



# The Bucket Approach: Developing and Implementing an On-line Training Program in Tobacco Dependence Interventions Tailored for Behavioral Health Clinicians

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## Abstract

People coping with a mental illness and/or addictive disorders have a very high prevalence of smoking cigarettes. The Bucket Approach, a free online training, tailors evidence-based tobacco dependence interventions for behavioral health clinicians to increase the likelihood that they will also address the tobacco use of their patients. From October 2019 through August 2021, 999 people enrolled in and 447 people completed the training. Individuals who completed the training evaluated it highly with an overall mean score of 8.4 (scale = 1 for very poor to 10 for very good). 3- and 6-month follow-up surveys documented continued impact. The training resulted in substantial changes in beliefs about treating tobacco dependence. For example, before training, 18.3% of trainees strongly agreed with the statement, “The skills currently possessed by behavioral health clinicians can be easily applied to the treatment of tobacco dependence.” This increased to 40.7% at the end of training.

**Keywords** Smoking cessation · Tobacco dependence · Behavioral health · Online training · Mental health · Addictions

## Introduction

People coping with mental illness smoke at rates that greatly exceed that of the general population, and they typically smoke more cigarettes per day (Lasser et al., 2000; Lipari & Van Horn, 2017). For example, based on the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) in 2001–2005, when the overall adult smoking prevalence was 15.5%, the smoking prevalence for those with drug abuse or dependence was 53%; psychosis, 50%;

alcohol abuse/dependence, 39%; and major depression, 34% (Smith et al., 2014). In contrast to their higher rates of smoking, the desire of individuals with mental health diagnoses to quit smoking has been comparable to adult smokers overall (Brunette et al., 2019; Prochaska, 2011) and they make as many attempts to quit (Evins et al., 2021). Unfortunately, even though evidence-based tobacco dependence interventions are effective for this population (Fiore et al., 2008), these individuals find it harder to quit. For example, based on the NESARC, the quit rate over 3 years for smokers with no mental illness was 22.3%. In contrast, the quit rate for those with alcohol abuse or dependence was 17.6%; major depression, 16.4%; drug abuse or dependence, 15.4%; and schizophrenia, 12.5% (Smith et al., 2014). This quit rate disparity might, in part, reflect less likelihood that those with mental health diagnoses used an evidence-based cessation method for those quit attempts (Prochaska, 2011). For example, smokers with schizophrenia were less likely than those without schizophrenia to report using pharmacotherapy in past quit attempts [varenicline, 8% vs. 14%; bupropion, 4% vs. 9%; and nicotine replacement therapy (NRT), 15% vs. 25%] (Evins et al., 2021).

There have been substantial efforts to make evidence-based tobacco dependence treatments available through the healthcare delivery system (Baker et al., 2021; Cook et al.,

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2021; Fiore et al., 2021; Fiore et al., 2008; Hurt et al., 2009; Ramsey et al., 2020; Sarna et al., 2020; Trapskin et al., in press; Williams et al., 2021). Unfortunately, these efforts have not typically extended to behavioral health care systems that uncommonly provide cessation treatment programs. Nationally, only 49% of mental health treatment facilities screen for tobacco use and only 38% provide cessation counseling (Marynak et al., 2018). This is disappointing and mental health professional organizations have called for the provision of evidence-based tobacco dependence treatment (American Psychiatric Association, 2009; APA Workgroup on Tobacco Use Disorder & Council on Addiction Psychiatry, 2015) to all clients who smoke. For example, in 2015, the American Psychiatric Association called for all mental health providers to provide the 5As (Ask, Advise, Assess, Assist, and Arrange), which are included in the United States Public Health Service-sponsored Clinical Practice Guideline for Treating Tobacco Use and Dependence (Fiore et al., 2008). While the failure to provide evidence-based tobacco dependence treatment in the behavioral health setting reflects many client, provider, and institutional/systems factors, lack of clinician training, counseling skills, and confidence to provide tobacco interventions are among the most significant barriers (Himelhoch et al., 2014; Malone et al., 2018; National Institute for Health & Care Excellence, 2013).

This article reports on the development and implementation of a tobacco dependence treatment training program tailored for behavioral health clinicians. This training program, called the “Bucket Approach,” addresses the clinician skill deficits identified in the literature and is designed to lead to system changes within behavioral health treatment programs to better address tobacco dependence. It was designed by the first author. (This training is available at: <https://ce.icep.wisc.edu/bucket-approach#group-tabs-node-course-default1>.)

