VIRTUAL TEACHING & LEARNING (VTL): Adapting an effective commercial tobacco dependence treatment intervention and prevention education program for virtual platforms

"Are you able to see my screen?"

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ABSTRACT

Virtual teaching & learning (VTL) is vital in meeting the challenges and opportunities posed by the COVID-19 pandemic and the rapid development of information technology. VTL's popularity lies in the use of the Internet to deliver a broad array of learning modalities such as self-paced, instructor-led, and hybrid learning to enhance knowledge and performance. VTL can potentially reach diverse audiences and facilitate focus in busy environments.

BACKGROUND

During the COVID-19 period, government and tribal officials closed or limited in-person services to control the spread of the virus. Concurrently, many traditional in-person teaching venues and methods were replaced with remote online teaching platforms and techniques. Although U.S. Census Bureau estimates indicate a low rate of high-speed Internet access among Native Americans who live on tribal land (Wang, 2018), our American Indian practitioners faced this challenge as an opportunity to rise and deliver a solution to its community. The University of Arizona HealthCare Partnership (HCP) Certified Instructors within the American Indian communities of the Albuquerque Area Indian Health Board, Albuquerque Area Indian Health Service, Cowlitz Indian Tribe, Portland Area Indian Health Service, and Inter-Tribal Council of Michigan worked to adapt one of its Nicotine Dependence Treatment Continuing Education & Certification Programs for virtual delivery.

METHODS

PROGRAM MODEL

Since 1998, the University of Arizona HealthCare Partnership (HCP) has designed, tested, and implemented 15 evidencebased accredited continuing education and certification programs that recognize and are intended for differing contexts, intensities, and provider roles in the delivery of tobacco use disorder treatment services and addresses the potential need for referral to more intensive treatment or outside resources during follow-up.

Nicotine dependence treatment specialists are not defined by their professional affiliation or by the field in which they are trained. The audience for this certification program includes all individuals who are dedicated to making a positive difference in a person's life.

CERTIFICATION DESIGN

Nicotine Dependence Treatment Continuing Education & Certification Programs Building Capacity to Treat Nicotine Dependence as a Standard of Care		
PROGRAM	INSTRUCTOR PROGRAM	ADAPTATIONS
Basic Tobacco Intervention Skills Certification	Basic Tobacco Intervention Skills Instructor Certification	Maternal & Child Health Medical & Allied Health Native Communities Spanish-Language
Treatment Specialist Certification for Nicotine Dependence	Treatment Specialist Instructor Certification for Nicotine Dependence	Technology Enabled Learning - Teaching Venues
Instructional Specialist Certification	Faculty Instructors	Adult Learning -Teaching Methods & Tehniques
Master Facilitator Certification	Faculty Instructor Specialization	Adult Learning - Teaching Methods & Techniques

