

Using Behavioral Skills Training to Teach Peer Support Workers to Respond to a Boundary Crossing

By
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Abstract

Peer support is an evidence-based model of care for people living with a mental illness and/or substance use disorder. Peers, who are people living with a mental illness and/or substance use disorder, use their lived experience and training to support people in recovery. Training programs teach peers the necessary competencies to successfully complete their jobs, including those skills related to ethics. However, previous peer training programs vary in teaching procedures and evaluation approaches. Moreover, few previous peer training programs require peers to practice workforce skills of interest to a set criterion when learning to be a peer support provider. One important skill peers need to have in their repertoire is boundary setting when presented with an ethical violation. Behavioral skills training (BST), which is an evidence-based training procedure, entails instructions, modeling, role play, and feedback. The current study used a group BST to teach peer support workers to set a boundary by reflecting back the need, stating that they cannot engage in the requested behavior, and redirecting to an appropriate resource or response. A nonconcurrent multiple baseline design across participants was used to examine the effects of group-based BST on boundary setting. Results indicate that four out of five participants met the mastery criterion after additional experimenter feedback. Participants found the training acceptable and noted that role play was the most valuable aspect of the training. This research extends the BST literature to a novel population and skill.

Keywords: behavioral skills training, boundaries, ethics, peer support

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Using Behavioral Skills Training to Teach Peer Support Workers to Respond to a Boundary Crossing

Mental health and substance use—or behavioral health (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019a)—needs are a significant public health challenge in the United States (US; American Public Health Association [APHA], 2020; Centers for Disease Control and Prevention [CDC], 2005; Healthy People 2020, 2020). People who are living with a mental illness, about 1 in 5 adults in the United States (SAMHSA, 2019b), have a median reduction in life expectancy of 10.1 years (range, 1.4-32 years; Walker et al., 2015). The number of deaths directly caused by a drug overdose (excluding excessive alcohol use) is on an overall increasing trend since 1990, and in 2018, 67,367 people died in the US from a drug overdose (Hedegaard et al., 2020; Ritchie & Roser, 2019). Furthermore, an average of 95,138 people a year die in the US because of excessive alcohol use (Esser et al., 2020). In total, about 1 in 12 adults in the US lives with a substance use disorder and 7.9 million adult Americans are living with both a mental illness and a substance use disorder (SAMHSA, 2019b). Finally, substance use costs the US \$740 billion a year due to crime, health care, and lost work productivity (National Institute on Drug Abuse [NIDA], 2020), and serious mental illness costs approximately \$193.2 billion a year because of lost earnings (National Alliance on Mental Illness [NAMI], 2019).

A number of empirically based interventions and practices address behavioral health needs. For example, contingency management—a treatment method that involves paying people for staying abstinent from a substance—is effective in reducing the use of a number of substances, including cocaine (McDonell et al., 2013, Minozzi et al., 2016) and alcohol (Petry et al., 2000; Prendergast et al., 2006). The Community Reinforcement Approach (CRA), which is a

model that combines such procedures as a functional assessment of substance use, job skills training, and relationship counseling, is frequently paired with contingency management. The combination of CRA and contingency management is effective in reducing substance use as well (Budney et al., 1991; De Crescenzo et al., 2018; Meyers et al., 2011). Various medications are also effective at treating substance use disorders. For example, naltrexone, acamprostate, and disulfiram are all FDA-approved to treat alcohol abuse (NIDA, 2019). Other medications, including selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs), can be combined with other treatments to help manage mental health symptoms (National Institute of Mental Health [NIMH], 2016). Acceptance and Commitment Therapy, which combines mindfulness and behavior change strategies (Hayes et al., 2005), is efficacious across a range of conditions, including behavioral health, and has demonstrated significant improvements in outcomes related to depression, anxiety, and substance use (Gloster et al., 2020). Although a full review of mental health and substance use treatments is beyond the scope of this paper, there are a plethora of other treatment options, including 12-step programs (Kelly et al., 2020), motivational interviewing (Rubak et al., 2005), and cognitive behavioral therapy (Hofmann et al., 2012).

Behavioral health needs are complex; therefore, one single intervention may frequently not be enough for a person to experience lasting positive outcomes. In addition to the above-mentioned interventions, the use of peer support is a recommended approach to help people in recovery (Yam et al., 2018). Peer support workers, or simply peers, are people who are in long-term recovery from a mental illness and/or substance use disorder and use their lived experience to help others on their recovery journey (SAMHSA, 2020). Peers use insights gained from navigating similar situations to engage with community members and support them on their

recovery path. Peer roles and responsibilities vary depending on their location, but frequently peers are responsible for helping community members connect to resources, advocating for them, building their skills, and listening to community members' stories while sharing their own (Cronise et al., 2016; Jacobson et al., 2012). There is moderate evidence that peer support increases engagement in care, sense of hope, and social networks and decreases inpatient and emergency service usage for people living with a mental illness (Chinman et al., 2014; Davidson et al., 2012; Pitt et al., 2013; Walker & Bryant, 2013). Additionally, peer support significantly increases self-efficacy for patients living with a mental illness (Mahlke et al., 2017). There is also moderate evidence that peer support reduces relapse and increases satisfaction in treatment for people living with substance use disorders (Reif et al., 2014). Peer support was designated an evidence-based model of care and has been Medicaid reimbursable since 2007 (Smith, 2007).

To produce the above benefits, peers need to use a number of skills in addition to their lived experience. In fact, the National Rehabilitation Information Center furthers the definition of "peer providers" by noting that peers use their lived experience along with training and support to provide people with similar lived experience coaching (National Rehabilitation Information Center [NARIC], 2019). The necessary skills peers need to be successful, including the ability to listen, tell their story, and help someone in crisis, are outlined in SAMHSA's core competencies for peer providers (SAMHSA, 2015). Peers learn these skills through a certification process and through additional training. The certification process for peers varies from state to state (Doors to Wellbeing, n.d.; Kaufman et al., 2016), and these certification processes only cover basic skills (Salzer et al., 2010). Therefore, peers require additional training on top of the certification process. Additionally, peers must learn to behave ethically and in accordance with various ethical codes of conduct, such as the National Certified Peer Recovery Support Specialist

(NCPRSS) Code of Ethics (National Association for Alcoholism and Drug Abuse Counselors [NAADAC], n.d) and the State of Kansas Certified Peer Specialist Code of Ethics (Kansas Consumer Advisory Council for Adult Mental Health, n.d.). Example codes include maintaining confidentiality, setting clear boundaries, refraining from using undue influence, and ensuring peers never engage in a conflict of interest. These codes of ethics ensure peers are behaving in the best interest of those with whom they are working.

A systematic review (Schulz, 2020; Appendix A) identified the training procedures used to teach peers, evaluation methods to assess training, and what topics training covered to identify gaps in the extant peer training literature. Peer training programs used a number of teaching procedures to teach peers skills, including role play, discussion, and traditional lectures. However, the training literature lacked technological details in the method sections and did not report fidelity data to ensure experimenters implemented the training as described. Training programs were primarily evaluated by their effect on subjective measures relating to how peers felt about themselves rather than the skills taught in the training, and no study measured actual peer performance. These identified limitations provide an opportunity for improvement in peer training, specifically around using evidence-based procedures that are implemented with fidelity and measure peer performance on job skills.

Behavioral Skills Training

Behavioral skills training (BST) is an empirically based training procedure rooted in behavior analysis that is composed of written instructions, modeling, role play, and feedback (Dib & Sturmey, 2012; Miltenberger, 2016; Parsons et al., 2012) that may be able to address some of the limitations listed above. A variety of studies have demonstrated the effectiveness of BST across settings, behaviors, and populations (see Table 1). For example, BST has previously

been effective at teaching gun safety skills to children (Lee et al., 2019, Miltenberger et al., 2004), soccer skills to children with and without autism (Chambers & Radley, 2019; Quintero et al., 2020), and interview skills to people with disabilities and college students (Roberts et al., 2020; Stocco et al., 2017). It is important to note that before the implementation of BST steps, trainers must identify the goal of the training and operationalize the skill they will teach (DiGennaro Reed et al., 2013). Additionally, after BST trainers should provide ongoing support in the form of observation, progress monitoring, and feedback (DiGennaro Reed et al., 2018).

Instruction

BST begins with instruction. These instructions should be brief and clear and can be either written or vocal, or both (DiGennaro Reed et al., 2018; Lerman et al., 2015). Frequently, trainers provide a rationale for the skill as well (Reid et al., 2011). Although instructions have been shown to increase skills to some extent, instructions alone are less effective than other teaching methods and therefore should be combined with other teaching procedures (DiGennaro Reed et al., 2013; Ducharme & Feldman, 1992).

Modeling

Modeling is the next step of BST and involves correctly demonstrating the skill. Trainers can model the skill either live or through the use of video modeling (DiGennaro Reed et al., 2013; Lerman et al., 2015). Video modeling has been used to successfully teach skills in a number of studies, such as discrete-trial training (Catania et al., 2009), preference assessments (Lavie & Sturmey, 2002), and functional analysis procedures (Moore & Fisher, 2007) to direct-service staff. Advantages of video modeling include better control over the model's performance and pace of the instruction, the ability to reuse the videos, and the opportunity to allow trainees to keep the videos after training (DiGennaro Reed et al., 2013). The modeling portion of BST

can also include a discussion on parts of the skills implemented correctly and incorrectly (Lerman et al., 2015).

The number of models used varies from study to study. For example, Clayton and Headley (2018) modeled five trials before moving to feedback and rehearsal. These researchers repeated this modeling as necessary for no more than 10 minutes. Catania et al. (2009) modeled 11 trials in a video that lasted 7 min and 15 sec, whereas Moore and Fisher (2007) used a total of 6 videos. Erath et al. (2020) modeled three exemplars. Others have provided modeling for a set amount of time. For example, Hogan et al. (2014) modeled a behavioral intervention plan for 5 min before moving to role play and feedback. The researchers repeated this sequence until participants met mastery criteria. Overall, it is important that the skill is modeled correctly a number of times and with various performers (DiGennaro Reed et al., 2013; Lerman et al., 2015).

Role Play

The next component of BST is role play. In this component, trainees perform the training skill as if they were in the real world (DiGennaro Reed et al., 2013). Similar to the number of models, the number of role plays trainees engage in until they move to posttraining assessment varies. Many studies take a competency-based approach and require trainees to engage in role plays until they meet a mastery criterion, such as 85% correct for two consecutive sessions (Lavie & Sturmey, 2002) or 5 consecutive trials correct (Clayton & Headley, 2019), while others allow trainees to practice until they state that they feel comfortable (e.g., Erath et al., 2020). However, the use of one rehearsal with feedback until mastery criterion is met is the most efficient (Jenkins & DiGennaro Reed, 2016).

Feedback

The final component of BST—feedback—is provided during the role plays. Trainers provide praise for steps correctly completed and corrective feedback for steps incorrectly completed (DiGennaro Reed et al., 2013; Lerman et al., 2015). Typically, the trainers provide the feedback. However, a recent study by Erath et al. (2020) required fellow participants to provide feedback in “peer dyads.” Participants in this study still demonstrated increases in skill performance. This method may be advantageous in that it can reduce the number of resources needed for a training while providing participants with more opportunity to practice.

BST and Employment Behaviors

BST has been successful at teaching a number of employment skills. These skills generally relate to the human service industry, especially employees who work with people with developmental disabilities. For example, BST has been used to teach employees how to conduct discrete-trial training (Catania et al., 2009; Clayton & Headley, 2019; Hillman et al., 2021; Sarokoff & Sturmey, 2004), preference assessments (Lavie & Sturmey, 2002), functional assessments (Moore & Fisher, 2007), the Picture Exchange Communication System (Homlitas et al., 2014; Wood et al., 2007), and how to reinforce appropriate behaviors, correct errors, and initiate opportunities for students (Palmen et al., 2010). BST can also be used to teach other job skills, such as how to receive feedback (Ehrlich et al., 2020). Overall, BST is an effective intervention at teaching a wide range of employment skills.