A randomized control trial (RCT) conducted with patients who had significant and persistent mental illness assessed the effectiveness of key motivational treatments before they were included in the Bucket Approach (Christiansen et al., 2018). In that RCT, subjects (N = 222) were people coping with significant and persistent mental illness. They were randomly assigned to either an intervention group or an attention control group. Participants assigned to the intervention group attended four brief, in-person, weekly sessions, that included a motivational element (the Decisional Balance Worksheet (Miller & Rose, 2015)), a practice quit attempt, a smoking reduction plan, and pre-quit cessation medication (nicotine patch). Compared to control participants, smokers receiving the intervention were more likely to be abstinent at the 3-month follow-up (biochemically verified, intent to treat, 8.5% vs. 1.0%, respectively,  $p = 0.01$ ). They were also more engaged in their tobacco use treatment as evidenced by being more likely to accept four more quitting

preparation sessions (intent to treat, 50.8% vs 29.2%, respectively,  $p < 0.001$ ) but were not more likely to call a telephone tobacco quit line.

## Methods

The Bucket Approach was designed to be simple to understand, implement and sustain (Fig. 1). Three straightforward assessment questions lead to a bucket assignment for each patient that guides specific interventions that reflect the current behavioral motivation of the smoker. Bucket A is for those who want to try to quit now. Bucket B is for those not ready to make a quit attempt now but are ready to take some other action (act now) to prepare to quit, to reduce their smoking, or to get control over their smoking. Bucket C is for those not willing to take any action at the current time but are willing to talk about their tobacco use. Finally, Bucket D is for those not even willing to talk about their tobacco use at the current time (Fig. 1).

## Development and Key Training Components

The Bucket Approach was designed for behavioral health clinicians who have little knowledge about treating tobacco dependence. Its development drew from three distinct bodies of literature. The first, literature about evidence-based tobacco dependence treatment especially as it is tailored for this disparate population, established the tobacco intervention taught in the training. This includes interventions for those not yet ready to quit such as motivational interviewing (Apodaca & Longabaugh, 2009; Fiore et al., 2008; Grimshaw & Stanton, 2006; Hughes & Carpenter, 2005; Miller & Rollnick, 2002; Miller & Rose, 2015). Second, the Bucket Approach reflects the application of implementation science principles since the overall goal of the Bucket Approach is for it to be implemented systematically by behavioral health treatment programs (Bauer et al., 2015; Damschroder et al., 2009; Eccles & Mittman, 2006; Greenhalgh & Papoutsis, 2019; MacDonald et al., 2016; Shelton et al., 2018). Consistent with this literature, the Bucket Approach interventions are brief and build upon existing clinician skills. Third, the training reflects literature about what constitutes effective online training since the Bucket Approach was designed as an online training.

The Bucket Approach training explicitly addresses the need to balance fidelity to the program with adaptation to individual program contextual factors (Damschroder et al., 2009). For example, the matching of an intervention to the behavior motivation of the smokers is presented as an important, unmodifiable, core component (fidelity). On the other hand, the staff person who provides the intervention can be adapted to involve any trained member of care delivery

