely on the schizophrenia scenario. Analysis was conducted on knowledge scores and intentions to utilize the 5A's. Knowledge scores significantly improved post-intervention from a score of 3.0 (0.9) to 4.3 (1.2) with a p-value of 0.005. Intentions to use the 5A's post-intervention was high with a score of 11 (2.5). In the second prong, two experts assessed the ADHD scenario and two assessed the schizophrenia scenario. For the ADHD video, experts scored desirability, applicability, and acceptability as most desirable (5). For the schizophrenia scenario, desirability was 5 for information about tobacco use and schizophrenia and for all 5As, but 4 for overall use of the information. Applicability was scored 5 for Ask and Assist and 4.5 for Advise, Assess, Arrange, overall use of animation, and information about tobacco use and schizophrenia. Acceptability was scored 5 for Assist, 4.5 for information about tobacco use and schizophrenia, Ask, Advise, Assess, and Arrange, and 4 for overall use of animation.

**Discussion:** In the first prong, presurvey showed a knowledge deficit. Attitudes and intentions scores were neutral while perceived behavioral control and subjective norms were lower. Postsurvey showed MHPs gained knowledge and had high intentions to use the 5As suggesting the intervention may have increased knowledge and intentions to provide treatment based on USPSTF (2021) guidelines. In the second prong, the ADHD scenario proved to be rated highest on each category, appearing to have high face validity. In the future, the schizophrenia scenario may improve with adjustments in animation and language.

**Conclusion:** Web-based simulated training improved MHPs' knowledge and intentions of providing smoking cessation interventions to patients with mental illness. As MHPs gain knowledge through training programs, dissemination of this knowledge into clinical practice will enhance the overall mental and physical well-being of patients with mental illness.

## **Acknowledgements**

I would like to acknowledge Dr. Evelyn Parrish, my committee chair and faculty advisor, for her guidance throughout my project. I would also like to thank Dr. Chizimuzo Okoli, my clinical mentor, who provided a calming presence, always answered my numerous questions, and always responded in a timely manner. Also, to Dr. Karen Butler, my committee member, who was always willing to provide support and be a resource throughout my project. I would also like to thank Dr. Amanda Thaxton Wiggins for her guidance in the statistical analysis of my project.

## **Dedication**

I wish to dedicate this project to my family. Without my family's support and guidance, I would not have completed this program. First, to my husband, Zachary. Thank you for supporting me in various ways throughout this program. You are calm, encouraging, and a motivator for me. You always push me to be better and I thank God for you every day. Next, to my mom, who helped me study for several hours any time I needed her and calmed me throughout the program. I could not have done it without you. To my dad, who provided help with day-to-day tasks so I could focus on my schoolwork. Last, to all my siblings, who are some of my biggest cheerleaders and inspirations. I love you all.

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Effectiveness of a Web-Based Smoking Cessation Training Program for Health Care  
Professionals within an Acute Psychiatric Facility

**Background and Significance**

**Problem Statement**

Mental health professionals (MHPs) often avoid initiating smoking cessation interventions for their patients admitted to an acute psychiatric hospital despite knowing the importance of smoking cessation for recovery (Prochaska et al., 2017). The avoidance of addressing tobacco use in this population continues to lead to disproportionate rate of tobacco use, related disease, and mortality in this population (Prochaska et al., 2017; CDC, 2019a). Addressing ways to enhance tobacco treatment delivery by MHPs in the inpatient setting can support their ability to promote recovery among patients.

**Context, Scope and Consequences**

Smoking tobacco is the most preventable cause of death and disability in the United States, contributing to various respiratory, metabolic, cardiovascular diseases, as well as many other diseases (U.S. Department of Health and Human Services, 2014). Although overall tobacco use has declined in the last 40 years, the rates have remained unchanged in those with mental illness (U.S. Department of Health and Human Services, 2014; Cook et al., 2014). According to the CDC (2019a), patients with mental illness or substance abuse problems typically die 5 years earlier than the general population due to smoking-related diseases such as cancer, lung disease and cardiovascular disease. Smoking tobacco is particularly detrimental to patients' mental health treatments because the smoke decreases the effectiveness of psychiatric medications (CDC, 2019a). Due to the lack of smoking cessation interventions, patients with mental illness are not receiving the highest quality of care, which can contribute to premature death.

According to Prochaska et al. (2017), the rate of smoking is almost fivefold greater in people with posttraumatic stress disorder (PTSD), substance abuse disorders, schizophrenia, and bipolar disorder when compared to the general public. Having multiple mental illnesses is also associated with an increased smoking prevalence. For example, Prochaska et al. (2017) explains that 18% of people without any psychiatric condition smoke, compared to 61% of people with 3 or more psychiatric conditions. Smoking is thought to be more prevalent among those with mental illness as nicotine may temporarily reduce some symptom burden of mental illnesses (NIDA, 2020). Despite this phenomenon, smoking is associated with worse behavioral and physical outcomes in people with mental illness (NIDA, 2020). It is also important to note that smoking-related illnesses cost the US over \$300 billion annually (CDC, 2019b). The cost of health care in the U.S. will continue to rise if providers fail to initiate smoking cessation interventions for those with mental illness (U.S. Department of Health and Human Services, 2014). Unfortunately, health care professionals still overlook smoking cessation interventions for those with co-occurring mental illness.

Smoking cessation myths often discourage clinicians from promoting cessation for patients with mental illness. Common misconceptions about smoking cessation and mental illness include patients are uninterested in cessation or unable to quit, abstinence interferes with recovery, smoking is a lesser problem than other substances, and smoking is important for selfmedication (CDC, 2019a). Time constraints in the clinical setting may also contribute to the provider's ability to provide necessary interventions that promote smoking cessation (Gass et al., 2017). The provider is likely to focus only on the psychiatric symptoms and treatment modalities within the time constraints, dismissing the issue of smoking cessation.

## **Current Evidence-Based Interventions**

Providers must be trained on smoking cessation interventions and techniques specific to patients with mental illness. Rogers et al. (2017) recognized that providers often avoid cessation topics due to discomfort caused by the lack of training. However, many studies show smoking cessation training for MHPs lead to increased confidence and knowledge, and improved attitudes. There have been many effective methods to train providers on smoking cessation including web-based interventions, in-person seminars, lectures, and courses (Herold et al., 2016; Rogers et al., 2017). Web-based trainings are shown to be both convenient for MHPs and effective for practice change (Carpenter et al., 2012; Sarna et al., 2018; Williams et al., 2019; Hirsch & Nagler, 2020; Hudmon et al., 2021). Based on the evidence, it is important to consider web-based training as a viable option for training providers in an inpatient psychiatric hospital.

## **Purpose/Objectives**

The purpose of this DNP project was two-pronged. The first prong included an evaluation of the effectiveness of the University of Kentucky (UK) Behavioral Health and Wellness Environments for Living and Learning (BH WELL) web-based simulated smoking cessation training program for MHPs to promote providers' adherence to the U.S. Preventative Services Task Force (USPSTF) (2021) tobacco treatment practice guideline. The second prong was to determine face validity of the educational content performed by experts at the University of Kentucky. Thus, the specific aims of this DNP project were:

- 1) To examine the changes in MHPs' knowledge and intentions toward implementing smoking cessation interventions in the clinical setting after engaging in an educational intervention, and
- 2) To determine the desirability, applicability, and acceptability of the educational videos as appropriate educational intervention for promoting providers' adherence to the U.S.

Preventative Services Task Force (USPSTF) (2021) tobacco treatment practice guideline.

### **Theoretical Framework**

The theoretical framework guiding the smoking cessation web-based training was the Theory of Planned Behavior (TPB) (Ajzen, 1985). The TPB is a framework which addresses the psychological factors influencing behavior. The basis of this theory suggests that attitudes (the positive or negative regard towards a behavior), subjective norms (the behavior is seen as “normal” or not) and perceived behavioral control (the person believes they can engage in the behavior or not) predicts a person’s intention to perform a behavior and their intention predicts follow through with the behavior (Ajzen, 1985). The TPB was most suitable for this project because it describes how attitudes, subjective norms, and perceived behavioral control may influence a provider’s intention to provide smoking cessation interventions for those with mental illness.

In this project, the BH WELL simulated scenario intervention incorporated the constructs of the TPB to improve MHPs intention to provide smoking cessation interventions for patients with either ADHD or schizophrenia. Utilizing the simulated scenario trainings, MHPs were specifically educated on the importance of implementing and instructed on how to implement the USPSTF (2021) tobacco treatment guidelines. The BH WELL trainings were expected to increase MHP knowledge of smoking cessation interventions and increase intentions of providing interventions for patients with mental illness.

### **Literature Review**

The PICOT question guiding the review was, “Can the implementation of a web-based simulated patient-provider scenario impact the knowledge and intentions of mental health professionals regarding smoking cessation for patients with mental illness?” In addition, a secondary literature review was conducted to determine the face validity of the educational video

intervention; specifically determining the desirability, applicability, and acceptability of the content of the educational videos.

A literature review was conducted to understand the effectiveness of a web-based simulated scenario as a tool to improve provider's knowledge and attitudes regarding smoking cessation for patients with mental illness. A MESH term search was performed of the PubMed database, using the following key words and terms: "web-based training" (AND) "tobacco cessation" which produced 123 articles. Another MESH search was performed of the PubMed database using the following key words and terms: "video simulation" (AND) "provider knowledge" (AND) "United States" which produced 43 articles. Lastly, a MESH term search of the PubMed database was performed using the following key words: "psychiatric providers" AND "smoking cessation training" AND "practice change" which produced 39 articles. Articles meeting the inclusion criteria were published from 2011 through present, peer-reviewed, written in English, and studies conducted in western countries including Australia, USA, Canada, and the UK. Articles not adhering to the inclusion criteria were excluded for this review.

