

Okoli, C.T.C., Otachi, J., Carmichael, A.

University of Kentucky College of Nursing, Behavioral Health & Wellness Environments for Living and Learning, Eastern State Hospital

INTRODUCTION

- Despite high tobacco use rates among people living with mental illnesses, mental healthcare providers seldom deliver tobacco treatment.
- Several evidence-based methods are recommended to engage people with tobacco use disorders in treatment; yet attitudinal barriers among mental health care providers limit their use (Sheals et al., 2016).
- Virtual, simulated trainings are cost-effective methods to deliver competency-based education to health care providers (Foronda et al., 2020).
- The purpose of this study was to evaluate the outcomes of an innovative, virtually-simulated tobacco treatment training targeted to mental healthcare providers by describing the:
 - Development of tobacco treatment simulated training scenarios and
 - Evaluation of scenarios through a web-based survey provided to mental healthcare providers.

METHODS

Phase 1: Development of Simulated Training Scenarios

- We developed four simulated, 20 to 25-minute, tobacco treatment scenarios (Figures 1a-d) on delivering tailored treatments to individuals living with:
 - Schizophrenia
 - Major Depressive Disorder (MDD)
 - Attention Deficit Hyperactivity Disorder (ADHD)
 - Substance Use Disorder (SUD)
- Scenarios were guided by the 5 As (Ask, Advise, Assess, Assist, Arrange) for tobacco dependence treatment (Figure 2).

Phase 2: Evaluating Simulated Scenarios

- Design:** Pretest-posttest study assessing changes in provider knowledge about and intentions to provide tobacco treatment.
- Procedures:** Web-based surveys sent to 150 mental healthcare providers from 17 mental healthcare organizations (July to October, 2021)
- Measures:** Investigator developed questionnaire on:
 - Demographics (10 questions)
 - Frequency of providing tobacco treatment in practice (5 questions)
 - Desirability, Applicability and Acceptability of videos (7 questions)
 - Intentions to provide tobacco treatment in practice (5 questions)
- Data Analysis:** Descriptive Analysis on main outcome. All analysis using IBM SPSS version 26.