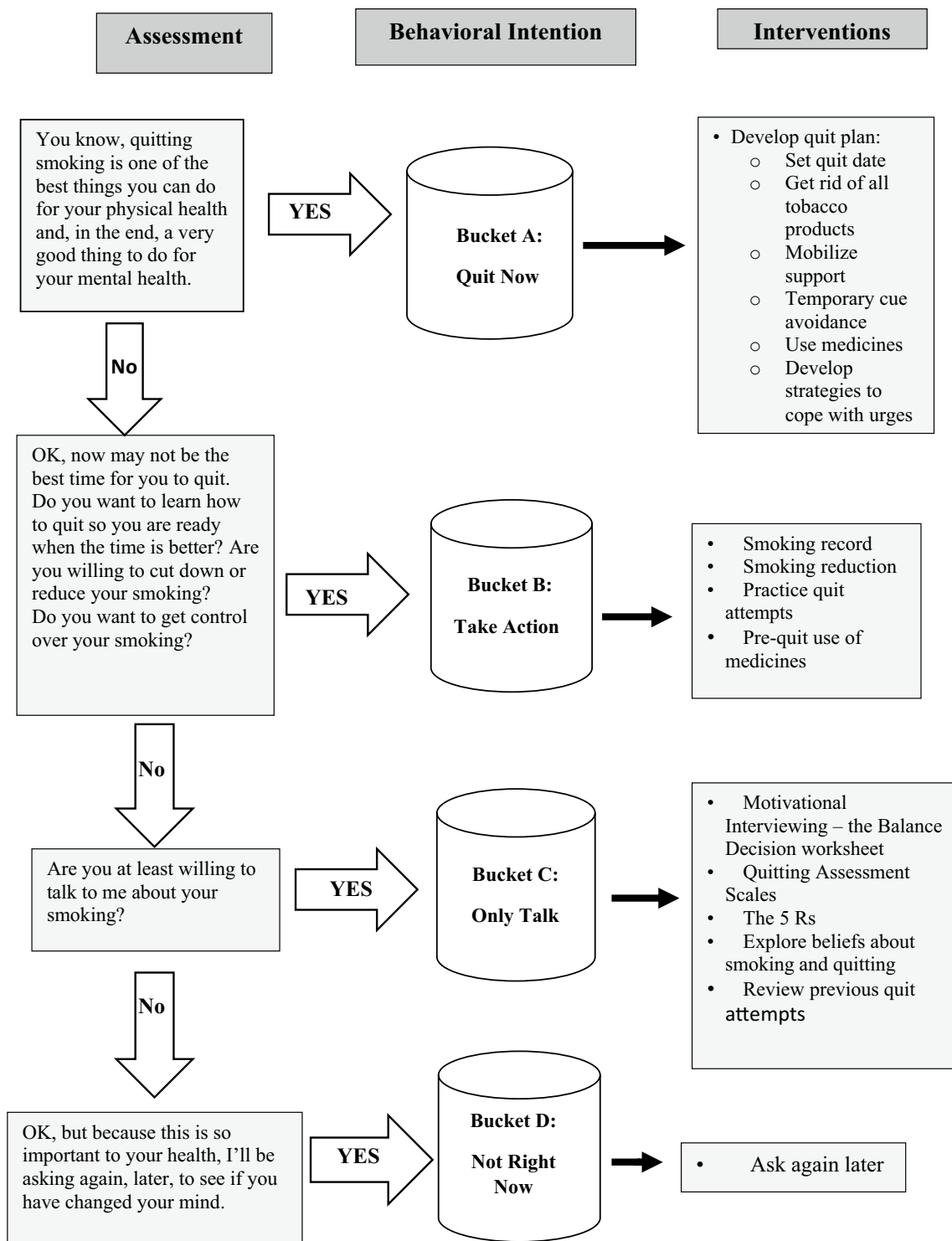


Fig. 1 The Bucket Approach

including nurses and pharmacists. Certified Peer Specialists and Recovery Coaches can also have important tobacco treatment/support roles (adaptability).

Utilizing the literature of effective online training (Ahn et al., 2011; Cooper & Higgins, 2015; Gibson & Dunning,

2018; Pappas, 2016, 2017; Sun et al., 2008; Zomick, 2013a, 2013b), the Bucket Approach uses training videos and online tools so that learners can track their progress and test themselves with periodic quizzes. It provides flexibility for trainees to complete the training at their own pace. Also

utilizing the literature regarding effective online trainings, the Bucket Approach was designed to: be easy to use and practical; have manageable milestones; encourage trainees to finish; and have clear learning objectives. For example, the Bucket Approach training is broken down into fourteen manageable modules that are each followed by a quiz. In the transition between portions of the training, a guide included in the training notes what the learners have completed and encourages them to continue.

### Bucket Approach Description

The Bucket Approach online training consists of two courses. The first presents evidence-based tobacco dependence interventions (Fiore et al., 2008). The second builds upon the evidence reviewed in Course 1 and presents the specific Bucket Approach intervention. The key elements in Course 2 are role-play demonstrations of each intervention with scripts that can be downloaded and used later by the

trainees. This component is designed to build clinician confidence and self-efficacy (a person's belief that they have the capability to achieve some outcome) (Damschroder et al., 2009). Course 2 concludes with system change topics such as balancing fidelity and adaptability, measuring outcomes, and keeping staff motivated. Table 1 presents Course 1 and 2 topics and the duration of each.

### Continuing Education and Sponsorship

The Interprofessional Continuing Education Partnership (ICEP) hosts the Bucket Approach training (Interprofessional Continuing Education Partnership, 2022) and provides continuing education (CE) credit for those who complete the training. ICEP awards up to 8.25 continuing education units (CEs). There is no charge for completing the Bucket Approach training or securing continuing education credits. Trainees can claim physician, nurse, psychologist, social work, or generic CE credit.

**Table 1** Bucket Approach Training Overview

Topic	Duration
1. Introduction/overview/ how to use and navigate	12:37
2. Why don't we treat tobacco dependence when the smoker is affected by a mental illness/substance use disorder?	22:51
I.1 Overview of the 5A's	4:50
I.2 The 5A's for those wanting to quit—counseling	14:06
I.3 The 5A's for those who want to quit – cessation medicines	26:26
I.4 Prescribing considerations for this population	12:36
I.5 The Wisconsin Tobacco Quit Line as a provider extender	18:44
I.6 The 5A's for those who do not want to quit	21:06
I.7 Congratulations for finishing Course One and introduction to Course Two	:42
II.1 Overview and development of the Bucket Approach	20:33
Bucket A	
II (A).1 Bucket A Overview	4:24
II (A).2 Bucket A – Completing a quit plan	42:50
II (A).3 Bucket A– Follow-up on Quit Plan	13:15
Bucket B	
II (B).1 Bucket B overview	4:55
II (B).2 Bucket B—Smoking Journal and follow-up	10:19
II (B).3 Bucket B – Smoking reduction plus pre-quit use of medicines and follow-up	18:21
II (B).4 Bucket B – Practice Quit attempt plus pre-quit use of medicines and follow-up	24:17
II (B).5 Bucket B – Combining smoking reduction and practice quit attempt and follow-up	
Bucket C	
II (C).1 Bucket C overview (and making the assessment)	4:22
II (C).1a Making bucket assessment	3:19
II (C).2 Bucket C – Review past quit attempts	3:36
II (C).3 Bucket C – Explore beliefs about smoking and quitting	12:05
II (C).4 Bucket C – Decisional Balance Worksheet	4:17
II (C).5 Bucket C – The 5R's	7:50
II (C).6 Bucket C – The assessment scales	4:50
The Bucket Approach as a system change and wrap-up	23:56