Ten studies meeting the inclusion/exclusion criteria were retrieved using the key words and MESH terms. The locations of the studies were within the United States within varied setting including: a university in southeastern U.S., four healthcare organizations in Washington State, nurses in Louisiana and Kentucky, a children's hospital, an emergency department, respiratory therapists/respiratory care programs, and a psychiatry residency program. All studies were quasi-experimental with the exception of two mixed methods and one RCT. All the articles included web-based interventions with 8 studies specifically addressing web-based interventions on tobacco cessation (Carpenter et al., 2012; Gordon & Mahabee-Gittens, 2011; Sarna et al., 2018; Williams et al., 2019; Hudmon et al., 2021; Asfar et al., 2018; Rosvall & Carlson, 2017; Gordon et al., 2013). Only one article addressed educational web-based tobacco cessation

interventions for behavioral health personnel (Williams et al., 2019). Only two articles addressed web-based interventions regarding different health care concerns with one focusing on cardiac material (Herron et al., 2019) and the other on general clinical practice, quality improvement, facility policies and educational efforts (Hirsch & Nagler, 2020).

A second literature review was conducted to determine face validity of an educational video. A MESH term search of the PubMed database was performed, using the following key words and terms: “content analysis” AND “educational videos” AND “smoking” which produced 29 articles. Another MESH term search of the PubMed database was performed using the following key words and terms: “content analysis” AND “educational videos” AND “YouTube” which produced 181 articles. Articles meeting the inclusion criteria were articles published 2010 through present, peer-reviewed, written in English, and studies conducted in western countries including Australia, USA, Canada, and the UK. Articles not adhering to the inclusion criteria were excluded for this review.

Five articles meeting the inclusion/exclusion criteria were chosen from the search mentioned above to help determine face validity of an educational video. The educational platforms of the videos analyzed varied slightly. Four articles addressed content from videos only on YouTube. One article addressed video content from international health organizations and institutes, as well as verified videos from YouTube. All studies were qualitative studies, and all were content analyses on educational videos (Ahmad, et al., 2020; Paek et al., 2010; Verma et al., 2021; Basch et al., 2017; Tolentino, 2016). One article addressed specifically antismoking educational videos (Paek et al., 2010). The second article addressed educational videos related to prostate cancer (Basch et al., 2017). The third article addressed medical professionalism in video (Ahmad et al., 2020). The fourth article addressed videos on instructing English language

learners (Tolentino, 2016). The last article addressed videos on hand hygiene during the COVID-19 pandemic (Verma et al., 2021).

## **Synthesis**

The evidence presented on web-based simulated training was strong because each individual study had many participants; however, each study may or may not generalize to an acute psychiatric facility and most of the studies were quasi-experimental with only two mixed methods and one RCT. The literature review showed that once providers completed the webbased training and video simulation, they were more confident in their ability to deliver treatment and education to their clients. In all cases, the web-based training programs led to a clinical practice change within the health care facility (Carpenter et al., 2012; Sarna et al., 2018; Williams et al., 2019; Hirsch & Nagler, 2020; Hudmon et al., 2021). The video simulation, in particular, provided the “real-life” experience that improved the provider’s ability to engage in the topic, which in turn, decreased the provider’s anxiety about the subject (Herron et al., 2019).

The evidence presented on content analysis was strong with each study analyzing several different videos. A consistent theme within the content analyses included the importance of having accurate information provided by professional educators within the subject area (Ahmad, et al., 2020; Paek et al., 2010; Verma et al., 2021; Basch et al., 2017; Tolentino, 2016). In addition, a repeated theme noted by the participants was the importance of having the education program based on practice guidelines for validity or at least having information from reputable organizations such as WHO, CDC, etc. Another theme from the analyses was the importance of having high quality videos and audio performance for the ease of viewing. Lastly, educational videos were found most helpful for visual and auditory learners. For future study, it may be helpful to create platforms to enhance the educational environment for kinesthetic and reading/writing learners (Ahmad, et al., 2020; Paek et al., 2010; Verma et al., 2021; Basch et al.,

2017; Tolentino, 2016).

Based on the literature, a web-based simulated scenario intervention for MHPs was expected to improve compliance with the USPSTF (2021) guidelines for behavioral and pharmacotherapy interventions for tobacco smoking cessation in adults with mental illness. It was also expected that the assessment form would help determine the desirability, applicability, and acceptability of the web-based simulated scenario video.

### **Design**

The first prong of this DNP project followed the parent study (Okoli et al., 2022) by using a one group pretest-posttest design to examine the effect of a web-based simulated smoking cessation scenario program on knowledge and intentions of MHPs. The educational training addressed smoking cessation interventions for patients with mental illnesses. The knowledge, attitudes, subjective norms, perceived behavioral control, and intentions were assessed before and immediately after participants engaged in the web-based simulated scenario.

The second prong of this DNP project was to assess face validity of the educational videos to determine their desirability, applicability, and acceptability. Two tobacco cessation experts were emailed the video link based on a client with ADHD and two tobacco cessation experts were emailed the video link based on a client with schizophrenia. An assessment form was sent for the experts to fill out following the video viewing (See Appendix C).

### **Methods**

#### **Setting**

#### ***Agency Description***

This DNP project was implemented at the Ridge Behavioral Health Systems and Eastern State Hospital in Lexington, KY. The Ridge is a 110-bed hospital providing psychiatric and substance

use disorder care for adults and adolescents. Eastern State Hospital is a 239-bed state psychiatric facility.

### **Sample**

For the first prong of this DNP project, a convenience sample of 54 staff participants at The Ridge and Eastern State Hospital were targeted. At The Ridge, the staff participants on the adult unit consisted of 8 nurses, 4 prescribers, and 4 social workers. The Ridge pediatric unit participants consisted of 4 nurses, 4 prescribers, and 4 social workers. Eastern State Hospital participants consisted of 8 nurses, 6 prescribers, 6 social workers and 6 therapists. Potential participants were chosen by managers of each discipline. The inclusion criteria for this project included employees providing direct patient care who were credentialed as registered nurses, licensed practical nurses, licensed clinical social workers, licensed therapists, medical doctors, or nurse practitioners. Exclusion criteria for this project included mental health technicians and administrators who were not providing direct patient care, as well as students, and interns.

For the second prong of this DNP project, a convenience sample of 4 tobacco cessation experts were chosen who were associated with the University of Kentucky.

### **Agency Mission and Project Alignment**

The Ridge provides responsive and compassionate care to their patients as a core value. They dedicate themselves to the highest standard of care and ethics and are committed to meeting the diverse needs of the community. The Ridge provides inpatient care and is managed by Universal Health Services, Inc. (UHS). The mission of The Ridge is providing quality healthcare services that promote wellness of individuals and the community (UHS Inc., n.d.).

Eastern State Hospital (ESH) is one of four State psychiatric facilities in Kentucky that is managed by UKHealthcare. ESH provides recovery-focused inpatient care for acute mental health conditions in a catchment area of 50 counties surrounding Lexington, KY. Its mission is

to provide excellent mental healthcare which instills hope, inspires recovery, and enhances wellbeing for Kentuckians. ESH has adopted DIRCT values of Diversity, Innovation, Respect, Compassion, and Teamwork (UKHealthCare, n.d.).

To support the missions of these facilities, this project addressed barriers that hinder staff engagement in smoking cessation interventions. The Ridge and ESH emphasize the importance of quality mental healthcare delivery that promotes well-being for their patients and for the community. Implementing smoking cessation interventions for each patient who smokes is vital for ensuring the utmost care for their patients. This project was expected to increase staff knowledge and intentions of implementing smoking cessation interventions which aligns well with both facilities' missions.

### **Project Stakeholders**

Project stakeholders included the DNP project committee, Dr. Evelyn Parrish, committee chair, Dr. Karen Butler, committee member, Dr. Chizimuzo Okoli, clinical mentor and Dr. Amanda Thaxton-Wiggins, the statistician. The Ridge Chief Executive Officer (CEO) and the Chief Nursing Officer (CNO) agreed to support this project implementation and provided access to staff involved in completing the data. The Ridge MHPs were main stakeholders as participants in this project. The Ridge patients and patient families were also stakeholders as the intervention could increase MHP compliance with USPSTF (2021) tobacco cessation guidelines.

Project stakeholders from Eastern State Hospital include, again, Dr. Chizimuzo Okoli who is the director of tobacco treatment services and evidence-based practice at ESH and Marc Woods who serves as the Chief Nursing Officer (CNO) at Eastern State Hospital. These two individuals provided guidance in the development of the project as well as access to the staff who were involved in completing the data for the project. MHPs at Eastern State Hospital were also main stakeholders as participants in this project. ESH patients and patient families were also

stakeholders as the intervention could increase MHP compliance with USPSTF (2021) tobacco cessation guidelines.

### **Facilitators and Barriers**

There were several facilitators for completing the project at The Ridge and at ESH. Facilitators included financial compensation for staff participants, support from the administration, and technology available for training purposes. Financial compensation came from the parent study which received funding from Kentucky Department of Public Health. Barriers included time constraints for staff, high turnover rate of staff participants, and hesitancy of the staff to buy-in to the training. To overcome these barriers, the principal investigator (PI) worked closely with administration to ensure there was ample time to complete the training. Due to the high turnover rate of staff participants, the PI worked closely with administration to seek out new employees to participate in the project.