BST and People Living with Mental Illness and/or Substance Use Disorder

A few studies in the behavior analytic literature use BST with people living with a mental illness and/or substance use disorder. For example, Brazeau et al. (2017) used BST in conjunction with defusion and mindfulness to teach interview skills to people who are dually diagnosed with a mental illness and a developmental disability. Outside the behavior analytic

literature, training procedures that are sometimes called behavioral skills training and sometimes just describe the components of BST are frequently used. For example, instructions, modeling, role play, and feedback have been used to teach relapse prevention skills to people with a mental illness (Ridgely & Jerrell, 1996) and various skills to avoid substance use (e.g., saying “no” to substances, problem solving) to people who abuse drugs (Hawkins et al., 1986). Additionally, Marder et al. (1991) used a behavioral skills training program to teach medication and symptom management skills to people with schizophrenia. A common thread among these studies is that they usually use BST components to teach people living with mental illness and/or a substance use disorder recovery or social skills. Overall, it is clear that researchers implementing BST can successfully teach skills to people living with a mental illness and/or substance use disorder.

BST has shown to be successful at teaching skills across a wide range of settings, populations, and behaviors, including a number of employment behaviors and to people living with a mental illness and/or substance use disorder. However, there remains opportunity to extend the generality of BST. Specifically, BST has not been used to teach job skills to peer support workers. Additionally, Lerman et al. (2015) note that formal training in ethics is an important, yet often overlooked, topic for people who work with others. These researchers further note that ethical training should provide trainees with ethical scenarios that can be discussed, modeled, and role played. BST may therefore be an effective method to teach ethical skills.

Boundaries

Setting boundaries is an example of an important ethical and professional issue for all helping occupations, including peer support, on which training can be facilitated. Peer training programs frequently cover boundary issues (Compton et al., 2014; Fan et al., 2018; Franke et al.,

2010; Hutchinson et al., 2006; Schulz, 2020), and peers note that having clear boundaries is valuable in helping to clarify roles (Faulkner & Basset, 2012). The definition of a boundary varies, but generally a boundary relates to what is acceptable for a professional to do. There are professional—codes based on standards of a field—and personal—moral codes based on a person’s history—boundaries (Doel et al., 2009). Boundaries usually exist where there is a power imbalance between two people (Kendall, 2011) and White et al. (2007) note that boundaries issues relate to decisions that affect a relationship’s intimacy. Boundary crossings then involve an act that is not acceptable for a professional to do or that is counter to a person’s professional or personal code such as giving a community member money or sharing their personal phone number. Crossing these boundaries can lead to harm for both the client and the practitioner, including a loss of trust or increased dependence on the practitioner. It should be noted that some authors differentiate between a boundary violation and a boundary crossing (Glass, 2003; Gutheil & Gabbard, 1993); however, this nuance goes beyond the scope of the present study. Therefore, boundary terminology will match the literature being summarized and the use of the terms boundary crossing, boundary violation, or boundary issue will be used interchangeably in the narrative for the remainder of this paper. Broad examples of boundary issues in addition to those listed above relate to dual and/or inappropriate relationships, inappropriate self-disclosure, having business transactions with a client, giving or receiving gifts, and operating outside of one’s area of competence (Bailey & Burch, 2016; Strom-Gottfried, 2000; White, 2004; White et al., 2007).

Due to the wide range of definitions around boundaries and differences in fields, it is difficult to pinpoint how often boundary transgressions occur for various professions (Doel et al, 2009). However, Pope and Vetter (1992) found that incidents relating to maintaining appropriate

boundaries were the second most reported ethical issue in a national survey of American Psychological Association members. Additionally, Strom-Gottfried (2000) found that boundary violations were the most frequent ethical complaint filed to the National Association of Social Workers. Finally, by some estimates, boundary crossings with peers, or at least what may be considered a “minor” violation (e.g., demanding a peer set up a cell phone for the community member, asking intrusive questions) are crossed on the majority of shifts (T. Bird, personal communication, October 25, 2020).

The ability to discriminate and set boundaries, and therefore avoid a boundary violation, is important for a number of reasons. First, boundary violations can put organizations and practitioners at legal risk. Legal risk can occur for a number of reasons, such as confidentiality breaches that may lead to inappropriate disclosure of information (Bonosky, 1995; Fronek et al, 2009; Reamer, 2001; Simon, 1992). Second, boundary issues can negatively affect public trust in an organization (Aravind et al., 2011). Third, boundary violations can result in psychological distress for both practitioners and clients (Bonosky, 1995; Fronek et al, 2009; Reamer, 2001). Finally, even minor boundary violations can be problematic, as they can lead practitioners down the “slippery slope” to more serious violations (Aravind et al., 2011; Doel et al., 2009).

To avoid the negative effects of boundary violations, it is imperative to train people on how to appropriately respond to a client attempting to cross a boundary. Boundary issues are generally taught to students during coursework and to professionals through training. A focused search of the literature reveals that there have been a few peer reviewed articles that discuss boundary training, as seen in Table 2. These training sessions are administered to various health professionals, such as doctors, social workers, psychologists, and nurses. The training programs described frequently use a number of learning activities, including small and large group

discussion, didactic lecture, and scenario feedback to teach about boundary crossings.

Importantly, no studies reviewed summarized specific steps describing behavior one should emit when responding to a person who is committing a boundary violation. Finally, researchers usually assess these training courses with a questionnaire, which may assess trainees' attitudes or knowledge of boundaries and comfort level of addressing a violation. No study reviewed described an appropriate instrument to measure responses to a boundary crossing.

Although none of the above studies provide specific behaviors to emit when confronted with a boundary crossing, a few of the studies did teach trainees specific steps to engage in when presented with a general ethical dilemma. For example, both Fronek et al. (2009) and Fronek and Kendall (2017) taught the following steps: (a) describe the problem, (b) identify relevant guidelines related to the scenario, (c) come up with options to respond, (d) test the options, and (e) pick a course of action. Likewise, Davidson (2005) taught trainees through case scenarios to identify a boundary concern, consider the people and groups involved, list options, determine the risks and benefits for each option, clarify biases, and create an action plan. These ethical decision-making steps are reflected in the behavior analytic literature; Bailey and Burch (2016) detail a seven-step ethical decision-making process that includes identifying if the incident is covered by the Professional and Ethical Compliance Code for Behavior Analysts, listing the people involved in the issue, creating multiple plans to address the dilemma, pinpointing the skills and clout necessary to implement the plans, assessing risk, implementing the plan, and evaluating the implementation of the plan. The Behavior Analyst Certification Board (BACB) outlines similar steps as well (BACB, 2020). However, these ethical decision-making steps do not provide guidance on what to immediately do and say when faced with an ethics violation such as a boundary crossing, which can be more difficult than identifying a code or guideline and

thinking about solutions (Bailey & Burch, 2016). Although none of the reviewed literature on boundaries provides specific steps to take when a boundary violation occurs, Bailey and Burch (2016) provide a breakdown of specific steps for a number of ethical dilemmas, one of which demonstrates a boundary violation. The recommended steps for a person to emit when faced with a boundary violation include: (a) use an autoclitic, (b) state the facts, (c) refer to the Code, (d) say what the Code requires, and (e) provide a summary.

Boundaries in Peer Support

Maintaining appropriate boundaries is also important for the field of peer support and setting clear boundaries is part of at least one ethical code of conduct for peers (NAADAC, n.d.). Peer support provides a number of unique issues as it relates to boundaries. Specifically, boundary lines differ from other helping professions as the nature of peer support is that it is less hierarchical than other professions and the benefits of peer support are largely conceptualized as stemming from the close relationships peers are able to build (White et al., 2007). This relationship building especially manifests itself when peers disclose parts of their recovery story with the people with whom they work. In fact, sharing one's lived experiences is a SAMHSA core competency for peers (SAHMSA, 2015). This disclosure differs significantly from other helping professions (e.g., social work, behavior analysis), where disclosing personal information is discouraged (Englander et al., 2019; Mancini, 2018). Additionally, peers are more likely to provide services in the community, rather than a clinic (Philadelphia Department of Behavioral Health and Intellectual Disabilities [DBHID] & Achara Consulting Inc., 2017), which may lead to peers facing additional boundary issues (e.g., getting into a car with a community member).

Although boundary lines for peers may not be the same as for other helping professionals, that is not to say they do not exist but rather that the lines are moved. White et al.

(2007) note that peer support workers are not sponsors, therapists, nurses or physicians, or clergy people and therefore peer support workers should not act as a sponsor for a 12-step program, diagnose a clinical disorder or provide counseling, disagree or agree with a medical diagnosis, or promote a religion, respectively. Therefore, any time a peer engages in the aforementioned activities they would be operating outside of their scope of competency and would be crossing a boundary. Additionally, Mancini (2018) gives the example of a boundary crossing when a community member attempted to call a peer at midnight on their personal number. Importantly, peers should use their code of ethics and their roles and responsibilities to identify boundary lines. Thus, it is important that organizations ensure peer roles are clear (Mahlke et al., 2014; Mancini, 2018) and that peers understand their code of ethics. Unfortunately, this is not always the case, as Mancini (2018) noted none of the peers or non-peer workers interviewed in their study were even aware there was a code of ethics for peers. As peer providers have unique boundaries, it is important that training is tailored specifically to peers.

Empirical studies that focus solely on boundary training in peer support are virtually nonexistent; however, there are a number of studies that include boundary training within their broader training program. For example, Simpson et al. (2014) describe a 12-week training program for peer support workers and note that they used small group discussion when covering boundary issues within their program. However, these researchers did not formally evaluate whether peers could appropriately respond to boundary issues in their daily contact with community members. Other studies that evaluate peer training programs also note that the training program covers boundaries, but do not provide any details related specifically to boundary training (e.g., Compton et al., 2014; Fan et al., 2018; Franke et al., 2010; Hutchinson et al., 2006).

Although there are a limited number of peer reviewed studies that give in-depth details on boundary training related to peer support workers, there are a number of training modules, manuals, guidelines, or resources that give direction on boundary training with peers. Manuals all note that it is important to clearly define the roles of peers (Philadelphia DBHID & Achara Consulting Inc., 2017; Recovery to Practice, 2014; Sunderland et al., 2013). These resources also provide training materials. For example, Recovery to Practice (2014) provides an activity in which peers identify when an action is never okay, sometimes okay, and always okay for various professions, including peer workers. Additionally, Philadelphia DBHID and Achara Consulting Inc. (2017) provide a full training module on boundaries. This toolkit estimates that the module will take 1-2 hr to implement and consists of peers discussing four dilemmas. Part of the discussion involves peers taking steps similar to those presented in Fronek et al. (2009), Fronek and Kendall (2017), and Bailey and Burch (2016). Specifically, peers identify who would be harmed, what values pertain to the dilemma, and what policies are being broken. Finally, White et al. (2007) note that when peers face a boundary related to operating outside their competence, they should listen to the community member and encourage them to talk to the appropriate person or link them to applicable resources.

There are a number of gaps in the literature related to peer training, especially as it pertains to boundary setting. First, to my knowledge, there is no formal study in peer training that focuses on boundary setting alone. Previous empirical studies on boundary training in other fields vary greatly in content and evaluation processes (Fronek & Kendall, 2017) and have a number of limitations that mirror the limitations of peer training programs in general (Schulz, 2020). For example, none of the training programs measure trainee behavior in response to a boundary crossing. Although a number of assessments attempt to assess ethical decision making

by having trainees choose a response to a vignette (Lohfeld et al., 2012; Kendall et al, 2011), these assessments do not require trainees to actually emit the response. Additionally, when researchers or authors provide steps related to ethical decision making, these steps require time to implement and relate more to problem solving a general ethical dilemma rather than teaching what to immediately do and say when faced with an ethical violation. Therefore, there is a need for additional skill-based training that both teaches trainees to clearly communicate a boundary and assesses a trainee's response to a boundary violation (Davidson, 2005; Kunaparaju et al., 2018).

Purpose

BST is one procedure that may be effective in teaching trainees how to respond to a boundary violation. Additionally, using a single-case design would allow for the assessment of boundary setting. However, BST has not previously been used to teach ethical skills to peer support workers. Therefore, the purpose of this study is to examine the effects of a group BST to teach a novel skill, boundary setting in response to a boundary crossing, to a novel population, peers.