The State of Wisconsin mental health agency, the Bureau of Prevention Treatment and Recovery (BPTR), promoted the Bucket Approach to all its Community Support Programs, (CSPs) (Wisconsin Department of Health Services, 2021a) and Comprehensive Community Services (CCS) Programs (Wisconsin Department of Health Services, 2021b), and established the Bucket Approach as its evidence-based practice for treating tobacco dependence. CSPs and CCSs (approximately 115 statewide) are behavioral health treatment programs for those in Wisconsin with significant, persistent mental illness (Wisconsin Department of Health Services, 2020). The training was also promoted through relevant list serves to other behavioral health treatment programs in Wisconsin, and to a lesser degree, nationwide.

Trainees are asked to provide demographic information at the time of enrollment. After completing the two courses, they are asked additional evaluation and impact questions. Among the 31 questions after Course 2, 11 questions evaluated the course, six assessed the qualities characteristic of effective online training, eight addressed specific elements of the training, and six asked about opinions regarding treating tobacco dependence. These last six questions were also asked at the time of enrollment. Everyone who completed the training also received a 3-month (nine questions) and 6-month follow-up survey (12 questions). Statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS) (IBM Corporation, 2013). This project was exempt from IRB review because it was an evaluation of an educational/training program (quality improvement (QI)/program evaluation) rather than human subject research.

## Results

### Enrollment/Completion

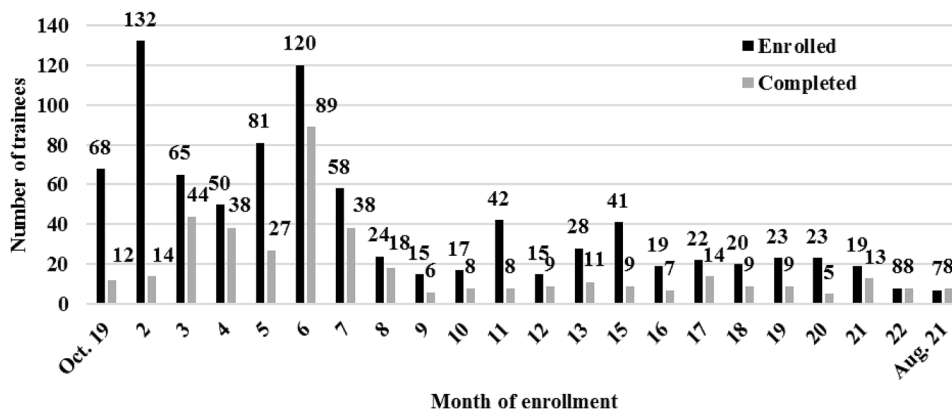
The Bucket Approach training was made available online on October 1, 2020. Data presented in this analysis reflect 999 people who enrolled through August 31, 2021 (192

Wisconsin CSP/CCS staff, 354 other Wisconsin residents and 453 individuals from 41 other states and six other counties). Of these 999 trainees, 447 completed the training (operationalized as claiming CE credits) (44.7%), including 116 Wisconsin CSP/CCS staff (60.4%). Figure 2 displays monthly training enrollment and completion rates. Enrollment peaked soon after the training was available online and again during the period corresponding to the initial months of the Covid-19 pandemic (March and April 2020), when in-person treatment services were greatly curtailed in Wisconsin and nationwide. The completion rate for Wisconsin CSP/CCS staff was significantly higher than the completion rate of non-CSP/CCS (60.4% vs. 31.6%) ( $\chi^2 = 22.83$ ,  $df = 1$ ,  $p < 0.01$ ).

Of those who enrolled in the training, 25.6% were between ages 21–30; 26.7%, 31–40; and 20.5%, 41–50. Most were female (81.6%). Regarding highest level of education, 5.3% completed high school and/or a GED; 41.8% completed their undergraduate education; 41.6% completed a master’s program; and 5.4% held a doctorate degree. Trainees reported a large number of credentials/degrees and multiple credentials. The most reported credentials were BS (15.8%), MSW (12.7%), BA (7.4%), MS (6.4%), MA (5.1%), RN (3.9%) and BSN (3.0%).