### **Project Intervention**

The intervention aligned with evidence found from the review of literature, which utilized web-based educational simulations to improve knowledge and attitudes of healthcare workers (Carpenter et al., 2012; Sarna et al., 2018; Williams et al., 2019; Hirsch & Nagler, 2020; Hudmon et al., 2021). The project intervention was developed as part of this project's parent study, which utilized a simulated scenario video developed by experts at University of Kentucky BH WELL program. The purpose of this project was to demonstrate the effectiveness of the two web-based simulation scenarios as educational tools for staff.

The first prong of this project included two interventions. One intervention was an educational video on tobacco use in those with ADHD that also included a simulated scenario with a provider and a patient with ADHD (BH Well, 2020a). The other intervention was an educational video on tobacco use in those with schizophrenia that also included a simulated

scenario with a provider and a patient with schizophrenia (BH Well, 2020b). The project had 3 components including: 1) A presurvey to assess MHPs knowledge, attitudes, subjective norms, perceived behavioral control, and intentions regarding smoking cessation for patients with mental illnesses 2) The 20-minute video with education on tobacco use and mental illness and a simulated patient-provider scenario, and 3) A postsurvey to reassess MHPs knowledge and intentions regarding smoking cessation interventions for patients with mental illness. It is anticipated the results of the surveys will help guide further research on improving the training to further improve care for patients.

For the second prong of this project, two tobacco cessation experts were emailed the video intervention link based on the client with ADHD and two tobacco cessation experts were emailed the video intervention link based on a client with schizophrenia. An assessment form was sent for the experts to fill out following the video in which experts assessed the desirability, acceptability, and applicability of the intervention (See Appendix C).

## **Procedure**

### ***IRB Approval***

Before beginning the project, Institutional Review Board (IRB) approval was obtained from the University of Kentucky (UK) IRB for the parent study in which this DNP project is a part. A letter of support was obtained from Nina Eisner, Chief Executive Officer (CEO) of The Ridge. A letter of support was also obtained from Marc Woods, CNO of Eastern State Hospital.

### ***Methods and Instruments***

**Web-Based Simulation.** Demographic measures included age, race, sex, education, disciplinary role, time in discipline, patient population served, prior tobacco treatment training and personal history of and recent tobacco use. Other measures utilized in this project were

based on TPB constructs and include knowledge, attitudes, intentions, subjective norms, and perceived behavioral control (Ajzen, 1985).

***Knowledge On Providing Tobacco Treatment.*** Knowledge measures were based on the information provided from the sources in the simulated scenario videos (van Amsterdam et al., 2018; Goldenson et al., 2018; Dvorsky & Landberg, 2019; Hunter et al., 2020; Scott et al., 2018; Hu et al., 2018; Smucny & Tregellas, 2017; Lawn & Pols, 2005; Prochaska & Young-Wolff, 2017). Knowledge of the harm of tobacco use was assessed using 5 yes/no questions. Knowledge regarding the most effective methods for cessation support was assessed using a rating scale with 1 being the least effective and 5 being the most effective. Knowledge on tobacco use and the specific mental illness was assessed using five T/F questions. Validity and reliability of this scale was analyzed following the project.

***Attitudes Toward Providing Tobacco Treatment.*** Attitudes regarding tobacco treatment was assessed with four items on a 7-point Likert scale which were based on TPB (Ajzen, 1991, 2011). In the study by Okoli et al. (2017), a mean score was derived, with the scale demonstrating acceptable internal consistency ( $\alpha = .80$ ).

***Subjective Norms Regarding Tobacco Treatment.*** Subjective norms regarding tobacco treatment was assessed with four items on a 7-point Likert scale which was based on TPB (Ajzen, 1991, 2011). In the study by Okoli et al. (2017), a mean score was derived, and the scale demonstrated adequate internal consistency ( $\alpha = .79$ ).

***Perceived Behavioral Control in Providing Tobacco Treatment.*** Perceived behavioral control in providing tobacco treatment was assessed with 4 items on a 7-point Likert scale based on TPB (Ajzen, 1991, 2011). In the study by Okoli et al. (2017), a mean score was derived, but the scale did not demonstrate adequate internal consistency ( $\alpha = .50$ ).

***Intentions of Providing Tobacco Treatment.*** Intentions to provide tobacco treatment was measured with 3 items on a 7-point Likert scale which was based on TPB (Ajzen, 1991, 2011). In the study by Okoli et al. (2017), a mean score for the scale was derived, and the scale demonstrated strong internal consistency ( $\alpha = .92$ ).

***Brief Intervention for Tobacco Treatment (5As).*** The current use of the 5As (Ask, Advise, Assess, Assist, and Arrange) was assessed prior to the intervention and intention to use the 5As in the future was assessed following the intervention. The pre and post intervention evaluation was performed using a five-item measure. Each question was evaluated on a 4-point Likert scale. A higher score demonstrated performing the 5As more frequently. In the study by Okoli et al. (2017), the scale demonstrated adequate internal consistency ( $\alpha = .87$ ).

**Face Validity of the Educational Intervention.** Field experts rated the video intervention based on their desirability, applicability, and acceptability. Desirability was defined as something you would want to hear/learn about, applicability was defined as something that is useful to you/you could use, and acceptability was defined as something that would gain your interest/would make you seek more information. Seven individual parts of the video intervention were ranked on a scale from 0 to 5 (0 being not desirable/applicable/acceptable and 5 being very desirable/applicable/acceptable). The parts ranked included Part A of the video which included information on tobacco use and ADHD, Part B of the video which included Ask, Advise, Assess, Assist, Arrange, and, last, the overall use of animation in the video.

### ***Implementation***

**Data Collection.** Data from the web-based simulation scenario was collected using Qualtrics, an online survey software. Data collection included a presurvey and postsurvey administered before and after the educational video intervention. The Qualtrics link was delivered to MHPs' managers' emails. Managers then distributed emails to potential participants.

The module began with a cover letter with information on the project and on giving consent to participate, continued to the presurvey, and then continued to the educational video intervention. Immediately following the intervention, participants responded to the postsurvey.

The data from the Qualtrics survey was protected and stored on a password protected and firewall protected computer which was linked to the UK server. The survey was anonymous and only the research team from the parent study had access to the data. Following survey completion, participants were provided a link to enter their name and email address to receive a \$50 Amazon gift card to compensate for their time. The link was not connected to their survey to ensure anonymity. All data will be stored for a minimum of 6 years upon completion of the study.

Data from the experts for face validity was collected via UKY email. The video link and the face validity form were emailed directly to the experts. Once the experts completed watching the video and completed the analysis form, the expert participants emailed the analysis form back for collection.

**Data Analysis for Web-Based Simulation.** In the data analysis, substitution using means for continuous variables and modes for nominal variables were used for missing data. Analyses were conducted using SPSS version 28 and used alpha level 0.05 for statistical significance. Descriptive statistics included means with SD used for age, frequencies with percentages used for sex, race, discipline, prior tobacco treatment training, practice setting, population served, past and recent tobacco use, and median with IQR for time in discipline. Descriptive statistics (mean [SD] or %) were also used for opinions, effectiveness of cessation methods, intentions, attitudes, subjective norms, and perceived behavioral control. A paired sample t-test was used to analyze change in mean knowledge scores and in frequency of using the 5A's intervention before and following the educational content.

**Data Analysis for Face Validity.** Face validity of the ADHD and schizophrenia educational videos was determined by obtaining data from tobacco treatment specialists represented from nursing and social work at the University of Kentucky (See Appendix C). Mean scores were calculated for each of the categories (desirability, applicability, and acceptability) of the educational video components.

## **Results**

### **Web-Based Simulation**

For the first prong of the project, 54 MHPs were invited to participate. Twelve participants from The Ridge pediatric unit were invited to participate in the ADHD scenario. Sixteen participants from The Ridge adult unit and 26 participants from ESH were invited to participate in the schizophrenia scenario. Eighteen participants enrolled in the project (n= 18). For the ADHD scenario, only two participants began the training and only one participant finished the training. Due to the low participation rate, this analysis will focus only on the data collected from the schizophrenia scenario.

Table 1 displays the descriptive statistics of the demographics from the presurvey. The average age of the participants was 38.89 (8.96) years. Participants reported race included two (11.1%) Asian/Pacific Islander, three (16.7%) black/non-Hispanic, and 13 (72.2%) white/non-Hispanic. All participants were college graduates with 10 (55.6%) from nursing, two (11.1%) from psychology (MHC, LMHC/LMFT), two (11.1%) from psychology (psych D, PhD), and four from social work (LSW/LCSW). The median of time spent in their discipline was three years (1.75-9.25 years). The primary practice setting included 12 (66.7%) from the inpatient hospital and 6 (33.3%) from the inpatient behavioral health treatment program. The primary population served by the MHPs included 16 (88.9%) who worked with adults, one (5.6%) who worked with pediatrics, and one (5.6%) who worked with geriatrics.

Only one (5.6%) of the MHP participants received previous tobacco cessation treatment training. The remaining 17 (94.4%) MHP participants had never received previous tobacco cessation treatment training. There was a wide variety of participants who had prior tobacco use including five (27.8%) using cigarettes, two (11.1%) using cigarettes and other (vape, e-cigarettes), one (5.6%) using only vape/e-cigarettes, and 10 (55.6%) never using tobacco products. In the presurvey, tobacco use in the past month received little feedback with 10 (55.6%) yielding no response; however, one (5.6%) reported cigarette use, two (11.1%) reported other tobacco product use, and five (27.8%) reported no use.