Method

Peer Fellows Program

The Peer Fellows Program is a workforce development program in Douglas County, Kansas, that trains people who are in long term recovery from living with a mental illness and/or substance use disorder to become peer support workers. This 1-year program partners with various community organizations to integrate peer support throughout the behavioral health system. Community organizations involved include: the emergency department at Lawrence Memorial Hospital, the Lawrence Public Library, the Lawrence–Douglas County Housing

Authority, and Heartland RADAC (Regional Alcohol & Drug Assessment Center), which is a local community-based organization that serves people in recovery from a substance use disorder. The peers—or fellows—who participate in this program work for 15 hr a week. In addition, the Peer Fellows Program supplements fellows' work experience with 1 hr of group supervision and 3 hr of training each week. Training covers a wide range of topics, including the SAMHSA core competencies for peer workers, listening skills, community resources, crisis intervention skills, and ethics. An education subcommittee previously developed these training topics; however, the topics, schedule, and specifics of the seminars change as necessary.

Appendix B provides a list of topics covered from May 2019 to April 2020 and planned to repeat in the same time frame of 2020–2021. Frequently, members of partnering community organizations (e.g., Bert Nash Community Mental Health Center, Lawrence Memorial Hospital, DCCCA [a social services agency]) facilitate the training seminars. The first cohort of fellows in 2019–2020 received two one-day training sessions on boundaries, and the current study replaced the first of those training sessions. Although fellows have slightly different roles and responsibilities, depending on the location in which they work, fellows generally use the knowledge gained through lived experience and the training seminars to help community members who are experiencing behavioral health needs.

Pre-Intervention Procedures

I conducted two procedures to inform the development and implementation of the intervention. First, I conducted two focus groups to identify needed topics for training. Second, I conducted confederate training with former fellows to prepare them to assist in the delivery of the intervention.

Focus Groups

Along with a member of the Peer Fellows leadership team, I conducted two focus groups with fellows who have been in the program for at least one year. In these groups, fellows had an opportunity to give feedback on their experiences in the program and discuss topics they found particularly important to cover in training. We identified general questions (see Appendix C) to guide the focus group conversation in collaboration with the Douglas County Director of Behavioral Health Projects and a partnering community-based organization's Director of Adult Services. Specifically, the first focus group had three overarching questions related to the experiences of being a fellow, and the second focus group had four questions related to the training seminars. We asked additional follow-up and clarification questions as necessary throughout the focus groups. We conducted these focus groups on 9/9/2020 and 9/30/2020. Each group consisted of four participants and lasted approximately 90 min. Three fellows participated in both focus groups. I took notes throughout both focus groups to capture what the fellows said.

I did not conduct a formal qualitative analysis of the data (i.e., my notes; Appendix D) from the focus group; rather, I adopted an inductive approach to identify topics fellows found important while reviewing the data. Results of the focus groups indicated that fellows found several topics important. For example, fellows noted they value clear roles and responsibilities and that these responsibilities should also be shared with their coworkers. Fellows also noted that job roles were slightly different at each location. Other important topics identified include trauma-informed care, listening skills, proper communication (e.g., using nonclinical language, communicating with coworkers), setting boundaries, using a strengths-based model, and how to model recovery and hope. Some fellows noted that the storytelling training days were important, whereas others thought these storytelling training sessions were not very important because they

did not have opportunities to share their lived experiences. Fellows also provided real-world scenarios where these skills were necessary, including multiple examples of boundary violations.

Due to the results of the scoping systematic review (Schulz, 2020, Appendix A) and the focus groups, I focused this study on setting boundaries. The fellows discussed this topic in depth, and all noted they would like more training on boundaries than the two they previously received. Additionally, setting boundaries was the fourth-most-taught topic to peers in previous peer training literature (Schulz, 2020, Appendix A).

Confederate Training

Three previous fellows from the Peer Fellows Program assisted in the training as additional trainers, or *confederates*. These confederates, who all identified as female, provided assistance and I compensated them for their time. Compensation was \$25 for the confederate training and assistance with training videos and \$75 for assisting with the live training. They all completed at least one year of training during their time in the Peer Fellows Program, which included two seminars on boundaries. I selected these confederates in collaboration with the Douglas County Director of Behavioral Health Projects because they were experienced fellows whom members of the leadership team deemed as competent. I met with the confederates before the boundary training for approximately 90 min to train them on their role in the boundary training and to create the training videos. A PowerPoint presentation supplemented this training. I began the confederate training by describing the boundary training and providing vocal instructions on the confederates' roles. I also provided written instructions on one PowerPoint slide to describe their role (i.e., make videos, engage in role play, and provide feedback during training). I then provided written and vocal descriptions of appropriate boundary setting before modeling three scenarios. After answering questions, I required each confederate to practice

responding to a different scenario. I then asked if the confederates had any questions or would like more opportunities to practice providing feedback after completing role plays.

Participants and Setting

Participants were five fellows in the Peer Fellows Program. Participant 1 was a 22-year-old Caucasian male college student. He had a history of anxiety and depression, no lived experience with a substance use disorder, and had been in recovery from his mental health diagnoses for 2 years. He had been employed for approximately 6 months prior to training and had previously received training on boundary setting.

Participant 2 was a 27-year-old Caucasian male who had completed some college. He had a history of heroin, cocaine, benzodiazepine, and cigarette use, no history with a mental health condition, and had been in recovery from substance abuse for 4.25 years. He had been employed for approximately 6 months prior to training and had received one prior training on boundary setting.

Participant 3 was a 20-year-old Hispanic/Native female in her second year of college. She had a history of anxiety, depression, self-harm, and self-injury, no history of a substance use disorder, and had been in recovery from her mental health diagnoses for approximately 1 year. She had been employed for approximately 4 months at the time of the training and had received no previous training on boundary setting.

Participant 4 was a 31-year-old Native female who had completed some college. She was living with bipolar disorder, attention deficit hyperactivity disorder, complex post-traumatic stress disorder, and autism spectrum disorder and had been sober for almost 10 years. The training took place during her second week of employment; she had not previously received training on boundary setting.

Participant 5 was a 29-year-old white male with a General Educational Development (GED) degree. He was living with bipolar disorder, had a history of drug abuse, and had been in recovery for approximately 5 years. He had been employed for approximately 3 months before the training and had not previously received training on boundary setting.

I conducted the training in January 2021. Due to COVID-19 safety restrictions, the training was conducted online through Zoom teleconferencing (version 5.0.4). Participants and trainers were therefore at their homes while participating in the study. I did not require a certain internet speed or type of computer or tablet to participate in the training. I sent potential participants the consent form through email one week before baseline procedures. Before collecting baseline data, I explained the study by going over the consent form and allowed time for questions. Participants then voluntarily signed the consent form online through REDCap (Harris et al., 2009; Harris et al., 2019) to consent to data de-identification and dissemination (see Appendix E). The University of Kansas Institutional Review Board reviewed and approved all procedures (see Appendix F).

Training Scenarios

Based on the focus groups, discussions with confederates, and examples from the literature, I identified 19 scenarios describing a community member crossing a boundary and two scenarios of a coworker or supervisor crossing a boundary (see Appendix G). An example scenario includes a time when a community member asked a fellow to comment on their bipolar diagnosis and whether they agree with it. I first identified the difficulty of each scenario by sending a list of the scenarios to the three confederate trainers and asking them to rank each scenario on a 6-point Likert-type scale (1 = *extremely easy*; 6 = *extremely difficult*; see Appendix H) and then averaged the scores for each scenario. Higher scores indicated more difficult

scenarios. Appendix I displays the results of the difficulty ratings. These 19 scenarios were used for training and as experimental trial videos for skill assessment during trials.

Training Videos

I selected five of the scenarios to demonstrate correct and incorrect responding in the modeling component of BST. I chose scenarios with a range of difficulty to first model easier scenarios and progressively increased difficulty during the training. Appendix J displays each scenario with a letter assigned to it, its average difficulty, and how it was used. Using Zoom, I recorded two confederate peers—one playing the part of the community member and one playing the part of a fellow—correctly and incorrectly responding to the five scenarios. Each of the latter five incorrect videos displayed a different step implemented incorrectly. The duration of correctly modeled videos was an average of 51.14 s (range, 39.27–63.63) and incorrectly modeled videos was an average of 39.73 s (range, 31.98–47.76).

Additionally, I created two videos of boundary violations for the training that related to safety issues or inappropriate behavior that required a different response than the primary dependent variable. I identified these safety issue videos with the aid of the confederate trainers, and these two videos were in addition to the previously identified 19 scenarios. Specifically, a 20.39 s video demonstrated a confederate correctly responding to a community member who emitted an inappropriate comment about a fellow's body, and a 23.21 s video portrayed a peer correctly responding to a community member making inappropriate comments about another person.

Experimental Trial Videos

Participants responded to videos for baseline and posttraining experimental trials rather than a notecard or role play as used in previous published studies (e.g., Erath et al., 2020). I

designed the scenarios in this way for three reasons. First, I wanted to control for variation in my response and accidental prompts while ensuring all participants responded to the exact same stimuli. Second, I wanted the confederates to be the ones crossing the boundary as they can more accurately represent a community member and the way a community member might speak. I intentionally designed this feature to foster participant skill generalization to a community member. Third, due to the remote format of the training, I could display videos by sharing my screen in such a way that it looked like participants were responding to a live person on the computer. Finally, correct responding entailed participants engaging in one response chain, and therefore it was not necessary to engage in conversation between each step.

For the remaining 14 scenarios that were not used in training videos, I created short videos of a confederate peer attempting to cross the boundary reflected in the scenario. I created these videos following the confederate training and during a separate meeting (approximately 1 hr) with one of the confederates. The purpose of the videos was to provide participants with an opportunity to demonstrate how they would respond to a person committing a boundary violation. I also made videos for two additional scenarios for the generalization probes. The generalization scenarios, which I developed with the confederate peers, depicted a supervisor asking a peer to engage in fraud and a coworker asking a peer to withhold food until a community member performed a behavior the coworker wanted (i.e., use undue influence, a behavior the Kansas Peer Support Code of ethics explicitly forbids). Each of these 16 scenarios had two videos associated with it: (a) a confederate crossing a boundary and (b) the confederate attempting to repeat the boundary crossing in response to an initial “no.” The initial boundary-crossing videos were an average of 12.01 s (range, 4.74–22.51), and confederates engaged in approximately two to three statements to set up the scenario before attempting to cross the

boundary (e.g., “Hey! Do you have like 5 bucks? I can pay you back, I just need to buy some food right now because I don’t have any,” “I’m so glad we have gotten to know each other as you have really helped me. As you know, I’ve been going to the 12-step program and now I need a sponsor. Can you be my sponsor?”). The repeated boundary-cross videos included a short statement that lasted an average of 4.73 s (range, 1.96–8.33) and depicted the confederate attempting to cross the boundary for a second time in response to a fellow saying “no” (e.g., “It’s just five bucks...” “Come on, you know me really well and would be perfect for it!”).

Each participant experienced a different video for each trial. I determined the order each participant experienced trials in baseline and posttraining scenarios beforehand to control for difficulty. Specifically, I used the difficulty ratings confederates provided for each scenario to ensure the average difficulty of all scenarios implemented during baseline matched the average difficulty for all scenarios implemented during posttraining trials. Once I selected the videos, I used a random picker (Picker Wheel, n.d.) to randomize the order in which I presented the videos in each condition. Appendix K provides the order of scenarios each participant experienced using the scenario identification from Appendix J, as well as average difficulty for each phase.

Response Measurement

The primary dependent variable was performance on boundary setting, which I measured as the percentage of steps on a task analysis (TA) completed correctly. Steps of the TA required participants to (1) listen to the community member, (2) reflect back the community member’s needs, (3) set a boundary, (4) redirect the community member to appropriate resources or another topic, and (5) repeat steps 3 and 4 as necessary. Each experimental trial (e.g., a community member asking the participant for money for food) provided participants with an opportunity to set a boundary by responding to a contrived scenario in the form of a video of a hypothetical

community member attempting to cross a boundary. I tested for Step 5 (i.e., repeats Steps 3 and 4) on one trial in baseline and one trial in posttraining. It was unknown beforehand whether a participant would correctly implement step 3 of the TA; therefore, I was prepared to play the video of a confederate continuing to cross a boundary after every trial.

Steps were scored as correct, incorrect, or omission (see Appendix L). Step 5 could also be scored as not applicable. Table 3 displays operational definitions for scoring each step. I calculated a percentage correct for each trial by dividing the number of steps completed correctly by the number of total steps, and multiplying by 100. Mastery criterion was set at two consecutive trials at 100% steps completed correctly.