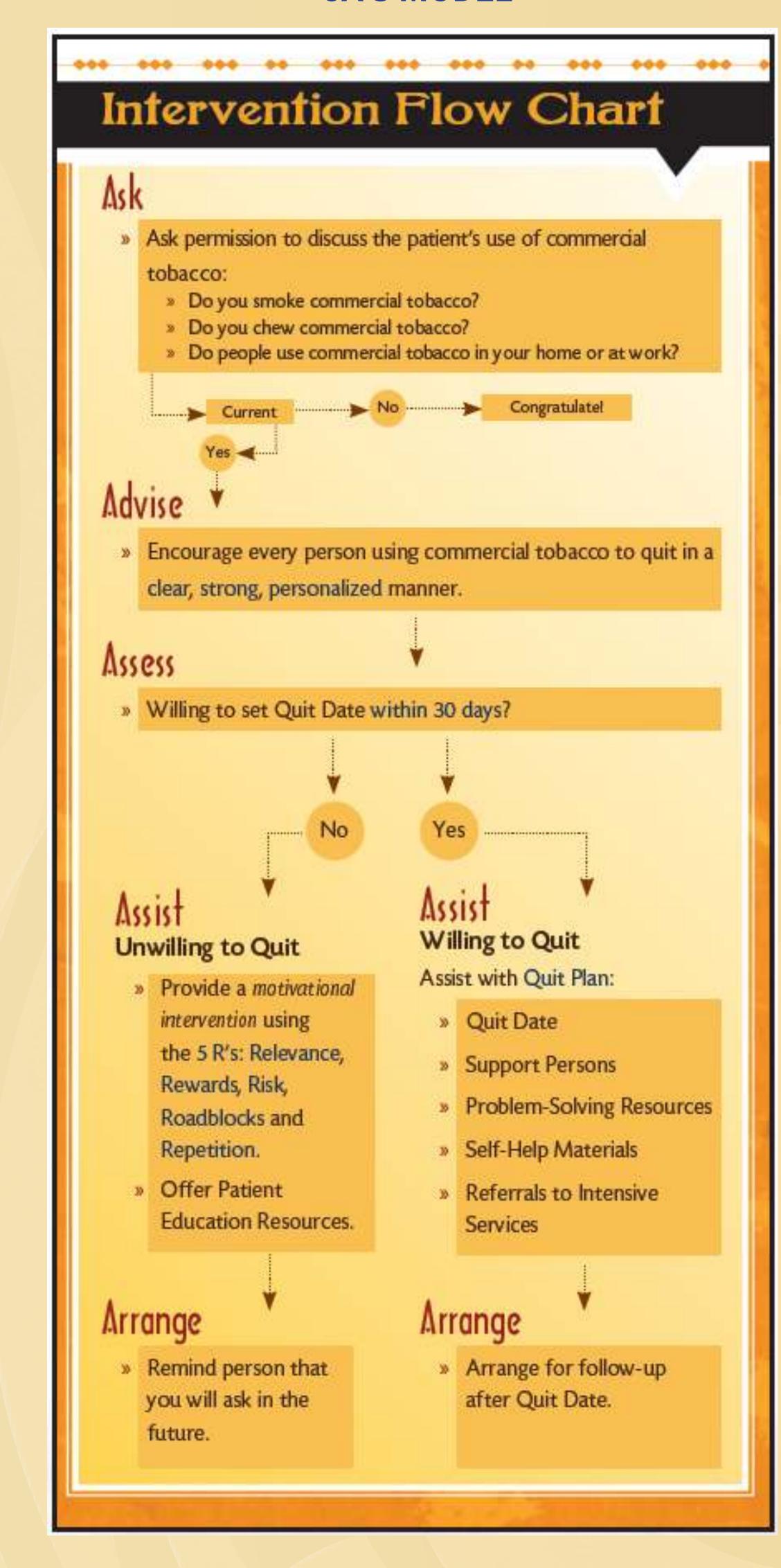
CONTENT

The Basic Tobacco Intervention Skills Certification for Native Communities program is designed to equip health and human service professionals with a clinically and culturally relevant program to consistently teach an evidence-based, evaluative process for delivering a 5 A's Model low-intensity/brief intervention to American Indian people who use commercial tobacco products and for documenting the intervention.

DELIVERY

HCP Certified Instructors within American Indian communities proposed adapting the Basic Tobacco Intervention Skills Certification for Native Communities program from the customary face-to-face format to a Virtual Teaching & Learning (VTL) modality due to COVID-19 restrictions. The University of Arizona HealthCare Partnership (HCP) agreed, and nine certified American Indian Instructors took on the challenge with the goal of continuing to meet the educational needs of providers within their communities. Ultimately, HCP Certified Instructors delivered 46 CE/CME nicotine dependence treatment programs from June 2020 through August 2022 to four-hundred thirty-one (431) health and human service providers across the country with the intent of improving the treatment of nicotine addiction within Native communities.

5A'S MODEL



EVALUATION

Since 1998, HCP's evaluation design has measured participant confidence to translate learning to practice, future intentions, and behavior change through a 3-pronged approach that entails Moore's Model of Outcomes Assessment, Bandura's Model of Self-Efficacy and Ajzen's Theory of Planned Behavior. Evaluation methods include:

- Pretest/Posttest of Self Confidence
- Skills Demonstration
- Pretest/Posttest of Knowledge
- Survey of Satisfaction
- Pre-Survey of Current Practice/Post-Survey of Intended Practice Change
- Follow-up

PARTICIPANT CHARACTERISTICS AND ATTENDANCE

- A total of 431 point-of-care providers and health and human service professionals attended 46 virtual programs.
- Participants worked in about 50% percent of the states across the United States, representing states in all twelve Indian Health Service Areas.