Table 2 displays the descriptive summary of the presurvey. All participants acknowledged the physical health problems, including pregnancy and birth related complications caused by smoking. Only 16.7% attributed smoking to cause mental illness, 33.3% attributed smoking to cause substance use disorder, and 22.2% attributed smoking to the improvement of mental health symptoms. For smoking cessation interventions, participants scored FDA approved medication as the most effective cessation method receiving a score of 4.06 (0.8) on a scale from 1-5. Behavioral counseling followed closely at 3.67 (1.14), self-help resources at 2.67 (0.91), Quitlines at 2.39 (0.78), and last cold turkey at 2.22 (1.17). Participants reported their intention to provide smoking cessation to patients was somewhat neutral at 4.24 (1.41) on a scale from 17. Attitudes regarding smoking cessation interventions for patients demonstrated a greater score at 4.96 (0.96). Subjective norms and perceived behavioral control regarding providing smoking cessation for patients was decreased at 3.75 (1.21) and 3.87 (1.00) respectively.

Table 3 displays knowledge scores presurvey and postsurvey as well as current use of 5As from the presurvey and intention to use the 5As in the future from the postsurvey. The average knowledge score in the presurvey was 3.0 (0.9) out of 5 questions. Post- intervention, the mean score increased significantly to 4.3 (1.2) out of 5 questions with a p-value of .005. Frequency of using the 5A's, participants received an average score of 8.6 (3.4) presurvey. The

intended frequency to use the 5A's was high following the post-intervention with an average score of 11(2.5).

### **Face Validity**

For the second prong of the project, four tobacco cessation experts at the University of Kentucky were invited to assess the two interventions for desirability, applicability, and acceptability. Two experts evaluated the ADHD scenario intervention, and two experts evaluated the schizophrenia scenario intervention. For the ADHD video, both expert reviewers ranked each part of the video as most desirable (5), applicable (5) and acceptable (5). Table 4 displays average expert scores for the ADHD scenario intervention. For the schizophrenia video, the average reviewer score for desirability was 5 for information about tobacco use and schizophrenia and for all components of the 5As. The mean score for desirability of overall use of the information was a 4. The average reviewer score for applicability was 5 for Ask and Assist. For information about tobacco use and schizophrenia, Advise, Assess, Arrange and overall use of animation, applicability was scored 4.5 on average. The average reviewer score for acceptability was 5 for Assist. For information about tobacco use and schizophrenia, Ask, Advise, Assess, and Arrange, the average score was 4.5 for acceptability. For acceptability of the overall use of animation, the average score was 4. Table 5 displays the average experts' scores for the schizophrenia scenario intervention.

## **Discussion**

### **Web-Based Simulation**

The purpose of the first prong of this project was to evaluate the effectiveness of the University of Kentucky (UK) BH WELL web-based simulated smoking cessation training program for MHPs to promote providers' adherence to the USPSTF (2021) tobacco treatment practice guideline. There was fair participation rate for the schizophrenia web-based simulation

intervention but poor participation rate for the ADHD intervention. This allowed only the schizophrenia intervention data to be analyzed.

In the presurvey, it was necessary to develop an understanding of MHPs baseline knowledge, attitudes, subjective norms, perceived behavioral control and intentions regarding smoking cessation for those with mental illness. The pre-survey showed a knowledge deficit among providers which is reasonable as most providers also reported no prior training on smoking cessation interventions for patients. All providers acknowledged that smoking causes many health issues, but there was a knowledge deficit when asked about the impact of smoking on mental health disorders and substance use disorder. Surprisingly, there was also a small percentage of providers who felt smoking improved mental health symptoms even though, ultimately, smoking worsens mental health symptoms and smoking cessation improves mental health (CDC, 2019a; Taylor et al., 2014; Taylor et al., 2021).

All participants acknowledged different interventions for smoking cessations as effective, with the majority favoring FDA-approved medication as most effective. This is appropriate based on USPSTF (2021) recommendations which encourage providers to prescribe pharmacotherapy for smoking cessation. The intention of MHPs to provide smoking cessation for patients was somewhat neutral, with their attitudes regarding smoking cessation for patients to be slightly higher than neutral. Subjective norm and perceived behavioral control regarding providing smoking cessation for patients was less. This is concerning as some literature suggests that subjective norms and/or perceived behavioral control is a major predictor in follow through of implementing a practice change (Shelley et al., 2014; Blankers et al., 2016). Participants also reported a low use of the 5As with a mean score of 8.6 (3.4) out of 15.

Following the web-based simulated educational video, the providers completed a postsurvey to assess for knowledge gained and increased intentions of providing the 5As to

patients. Knowledge mean score increased significantly with a p-value of .005 and the mean score went from 3.0(0.9) out of 5 to a mean score of 4.3 (1.2) out of 5. The results suggest the web-based simulation training intervention significantly increased knowledge. There was also a higher-than-average rating in the intention to utilize the 5As in the future with a post-intervention mean score of 11 (2.5) out of 15. The results suggest that the web-based simulation training may have increased participants' intention to provide appropriate treatment based on USPSTF (2021) guidelines. Based on TPB (Ajzen, 1985), it would be expected that there would be increased follow through on the behavior based on the increased intentions.

### **Face Validity**

The second prong of this project was to determine the face validity of the educational content which was evaluated by experts at the University of Kentucky. Overall, both scenarios had high mean ratings on each category including desirability, applicability, and acceptability. The ADHD scenario had the highest mean scores with each part of the video receiving the highest score in all 3 categories. The schizophrenia scenario also received high scores in each category with the lowest score being a 4 out of 5 for desirability and acceptability of the overall animation of the video. Upon review of the schizophrenia video, there appeared to be a glitch with the animation in which the voice-over had the incorrect voice and content, which could have decreased this score. There were several categories in which this video received 4.5 out of 5 and one expert recommended to increase the use of "plain language" rather than medical jargon when counselling the patient. Secondly, the video mentioned the 2mg nicotine gum for NRT, but the expert responded that this is under-dosing for a patient with a high level of nicotine dependence. The findings from this project correlates well with the literature which emphasized the importance of high-quality videos with accurate information from reliable sources to increase learning (Ahmad, et al., 2020; Paek et al., 2010; Verma et al., 2021; Basch et al., 2017;

Tolentino, 2016). To further increase face validity in the schizophrenia video, it may be helpful to adjust the video's animation, increase the use of "plain language" and to ensure the highest quality and most up to date medical information is included in the video.

### **Implications**

The results of this project revealed that MHPs are underprepared for regularly engaging in smoking cessation interventions for patients with mental illness based on the USPSTF (2021) guidelines. Web-based trainings are a convenient, effective, and cost-effective way of training employees. Based on this project, it is clear that implementing a web-based simulated scenario training is plausible and significantly improves employee's knowledge and intention to implement proper practices for smoking cessation. However, it remains unclear if all MHPs would engage in this type of training program and whether this intervention increases MHPs' use of the USPSTF (2021) guidelines over time. It is crucial to continue research on sustaining the practice of providing smoking cessation interventions to patients with mental illness to ensure improved behavioral and physical outcomes.

Another important issue noted was the decreased subjective norms and perceived behavioral control of the MHPs in this project. Based on these two categories, MHPs do not feel positive peer pressure to engage in smoking cessation interventions with patients nor do they feel they have control to implement the interventions. Further research may be needed to understand how to increase both categories to promote the use of USPSTF (2021) guidelines regarding smoking cessation interventions for patients with mental illness.

### **Limitations**

Limitations of this project included a small sample size with low participation rate especially for the ADHD scenario. MHP managers were asked to disperse emails to potential participants to provide better anonymity for the participants. However, this may have caused

issues regarding participation rate as we cannot be sure managers dispersed the emails to potential participants. Another issue influencing response rates could have been lack of time for MHPs to complete the training and surveys. Managers may have sent emails to participants work emails and participants chose not to or did not know how to forward this email to their personal emails to be able to complete after work hours. Important to note is one facility experienced a high turnover rate of employees with many new managers and other administration which made it difficult to engage participants in the project. Other limitations impacting participation among MHPs could have been disinterest in the topic, so they chose not to participate or some MHPs may have been uncomfortable with technology and declined to participate.

A key limitation of the face validity analysis for each video was the small sample size which was not randomized. Therefore, the findings may not generalize to other providers or facilities and the video may not be as effective in carrying out the aims as the results seem.

### **Conclusion**

Smoking is more common in patients with mental illness compared to the general public and leads to worsened behavioral and physical outcomes. MHPs often do not perform proper smoking cessation interventions based on the USPSTF (2021) guidelines. Training is important to increase knowledge and intentions of providing smoking cessation interventions to patients. Based on the results, the web-based simulation scenario intervention by BH WELL increased MHP knowledge and intentions regarding smoking cessation interventions for patients with mental illness.

As intentions and knowledge increase for MHPs, based on Ajzen (1985) TPB, follow-through in providing smoking cessation interventions should increase. Ultimately, as more MHPs engage in training and in implementing smoking cessation interventions, patients with

mental illness will also engage in smoking cessation, improving their overall physical and mental well-being.