Regarding employment setting of trainees, 64.8% worked in behavioral health or a related field; 14.9% worked in a general health or related field; 10.5% worked in tobacco control or related field; and 8.7% worked in none of these fields. Of those who worked in behavioral health, 44.5% worked in a treatment setting that treats both mental illness and substance use disorders; 38.5% in a treatment setting that treats only mental illness; 8.6% in a treatment setting that treats only substance use disorders; 5.3% work in behavioral health but not in a treatment setting; and 3.1% work in an “other type of treatment setting.” Among the roles within a behavioral health setting, those reported at least 1% of the time were: direct patient care, 69.5%; administration/management, 10.2%; support role, 7.3%; peer support/certified peer support specialist/recovery coach, 4.0%; and executive, 1.2%.

Fig. 2 Bucket approach enrollment and completion



Of those trainees who worked in a behavioral health setting, 11.4% reported that they were Certified Tobacco Treatment Specialists (CTTS). Regarding levels of care provided in behavioral treatment settings, 87.8% provided outpatient care; 64.3%, day treatment; 27.9%, residential; 22.9%, inpatient; and 14.4%, detox (Totals exceed 100% because a program can provide care at multiple levels). Trainees were asked for their primary motivations to take the course: 37.6% reported they wanted to learn more about treating tobacco dependence in the behavioral health setting; 25.4% wanted to learn how to help their clients quit smoking; 15.5% were required to take the course; 12.8% reported that their organization is implementing a program to treat tobacco dependence; and 7.2% took the course for the free CE.

### Course Evaluations

Upon completion of the Bucket Approach, trainees were asked to evaluate: the program overall; characteristics of effective online training; and specific training elements, on a scale of 1 (negative) to 10 (positive) (see Table 2). Trainees generally reported high scores (8 or above) in evaluating the program. However the questions, “confidence about using the Bucket Approach in the next month” and “how

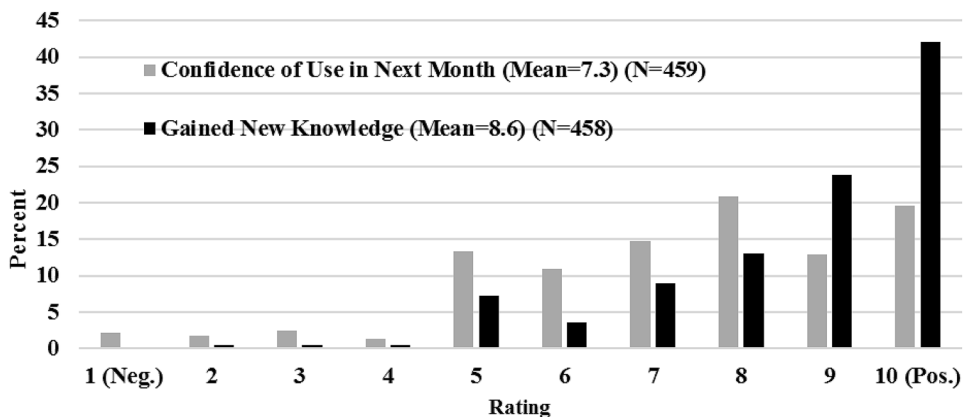
much did your skill improve” were scored somewhat lower (means = 7.3 and 7.8, respectively). Interestingly, the mean score for the amount of skill *improvement* was significantly lower than how *much* such skill was acquired (Mean = 7.8 and 8.5, respectively) (paired t-test = 10.77, df = 458,  $p < 0.01$ ). Characteristics of effective online training and the specific elements of training were also evaluated highly (mean ranges of 7.9 to 8.6 and 7.9 to 8.5, respectively). Figures 3, 4, 5 display the distributions of scores for the highest and lowest scored item from each of the three domains assessed.

Trainees who completed the program ( $n = 447$ ) were asked six questions on a 5-point Likert scale (strongly disagree to strongly agree) regarding their opinions about treating tobacco both at the time of enrollment and after completing training. There were statistically significant changes on all opinions. At baseline, 29.8% of trainees strongly agreed that treating tobacco dependence should be a priority in behavioral health settings. This increased to 44.6% after training ( $X^2 = 32.2$ ,  $df = 4$ ,  $p < 0.01$ ). Before training, 33.2% of trainees strongly agreed that treating tobacco dependence is in the scope of behavioral health clinicians. This increased to 49.8% after training ( $X^2 = 33.6$ ,  $df = 4$ ,  $p < 0.01$ ). The percent who strongly agree