The existing peer literature did not provide an appropriate TA for peers on how to respond to a boundary violation; therefore, I developed the above TA as part of this dissertation study. A researcher can construct and validate a TA in at least three ways: (a) observing an individual complete the task, (b) consulting with experts, and (c) performing the behavior oneself (Cooper et al., 2007). To construct this TA, I consulted several experts and examined the behavior analytic literature. Specifically, I consulted previous fellows in the program, the Douglas County Director of Behavioral Health Projects, and various behavior analysts. Additionally, Bailey and Burch (2016) provide a step-by-step analysis of what one should do and what one should say when confronted with various ethical violations. A boundary violation is one example these authors described. I synthesized the information gathered from consulting with experts as well as the literature (e.g., Bailey & Burch 2016; White et al., 2007) to create a TA with operational definitions of the steps.

Given that I used some information from non-behavior-analytic sources to develop the TA, I next analyzed the steps to ensure they were conceptually systematic. Step 1 of the TA

requires the fellow to listen to the community member. Aside from being polite and meeting social norms, listening without interrupting ensures a fellow will have all the information and that the community member does not experience a stimulus (e.g., interruption) that may function as an aversive. Additionally, the use of positive body language and giving undivided attention are steps one can engage in to create a positive relationship (BACB, 2018). The peer training literature also recommends peers listen (White et al., 2007), and carefully listening is part of the core competencies for peer support workers (SAMHSA, 2015). Step 2 requires the fellow to empathetically reflect back what they hear. Reflecting back what is heard is an additional component to listening. Furthermore, this reflection provides the fellow the opportunity to engage in an autoclitic response (Bailey & Burch, 2016) that may alter the function of the “no” response for the community member (Skinner, 1957), reducing its aversive intensity and thereby decreasing the likelihood of eliciting emotional behavior. Step 3 involves the fellow setting the boundary. This step makes clear that the fellow cannot comply with the community member’s mand. The boundary should be unambiguous, as ambiguity increases the likelihood of a community member repeating the boundary violation. The training will teach additional autoclitic phrases as part of this step (e.g., “I’m sorry,” “unfortunately”). Step 4 requires the fellow to redirect the community member to appropriate resources or topics. This step may provide the community member with a functionally equivalent replacement behavior to meet their need or request or a prompt to a response that can be reinforced if it is a need that cannot be met. Another core competency of peer support workers is to link community members to resources, and White et al. (2007) recommend this step for boundary crossing violations. Finally, Step 5 requires the fellow to continue setting the boundary. This step is necessary as there is a

possibility a community member continues to engage in a boundary violation, as the fellow's "no" response may occasion extinction-induced variability.

Interobserver Agreement and Procedural Integrity

I calculated interobserver agreement (IOA) for 39.22% of trials, with a minimum of 33% of trials in each condition scored by a secondary observer. After the training was complete, the trained secondary observer watched videos of participant trials to independently score trials. I quasi-randomly selected the videos using an online random picker (Picker Wheel, n.d.). I also randomized the order in which the secondary scorer scored the videos so that the observer would not know from which condition the video was taken. The secondary observer was a graduate student colleague whom I trained on the response measurement. I required the secondary observer to score three videos consecutively at 100% accuracy to complete training. An agreement was scored if both observers scored the step of the TA as the same (i.e., both score the step as either correct, incorrect, omission, or not applicable). A disagreement was scored if the observers did not score the step of the TA the same. I calculated IOA on a step-by-step basis, which involved dividing the number of agreements by the total number of agreements plus disagreements and multiplying by 100. Average IOA across all participants was 88.57% (range, 80%–94.29%).

The same independent observer also collected procedural integrity data to assess the degree to which I accurately implemented BST as described (see Appendix M). The secondary observer watched the video recording of the training and scored whether I correctly implemented each component of BST (i.e., instruction, modeling, role play, and feedback). The components for instructions were the following: (a) trainer provides rationale, (b) trainer leads discussion on boundary definitions, (c) trainer states the steps of responding to a boundary violation, and (d)

trainer provides an opportunity to ask questions. Components of the modeling phase were the following: (a) trainer shows video models, (b) trainer leads discussion on correct and incorrect steps, and (c) trainer provides an opportunity to ask questions. The only component for the rehearsal phase was that the trainer provides opportunities for rehearsal. The components of the feedback phase were the following: (a) trainer provides praise for correct steps and (b) trainer provides corrective feedback for incorrect steps. Finally, the components of the debrief were the following: (a) trainer summarizes the training and (b) trainer provides an opportunity for fellows to ask questions and convey thoughts about the training. The secondary observer scored a “+” if the component was implemented correctly, a “-” if the component was implemented incorrectly, and an “O” if the component was not implemented. Procedural integrity was calculated by dividing the number of components implemented correctly by the total number of components and multiplying by 100. Overall, 100% of the steps were implemented correctly.

Experimental Design and Procedure

A nonconcurrent multiple baseline design across participants was used to assess the effects of a group training using BST on setting a boundary as measured by the percentage of steps completed correctly on a TA. The analysis consisted of three conditions: (a) baseline, (b) posttraining, and (c) feedback. I also collected follow-up data 1 and 5 weeks after training for three participants, 2 and 5 weeks after training for one participant, and 1 week after training for one other participant. The amount and timing of follow-up trials varied due to participant availability.

Baseline

The purpose of this condition was to assess the percentage of steps completed correctly on the boundary setting TA for each participant before training. Participants responded to four to

nine boundary crossing videos during baseline, which occurred one week prior to the training for four of the five participants and the day of the training for one participant (Participant 4). Each participant completed these trials individually while the remaining participants were in a Zoom breakout room. I provided participants with the following instructions:

You will be shown a series of videos of hypothetical situations you may experience while providing peer support. You are to reply to each situation as you best see fit. Please respond to each video by talking to the person in the video as you would a person in real life.

No feedback or additional instructions to the participants were provided. If participants asked for help or clarification, they were informed they could not receive any additional information and to please provide support to the best of their ability. A new trial began each time I presented a new video scenario to the participant. I displayed a blank slide for approximately 2 s between each trial to indicate a new scenario. A trial concluded when a participant did not provide a vocal response for 5 s or emitted a response that indicated they did not have anything else to say. After an initial predetermined number of baseline trials, I checked for stability to determine if additional baseline trials were necessary.

Training

The purpose of the group training was to teach participants to set a boundary. I began the training with a general overview of boundaries. The purpose of the introduction was to provide initial information on what boundaries are and provide a basis for discrimination. Teaching boundary discrimination was not a preliminary objective of this training; however, this time allowed for a discussion on common behaviors in which peers can and cannot engage. A PowerPoint presentation accompanied the training (see Appendix N). After stating the objectives

of the training, I began the presentation by defining boundaries and discussing the role of the fellow by asking participants to define their roles and give examples of what they can and cannot do as a fellow (e.g., help with a form but not complete it for the client, discuss medications but not recommend medication use or nonuse). I focused the next slide on the Kansas Peer Support Code of Ethics by displaying the code components on the slide. I asked participants to discuss their experience with this code and comment on how familiar they are with it. Next, I led a discussion over why setting a boundary is important, noting that there can be legal and psychological ramifications of boundary violations, and asking participants if they could think of any other reasons why it is important to set appropriate boundaries. The introduction portion of the training lasted 21 min and 35 sec. Next, I implemented the steps of BST as described below.

Instructions. I provided detailed written and vocal instructions on how to respond to a boundary violation using five slides. The slides contained a three-columned table that described the TA. I labeled the first column “What you do” and listed steps of the TA below. I labeled the second column “What you say” and listed example statements fellows can say as well as the information found in Table 3 under a correct response. Finally, I labeled the third column “Common mistakes” and listed the information related to an incorrect step from Table 2. Each slide added a row so that the final slide had all steps of the TA on it. I provided vocal instructions as I displayed the written instructions. The instructions component of the intervention lasted 11 min and 31 sec.

Modeling. Confederate peers modeled the steps of the TA correctly in one video and incorrectly in another video to five different scenarios. I displayed these videos in slides on the PowerPoint. After each correctly modeled video, I prompted participants to tact the steps completed correctly by asking, “What steps did [confederate name] do correctly?” and “What

exactly did [confederate name] say that was correct?” After the videos that had steps modeled incorrectly, I asked participants to tact the steps implemented correctly and incorrectly after each video. I added additional prompts about steps implemented incorrectly. Specific prompts included: “What step was implemented incorrectly?” and “What could the [confederate name] say to implement the step correctly?” I presented the correctly and incorrectly modeled videos in pairs such that participants viewed a scenario being modeled correctly and then incorrectly before moving to the next scenario. The modeling component of the training lasted 33 minutes and 54 seconds.

Role Play and Feedback. I randomly organized participants into one group of three and one group of two using the Zoom randomization feature and placed them into breakout rooms with confederate trainers to provide an opportunity to role play scenarios and receive feedback. I instructed the confederate trainers to practice the five scenarios modeled previously and reminded participants what the scenarios were by writing a brief description in the chat feature of Zoom (e.g., a community member asks you if you think they have a mental illness). I instructed the confederate trainer to provide both corrective feedback for steps completed incorrectly and praise for steps completed correctly. Participants role played as many times as possible in the approximately 30 min allotted for this component, rotating who participated after each role play. I required participants to demonstrate a role play to me before breaking for lunch so that I could provide feedback as necessary. I spent approximately 20 min in one breakout room and 15 min in the other room. During this time, I also provided corrective feedback and praise as necessary. Role play and feedback lasted 35 minutes and 46 seconds.

Debrief. I conducted a final debrief period after completing the components of BST and breaking for lunch. I first summarized the training by reviewing the definition of boundaries,

stating why setting boundaries is important, listing a few examples of boundaries, and then describing the steps to appropriately responding to a boundary violation. Next, I discussed an additional category of boundary violations that relates to safety and requires a response that is different from the response outlined in the TA for this study. This category of boundary violations includes inappropriate comments or touching or other behaviors that may lead to unsafe working conditions. There may be several ways to respond to inappropriate comments, one of which involves a fellow interrupting the comment (e.g., “I am going to stop you there”), informing the community member that it is not appropriate (e.g., “We are not going to talk about that,” “Please do not say that”), and redirecting to more appropriate responses. Likewise, there may be a few appropriate responses to inappropriate touching depending on the type and location of touch, but at a minimum involves a fellow physically moving away from the community member and in extreme cases may require the filing of a police report. Responding to this specific type of safety boundary violation is outside the scope of the current study; however, due to the psychological distress it may cause and because fellows reported that it occurs, I devoted time in the training to this type of boundary crossing.

After summarizing the training and discussing examples of boundary violations, I transitioned to this safety category of boundary violations by saying there are some types of situations we did not discuss yet. I then used three slides to cover this type of boundary violation. I first displayed a three-columned table similar to that described in instructions to detail the previously mentioned method of responding to an inappropriate comment (i.e., interrupt, inform that it is not appropriate, redirect). I then played two videos of confederate trainers modeling how to respond to inappropriate comments. One video demonstrated a confederate emitting the steps listed above when a community member made an inappropriate statement about a fellow.

The next video demonstrated a confederate appropriately setting a boundary when a community member said something inappropriate about another community member. After leading a discussion on this type of boundary violation, I provided participants with additional resources on setting boundaries, a final description of the steps of the TA, and allowed time for questions or comments. The debrief component lasted 20 min. Therefore, the entire training lasted 2 hr, 2 min, and 46 sec.

Posttraining

The purpose of this condition was to assess the percentage of steps in the TA of boundary setting a participant could correctly implement after training. Participants experienced posttraining trials individually in a breakout room after the debrief. Procedures were similar to baseline, except that I also instructed participants to put away any notes they may have taken during training. I collected data in vivo to assess whether participants met mastery criterion, which was set at two consecutive trials at 100% steps completed correctly.

Experimenter Feedback

The purpose of the experimenter feedback phase was to provide additional training to participants whose performance did not meet mastery criterion. In this phase, I provided the participant with feedback if they completed two consecutive trials at less than 100% of steps completed correctly. Therefore, if a participant performed a mistake on two consecutive trials, I provided feedback immediately after the second trial on performance during the preceding two trials. I provided corrective feedback for the steps completed incorrectly by describing what the participant did wrong and what the participant should have done (e.g., “You gave an excuse that you could not give money because you do not have any money. This makes it seem as if you would give them money if you had it. However, you are not allowed to give money and therefore

you should set a clear boundary by saying something like the following: ‘Unfortunately, I cannot give you any money as this is not part of peer support’) and praise for the steps implemented correctly (e.g., ‘‘You did a great job referring them to resources where they can get food’’). I ended this phase once participants met mastery criterion. However, one participant (Participant 5) finished this phase before meeting mastery criterion as there were no more scenarios prepared to which they could respond.