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## List of Tables

**Table 1. Descriptive summary of mental health professionals (N =18)**

	Mean (SD), Median (IQR) or n (%)
Age	38.89 (8.96)
Sex	
Female	12 (66.7%)
Male	6 (33.3%)
College Graduate	18 (100%)
Ethnicity/Race	
Asian/Pacific Islander	2 (11.1%)
Black/Non-Hispanic	3 (16.7%)
White/Non-Hispanic	13 (72.2%)
Discipline	
Nurse (e.g. LPN/RN)	10 (55.6%)
Psychologist (e.g. MHC, LMHC/LMFT)	2 (11.1%)
Psychologist (e.g. Psych D, PhD)	2 (11.1%)
Social Worker (e.g. LSW/LCSW)	4 (22.2%)
Prior Tobacco Treatment Training	
Yes	1 (5.6%)
No	17 (94.4%)
Primary Practice Setting	
Inpatient Hospital	12 (66.7%)
Inpatient Behavioral Health Treatment Program	6 (33.3%)
Primary Population Served	
Adults	16 (88.9%)
Pediatrics	1 (5.6%)
Geriatrics	1 (5.6%)
Time in Discipline (years)	3 (1.75-9.25)
Prior Tobacco Use	
Cigarettes	5 (27.8%)
Cigarettes and Other (i.e. vape/e-cigarettes)	2 (11.1%)
Other Tobacco Products Only (vape/ecigarette)	1 (5.6%)
No Use	10 (55.6%)
Tobacco Use in Past Month	
Cigarettes	1 (5.6%)
Other Tobacco Products	2 (11.1%)
None	5 (27.8%)
No response	10 (55.6%)

**Table 2. Descriptive summary of knowledge and attitudes, intentions, attitudes, subjective norms, and perceived behavioral control (N=18)**

	mean (SD) or % yes
Knowledge and Attitudes	
Smoking causes	
Physical health problems	100%
Mental illness	16.7%
Substance use disorder	33.3%
Pregnancy and birth related complications	100%
Improvement in mental health	22.2%
Effectiveness of cessation methods (1-5)*	
Cold Turkey	2.22 (1.17)
Self- help resources (pamphlets/brochures)	2.67 (0.91) 2.39 (0.78)
Quitlines	3.67 (1.14)
Behavioral Counselling (CBT, motivational interviewing)	4.06 (0.8)
FDA Approved Medications	
Intention (1-7)*	4.24 (1.41)
Attitudes (1-7)*	4.96 (0.96)
Subjective Norms (1-7)*	3.75 (1.21)
Perceived Behavioral Control (1-7)*	3.87 (1.00)
Frequency of 5A's pre-intervention (0-15)*	8.6 (3.4)
Intended frequency of 5A's post-intervention (0-15)*	11 (2.5)

\* Note: higher scores indicate greater effectiveness, greater intention, positive attitude, greater subjective norms, greater frequency.

**Table 3. Paired T-Test for pre and post intervention (N=18)**

	Pre-intervention mean (SD)	Post-intervention mean (SD)	<i>p</i>
Knowledge (0-5)	3.0 (0.9)	4.3 (1.2)	.005

**Table 4. Expert Review Scores for ADHD Intervention (N=2)**

	Desirable Score	Applicable Score	Acceptable Score
1. PART A: Information about tobacco use and ADHD	5	5	5
2. PART B: Ask	5	5	5
3. PART B: Advise	5	5	5
4. PART B: Assess	5	5	5
5. PART B: Assist	5	5	5
6. PART B: Arrange	5	5	5
7. Overall use of the animation video	5	5	5

**Table 5. Expert Review Scores for Schizophrenia Intervention (N=2)**

	Desirable Score	Applicable Score	Acceptable Score
1. PART A: Information about tobacco use and schizophrenia	5	4.5	4.5
2. PART B: Ask	5	5	4.5
3. PART B: Advise	5	4.5	4.5
4. PART B: Assess	5	4.5	4.5
5. PART B: Assist	5	5	5
6. PART B: Arrange	5	4.5	4.5
7. Overall use of the animation video	4	4.5	4

## Appendix A

### ADHD Scenario Survey Cover Letter

Dear Participant,

Researchers at the University of Kentucky are inviting you to take part in a survey to evaluate the desirability, applicability, and acceptability of simulated substance use treatment scenarios among providers caring for people with behavioral health problems.

Although you may not get personal benefit from taking part in this evaluation study, your responses may help us understand more about developing cost-effective and resource efficient means of training a wider audience of providers in evidence-based substance use treatment. In addition, the information you provide will help us design tailored evidence-based substance use treatment interventions for clients with behavioral health problems to reduce the disparity in substance use and related burden in this vulnerable population. Some volunteers experience satisfaction from knowing they have contributed to research that may possibly benefit others in the future.

If you do not want to participate in the evaluation, there are no other choices except not to take part in the evaluation. The survey will take about 40 minutes to complete. The survey will include three main sections. First there will be a 5-10 minute section in which you fill out a presurvey questionnaire regarding your knowledge, views and experiences with providing tobacco and other substance use treatment. Then you will watch and provide your evaluation of a 20-25 minute video of a scenario on providing evidence-based tobacco and substance use treatment within a healthcare setting. Finally, you will complete a 5-10 minute post-survey assessing your knowledge and views on providing tobacco and other substance use treatment after watching the video. There are no known risks to participating in this evaluation study.

Your response to the survey is anonymous which means no names, IP addresses, email addresses, or any other identifiable information will be collected with the survey responses. We will not know which responses are yours if you choose to participate.

We hope to receive completed questionnaires from about 150 providers, so your answers are important to us. Of course, you have a choice about whether or not to complete the survey, but if you do participate, you are free to skip any questions or discontinue at any time. You will not be penalized in any way for skipping or discontinuing the survey.

If you have questions about the study, please feel free to ask; my contact information is given below.

Thank you in advance for your assistance with this important project.

To ensure your responses will be included, please submit your completed survey by July 31, 2021.

Sincerely,

Chizimuzo Okoli, PhD, MPH, RN  
College of Nursing, University of Kentucky  
PHONE: 859-246-8020 or 859-866-8508  
E-MAIL: [ctokoll@uky.edu](mailto:ctokoll@uky.edu)

If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

## Consent Form

### **EVALUATING SIMULATION-BASED TOBACCO TREATMENT SCENARIOS IN BEHAVIORAL HEALTH SETTINGS CONSENT FORM**

The purpose of this study is to evaluate the desirability, applicability, and acceptability of simulated tobacco treatment scenario among providers caring for people with behavioral health problems. Please review the attached survey cover letter [Evaluation survey cover letter for simulated scenarios](#).

After reviewing the cover letter, please select below if you would wish to participate in this evaluation survey or not. If you select “Yes, I would like to participate in this study”, you will be directed to the rest of the survey. If you select, “No, I would not like to participate at this time,” the survey will be terminated. Thank you.

- Yes, I would like to participate in this study (1)
- No, I would not like to participate at this time (2)

## Schizophrenia Scenario Survey Cover Letter

Dear Participant,

Researchers at the University of Kentucky are inviting you to take part in a survey to evaluate the desirability, applicability, and acceptability of simulated substance use treatment scenarios among providers caring for people with behavioral health problems.

Although you may not get personal benefit from taking part in this evaluation study, your responses may help us understand more about *developing cost-effective and resource efficient means of training a wider audience of providers in evidence-based substance use treatment. In addition, the information you provide will help us design tailored evidence-based substance use treatment interventions for clients with behavioral health problems to reduce the disparity in substance use and related burden in this vulnerable population.* Some volunteers experience satisfaction from knowing they have contributed to research that may possibly benefit others in the future.

If you do not want to participate in the evaluation, there are no other choices except not to take part in the evaluation. The survey will take about 45 minutes to complete. First, you will be provided with a consent form describing the project. Second, if you agree to participate in the evaluation, you will be directed to a pre-survey questionnaire that will take about 5-10 minutes to obtain information on your knowledge, views and experiences with providing tobacco and other substance use treatment. Third, for 20-25 minutes, you will watch and evaluate a video of a scenario on providing evidence-based tobacco and substance use treatment within a healthcare setting. Fourth, you will complete a final 5-10 minute post-survey assessing your knowledge and views on providing tobacco and other substance use treatment after watching the video. After completing the post-survey questionnaire, you will be directed to click on a link to another site to provide your name and email address to receive a \$ 50 Amazon gift card. You will be qualified for the gift card by getting to the end of the survey. With a few exceptions, study payments are considered taxable income reportable to the Internal Revenue Service (IRS). A form 1099 will be sent to you if your total payments for research participation are \$600 or more in a calendar year. The risks to participating in this survey are minimal, however, because you will be providing your name and email address to receive \$ 50 Amazon gift card, there is a risk for breach of confidentiality.

Your responses are anonymous which means no names, IP addresses, email addresses, or any other identifiable information will be linked with your survey responses. We will not know which responses are yours if you choose to participate.

We hope to receive completed questionnaires from about 150 providers, so your answers are important to us. Of course, you have a choice about whether or not to complete the survey, but if you do, you are free to skip any questions or discontinue at any time. You will not be penalized in any way for skipping or discontinuing the survey.

Please be aware, while we make every effort to safeguard your data, once received from the online survey company, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while still on the survey

company's servers, or while en route to either them or us. It is also possible that the raw data collected for research purposes will be used for marketing or reporting purposes by the survey/data gathering company after the research is concluded, depending on the company's Terms of Service and Privacy policies.

If you have questions about the study, please feel free to ask; my contact information is given below.

Thank you in advance for your assistance with this important project.

To ensure your responses will be included, please submit your completed survey by July 31, 2021.