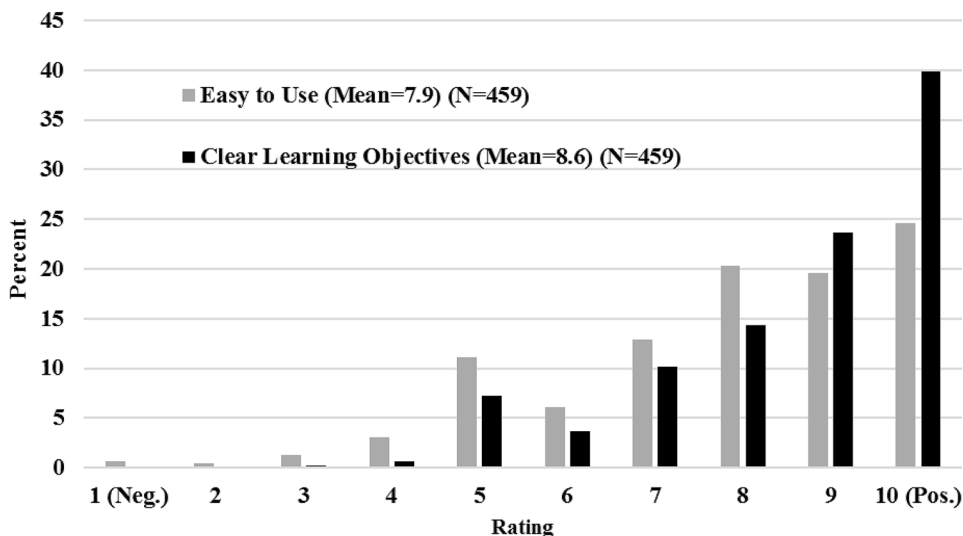
**Table 2** Evaluation after Training on a 1 (Negative) to 10 (Positive) Scale

	Mean	Standard deviation
Overall Evaluation		
I gained new knowledge about how to treat tobacco dependence	8.6	1.65
I learned new skills about treating tobacco dependence	8.5	1.70
What is your overall rating of course 2?	8.4	1.74
Would you recommend course 2 to others?	8.4	1.83
How much did your skill to treat improve?	7.8	1.91
How much confidence do you have that you will use what your learned in the next month?	7.3	2.18
Characteristics of effective online training		
Clear learning objectives	8.6	1.59
Clear road map	8.5	1.66
Manageable milestones	8.4	1.72
Encouragement to finish	8.1	1.99
Real world	8.1	1.84
Easy to use	7.9	1.96
Training elements		
Bucket approach diagram	8.5	1.81
Implementation roadmap	8.3	1.86
Outcome measurement form	8.2	1.91
Demonstration videos	8.1	2.07
Scripts	8.1	2.12
Fidelity measurement form	8.0	2.05
Quizzes	8.0	1.98
Promotional material to download	7.9	1.86

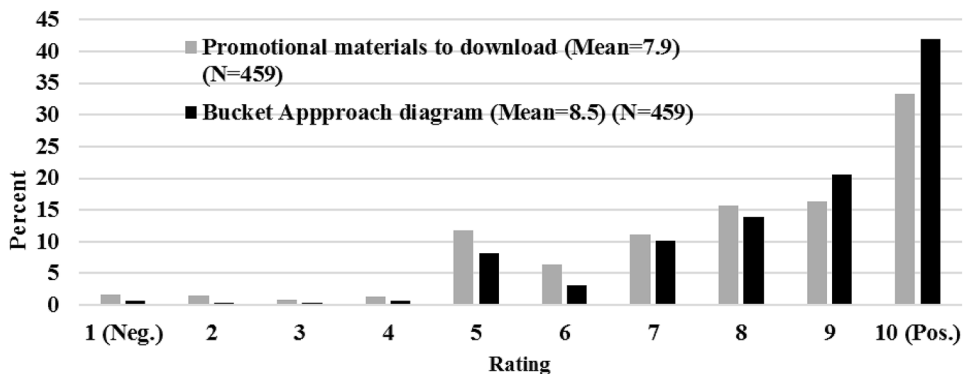
**Fig. 3** Overall evaluation items with the highest and lowest mean score



**Fig. 4** Desirable on-line training characteristics that had the highest and lowest mean score



**Fig. 5** Training elements that had the highest and lowest mean score



that “The skills currently possessed by behavioral health clinicians can be easily applied to the treatment of tobacco dependence” increased from 18.3% to 40.7% ( $X^2 = 72.5$ ,  $df = 4$ ,  $p < 0.01$ ). The percent who strongly agreed to the statement, “All behavioral health treatment programs should provide tobacco dependence treatment” increased from 25.1% to 42.5% ( $X^2 = 46.8$ ,  $df = 4$ ,  $p < 0.01$ ).