Phase 1: Scenario Development

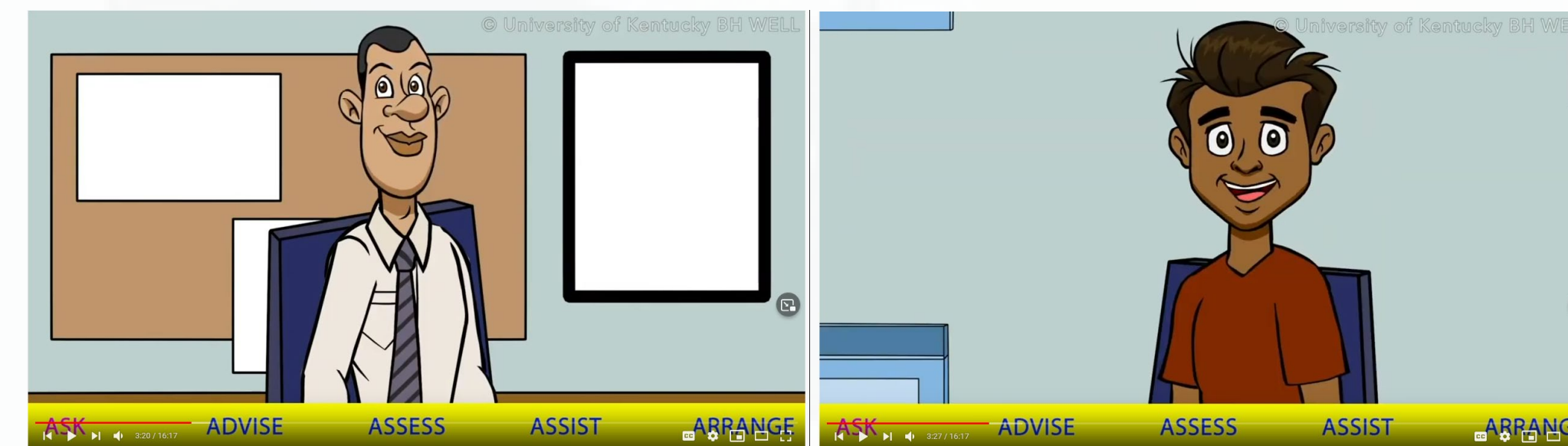


Fig. 1a ADHD scenario

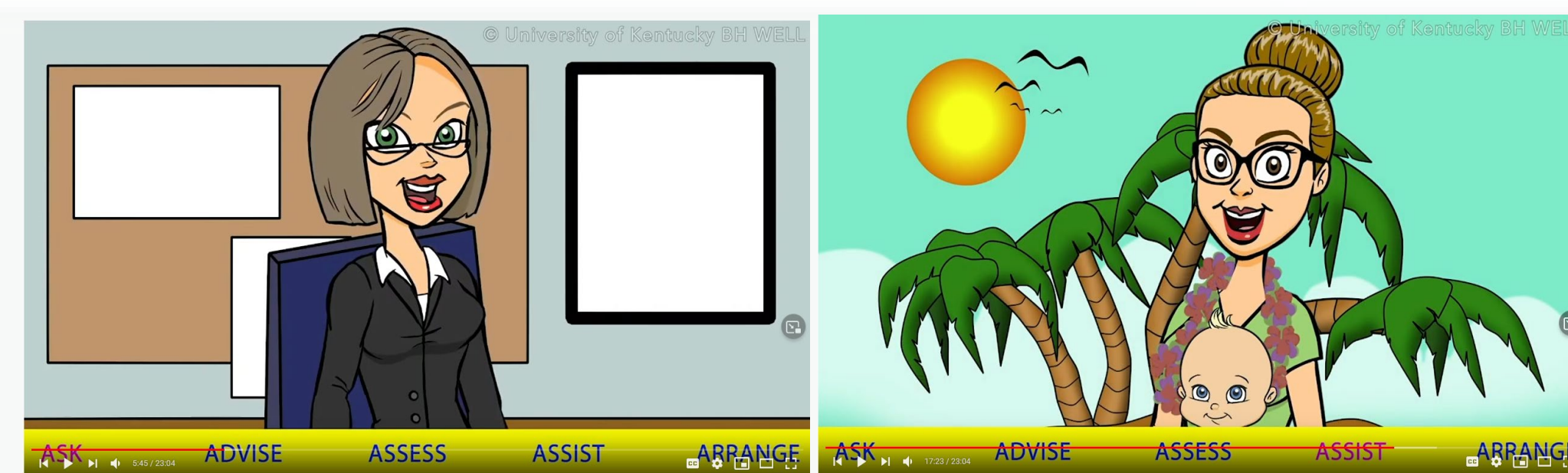


Fig 1d. SUD scenario

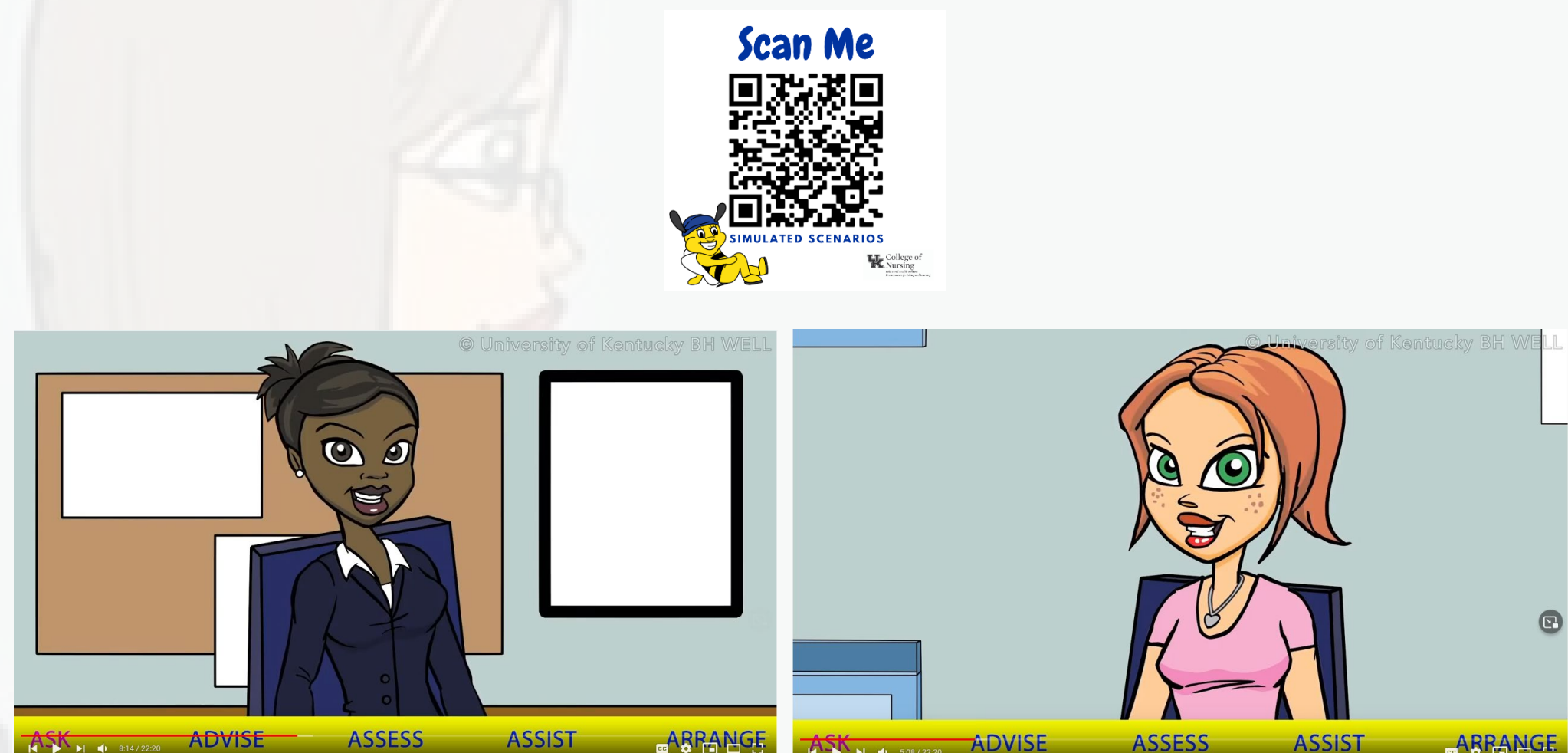


Fig 1c. MDD scenario