Sincerely,

Chizimuzo Okoli, PhD, MPH, RN

College of Nursing, University of Kentucky

PHONE: 859-246-8020 or 859-866-8508

E-MAIL: [ctokoll@uky.edu](mailto:ctokoll@uky.edu)

If you have complaints, suggestions, or questions about your rights as a research volunteer, contact the staff in the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Now that you have reviewed the cover letter, please select below if you would wish to participate in this evaluation survey or not. If you select "Yes, I would like to participate in this study", you will be directed to the rest of the survey. If you select, "No, I would not like to participate at this time," the survey will be terminated. Thank you.

- Yes, I would like to participate in this study (1)
- No, I would not like to participate at this time (2)

## Appendix B

### ADHD Survey PRE-TEST SURVEY

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#### SECTION A: DEMOGRAPHICS

---



A 1. What year were you born?

---

A 2. Are you?

Male (1)

Female (2)

A 3. What is the highest grade or year of school you completed?

Less than High School (1)

High School Graduate or GED (2)

Some College/ vocational/ trade school degree (3)

College Graduate (4)

---

A 4. What is your ethnicity/ race?

- White Non-Hispanic (1)
  - Black, Non-Hispanic (2)
  - Hispanic (3)
  - Asian/ Pacific Islander (4)
  - Other (Please Specify) (5) \_\_\_\_\_
- 

A 5. What is your disciplinary background or job role? Are you a:

- Physician/ Psychiatrist (1)
  - Advanced Practice Nurse (2)
  - Nurse (e.g. LPN/ RN) (3)
  - Psychologist (e.g. MHC, LMHC/ LMFT) (4)
  - Psychologist (e.g. Psych D, PhD) (5)
  - Social Worker (e.g. LSW/ LCSW) (6)
  - Other (Please Specify) (7) \_\_\_\_\_
- 

A 6. Have you ever completed tobacco treatment training?

- Yes (1)
- No (2)

If Yes, What type of training have you completed?

\_\_\_\_\_

---

A 7. What is your primary practice setting?

- A Community Mental Health Center (1)
  - Outpatient Behavioral Health Treatment Program (2)
  - Inpatient Behavioral Health Treatment Program (3)
  - An Inpatient Hospital (4)
  - Other (Please Specify) (5) \_\_\_\_\_
- 

A 8. Which type of patients/ clients do you serve for more than 50% of your practice?

- Adults (1)
  - Pediatrics (children and adolescents) (2)
  - Women Only (3)
  - Other (Please Specify) (4) \_\_\_\_\_
- 

A 9. For how many years/ months have you worked in your discipline? (Please type in below)

- Years (1) \_\_\_\_\_
  - Months (2) \_\_\_\_\_
-

## SECTION B: TOBACCO USE BEHAVIOR

In this section, we are interested in knowing about your tobacco use behavior

---

B 1 Have you ever used any tobacco products (including vapes or e-cigarettes)?

- Yes, cigarettes (1)
  - Yes, tobacco products (including vapes/ e-cigarettes) other than cigarettes (2)
  - Yes, cigarettes and other tobacco products (including vapes/ e-cigarettes) (3)
  - No (4)
- 

B 2 Have you used any tobacco products (including vapes or e-cigarettes) at least once in the past month?

- Yes, I have used cigarettes at least once in the past month (1)
  - Yes, I have used tobacco products (including vapes/ e-cigarettes) other than cigarettes at least once in the past month (2)
  - Yes, I have used cigarettes and other tobacco products (including vapes/ e-cigarettes) at least once in the past month (3)
  - No (4)
-

**SECTION C: KNOWLEDGE AND ATTITUDE QUESTIONS**

C 1. In your opinion, does smoking or tobacco use...

	Yes (1)	No (2)
a. Cause physical health problems (e.g. Cancer, Heart disease, lung disease)? (1)	<input type="radio"/>	<input type="radio"/>
b. Cause mental illness (Depressive disorders, schizophrenia, anxiety, ADHD, etc.)? (2)	<input type="radio"/>	<input type="radio"/>
c. Cause substance use disorder (alcohol, opioids, marijuana, other drugs)? (3)	<input type="radio"/>	<input type="radio"/>
d. Cause pregnancy and birth related complications (e.g. premature birth, pre-eclampsia, low birth weight)? (4)	<input type="radio"/>	<input type="radio"/>
e. Improve mental health symptoms? (5)	<input type="radio"/>	<input type="radio"/>

C 2. Please rate on a scale of 1 to 5 with “1” being the least effective to “5” being the most effective the following methods to help people stop smoking or using tobacco.

- \_\_\_\_\_ a. Cold Turkey (1)
- \_\_\_\_\_ b. Self-help resources (e.g. pamphlets, brochures) (2)
- \_\_\_\_\_ c. Quitlines (3)
- \_\_\_\_\_ d. Behavioral Counseling (e.g. cognitive behavioral therapy, motivational interviewing) (4)
- \_\_\_\_\_ e. FDA approved medications (nicotine replacement products, varenicline, bupropion) (5)

C 3.

Attention Deficit Hyperactivity Disorder (ADHD):

Please answer the following questions about ADHD and tobacco use.

	True (1)	False (2)
a. Youth with ADHD are at a higher risk for using tobacco as compared to youth without ADHD. (1)	<input type="radio"/>	<input type="radio"/>
b. Encouraging youth who use tobacco products to stop their use can make their ADHD symptoms even worse. (2)	<input type="radio"/>	<input type="radio"/>
c. Electronic cigarettes (e.g., Juuls) and other electronic tobacco delivery devices contain water vapor which is essentially harmless. (3)	<input type="radio"/>	<input type="radio"/>
d. There is sufficient evidence to suggest the use of nicotine patch and other nicotine replacement products to help youth who use tobacco products to quit. (4)	<input type="radio"/>	<input type="radio"/>
e. Because of the delivery system of electronic cigarettes systems, they are less addictive than regular cigarettes. (5)	<input type="radio"/>	<input type="radio"/>

---

**SECTION D: INTENTIONS, ATTITUDES, SOCIAL NORMS AND PERCEIVED BEHAVIORAL CONTROL**

We would like to know some of your thoughts about providing tobacco treatment.

---

D 1.

**INTENTION**

Indicate to what extent you agree or disagree with the following questions on a scale of 1 to 7 with 1 being '**strongly disagree**' and 7 being '**strongly agree**'.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. I expect to provide smoking/tobacco use cessation to patients/clients in the next six months. (1)	<input type="radio"/>						
2. I want to provide smoking/tobacco use cessation to patients/clients in the next six months. (2)	<input type="radio"/>						
3. I intend to provide smoking/tobacco use cessation to patients/clients in the next six months. (3)	<input type="radio"/>						

## D 2. ATTITUDE

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. On a scale of 1 being <b>'harmful'</b> and 7 being <b>'beneficial'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco (1)	<input type="radio"/>						
2. On a scale of 1 being <b>'bad'</b> and 7 being <b>'good'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (2)	<input type="radio"/>						
3. On a scale of 1 being <b>'unpleasant for you'</b> and 7 being <b>'pleasant for you'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. On a scale of 1 being <b>'worthless'</b> and 7 being <b>'useful'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (4)	<input type="radio"/>						

---

### D 3. SUBJECTIVE NORMS

On a scale of 1 being ‘strongly disagree’ and 7 being ‘strongly agree’ please respond to the following questions:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. People who are important to me want me to provide smoking/tobacco use cessation to my patients/clients who smoke/use tobacco. (1)	<input type="radio"/>						
2. It is expected of me that I provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (2)	<input type="radio"/>						
3. I feel under social pressure to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. Most of my peers think it is important to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (4)	<input type="radio"/>						

D 4.

**PERCEIVED BEHAVIORAL CONTROL**

On a scale of 1 being **‘strongly disagree’** and 7 being **‘strongly agree’** please rate your response to the following statements:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. I am confident that I could provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (1)	<input type="radio"/>						
2. For me to provide smoking/tobacco use cessation to patients/ clients who smoke is easy (2)	<input type="radio"/>						
3.I am able to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. Whether I provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco is entirely up to me. (4)	<input type="radio"/>						

**SECTION E: 5 A's IN PRACTICE/ ROLE**

---

E 1

Please indicate how often you do the following activities based on the following scale: 0= Never  
 1= Seldom      2= Occasionally      3= Very Often

In your practice role, how often do you

	0 (1)	1 (2)	2 (3)	3 (4)
1. ASK patients/clients whether they smoke cigarettes or use other tobacco products? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. ADVISE patients/clients who smoke or use tobacco products to quit? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. ASSESS the readiness of patients/clients who smoke or use other tobacco products to quit or cut down? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. ASSIST patients/ clients in stopping smoking/tobacco use by providing medications and/ or counseling? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. ARRANGE for patients/ clients to be referred to smoking/ tobacco use cessation services or follow up with them on their abstinence?  
(5)

   

End of Block: PRE-TEST SURVEY

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Start of Block: SIMULATED SCENARIO VIDEO EVALUATION

### SCENARIO VIDEO

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We would like your opinions about this video we have developed to train providers on evidencebased tobacco treatment tailored to a patient/client living with ADHD. We would like you to rank the video on a scale of 0 to 5, based on how much you see it as desirable, applicable, and acceptable to you and other providers caring for people with ADHD.

Desirable = something you would want to hear/learn about  
Applicable = something that is useful to you/you could use  
Acceptable = something that would gain your interest/would make you seek more information.

Please watch the video:

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### SCENARIO EVALUATION

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Please rate the different parts of the video that you just watched on aspects of desirability, applicability and acceptability. Please use a scale of 0 to 5 (0 being 'not desirable/ applicable/ acceptable' to 5 being 'very desirable/ applicable/ acceptable'. For example, it is possible that you believe that the video is very desirable and rate it a '5', but you think it is not as applicable to you and rate it a '2' but that it would be acceptable to your peers and rate it a '4'.