### 3- and 6-Month Follow-up Survey Results

Individuals who completed the training were asked to complete surveys 3 and 6 months after completing the training. The return rate for the 3-month survey was 11.9% (50/417) and 12.3% for the 6-month survey (47/381). Trainees reported that they continued to benefit from the training

over time. For example, 68.8% at 3 months and 68.2% at 6 months reported that they have most or all the skills they need to treat tobacco dependence. At 3 months, 64.3% and at 6 months, 56.6% judged the training as very or extremely useful/effective. There was also evidence that trainees are providing the Bucket Approach tobacco dependence interventions after completing training. At 3 months, 22.2% and at 6 months, 35.0% of trainees reported providing interventions frequently and on a regular basis or at every opportunity. At 3 months, 38.1% and at 6 months, 41.5% of clinicians reported that the Bucket Approach is benefiting their clients somewhat or a lot.

In contrast, while trainees reported that their clinics were doing more at the time of the survey than before training (22.7% a fair amount more or a lot more at 3 months and 32.5% at 6 months), there was less progress implementing the Bucket Approach as a system change. At 3 months, 61.9% reported that there had been no efforts to implement the Bucket Approach or efforts taken had failed. Importantly, that disappointing statistic fell to 48.8% at 6 months, suggesting that over half of the systems were beginning to implement the bucket approach. With one exception, there were no statistically significant changes between 3- and 6-month survey results suggesting little or no reduction in Bucket Approach impact among the small percentage of respondents who completed the follow-up surveys. The one exception was the overall evaluation of the Bucket Approach training. At 3 months, 95.8% of trainees rated the training as somewhat, very, or extremely effective. This fell to 76.2% at 6 months ( $X^2 = 11.11$ ,  $df = 4$ ,  $p = 0.025$ ). When clinicians were asked to compare 6 months to 3 months directly as part of the 6-month survey, 23.2% reported that they were using what they learned somewhat or far more often, 21.5% reported that they provided a bucket-appropriate tobacco dependence intervention somewhat or far more often, and 32.5% reported that their clinic was doing more to address tobacco at 6 months than at 3 months. This suggests a growing impact of the Bucket Approach training among survey respondents.

## Discussion

Over its first 23 months, 999 people enrolled in the Bucket Approach training and 447 completed the training (44.7%). Enrollees were predominately female (81.6%). This is consistent with the proportion of CSP/CCS therapists who are women and the proportion of women in the general behavioral health field. For example, 89.9% of social workers are women (Salsberg, et al., 2020). Those completing training evaluated it very highly and reported that it provided the knowledge and skills needed to treat tobacco dependence. However, trainees were somewhat less confident about using

what they learned in the next month. Trainees also reported that the Bucket Approach demonstrated characteristics desirable for online training such as clear learning objectives and encouragement to finish. Importantly, the training resulted in large shifts in opinions favorable to providing tobacco dependence interventions. While the interpretation of findings was limited by low response rates (around 11–12%), follow-up at three and 6 months found substantial use of the Bucket Approach and little reduction in impact over time. However, successful implementation of the Bucket Approach as a system change was more limited.

The Covid-19 pandemic began shortly after the training was made available and continued throughout the 23 months of data collection. During the initial months of the pandemic, behavioral health staff were not allowed in their offices, contact with clients was greatly restricted, and protocols for telehealth were not yet widely implemented. Engaging in online training, such as the Bucket Approach, was one of the few activities still permitted and could explain the spike in enrollment and completions during these months. Thus, Covid-19 makes interpretation of the evaluation results challenging. For example, among the overall evaluation questions, trainees gave the lowest relative rating to “How much confidence do you have that you will use what you learned in the next month?” (Mean = 7.3). This relative lack of confidence could reflect the uncertainty about providing behavioral health care during the pandemic. Likewise, the relative lack of progress implementing the Bucket Approach as a system change revealed in the follow-up surveys could reflect a reluctance to implement any new initiatives during the pandemic.

The Bucket Approach training was designed for people working in the behavioral health care setting who have limited skills for treating tobacco dependence. It is not a training for clients about how to quit using tobacco products. Yet the Bucket Approach training attracted trainees well beyond the behavioral health field; 14.9% of trainees were from other healthcare fields. It also attracted trainees with considerable knowledge about and skill treating tobacco dependence. At the time of enrollment, 23.2% of trainees said they had “quite a lot of knowledge about treating tobacco dependence” and 2.5% reported that they were an “expert”. Of the 773 trainees who worked in behavioral health, 74 were Certified Tobacco Treatment Specialists (Council for Tobacco Treatment Training Programs, 2020). Some of them responded in the written comment section of the evaluation that the Bucket Approach training was a good refresher course. This suggests that the Bucket Approach training may be useful for healthcare providers outside of behavioral health.

While the course completion rate (44.7%) compares favorably to the median completion of open online courses (12.6%) (Jordan, 2015), results suggest how this rate could



be improved. Specifically, this training was promoted by the State of Wisconsin mental health agency to CSPs/CCSs and the completion rate for Wisconsin CSP/CCS staff was nearly twice that of other trainees (60.4% vs. 31.6%). This suggests that institutional encouragement and support for training seems may be an effective way to increase training completion.