Generalization Probes

I tested participants’ generalization of setting a boundary on two untrained tasks: (a) a coworker, rather than a community member, crossing a boundary by asking the participant to threaten withholding food until the community member did what the coworker wanted and (b) a supervisor crossing a boundary by asking participants to commit billing fraud. I conducted single-trial probes in both baseline and posttraining for one of each scenario. The procedure for conducting the generalization probes was similar to baseline. All participants responded to these same two scenarios. I did not test step 5 on any generalization probe.

Follow-up

The purpose of this phase was to assess the extent to which accurate boundary setting maintained over time. I conducted follow-up trials for four participants 1 week after training and one participant 2 weeks after training. I also collected follow-up data 5 weeks after training for three of the participants. I used procedures similar to baseline and posttraining. At 1- or 2-week follow-up probes, participants who responded at 100% of steps of the TA completed correctly on generalization probes responded to three boundary violations: (a) one trained boundary crossing, (b) the generalization probe involving the coworker, and (c) the generalization probe involving the supervisor. Participants who did not score 100% on the steps of the TA for generalization

probes responded to three scenarios of trained boundary crossings. The purpose of follow-up was to assess for the maintenance of skills over time; therefore, I deemed it unnecessary to test generalization probes for these participants as the skill was never in their repertoire and there was no reason to believe they would respond correctly after a week. Participants responded to one scenario of the primary scenarios during a 5-week follow-up.

Social Validity

Participants completed a social validity questionnaire at the end of the training (see Appendix O). This questionnaire, which was adapted from the Intervention Rating Profile-15 (IRP-15; Martens et al., 1985), used a 6-point Likert-type scale (1 = *strongly disagree*; 6 = *strongly agree*) to assess participant acceptability regarding various aspects of the training. For each item, a higher score represented higher participant acceptability. Specifically, items on the questionnaire asked participants to rate the acceptability of the training procedures and skill, the effectiveness of the skill, if the skill will keep them safe, if they would suggest the skill to others, if they liked the procedures, and if they would use the skill. Five additional open-ended questions asked participants what step of the boundary setting TA they found most and least useful, what aspects of the training they found most and least useful, and to provide any other feedback. Participants anonymously completed this questionnaire on REDCap. This questionnaire also included the demographic questions.

Data Analysis

Visual analysis was used to examine the effects of a group BST training on boundary setting. I used visual analysis to compare level, latency to change, mean shift, between-phase overlap, and trend across conditions for each participant (Bourret & Pietras, 2013). Additionally, I assessed behavior change across participants to determine whether participant performance

improved after, and only after, the implementation of the intervention. Finally, I conducted an error analysis by visually inspecting what steps of the TA participants implemented incorrectly to determine whether participants displayed patterns in their incorrect responding.

I also calculated a nonoverlap of all pairs (NAP) to quantify an effect size (Parker & Vannest, 2009). This calculation was a post hoc analysis, and I calculated the NAP by comparing each baseline data point to each posttraining data point and each feedback data point to score the pair of data points as either an overlap, a tie, or a non-overlap. I also compared each data point in posttraining to each data point in feedback. A data point in the preceding condition that was higher than the subsequent condition data point is an overlap and scored as a 1. A data point in the preceding condition that was equal to the paired subsequent condition data point is a tie and scored a 0.5. A preceding condition data point that was less than the paired subsequent condition data point is a non-overlap and scored as a 0. The sum of all pairs' scores was then subtracted from the number of total possible pairs, which was determined by multiplying the number of data points in the preceding condition by the number of data points in the subsequent condition. This number was then divided by the number of total possible pairs. I calculated a NAP score for baseline to posttraining, baseline to feedback, and posttraining to feedback for each individual participant as well as a mean NAP for all the participants for each change in conditions. Criteria for effect size was the following: small NAP = 0–.65, medium NAP = .66–.92, and large NAP = .93–1.0 (Parker & Vannest, 2009).

Results

Figure 1 and Figure 2 display results for all five participants. The left y-axis displays the percentage of boundary setting steps implemented correctly; the right y-axis displays boundary steps implemented; and the x-axis displays trial number. Shaded boxes indicate that the

corresponding step in the TA was completed correctly, open boxes indicate that the corresponding step on the TA was completed incorrectly, and boxes with diagonal stripes indicate that the corresponding step on the TA was not applicable.

Overall, across all participants baseline data were variable and the mean percentage of steps of the boundary setting TA implemented correctly per trial for all participants was 50.34% (range, 25%–100%). No participant displayed an increasing or decreasing trend and level varied across participants. For Participant 1, responding in baseline was stable and the average percentage of steps of the TA implemented correctly was 31.25% (range, 25%–50%). Baseline responding was high and variable for Participant 2, and mean accuracy on the TA was 70.83% (range, 50%–100%). Data for Participant 3 were variable until the final three trials and level was moderate, with the participant performing the steps of the boundary setting TA at an accuracy of 54.29% (range, 25%–80%). Responding for Participant 4 was highly variable and there was no increasing or decreasing trend. Mean accuracy on steps of the TA for Participant 4 in baseline was 53.33% (range, 25%–80%). Finally, data for Participant 5 also indicate variable responding at a moderate level ($M = 42%$, range, 25%–60%). The error analysis of baseline data indicates step 2 was the most common step implemented incorrectly or omitted in baseline. All participants implemented step 1 correctly on every trial.

In posttraining, the mean percentage of steps of the boundary setting TA implemented correctly per trial across all participants increased slightly from baseline ($M = 50.34%$, range, 25%–100%) to posttraining ($M = 66.83%$, range, 25%–100%); however, no participant met mastery criterion. Overall variability across participants decreased marginally and all participants have data in posttraining that overlap with baseline data. Participant 1 increased performance in posttraining from a mean accuracy on steps of the boundary setting TA of 31.25% (range, 25%–

50%) in baseline to 52.5% (range, 25%–80) in posttraining and variability for the two data points increased from baseline. There was no change in level of boundary setting performance from the last point of baseline to the first point of posttraining for this participant. The variability of the data for Participant 2 decreases from baseline, and average percentage of steps in the TA completed correctly increased slightly from 70.83% (range, 50%–100) in baseline to 77.5% (range, 75–80%) in posttraining. The change in level of boundary setting performance from the last point of baseline to the first point of posttraining was a slight increase, from 75% to 80%. Variability also decreased for Participant 3 as compared to baseline and the level of responding was higher posttraining ($M = 83.33\%$, range, 75%–100%) than in baseline ($M = 54.29\%$, range, 25%–80%). For this participant, there was minimum overlap of data between the baseline and posttraining conditions and the change in level from the last point of baseline to the first data point of posttraining is an increase from 50% to 100%. For Participant 4, responding in posttraining remained variable and within baseline levels, and average accuracy increased from 53.33% (range, 25%–80%) to 65% (range, 50%–80%). The change in level from the last data point in baseline to the first data point in posttraining is an increase from 25% to 80%. Responding for Participant 5 in posttraining increased in variability and the level increased slightly. This participant increased mean percentage of steps of the TA implemented correctly from 42% (range, 25%–60%) in baseline to 55.83% (range, 25%–75%) in posttraining. The change in level from the last data point in baseline to the first data point in posttraining is an increase from 50% to 60%. This participant experienced more posttraining trials than other participants due to an error; namely, I made an error while unmuting myself and therefore gave feedback while on mute for a few trials. The error analysis of posttraining trials indicates that step 2 remained the most commonly omitted or implemented incorrectly step across participants.

As no participant met mastery criterion in posttraining, all participants experienced an experimenter feedback condition. Four out of five participants met mastery criterion in this condition. Participant 1 met mastery criterion after three probes, and the first data point in feedback was the same as the last data point in posttraining. No data point in feedback overlaps with any baseline data. For Participant 2, latency to change was two trials. Variability increased from posttraining to feedback, and the change in level from the last point of posttraining to experimenter feedback was a decrease from 75% to 50%. Participant 3 met mastery criterion after three trials, and there was no change in level from the last data point of posttraining to experimenter feedback. Participant 4 met mastery criterion immediately after receiving feedback, and there was no overlap in the data when comparing experimenter feedback to baseline or posttraining. The change in level from the last data point in posttraining to feedback was an increase from 50% to 100%. Participant 5 never met mastery criterion during experimenter feedback; however, there is an increase in accuracy of responding from posttraining ($M = 55.83\%$, range, 25%–75%) to experimenter feedback ($M = 89.29\%$, range, 50%–100%). The change in level from the last data point in posttraining to the first point of experimenter feedback was an increase from 75% to 100%. The error analysis indicates step 4 was the most common error implemented during experimenter feedback.

Performance maintained at 1-week follow-up for three of the four participants. For Participant 5, who experienced their first follow-up at 2 weeks, performance did not maintain. Performance continued to maintain at 5-week follow-up for one of the three participants who experienced follow-up probes at this time. The error analysis indicates that steps 2 and 4 were the most common errors at 1- and 2-week follow-up. At 5-week follow-up, step 2 was the most common error.

Two out of four participants generalized the boundary setting skill to a novel coworker and supervisor scenario. Participant 1 increased from implementing 25% of the steps of the boundary setting TA for both generalization probes to 100% of the steps after training. Participant 2 increased from an accuracy of 50% of steps in the TA on both generalization probes in baseline to 100% of the steps posttraining. Participant 3 increased performance slightly for only the supervisor generalization probe, implementing 50% of the steps of the TA in baseline to 75% of the steps after training. The coworker generalization probe remained the same across conditions at 50%. Participant 4 asked to end baseline procedures early as they noted they began to feel uncomfortable and therefore generalization probes were not implemented in baseline; however, percentage of steps of the boundary setting TA implemented correctly on generalization probes posttraining was low. Finally, performance on generalization probes remained similar for Participant 5, with this participant implementing one additional step correctly on the supervisor generalization probe and implementing the same number of steps correctly on the coworker generalization probe. The error analysis indicates that step 2 was the most commonly emitted or implemented incorrectly step on generalization probes across all participants.

Table 4 displays NAP scores for all participants. Overall, the average NAP score from baseline to posttraining and baseline to experimenter feedback for all participants was 0.80 (95% confidence interval [CI] = [0.66, 0.95]), indicating a medium effect size. Average NAP for all participants from only baseline to posttraining was 0.73 (95% CI = [0.64, 0.82]), indicating a medium effect. Average NAP for all participants from only baseline to experimenter feedback was 0.88 (95% CI = [0.61, 1.0]), indicating a medium effect. The mean NAP across participants

for only posttraining to feedback was 0.78 (95% CI = [0.53, 1.0]), also indicating a medium effect.

Finally, Tables 5 and 6 display results of the social validity questionnaire. On average, participants indicated that they *agreed to strongly agreed* with the statements measuring the acceptability of the intervention. Participants found role playing the most important aspect of the intervention. Participants also noted that no aspect of the intervention was least useful, although one participant noted less time could be spent on instructions.

Discussion

The purpose of this dissertation study was to examine the effectiveness of a group BST for teaching a novel skill—boundary setting—to peer support workers. Posttraining data reveal participants did not meet criterion and therefore needed supplemental experimenter feedback. Upon introduction of the feedback, four of five participants reached mastery criterion, which maintained at 1-week follow-up probes for three participants and 5-week follow-up probes for one participant. Performance generalized to novel skills for two participants. Results of a social validity questionnaire reveal participants found the training acceptable. Taken together, these findings provide evidence of the acceptability and effectiveness of a BST group training supplemented by feedback to teach appropriate boundary setting, which maintained over a brief period and generalized to novel skills for some participants.

The results of this study replicate previous BST research that demonstrates the method's utility in training new skills. Although BST training is effective across skills and populations, previous literature also indicates that additional feedback or a booster session is at times necessary for participants to reach mastery criterion (e.g., Erath et al., 2020; Hillman et al., 2021; Parsons et al., 2012; Stocco et al., 2017). Likewise, in this study, experimenter feedback was

necessary to reach mastery criterion for all the participants who met mastery criterion.

Additionally, one participant never met mastery criterion, a finding that also reflects previous BST research (e.g., Erath et al., 2020). Although the addition of feedback may be necessary, the study extends the BST literature as it demonstrates that BST is a feasible way to teach ethical skills to peer support workers.