	Desirable Score (1)	Applicable Score (2)	Acceptable Score (3)
1. PART A: Information about tobacco use and ADHD (1)			
2. PART B: Ask (2)			
3. PART B: Advise (3)			
4. PART B: Assess (4)			
5. PART B: Assist (5)			
6. PART B: Arrange (6)			
7. Overall use of the animation video (7)			

**End of Block: SIMULATED SCENARIO VIDEO EVALUATION**

---

**Start of Block: POST-TEST SURVEY**

## POST-TEST SURVEY

Now that you have watched the videos we would like to wrap up with a few questions about your knowledge and attitudes about tobacco use among people with ADHD. Please answer the following questions.

---

1. In your opinion, does smoking or tobacco use....

	Yes (1)	No (2)
a. Cause physical health problems (e.g. Cancer, Heart disease, lung disease)? (1)	<input type="radio"/>	<input type="radio"/>
b. Cause mental illness (Depressive disorders, schizophrenia, anxiety, ADHD etc.)? (2)	<input type="radio"/>	<input type="radio"/>
c. Cause substance use disorder (alcohol use, opioid use, marijuana use, other drug use)? (4)	<input type="radio"/>	<input type="radio"/>
d. Cause pregnancy and birth related complications (e.g. premature birth, pre-eclampsia, low birth weight)? (5)	<input type="radio"/>	<input type="radio"/>
e. Improve mental health symptoms? (6)	<input type="radio"/>	<input type="radio"/>

---

2. Please rate on a scale of 1 to 5 with “1” being not at all effective to “5” being very effective the following methods to help people stop smoking or using tobacco.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
a. Cold Turkey (1)	<input type="radio"/>				
b. Self-help resources (e.g. pamphlets, brochures) (2)	<input type="radio"/>				
c. Quitlines (3)	<input type="radio"/>				
d. Behavioral Counseling (e.g. cognitive behavioral therapy, motivational interviewing) (4)	<input type="radio"/>				
e. FDA approved medications (nicotine replacement products, varenicline, bupropion) (5)	<input type="radio"/>				

---

3. Attention Deficit Hyperactivity Disorder (ADHD):

Please answer the following questions about ADHD and tobacco use.

	True (1)	False (2)
a. Youth with ADHD are equally as likely to use tobacco as compared to youth without ADHD. (1)	<input type="radio"/>	<input type="radio"/>
b. Encouraging youth who use tobacco products to stop their use can make their ADHD symptoms even worse. (2)	<input type="radio"/>	<input type="radio"/>
c. Electronic cigarettes (e.g., Juuls) and other electronic tobacco delivery devices contain water vapor which is essentially harmless. (3)	<input type="radio"/>	<input type="radio"/>
d. There is sufficient evidence to suggest the use of nicotine patch and other nicotine replacement products to help youth who use tobacco products to quit. (4)	<input type="radio"/>	<input type="radio"/>
e. Because of the delivery system of electronic cigarettes systems, they are less addictive than regular cigarettes. (5)	<input type="radio"/>	<input type="radio"/>

4. Please indicate your response on the following scale:

0= Never    1= Seldom    2= Occasionally    3= Very Often    In your practice role, how often do you anticipate that you will

	0 (1)	1 (2)	2 (3)	3 (4)
1. ASK patients/clients whether they smoke cigarettes or use other tobacco products? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. ADVISE patients/clients who smoke or use tobacco products to quit? (2)

3. ASSESS the readiness of patients/clients who smoke or use other tobacco products to quit or cut down? (3)

4. ASSIST patients/ clients in stopping smoking/ tobacco use by providing medications and/ or counseling? (4)

5. ARRANGE for patients/clients to be referred to smoking/ tobacco use cessation services or follow up with them on their abstinence? (5)

## Schizophrenia Survey

### PRE-TEST SURVEY

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#### SECTION A: DEMOGRAPHIC INFORMATION

---

A 1. What year were you born?

\_\_\_\_\_

---

A 2. Are you?

Male (1)

Female (2)

---

A 3. What is the highest grade or year of school you completed?

Less than High School (1)

High School Graduate or GED (2)

Some College/ vocational/ trade school degree (3)

College Graduate (4)

---

A 4. What is your ethnicity/ race?

- White Non-Hispanic (1)
  - Black, Non-Hispanic (2)
  - Hispanic (3)
  - Asian/ Pacific Islander (4)
  - Other (Please Specify) (5) \_\_\_\_\_
- 

A 5. What is your disciplinary background or job role? Are you a:

- Physician/ Psychiatrist (1)
  - Advanced Practice Nurse (2)
  - Nurse (e.g. LPN/ RN) (3)
  - Psychologist (e.g. MHC, LMHC/ LMFT) (4)
  - Psychologist (e.g. Psych D, PhD) (5)
  - Social Worker (e.g. LSW/ LCSW) (6)
  - Other (Please Specify) (7) \_\_\_\_\_
- 

A 6. Have you ever completed tobacco treatment training?

- Yes (1)
  - No (2)
- 

If Yes, What type of training have you completed?

\_\_\_\_\_

A 7. What is your primary practice setting?

- A Community Mental Health Center (1)
- Outpatient Behavioral Health Treatment Program (2)
- Inpatient Behavioral Health Treatment Program (3)
- An Inpatient Hospital (4)
- Other (Please Specify) (5) \_\_\_\_\_

---

A 8. Which type of patients/ clients do you serve for more than 50% of your practice?

- Adults (1)
- Pediatrics (Child and adolescents) (2)
- Women Only (3)
- Other (Please Specify) (4) \_\_\_\_\_

---

A 9. For how many years/ months have you worked in your discipline? (Please type in below)

Years (1) \_\_\_\_\_

Months (2) \_\_\_\_\_

---

Page Break \_\_\_\_\_

## **SECTION B: TOBACCO USE BEHAVIOR**

In this section, we are interested in knowing about your tobacco use behavior

---

B 1 Have you ever used any tobacco products (including vapes or e-cigarettes)?

- Yes, cigarettes (1)
  - Yes, tobacco products (including vapes/ e-cigarettes) other than cigarettes (2)
  - Yes, cigarettes and other tobacco products (including vapes/ e-cigarettes) (3)
  - No (4)
- 

B 2 Have you used any tobacco products (including vapes or e-cigarettes) at least once in the past month?

- Yes, I have used cigarettes at least once in the past month (1)
  - Yes, I have used tobacco products (including vapes/ e-cigarettes) other than cigarettes at least once in the past month (2)
  - Yes, I have used cigarettes and other tobacco products (including vapes/ e-cigarettes) at least once in the past month (3)
  - No (4)
- 

Page Break

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### SECTION C: KNOWLEDGE AND ATTITUDE QUESTIONS

---

C 1. In your opinion, does smoking or tobacco use...

	Yes (1)	No (2)
a. Cause physical health problems (e.g., cancer, heart disease, lung disease)? (1)	<input type="radio"/>	<input type="radio"/>
b. Cause mental illness (Depressive disorders, schizophrenia, anxiety, ADHD e.t.c)? (2)	<input type="radio"/>	<input type="radio"/>
c. Cause substance use disorder (alcohol use, opioid use, marijuana use, other drug use)? (3)	<input type="radio"/>	<input type="radio"/>

d. Cause pregnancy and birth related complications (e.g. premature birth, pre-eclampsia, low birth weight)? (4)



e. Improve mental health symptoms? (5)



c 2. Please rate on a scale of 1 to 5 with "1" being the least effective to "5" being the most effective the following methods to help people stop smoking or using tobacco.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
a. Cold Turkey (1)	<input type="radio"/>				
b. Self-help resources (e.g. pamphlets, brochures) (2)	<input type="radio"/>				
c. Quitlines (3)	<input type="radio"/>				
d. Behavioral Counseling (e.g. cognitive behavioral therapy, motivational interviewing) (4)	<input type="radio"/>				
e. FDA approved medications (nicotine replacement products, varenicline, bupropion) (5)	<input type="radio"/>				

C 3.

Schizophrenia:

Please answer the following questions about Schizophrenia and tobacco use.

	True (1)	False (2)
a. People with schizophrenia are equally as likely to use tobacco as compared to the general population (1)	<input type="radio"/>	<input type="radio"/>
b. Nicotine from tobacco use causes stress for people with schizophrenia (2)	<input type="radio"/>	<input type="radio"/>
c. People with schizophrenia are more likely to use tobacco because of permissive attitudes of providers to tobacco use within behavioral health settings (3)	<input type="radio"/>	<input type="radio"/>
d. People with schizophrenia are unable to stop using tobacco because no evidence exists in ways to help them (4)	<input type="radio"/>	<input type="radio"/>
e. Tobacco use can reduce the effectiveness of medications used to treat schizophrenia (5)	<input type="radio"/>	<input type="radio"/>

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Page Break

**SECTION D: INTENTIONS, ATTITUDES, SOCIAL NORMS AND PERCEIVED BEHAVIORAL CONTROL**

The following items are related to providing tobacco treatment.

---

D 1.