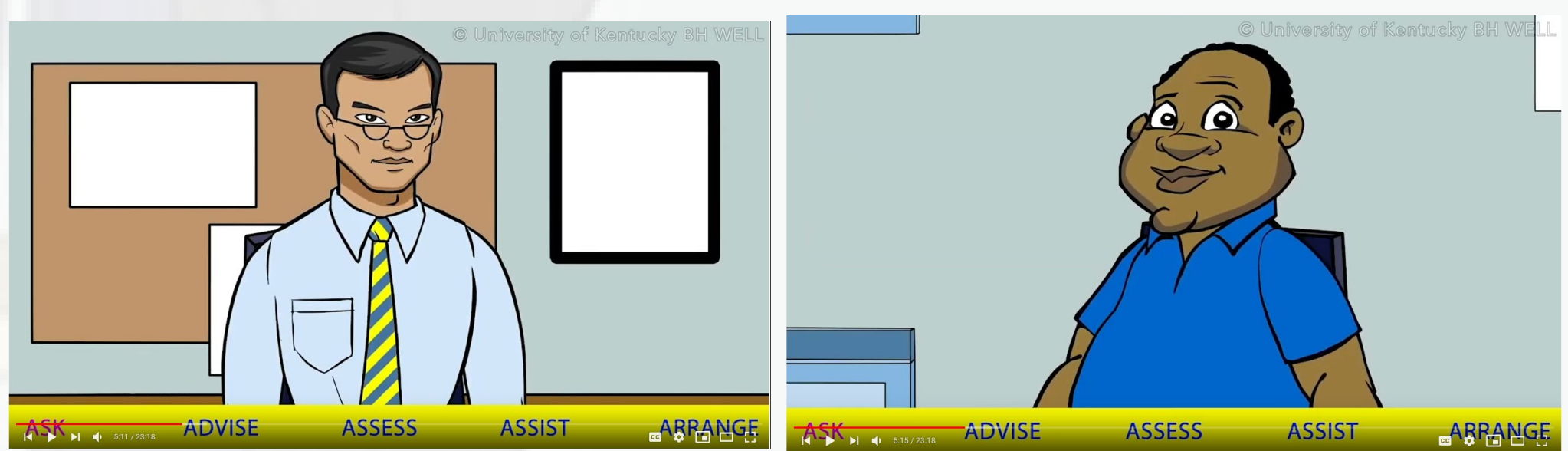


Fig 1b. Schizophrenia scenario

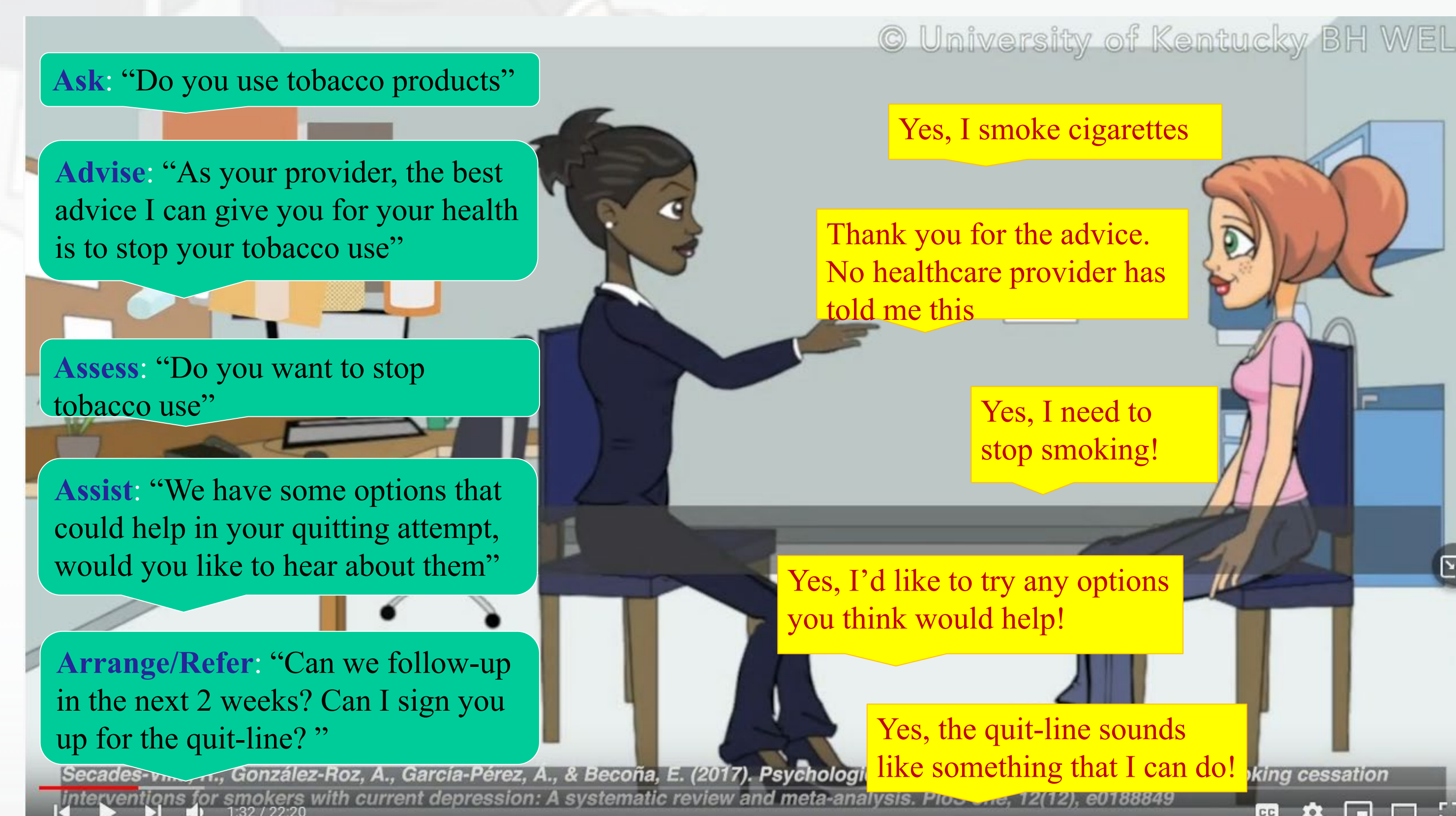


Fig 2. Example of 5 As Intervention Scenario

RESULTS

Phase 2: Scenario Evaluation

- A total of 24 participants completed the pretest-posttest knowledge questions. There was an overall increase in knowledge in tobacco treatment.
- Participants rated positive intentions to provide tobacco treatment after viewing the scenarios (see Table 1)