Social validity results indicate that participants found the training acceptable and that role play was the most useful aspect of the training, which also mirrors findings from previous BST research. Participants averaged between *agree* and *strongly agree* on all items, indicating that the training was acceptable, which is similar to findings from previous studies (e.g., Erath et al., 2020; Jenkins & DiGennaro Reed, 2016; Nabeyama & Sturmey, 2010; Parsons et al., 2012; Stocco et al., 2007). Finally, the present participants indicated that role play was the most valuable aspect of BST, similar to findings from both Erath et al. (2020) and Jenkins and DiGennaro Reed (2016).

This study also relates to previous findings from the boundary setting literature. Previous peer support training incorporates aspects of boundary training (e.g., Compton et al., 2014; Fan et al., 2018; Franke et al., 2010); however, this study provides a more technological example of how to incorporate a short boundary training into an overall peer training program. Additionally, this study used a collaborative approach to develop the training to ensure scenarios reflect real-world scenarios, similar to previous research (e.g., Davidson, 2005; Fronek et al., 2009). Like Kunaparaju et al. (2018), this study also used simulated models of scenarios role played by the actual population of interest. The study extended the use of those most affected by the problem by having participants respond to previous peers for both the dependent variable and during training in a live role play component. Another contribution is that the boundary training was

accomplished in 2 hr. This length of time is the same length as Kunaparaju et al. (2018), and shorter than many other studies, which have a duration of six or more hours (e.g., Davidson, 2005; Fronck et al., 2009; Vamos, 2001; White, 2004). In addition, the current results reflects previous research findings that boundary trainings are an acceptable way to spend training time (e.g., Davidson, 2005; Fronck et al., 2009; Kunaparaju et al., 2018).

There are several reasons that participants may have needed additional feedback posttraining to reach mastery criterion. First, this initial group BST training was an antecedent intervention. Although antecedent interventions can be effective at teaching skills (Phillips, 1998), at times they may be insufficient as a standalone procedure to ensure trainees can successfully perform job skills (DiGennaro Reed et al., 2013; Novak et al., 2019; Reid et al., 2011). Thus, various follow-up strategies may be needed to ensure trainees can perform target skills, including performance feedback (DiGennaro Reed et al., 2013; Novak et al., 2019).

Second, participants only received a minimal amount of feedback and practice opportunities during the role play component of the training. Specifically, additional analysis of data taken during training indicates two of the five participants never successfully implemented all steps of the boundary setting TA during training. Results may be more immediate and clearer if participants role played and received feedback on a sufficient number of scenarios during training such that a mastery criterion was met before moving to posttraining trials. Feedback is typically the most effective component of BST (Ward-Horner & Sturmey, 2012), and previous researchers recommend the use of one role play with feedback until mastery criterion (Jenkins & DiGennaro Reed, 2016). The original plan for this study took this recommendation into account as participants were to display performance at 100% accuracy before going to posttraining. However, due to time constraints, including the unexpectedly long time it took providing

feedback to one of the participants, not all participants were able to display this level of performance before training was over. Nevertheless, it should be noted that the three participants who did perform a trial at 100% accuracy during training also did not perform to mastery criterion in posttraining either; therefore, it appears one trial at 100% accuracy during training was insufficient to reach mastery criterion posttraining as well.

Third, participants may have needed additional feedback to meet mastery criterion because of the complexity of the dependent variable. Specifically, there is not one scripted response for a situation, but rather many topographies of responses that may fall under a general response class. Therefore, participants could not simply be taught a script that they could use for every response. Additionally, each trial in posttraining is essentially a generalization probe as the participant did not experience the scenario in training. Therefore, a unique form of the response was required for every scenario. Although this need to emit a unique response in the study is beneficial from a practical standpoint as it prepares participants for work in the natural environment, it also could increase the likelihood that results would not be as clear. This difficulty may have also played a role in reducing the number of role plays and feedback received mentioned previously, as participants frequently engaged in extended discussion after each role play on how the role play made them feel and what were other resources or ways participants could redirect community members. To the contrary, many previous BST studies teach skills that have more discrete steps that participants may implement exactly as taught (e.g., soccer skills, gun safety skills, lockdown skills) that are also easily and quickly repeated. Finally, this skill is more difficult because a boundary violation may be “triggering” to the peers. That is to say, boundary violations may exhibit stimulus properties that are similar to prior aversive events in the peers’ lives and therefore elicit emotional responses and occasion escape behavior.

This triggering effect of boundary violations was noted by a confederate when making training videos for the study and by participants early in the training. Additionally, previous boundary literature has also noted that ethical dilemmas can lead to an “emotional response” (Fronck & Kendall, 2017). I therefore provided time during the training, although not the role play component, for participants to discuss this effect of boundary violations. This triggering effect may also be more important for boundary training with the current study population as compared to other populations, as peers have a history of mental illness and/or substance use and may possibly be more likely to have prior traumas in their historical context.

Although this study focused on teaching the response to an attempted boundary crossing, it is important to note there are conceptually two general responses involved in every scenario: (a) discriminating it is a boundary crossing and (b) implementing the steps of the TA. The first part of the training gave a general overview of discriminating what is and is not a boundary; however, defining boundary crossings was not the focus of the training. In fact, all the trials displayed boundary crossings the peers should have responded to with a no response. Despite this fact, two participants (Participants 1 and 2) responded with low accuracy for one trial each in posttraining because they complied with the response. This compliance with the request, which only occurred infrequently, indicated a failure to discriminate rather than a failure to emit the target response accurately, and therefore additional discrimination training may be necessary.

Finally, results of the generalization probes provide important information. The generalization probes in this study involved coworkers and supervisors, rather than clients. Boundary crossings happen in places of a power imbalance (Kendall, 2011), and responding with the steps of the TA to these situations may be more difficult because the power differential is in the opposite direction of peer support worker to client. That is, when a peer is working with a

client, the peer is in a position of power—albeit a minimal differential of power by design of the peer support position. However, with a supervisor, the peer is in the position of less power and can ostensibly be fired if they do not comply with the supervisor’s request. In the case of a coworker, a peer may perceive that a nurse, doctor, or social worker has more power due to their level of education or status in the organization. This perceived power imbalance may make it harder to set a boundary. Additionally, there may be less the peer can do for a supervisor or coworker than they can for a community member, therefore making redirecting more difficult. The finding that only two participants improved performance on their generalization probes provides the important information that additional training on boundary crossings with coworkers and supervisors may be necessary. This finding is supported by the social validity results, which indicated one participant wanted additional training with coworkers.

Contributions to the Literature

This study contributes to the literature in several ways. First, this study extends the ethics literature. Previous ethics literature focuses on teaching ethical decision making (BACB, 2020; Bailey & Burch, 2016; Fronek et al., 2009; Fronek & Kendall, 2017); this study extends the literature by teaching trainees specifically how to set a clear boundary when faced with an immediate boundary violation. This contribution to the literature is important as it addresses one of the most important and significant ethics questions; namely, what to do in the moment to avoid unethical behavior on a daily basis (Bailey, 2021). Additionally, although boundary violations, and ethics in general, may frequently be conditional, the steps of the TA break down a complex skill and provide a structured manner to respond when faced with an ethical violation that also aims to maintain a close relationship with the person engaging in the boundary violation. This finding was highlighted in the social validity results, in which one participant

noted they appreciated the structured approach to what is usually a hypothetical training. Next, this study extends the evaluation of boundary training beyond surveys or choosing a response based on a vignette and is the first boundary training study, to my knowledge, to measure a trainee's actual response to a boundary violation, which is a limitation to the extant boundary training literature identified by previous researchers (Davidson, 2005; Kunaparaju et al., 2018). Additionally, this study demonstrates that a boundary setting training can include this responding and measuring aspect in a manageable length of time. This measurement also allows for individualized assessment and feedback, thus ensuring that participants meet mastery criterion.

Second, this training extends the applicability of BST to a new topic and population. Specifically, this study demonstrates that BST, with feedback, can be used to teach an ethical skill (i.e., boundary setting) to peers in a way that is acceptable to those engaging in the training. Although BST has been successful at teaching a wide range of skills to varying populations (Dib & Sturme, 2012; Miltenberger, 2016; Parsons et al., 2012), it has not been used to teach ethical skills, an area of formal training that is often overlooked (Lerman et al., 2015). The findings also demonstrated that BST is a useful training procedure to use while teaching behavioral health peer support workers, a population with which BST has not been used.

Third, this study also extends the peer training literature. Peer training methods vary greatly and are frequently poorly defined (Schulz, 2020). This training used an evidence-based procedure to teach an important skill to peers. Additionally, previous studies on peer trainings often do not assess peer performance (Schulz, 2020). Therefore, using a single-subject design that measures an operationally defined dependent variable helps ensure peers are able to perform the skills necessary to do their job. As peer support workers provide a wide range of services (Cronise et al., 2016), this training provides an example for how other peer trainers can

collaboratively operationalize core competencies and skills that peer support workers need and measure whether trainees have obtained the skills posttraining. This study also contributes to the three previously mentioned literatures by successfully completing the training from a distance over Zoom.

Next, this study provides one example of a way behavior analysts can collaborate with the field of public health. As behavior analysts continue to expand their knowledge to new areas, it is important that they do so systematically to ensure they are working within their own boundaries of competencies and thereby ensuring no harm is coming to the clients (Bailey & Burch, 2016). Previous researchers have noted that behavior analysts have already and can continue contributing to public health (LeBlanc et al., 2020). Another way the field can branch out to public health is to thoughtfully build on the work public health practitioners already do. Therefore, it is important to know about the 10 essential services of public health (CDC, 2020). One of the essential services of public health is to develop the workforce, which provides an opportunity for behavior analysts to assist because one of the subfields of behavior analysis (i.e., organizational behavior management) has a robust literature on workforce training. Thus, behavior analysts are well positioned to collaborate with public health practitioners around training, which at the same time provides an opportunity to extend behavioral training research to new populations and skills. Strategically identifying how public health practitioners are already meeting the essential services in general may provide a plethora of areas for behavior analysts to collaborate. This is, there are several behavior analytic researchers doing work in areas that may dovetail nicely with some of the other essential services of public health. For example, the field of behavior analysis could provide thoughtful and important information around the essential services of creating and implementing policies (e.g., Hursh & Roma, 2013)

and services (e.g., Raiff & Dallery, 2010; Silverman et al., 2019) and investigating root causes (e.g., through collaboration on community health assessments). Finding ways to collaborate with local health departments to work on the essential services these local health departments already provide may be a good way to start extending behavior analytic research and scaling up some of the important work developed in this field. This study provides one small example of such a collaboration to improve training in public health.

Finally, a strength of this study is its collaborative and participatory nature. I developed this study using focus groups with those who do the work and included those most affected by the issue (i.e., peers) in the training. This collaboration is important for several reasons. First, it ensures the training covers an important and needed topic and ensures components of the training are relevant (e.g., example scenarios). Next, it demonstrates the value and importance of the peers—people who experience mental illness and/or a substance use disorder often face stigma. This stigma is pervasive in our society, and a study by Rey et al. (2019) found that even many behavior analysts may hold negative biases. These researchers asked behavior analysts to rate their attitudes toward various statements about people living with a mental illness or substance use disorder on a scale from 0 (indicating *strongly disagree*, *strongly oppose*, or *definitely unwilling*) to 100 (indicating *strongly agree*, *strongly favor*, *definitely willing*). Two of the questions asked respondents whether they would work with someone who lives with a mental illness or substance use disorder. Higher scores indicated a behavior analyst would work with people living with a mental illness or substance use disorder. Unfortunately, working with someone with a substance use disorder only scored an average of 45. Working with people with mental illness was higher at 71.1, which although better is still short of the *definitely willing* level. Furthermore, although an emphasis on research that is applied and socially valid has

always been at the heart of behavior analysis (Baer, Wolf, & Risley, 1968; Wolf, 1978), a review of published articles in the *Journal of Applied Behavior Analysis* indicates that the field's stated mission and current practices may be incongruent and that there is a need for participatory-based research (Pritchett et al., 2020). This study demonstrated a participatory approach to behavioral research by including those most affected in determining the training topic, developing training materials (e.g., videos, scenarios), facilitating the training—for which they were also paid—and also shared and discussed results with participants after the training. Finally, the training also provided one small example of the positive results and experience one may have when working closely with people living with a mental illness or in long term recovery from a substance use disorder.