PROGRAM SATISFACTION

- Program objectives, format, and presentation received high levels of participant satisfaction (mean, 4.6).
- Ninety-four (94%) percent reported content was appropriate (n=431).

KNOWLEDGE AND SKILLS ASSESSMENT

- On average across groups, participants (n = 431) responded correctly to 14 of the 15 knowledge questions on the evaluation posttest.
- Skills were measured through an observation checklist. The Skills Demonstrations are practiced after viewing a video simulated provider-patient intervention and discussing material from their Guidebook.

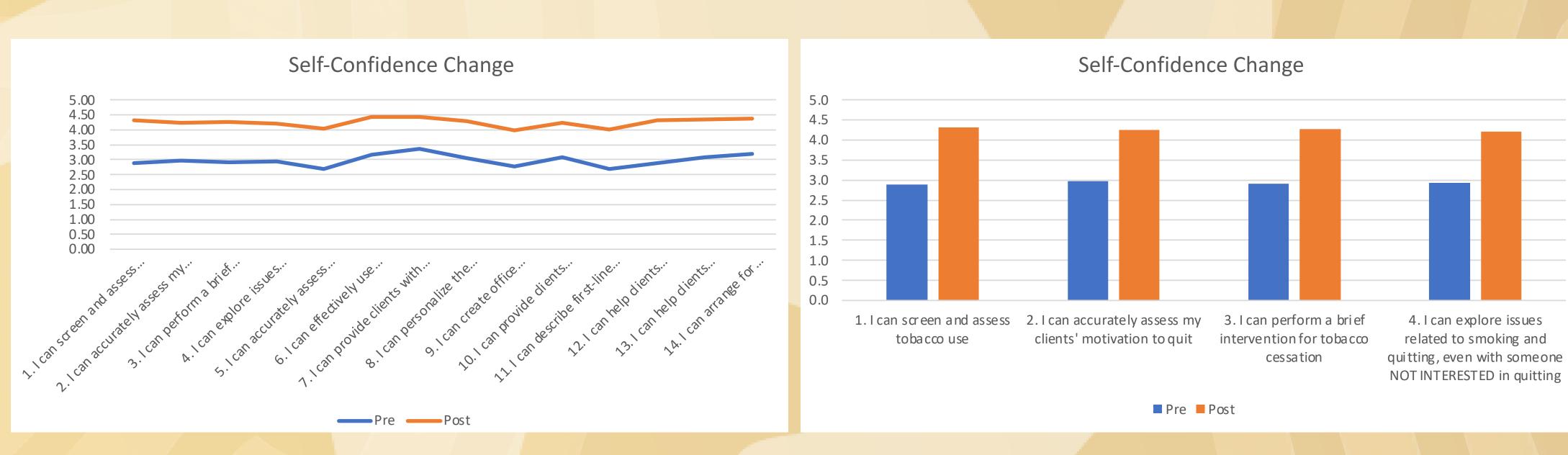
MOST EFFECTIVE ASPECTS OF THE PROGRAM



PARTICIPANT SELF-CONFIDENCE

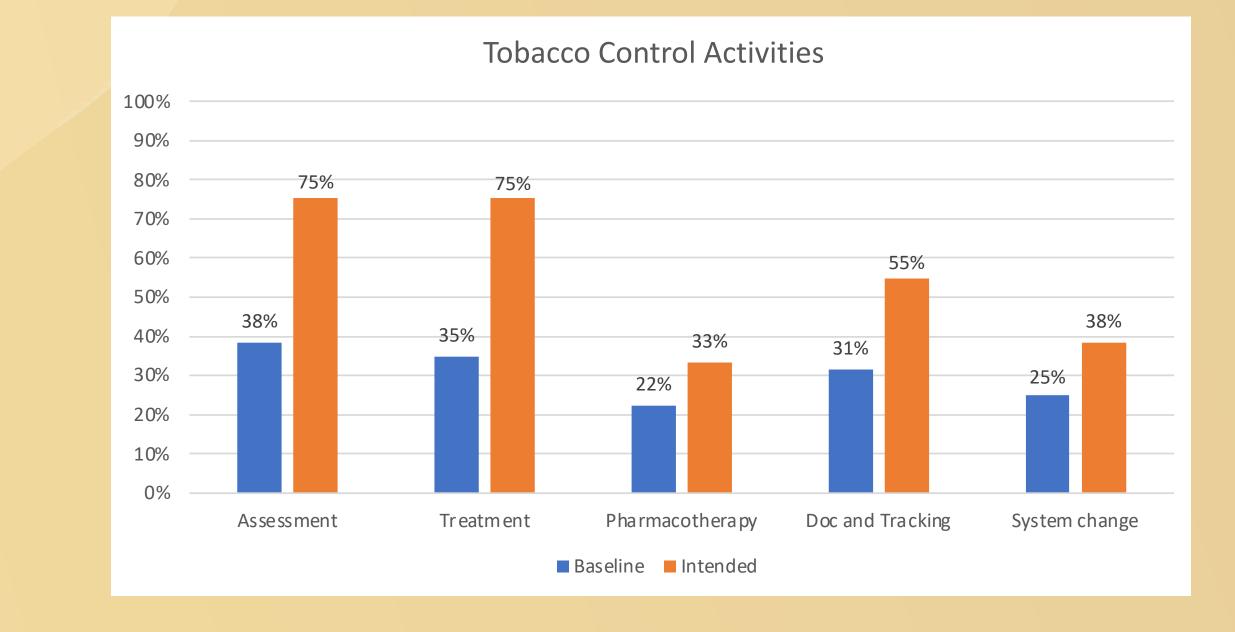
♦ The pretests (M=2.98; SD=0.99) and posttests (M=4.25; SD=0.48) resulted in a significant increase in self-confidence for assessing and administering brief interventions and treatment.

PARTICIPANT SELF-CONFIDENCE CHANGE: PRE & POST PROGRAM



INDICATORS OF SYSTEMS CHANGE IN ACTION

The impact that the nicotine dependence treatment Certification program has on systems change compares the number of activities currently employed in the participant's workplace (reported prior to program participation) to the number of activities the participant *intends* to implement subsequent to program participation.



Arizona's adapted Basic Tobacco Intervention Skills Certification for Native Communities program for virtual platforms suggests virtual teaching & learning (VTL) is a promising method for broad, population-based diffusion of evidence-based commercial tobacco dependence treatment intervention and certification in Native communities.

- Participant objectives were met regarding content and virtual delivery.
- Program impacted participant knowledge of interventions and treatments regarding the prevention and treatment of commercial tobacco use.
- Participant's use of the Program Guidebook in combination with the Instructor-led virtual delivery and the practice of new skills in virtual breakout rooms increased levels of intent to systematically incorporat new interventions and treatments into their practice.