The Bucket Approach training has several characteristics designed to increase the likelihood of being implemented in the behavioral health setting. Implementation science (Damschroder et al., 2009) says that self-efficacy about learning/using a new intervention is important for the successful implementation of that new intervention. The Bucket Approach training produced a sizable increase in the proportion of trainees who strongly agreed that the skills currently possessed by behavioral health clinicians can be easily applied to the treatment of tobacco dependence. This belief should increase self-efficacy. Research has documented that a new intervention should be compatible with the clinic setting in which it is implemented (Damschroder et al., 2009). There was a large increase in the percent of trainees who strongly agreed: that treating tobacco dependence should be a priority in behavioral health; all behavioral health treatment programs should provide tobacco dependence treatment; and treating tobacco dependence is in the scope of behavioral health clinicians. This suggests that the Bucket Approach is compatible with the behavioral health setting. Implementing simple interventions is preferable to implementing complex interventions (Damschroder et al., 2009). In this context, it is noteworthy that the Bucket Approach diagram itself received the highest rating among the eight training elements tested. Recognition of the value of a single diagram that illustrates the needed assessment and directs the user to assessment-specific, brief tobacco interventions underscores its simplicity.

This project has limitations. Most importantly, the evaluation relied upon self-report. Adding a pre- post-test of knowledge acquisition would be helpful. Evaluation data could be corroborated with other sources of information. For example, reports about how often the Bucket Approach was being used at 3 and 6 months could have been corroborated with information extracted from clinical records. If this training is sponsored by a clinical organization as suggested, it could collect additional corroborating information such direct observations of Bucket Approach use and assessments of client perceptions. Also, the follow-up in this evaluation was limited to 6 months. A longer follow-up is required to measure sustaining the Bucket Approach interventions. Finally, the response rate for the 3- and 6-month follow-up evaluation was low (11.9% and 12.3% respectively). The positive effects reported by those who completed the follow-ups may not be representative of the experiences of other trainees and results may not generalize to all behavioral

health clinicians. Perhaps future research can achieve a higher rate of follow-up by providing incentives to complete follow-up information.

There are several potential next steps and future directions. First, it will be important to continue the evaluation of the Bucket Approach training to untangle the confound of the training implementation with the delivery of health care during Covid-19. Second, the impact of the Bucket Approach should be studied relative to the downstream target population—individuals coping with significant mental illness or addictions who also smoke. This would include assessing the perceptions of those receiving the Bucket Approach interventions. The Bucket Approach should increase the therapeutic bond and working alliance between therapist and client regarding tobacco use. The Working Alliance Inventory for Tobacco (WAIT) (Warlick et al., 2018), which has validity when used with smokers receiving care for a mental illness (Christiansen et al., 2021), could be used to test this hypothesis. Third, a comparison group of treatment programs could be added to this evaluation by providing the Bucket Approach to some treatment programs but not to others. Comparisons could then be made between treatment programs that received training and those that did not on the provision of evidence-based tobacco dependence interventions and changes in client smoking (changes in bucket assignment over time, quit attempts, smoking reduction, and successful quitting). Fourth, while the Bucket Approach is appropriate for both smokers coping with a mental illness and those coping with an addiction, additional training content might benefit this latter group. The prevalence of smoking among addiction counselors is higher than other health care providers. For example, the smoking prevalence amongst addiction counselors was reported as 22.9% by clinic administrators (Guydish et al., 2017) compared to 8% amongst psychologists (Hjalmarson & Saloojee, 2005). Perhaps reflecting this high prevalence, 39.4% of clients receiving addiction treatment report that staff and clients smoke together (Guydish et al., 2017). If addiction treatment programs are to implement the Bucket Approach successfully, training should address how clinic administration can address the smoking of their clinicians. Also, few individuals entering addiction treatment expect to receive treatment for tobacco dependence and may fail to understand the relevance and importance of treating all their co-occurring addictions at once, including tobacco dependence. Training about how addiction counselors can help clients understand the connection between their addiction to tobacco and their addiction to other substances and how addressing the former improves outcomes for the latter may be helpful.

In summary, the Bucket Approach tailors evidence-based tobacco dependence interventions to the behavioral health care setting, the clinicians working in those settings, and smokers seeking care in those settings. The online Bucket

Approach training has been well received by the many individuals who enrolled in and completed the training. Their evaluations of the training have been positive. The Bucket Approach achieves those characteristics thought important for effective online training programs and it reflects implementation science. Follow-up surveys completed by trainees document continued impact and substantial use.

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**Data Availability** Data and materials are available upon request from the first author, Bruce Christiansen.

## Declarations

**Conflict of interest** The authors have no relevant financial or non-financial interests to disclose.

**Ethical Approval** As Quality Improvement (QI) /Program Evaluation, (evaluation of an educational/training program) this project was not human subject research and was exempt from IRB approval.

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