Table 1. Pretest and Posttest Knowledge of and Intentions to Provide Tobacco Treatment by Scenario

Scenario	N	Setting	Pretest Knowledge score (0-5 scale) Mean (SD)	Posttest Knowledge score (0-5 scale) Mean (SD)	Intention to provide tobacco treatment score (0-4 scale) Mean (SD)
ADHD	9	Outpatient & CMHC	3.7 (0.8)	3.3 (1.1)	2.4 (0.5)
Schizophrenia	6	Inpatient & CMHC	3.5 (1.0)	4.2 (1.2)	2.4 (0.3)
MDD	4	Inpatient & CMHC	3.8 (0.5)	4.3 (1.0)	1.8 (1.0)
SUD	5	CMHCs	3.2 (2.0)	3.6 (1.9)	2.1 (0.7)
Total	24		3.5 (1.1)	3.9 (1.3)	2.2 (0.6)

- Of the 34 participants responding to the evaluation of the different components of the scenario, ratings were above 4.0 (on a scale of 0 to 5) for all components (see Table 2)

Table 2. Evaluation of Intervention Components

Scenario	N	Information Mean (SD)	ASK Mean (SD)	Advise Mean (SD)	Assess Mean (SD)	Assist Mean (SD)	Arrange Mean (SD)	Use of Animation Mean (SD)
ADHD	9	4.3 (0.6)	4.4 (0.7)	4.3 (0.7)	4.3 (0.8)	4.4 (0.8)	4.3 (0.8)	4.5 (0.7)
Schizophrenia	12	4.0 (0.6)	3.8 (0.6)	3.5 (0.7)	4.0 (0.7)	3.8 (0.6)	3.8 (0.6)	3.6 (1.0)
MDD	4	4.1 (0.8)	4.8 (0.5)	4.7 (0.5)	4.6 (0.5)	4.5 (0.6)	4.8 (0.5)	4.5 (0.6)
SUD	9	4.4 (0.6)	4.3 (0.8)	4.6 (0.7)	4.3 (1.0)	4.3 (0.9)	4.3 (0.7)	4.7 (0.4)
Total	34	4.2 (0.7)	4.3 (0.7)	4.3 (0.7)	4.3 (0.8)	4.3 (0.7)	4.3 (0.7)	4.3 (0.7)

IMPLICATIONS

Implications for Psychiatric-Mental Health Nursing:

- Supporting mental healthcare providers in the delivery of evidence-based tobacco treatment is essential to curb the hidden tobacco epidemic among people living with mental illnesses

Implications for Research:

- Future research will test the simulated training scenarios in terms of their reach and tobacco treatment delivery outcomes.

References:

- Sheals, K., Tombor, I., McNeill, A., & Shahab, L. (2016). A mixed-method systematic review and meta-analysis of mental health professionals' attitudes toward smoking and smoking cessation among people with mental illnesses. *Addiction, 111*(9), 1536-1553.
- Foronda, C. L., Fernandez-Burgos, M., Nadeau, C., Kelley, C. N., & Henry, M. N. (2020). Virtual simulation in nursing education: a systematic review spanning 1996 to 2018. *Simulation in Healthcare, 15*(1), 46-54.

Acknowledgement: Research reported in this presentation was supported, in part, by the Cabinet for Health and Family Services, Department for Public Health Tobacco Prevention and Cessation Program under Agreement titled "Enhancing Tobacco Dependence Treatment in Community Mental Health Centers."

Disclaimer: The content is solely the responsibility of the authors and does not necessarily represent the official views of the Cabinet for Health and Family Services, Department for Public Health, Tobacco Prevention and Cessation Program.