- Positive post-program confidence gains in the VTL format were similar to those experienced in HCP's inperson program delivery.

This approach has benefits that stimulate student learning

during this critical time (Miyah, et al., 2022).

- Remote educational venues allowed us to continue serving our Native communities.
- VTL programs may be flexible and suitable for participants with physical disabilities as they only require reduced mobility.
- VTL has the potential to maximize participants' engagement and self-exploratory learning.

However, distance education instruction is not without its drawbacks (Miyah, et al., 2022):

- Challenges such as dropped internet connections, extremely remote participants needing to drive to internet-ready "hot spots," and access to uninterrupted online connections were cited.
- Technology challenges experienced by some of the participants on computers and mobile phones limited participation during discussion periods.
- Equipment may be outdated or may not have the necessary accessories and/or features to fully engage and participate in remote, virtual interactions.
- Poor Internet connectivity may hamper communication between Instructors and participants.

In summary, the University of Arizona HealthCare Partnership's Nicotine Dependence Treatment Continuing Education program adapted to a virtual teaching & learning (VTL) modality and taught by certified American Indian Instructors was impactful and well received. A total of 431 point-of-care providers and health and human service professionals were added to the index of tobacco control health influencers. These providers exemplify the commitment to interact with patients to assist them in abstaining from long term commercial tobacco/nicotine product use.

The impact of this CE/CME program delivery modality translates to positive outcomes for people who use commercial tobacco/nicotine products and their families, as these providers gain experience in implementing the interventions and treatments discussed.

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