**INTENTION**

Indicate to what extent you agree or disagree with the following questions on a scale of 1 to 7 with 1 being '**strongly disagree**' and 7 being '**strongly agree**'.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. I expect to provide smoking/tobacco use cessation to patients/clients in the next six months. (1)	<input type="radio"/>						
2. I want to provide smoking/tobacco use cessation to patients/clients in the next six months. (2)	<input type="radio"/>						
3. I intend to provide smoking/tobacco use cessation to patients/clients in the next six months. (3)	<input type="radio"/>						

D 2. ATTITUDE

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. On a scale of 1 being <b>'harmful'</b> and 7 being <b>'beneficial'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/ use tobacco (1)	<input type="radio"/>						
2. On a scale of 1 being <b>'bad'</b> and 7 being <b>'good'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (2)	<input type="radio"/>						
3. On a scale of 1 being <b>'unpleasant for you'</b> and 7 being <b>'pleasant for you'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. On a scale of 1 being <b>'worthless'</b> and 7 being <b>'useful'</b> how would you rate providing smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (4)	<input type="radio"/>						

---

### D 3. SUBJECTIVE NORMS

On a scale of 1 being **‘strongly disagree’** and 7 being **‘strongly agree’** please respond to the following questions:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. People who are important to me want me to provide smoking/tobacco use cessation to my patients/clients who smoke/use tobacco (1)	<input type="radio"/>						
2. It is expected of me that I provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (2)	<input type="radio"/>						
3. I feel under social pressure to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. Most of my peers think it is important to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco (4)	<input type="radio"/>						

D 4.

**PERCEIVED BEHAVIORAL CONTROL**

On a scale of 1 being ‘strongly disagree’ and 7 being ‘strongly agree’ please rate your response to the following statements:

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)
1. I am confident that I could provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (1)	<input type="radio"/>						
2. For me to provide smoking/tobacco use cessation to patients/ clients who smoke is easy. (2)	<input type="radio"/>						
3. I am able to provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco. (3)	<input type="radio"/>						
4. Whether I provide smoking/tobacco use cessation to patients/clients who smoke/use tobacco is entirely up to me. (4)	<input type="radio"/>						

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Page Break

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**SECTION E: 5 A's IN PRACTICE/ ROLE**

---

E 1

Please indicate how often you do the following activities based on the following scale:

0= Never      1= Seldom      2= Occasionally      3= Very Often

In your practice role, how often do you

	0 (1)	1 (2)	2 (3)	3 (4)
1. ASK patients/clients whether they smoke cigarettes or use other tobacco products? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. ADVISE patients/clients who smoke or use tobacco products to quit? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. ASSESS the readiness of patients/clients who smoke or use other tobacco products to quit or cut down? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. ASSIST patients/clients in stopping smoking/ tobacco use by providing medications and/ or counseling? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. ARRANGE for patients/clients to be referred to smoking/ tobacco use cessation services or follow up with them on their abstinence? (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: PRE-TEST SURVEY

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## SCENARIO VIDEO

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We would like your opinions about this video we have developed to train providers on evidencebased tobacco treatment tailored to a patient/client living with schizophrenia. We would like you to rank the video on a scale of 0 to 5, based on how much you see it as desirable, applicable, and acceptable to you and other providers caring for people with schizophrenia.

Desirable = something you would want to hear/learn about

Applicable = something that is useful to you/you could use

Acceptable = something that would gain your interest/would make you seek more information.

Please watch the video:

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## SCENARIO EVALUATION

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Please rate the different parts of the video that you just watched on aspects of desirability, applicability and acceptability. Please use a scale of 0 to 5 (0 being 'not desirable/ applicable/ acceptable' to 5 being 'very desirable/ applicable/ acceptable'. For example, it is possible that you believe that the video is very desirable and rate it a '5', but you think it is not as applicable to you and rate it a '2' but that it would be acceptable to your peers and rate it a '4'.

	Desirable Score (1)	Applicable Score (2)	Acceptable Score (3)
1. PART A: Information about tobacco use and schizophrenia (1)			
2. PART B: Ask (2)			
3. PART B: Advise (3)			
4. PART B: Assess (4)			
5. PART B: Assist (5)			
6. PART B: Arrange (6)			
7. Overall use of the animation video (7)			

End of Block: SIMULATED SCENARIO VIDEO EVALUATION

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Start of Block: POST-TEST SURVEY

## POST-TEST SURVEY

Now that you have watched the videos we would like to wrap up with a few questions about your knowledge and attitudes about tobacco use among people with schizophrenia. Please answer the following questions.

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1. In your opinion, does smoking or tobacco use....

	Yes (1)	No (2)
a. Cause physical health problems (e.g. Cancer, Heart disease, lung disease)? (1)	<input type="radio"/>	<input type="radio"/>
b. Cause mental illness (Depressive disorders, schizophrenia, anxiety, ADHD etc.)? (2)	<input type="radio"/>	<input type="radio"/>
c. Cause substance use disorder (alcohol use, opioid use, marijuana use, other drug use)? (4)	<input type="radio"/>	<input type="radio"/>
d. Cause pregnancy and birth related complications (e.g. premature birth, pre-eclampsia, low birth weight)? (5)	<input type="radio"/>	<input type="radio"/>
e. Improve mental health symptoms? (6)	<input type="radio"/>	<input type="radio"/>

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2. Please rate on a scale of 1 to 5 with “1” being the least effective to “5” being the most effective the following methods to help people stop smoking or using tobacco.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
a. Cold Turkey (1)	<input type="radio"/>				
b. Self-help resources (e.g. pamphlets, brochures) (2)	<input type="radio"/>				
c. Quitlines (3)	<input type="radio"/>				
d. Behavioral Counseling (e.g. cognitive behavioral therapy, motivational interviewing) (4)	<input type="radio"/>				
e. FDA approved medications (nicotine replacement products, varenicline, bupropion) (5)	<input type="radio"/>				

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3. Schizophrenia:

Please answer the following questions about schizophrenia and tobacco use.

	True (1)	False (2)
a. People with schizophrenia are equally as likely to use tobacco as compared to the general population (1)	<input type="radio"/>	<input type="radio"/>
b. Nicotine from tobacco use is not addictive and causes agitation for people with schizophrenia (2)	<input type="radio"/>	<input type="radio"/>
c. People with schizophrenia are more likely to use tobacco because of permissive attitudes of providers to tobacco use within behavioral health settings (3)	<input type="radio"/>	<input type="radio"/>
d. People with schizophrenia are unable to stop using tobacco because no evidence exists in ways to help them (4)	<input type="radio"/>	<input type="radio"/>
e. Tobacco use can reduce the effectiveness of medications used to treat schizophrenia (5)	<input type="radio"/>	<input type="radio"/>

4. Please indicate your response on the following scale:

0= Never      1= Seldom      2= Occasionally      3= Very Often

In your practice role, how often do you anticipate that you will

	0 (1)	1 (2)	2 (3)	3 (4)
1. ASK patients/clients whether they smoke cigarettes or use other tobacco products? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. ADVISE patients/clients who smoke or use tobacco products to quit? (2)

3. ASSESS the readiness of patients/clients who smoke or use other tobacco products to quit or cut down? (3)

4. ASSIST patients/clients in stopping smoking/ tobacco use by providing medications and/ or counseling? (4)

5. ARRANGE for patients/clients to be referred to smoking/ tobacco use cessation services or follow up with them on their abstinence? (5)

End of Block: POST-TEST SURVEY

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## Appendix C

### ADHD Face Validity

Dear Participant,

We would like your opinions about this video we have developed to train providers on evidence-based tobacco treatment tailored to a patient/client living with ADHD. We would like you to rate the video on a scale of 0 to 5, based on how much you see it as desirable, applicable, and acceptable to you and other providers caring for people with ADHD.

Desirable = something you would want to hear/learn about

Applicable = something that is useful to you/you could use

Acceptable = something that would gain your interest/would make you seek more information.

We would like you to please rate the different parts of the video that you just watched on aspects of desirability, applicability and acceptability. Please use a scale of 0 to 5 (0 being 'not desirable/applicable/ acceptable' to 5 being 'very desirable/ applicable/ acceptable').

For example, it is possible that you believe that the video is very desirable and rate it a '5', but you think it is not as applicable to you and rate it a '2' but that it would be acceptable to your peers and rate it a '4'.

	Desirable Score (1)	Applicable Score (2)	Acceptable Score (3)
1. PART A: Information about tobacco use and ADHD			
2. PART B: Ask			
3. PART B: Advise			
4. PART B: Assess			
5. PART B: Assist			
6. PART B: Arrange			
7. Overall use of the animation video (7)			

## Schizophrenia Face Validity

Dear Participant,

We would like your opinions about this video we have developed to train providers on evidence-based tobacco treatment tailored to a patient/client living with Schizophrenia. We would like you to rate the video on a scale of 0 to 5, based on how much you see it as desirable, applicable, and acceptable to you and other providers caring for people with schizophrenia.

Desirable = something you would want to hear/learn about

Applicable = something that is useful to you/you could use

Acceptable = something that would gain your interest/would make you seek more information.

We would like you to please rate the different parts of the video that you just watched on aspects of desirability, applicability and acceptability. Please use a scale of 0 to 5 (0 being 'not desirable/applicable/ acceptable' to 5 being 'very desirable/ applicable/ acceptable').

For example, it is possible that you believe that the video is very desirable and rate it a '5', but you think it is not as applicable to you and rate it a '2' but that it would be acceptable to your peers and rate it a '4'.

	Desirable Score (1)	Applicable Score (2)	Acceptable Score (3)
1. PART A: Information about tobacco use and schizophrenia			
2. PART B: Ask			
3. PART B: Advise			
4. PART B: Assess			
5. PART B: Assist			
6. PART B: Arrange			
7. Overall use of the animation video (7)			