Limitations and Future Research

There are several limitations to this study. First, a group BST session alone was not sufficient for participants to reach mastery criterion and therefore experimenter feedback was necessary for all participants. In an effort to enhance the effectiveness of the antecedent training component, future research could evaluate the effects of changes to the training, such as shortening the modeling component while extending the role play component to allow for time to discuss the scenarios and requiring a mastery criterion be met before implementing posttraining. Next, I was not able to collect measures in the work setting due to restrictions related to the pandemic and confidentiality issues. The findings would be stronger if follow-up data were collected while peers were working with community members as it would demonstrate generalization to the natural work environment. On-the-job data collection would also help ensure peers are able to complete the necessary behaviors when a real-world boundary is crossed while at work. Future post-pandemic research should incorporate on-the-job data collection.

A third limitation of this study is that the task analysis has not been validated and it is possible the targeted skills are not the best way to respond to a boundary crossing. Although efforts were made to incorporate relevant literature and collaborate with experts and peers when designing the task analysis, future research should validate the task analysis steps. Another limitation is that the training did not ensure participants could discriminate a boundary violation. Although the training presented relevant information, this skill was not targeted and could be a focus of future research.

A final limitation is that I used a nonconcurrent multiple baseline across subjects. The use of a single-case design is a strength of this study and a nonconcurrent multiple baseline design across subjects can demonstrate a functional relation. However, this type of multiple baseline design is a weaker design than other multiple baseline designs (e.g., concurrent multiple baseline design across subjects, multiple baseline design across skills) and is essentially multiple AB designs. However, due to logistical issues, this design and a group training was the most feasible option in this applied setting.

Future research could address some of the above limitations to refine the training and also systematically replicate the study to new populations. Specific refinements may include assessing the effect of requiring trainees to meet a mastery criterion before moving to posttraining. New populations with whom the study could be systematically replicated include behavior analysts working with people with autism. Behavior analysts and behavior analysts in training may also find themselves facing boundary crossings, and the steps of this TA would work in many situations. However, future researchers may need to develop new scenarios that reflect the situations a behavior analyst may face. This type of training could be facilitated as

part of ongoing staff training for employees working in clinics or embedded within an undergraduate ethics course as one or several class periods.

Additionally, future research should replicate this study with more peer support workers and extend the use of BST to other skills peer support workers need to have in their repertoires. For example, one of the core competencies of peer support workers involves being able to use listening skills (SAMHSA, 2015). Although there are multiple types of listening skills (e.g., active, reflective, compassionate), all of these listening skills can be operationally defined and taught through BST. Other important skills, such as how to help manage crises or what to say when talking to someone who is actively engaging in suicidal ideation, can also be operationally defined, taught, and measured. At least some of these skills, such as using ALGEE (assess, listen, give, encourage, encourage) as part of mental health first aid (Kitchener & Jorm, 2008), already have the beginning of a task analysis as well as a literature base.

Behavioral health issues pose a significant public health challenge in the United States. One component of treatment that has moderate evidence in improving a number of important outcomes for people living with a mental illness and/or substance use disorder is the use of peer support workers. To ensure peer support workers are adequately prepared to provide quality services that may ultimately reduce the health and financial burden of behavioral health issues it is imperative they obtain effective training. The findings from this study preliminarily indicate the use of BST in combination with experimenter feedback may be an important first step toward ensuring peer support workers are properly trained.

References

- American Public Health Association (2020). *Mental health*. <https://www.apha.org/topics-and-issues/mental-health>
- Aravind, V. K., Krishnaram, V. D., & Thasneem, Z. (2011). Boundary crossings and violations in clinical settings. *Indian Journal of Psychological Medicine*, 34(1), 21–24.
<https://doi.org/10.4103/0253-7176.96151>
- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1(1), 91–97.
<https://doi.org/10.1901/jaba.1968.1-91>
- Bailey, J. S., & Burch, M. R. (2016). *Ethics for behavior analysts* (3rd ed). Routledge.
- Bailey, J. S. (2021). Practical vs theoretical ethics: A response to Cox. *Journal of Applied Behavior Analysis*, 54(1). 192–196. <https://doi.org/10.1002/jaba.788>
- Behavior Analyst Certification Board (2018). *Supervisor training curriculum outline (2.0)*. Author.
- Behavior Analyst Certification Board (2020). *Ethics code for behavior analysts*. Author
- Belisle, J., Rowsey, K. E., & Dixon, M. R. (2016). The use of in situ behavioral skills training to improve staff implementation of the PEAK Relational Training System. *Journal of Organizational Behavior Management*, 36(1), 71–79.
<https://doi.org/10.1080/01608061.2016.1152210>
- Bonosky, N. (1995). Boundary violations in social work supervision: Clinical, educational and legal implications. *The Clinical Supervisor*, 13(2), 79–95.
https://doi.org/10.1300/J001v13n02_06

- Bourret, J. C., & Pietras, C. J. (2013). Visual analysis in single-case research. In G. J. Madden, W. V. Dube, T. D. Hackenberg, G. P. Hanley, & K. A. Lattal (Eds.), *APA Handbook of Behavior Analysis* (Vol. 1). American Psychological Association.
- Brazeau, K., Rehfeldt, R. A., Mazo, A., Smalley, S., Krus, S., & Henson, L. (2017). On the efficacy of mindfulness, defusion, and behavioral skills training on job interviewing skills in dually-diagnosed adults with developmental disorders. *Journal of Contextual Behavioral Science*, 6, 145–151. <https://doi.org/10.1016/j.jcbs.2017.04.002>
- Budney, A. J., Higgins, S. T., Delaney, D. D., Kent, L., & Bickel, W. K. (1991). Contingent reinforcement of abstinence with individuals abusing cocaine and marijuana. *Journal of Applied Behavior Analysis*, 24(4), 657–665. <https://doi.org/10.1901/jaba.1991.24-657>
- Catania, C. N., Almeida, D., Liu-Constant, B., & DiGennaro Reed, F. D. (2009). Video modeling to train staff to implement discrete-trial instruction. *Journal of Applied Behavior Analysis*, 42(2), 387–392. <https://doi.org/10.1901/jaba.2009.42-387>
- Centers for Disease Control and Prevention (2005, August 31). *The role of public health in mental health promotion*. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5434a1.htm>
- Centers for Disease Control and Prevention (2020, May 21). *The public health system & the 10 essential public health services*. <https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>
- Chambers, C. & Radley, K. C. (2019). Training soccer skills to adolescents with autism spectrum disorder via peer-mediated behavioral skills training. *Behavior Analysis in Practice*, 13, 454–461. <https://doi.org/10.1007/s40617-019-00381-2>

- Chinman, M., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Swift, A., & Delphin-Rittmon, M. E. (2014). Peer support services for individuals with serious mental illnesses: Assessing the evidence. *Psychiatric Services, 65*(4), 429–441. <https://doi.org/10.1176/appi.ps.201300244>
- Clayton, M., & Headley, A. (2019). The use of behavioral skills training to improve staff performance of discrete trial training. *Behavioral Interventions, 34*, 136–143. <https://doi.org/10.1002/bin.1656>
- Compton, M. T., Reed, T., Broussard, B., Powell, I., Thomas, G. V., Moore, A., Cito, K., & Haynes, N. (2014). Development, implementation, and preliminary evaluation of a recovery-based curriculum for community navigation specialists working with individuals with serious mental illnesses and repeated hospitalizations. *Community Mental Health Journal, 50*, 383–387. <https://doi.org/10.1007/s10597-013-9598-2>
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied Behavior Analysis* (2nd ed.). Pearson.
- Cronise, R., Teixeira, C., Rogers, E. S., & Harrington, S. (2016). The peer support workforce: Results of a national survey. *Psychiatric Rehabilitation Journal, 39*(3), 211–221. <https://doi.org/10.1037/prj0000222>
- Davidson, J. C. (2005). Professional relationship boundaries: A social work teaching module. *Social Work Education, 26*(5), 511–533. <https://doi.org/10.1080/02615470500132715>
- Davidson, L., Bellamy, C., Guy, K., & Miller, R. (2012). Peer support among persons with severe mental illness: A review of evidence and experience. *World Psychiatry, 11*(2), 123–128. <https://doi.org/10.1016/j.wpsyc.2012.05.009>

- De Crescenzo, F., Ciabattini, M., D'Alò, G. L., De Giorgi, R., Del Giovane, C., Cassar, C., Janiri, L., Clark, N., Ostacher, M. J., & Cipriani, A. (2018). Comparative efficacy and acceptability of psychosocial interventions for individuals with cocaine and amphetamine addiction: A systematic review and network meta-analysis. *PLoS Medicine*, *15*(12), e1002715. <https://doi.org/10.1371/journal.pmed.1002715>
- Dib, N., & Sturmey, P. (2012). Behavioral skills training and skill learning. In N. M. Seel (Eds.). *Encyclopedia of the Sciences of Learning* (pp. 437–438). Springer. https://doi.org/10.1007/978-1-4419-1428-6_44
- Dickson, M. J., & Vargo, K. K. (2017). Training kindergarten students lockdown drill procedures using behavioral skills training. *Journal of Applied Behavior Analysis*, *50*(2), 407–412. <https://doi.org/10.1002/jaba.369>
- DiGennaro Reed, F. D., Blackman, A. L., Erath, T. G., Brand, D., & Novak, M. D. (2018). Guidelines for using behavioral skills training to provide teacher support. *TEACHING Exceptional Children*, *50*(6), 373–380. <https://doi.org/10.1177/0040059918777241>
- DiGennaro Reed, F. D., Hirst, J. M., & Howard, V. J. (2013). Empirically supported staff selection, training, and management strategies. In D. D. Reed, F. D. DiGennaro Reed, & J. K. Luiselli (Eds.). *Handbook of crisis intervention and developmental disabilities* (pp. 71–85). Springer.
- Doel, M., Allmark, P., Conway, P., Cowburn, M., Flynn, M., Nelson, P., & Tod, A. (2009). Professional boundaries: Crossing a line or entering the shadows? *The British Journal of Social Work*, *40*(6), 1866–1889. <https://doi.org/10.1093/bjsw/bcp106>
- Doors to Wellbeing (n.d.). *Peer specialists*. Retrieved July 20, 2020, from <https://copelandcenter.com/peer-specialists>

- Ducharme, J. M., & Feldman, M. A. (1992). Comparison of staff training strategies to promote generalized teaching skills. *Journal of Applied Behavior Analysis*, 25(1), 165–179.
<https://doi.org/10.1901/jaba.1992.25-165>
- Ehrlich, R. J., Nosik, M. R., Carr, J. E., & Wine, B. (2020). Teaching employees how to receive feedback: A preliminary investigation. *Journal of Organizational Management*, 40(1-2), 19–29. <https://doi.org/10.1080/01608061.2020.1746470>
- Englander, H., Gregg, J., Gullickson, J., Cochran-Durnas, O., & Colasurdo, C. (2019). Recommendations for integrating peer mentors in hospital-based addiction care. *Substance Abuse*, 41(4), 419–424. <https://doi.org/10.1080/08897077.2019.1635968>
- Erath, T. G., DiGennaro Reed, F. D., Sundermeyer, H. W., Brand, D., Novak, M. D., Harbison, M. J., & Shears, R. (2020). Enhancing the training integrity of human service staff using pyramidal behavioral skills training. *Journal of Applied Behavior Analysis*, 53(1), 449–464. <https://doi.org/10.1002/jaba.608>
- Esser, M. B., Sherk, A., Liu, Y., Naimi, T. S., Stockwell, T., Stahre, M., Kanny, D., Landen, M., Saitz, R., & Brewer, R. D. (2020). Corrections: Deaths and years of potential life lost from excessive alcohol use – United States, 2011-2015. *Morbidity and Mortality Weekly Report*, 69(30), 981–987. <https://doi.org/10.15585/mmwr.mm6930a1>
- Fan, Y., Ma, N., Ma, L., Xu, W., Lamberti, J. S., & Caine, E. D. (2018). A community-based peer support service for persons with severe mental illness in China. *BMC Psychiatry*, 18, 170–180. <https://doi.org/10.1186/s12888-018-1763-2>
- Faulkner, A., & Basset, T. (2012). A helping hand: Taking peer support into the 21st century. *Mental Health and Social Inclusion*, 16(1), 41–47.
<https://doi.org/10.1108/20428301211205892>

- Franke, C. C. D., Paton, B. C., & Gassner, L-A. J. (2010). Implementing mental health peer support: A South Australian experience. *Australian Journal of Primary Health, 16*, 179–186. <https://doi.org/10.1071/py09067>
- Fronek, P., & Kendall, M. B. (2017). The impact of Professional Boundaries for Health Professionals (PBHP) training on knowledge, comfort, experience, and ethical decision-making: A longitudinal randomized controlled trial. *Disability and Rehabilitation, 39*(24), 2522–2529. <https://doi.org/10.1080/09638288.2016.1236152>
- Fronek, P., Kendall, M., Ungerer, G., Malt, J., Eugarde, E., & Geraghty, T. (2009). Towards healthy professional-client relationships: The value of an interprofessional training course. *Journal of Interprofessional Care, 23*(1), 16–29. <https://doi.org/10.1080/13561820802491006>
- Glass, L. I. (1993). The gray areas of boundary crossings and violations. *American Journal of Psychotherapy, 57*(4), 429–444. <https://doi.org/10.1176/appi.psychotherapy.2003.57.4.429>
- Gloster, A. T., Walder, N., Levin, M. E., Twohig, M. P., & Karekla, M. (2020). The empirical status of acceptance and commitment therapy: A review of meta-analyses. *Journal of Contextual Behavioral Science, 18*, 181–192. <https://doi.org/10.1016/j.jcbs.2020.09.009>
- Gorton, G. E., Samuel, S. E., & Zebrowski, S. M. (1996). A pilot course for residents on sexual feelings and boundary maintenance in treatment. *Academic Psychiatry, 20*(1), 43–55. <https://doi.org/10.1007/BF03341960>
- Gutheil, T., G., & Gabbard, G. O. (1993). The concept of boundaries in clinical practice: Theoretical risk-management. *The American Journal of Psychiatry, 150*(2), 188–196. <https://doi.org/10.1176/ajp.150.2.188>

- Hahs, A. D., & Jarynowski, J. (2019). Targeting staff treatment integrity of the PEAK relational training system using behavior skills training. *Behavior Analysis in Practice, 12*(1), 209–215. <https://doi.org/10.1007/s40617-018-00278-6>
- Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O’Neal, L., McLeod, L., Delacqua, G., Delacqua, F., Kirby, J., Duda, S. N., & REDCap Consortium (2019). The REDCap consortium: Building an international community of software partners. *Journal of Biomedical Informatics, 95*, 103208. <https://doi.org/10.1016/j.jbi.2019.103208>
- Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2019). Research electronic data capture (REDCap)—A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics, 42*(2), 377–381. <https://doi.org/10.1016/j.jbi.2008.08.010>
- Hawkins, J. D., Catalano, R. F., & Wells, E. A. (1986). Measuring effects of a skills training intervention for drug abusers. *Journal of Consulting and Clinical Psychology, 54*(5), 661–664. <https://doi.org/10.1037/0022-006X.54.5.661>
- Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes, and outcomes. *Behavior Research and Therapy, 44*(1), 1–25. <https://doi.org/10.1016/j.brat.2005.06.006>
- Healthy People 2020 (2020, September 16). *Substance abuse*. <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse>
- Hedegaard, H., Miniño, A. M., Warner, M. (2020). *Drug overdose deaths in the United States, 1999–2018*. NCHS Data Brief, no 356. National Center for Health Statistics. <https://www.cdc.gov/nchs/data/databriefs/db356-h.pdf>

- Hillman, C. B., Lerman, D. C., & Kosel, M. L. (2021). Discrete-trial training performance of behavior interventionists with autism spectrum disorder: A systematic replication and extension. *Journal of Applied Behavior Analysis, 54*(1), 374–388.
<https://doi.org/10.1002/jaba.755>
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research, 36*, 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Hogan, A., Knez, N., Kahng, S. (2014). Evaluating the use of behavioral skills training to improve school staffs' implementation of behavior intervention plans. *Journal of Behavioral Education, 24*, 242–254. <https://doi.org/10.1007/s10864-014-9213-9>
- Homlitas, C., Rosales, R., & Candel, L. (2014). A further evaluation of behavioral skills training for implementation of the picture exchange communication system. *Journal of Applied Behavior Analysis, 47*(1), 198–203. <https://doi.org/10.1002/jaba.99>
- Houvouras IV, A. J., & Harvey, M. T. (2014). Establishing fire safety skills using behavioral skills training. *Journal of Applied Behavior Analysis, 47*(2), 420–424.
<https://doi.org/10.1002/jaba.113>
- Hursh, S. R., & Roma, P. G. (2013). Behavioral economics and empirical public policy. *Journal of the Experimental Analysis of Behavior, 99*(1), 98–124. <https://doi.org/10.1002/jeab.7>
- Hutchinson, D. S., Anthony, W. A., Ashcraft, L., Johnson, E., Dunn, E. C., Lyass, A., & Rogers, E. S. (2006). The personal and vocational impact of training and employing people with psychiatric disabilities as providers. *Psychiatric Rehabilitation Journal, 29*(3), 205–213.
<https://doi.org/10.2975/29.2006.205.213>

- Jacobson, M., Trojanowski, L., & Dewa, C. S. (2012). What do peer support workers do? A job description. *BMC Health Services Research*, *12*, 205. <https://doi.org/10.1186/1472-6963-12-205>
- Jenkins, S. R., & DiGennaro Reed, F. D. (2016). A parametric analysis of rehearsal opportunities on procedural integrity. *Journal of Organizational Behavior Management*, *36*(4), 255–281. <http://dx.doi.org/10.1080/01608061.2016.1236057>
- Kansas Consumer Advisory Council for Adult Mental Health (n.d.). *State of Kansas certified peer specialist code of ethics*. https://www.kdads.ks.gov/docs/default-source/csp/licensing/peer-support-training/kcps-code-of-ethics-2019.pdf?sfvrsn=321405ee_2
- Kaufman, L. Kuhn, W. B., & Manser, S. S. (2016). *Peer specialist training and certification programs: A national overview*. Texas Institute for Excellence in Mental Health, School of Social Work, University of Texas at Austin. <http://sites.utexas.edu/mental-health-institute/files/2017/01/Peer-Specialist-Training-and-Certification-Programs-A-National-Overview-2016-Update-1.5.17.pdf>
- Kelly, J. F., Humphreys, K., & Ferri, M. (2020). Alcoholic Anonymous and other 12-step programs for alcohol use disorder. *Cochrane Database of Systematic Reviews*, *3*, CD012880. <https://10.1002/14651858.CD012880.pub2>
- Kendall, M., Fronek, P., Ungerer, G., Malt, J., Eugarde, E., & Geraghty, T. (2011). Assessing professional boundaries in clinical settings: The development of the boundaries in practice scale. *Ethics & Behavior*, *21*(6), 509–524. <https://doi.org/10.1080/10508422.2011.622186>

- Kitchener, B. A., & Jorm, A. F. (2008). Mental Health First Aid: An international programme for early intervention. *Early Intervention in Psychiatry*, 2, 55–61.
<https://doi.org/10.1111/j.1751-7893.2007.00056.x>
- Knudson, P. J., Miltenberger, R. G., Bosch, A., Gross, A., Brower-Breitwieser, C., & Tarasenko, M. (2009). Fire safety skills training for individuals with severe and profound mental retardation. *Journal of Developmental & Physical Disabilities*, 21, 523–535.
<https://doi.org/10.1007/s10882-009-9161-9>
- Kunaparaju, S., Hidalgo, M. S., Bennett, D. S., Sedky, K. (2018). The effect of administering a boundary course to third-year medical students during their psychiatry clerkship. *Academic Psychiatry*, 42, 371–375. <https://doi.org/10.1007/s40596-018-0904-8>
- Lavie, T., & Sturmey, P. (2002). Training staff to conduct a paired-stimulus preference assessment. *Journal of Applied Behavior Analysis*, 35(2), 209–211.
<https://doi.org/10.1901/jaba.2002.35-209>
- LeBlanc, L. A., Lerman, D. C., & Normand, M. P. (2020). Behavior analytic contributions to public health and telehealth. *Journal of Applied Behavior Analysis*, 53(3), 1208–1218.
<https://doi.org/10.1002/jaba.749>
- Lee, N., Vladescu, J. C., Reeve, K. F., Peterson, K. M., & Giannakakos, A. R. (2019). Effects of behavioral skills training on the stimulus control of gun safety responding. *Journal of Behavioral Education*, 28, 187–203. <https://doi.org/10.1007/s10864-018-9309-8>
- Lerman, D. C., LeBlanc, L. A., & Valentino, A. L. (2015). Evidence-based application of staff and caregiver training procedures. In H. S. Roane, J. E., Ringdahl, & T. S. Falcomata (Eds). *Clinical and organizational applications of applied behavior analysis* (pp. 321–351). Elsevier.

- Liberman, R. P., Massel, H. K., Mosk, M. D., & Wong, S. E. (1985). Social skills training for chronic mental patients. *Hospital and Community Psychiatry*, 36(4), 396–403.
<https://doi.org/10.1176/ps.36.4.396>
- Lohfeld, L., Goldie, J., Schwartz, L., Eva, K., Cotton, P., Morrison, J., Kulamakan, K., Norman, G., & Wood, T. (2012). Testing the validity of a scenario-based questionnaire to assess the ethical sensitivity of undergraduate medical students. *Medical Teacher*, 34, 635–642.
<https://doi.org/10.3109/0142159X.2012.687845>
- Mahlke, C. I., Krämer, U. M., Becker, T., & Bock, T. (2014). Peer support in mental health services. *Current Opinion in Psychiatry*, 27(4), 276–281.
<https://doi.org/10.1097/YCO.0000000000000074>
- Mahlke, C. I., Priebe, S., Heumann, K., Daubmann, A., Wegscheider, K., & Bock, T. (2017). Effectiveness of one-to-one peer support for patients with severe mental illness – a randomized controlled trial. *European Psychiatry*, 42, 103–110.
<https://doi.org/10.1016/j.eurpsy.2016.12.007>
- Mancini, M. A. (2018). An exploration of factors that effect the implementation of peer support services in community mental health settings. *Community Mental Health Journal*, 54, 127–137. <https://doi.org/10.1007/s10597-017-0145-4>
- Marder, S. R., Johnston-Cronk, K., Wirshing, W. C., & Eckman, T. (1991). Schizophrenia and behavioral skills training. In B. D. Beitman & G. L. Klerman (Eds). *Integrating pharmacotherapy and psychotherapy* (pp. 311–328). American Psychiatric Association.
- Martens, B. K., Witt, J. C., Elliott, S. N., Darveaux, D. X. (1985). Teacher judgements concerning the acceptability of school-based interventions. *Professional Psychology: Research and Practice*, 16(2), 191–198. <https://doi.org/10.1037/0735-7028.16.2.191>

- McDonell, M. G., Srebnik, D., Angelo, F., McPherson, S., Lowe, J. M., Sugar, A., Short, R., Roll, J. M., & Ries, R. K. (2013). A randomized controlled trial of contingency management for psycho-stimulant use in community mental health outpatients with co-occurring serious mental illness. *American Journal of Psychiatry, 170*(1), 94–101.
<https://doi.org/10.1176/appi.ajp.2012.11121831>
- Meyers, R. J., Roozen, H. G., & Smith, J. E. (2011). The Community Reinforcement Approach: An update of the evidence. *Alcohol Research & Health, 33*(4), 380–388.
<https://doi.org/10.1007/978-90-313-9756-3>
- Miltenberger, R. (2016). *Behavior modification: Principles and procedures* (6th ed.). Cengage Learning.
- Miltenberger, R. G., Flessner, C., Gatheridge, B., Johnson, B., Satterlund, M., & Egemo, K. (2004). Evaluation of behavioral skills training to prevent gun play in children. *Journal of Applied Behavior Analysis, 37*(4), 513–516. <https://doi.org/10.1901/jaba.2004.37-513>
- Minozzi, S., Saulle, R., De Crescenzo, F., & Amato, L. (2016). Psychosocial interventions for psychostimulant misuse. *The Cochrane Database of Systematic Reviews, 9*(9), CD011866. <https://doi.org/10.1002/14651858.CD011866.pub2>
- Moore, J. W., & Fisher, W. W. (2007). The effects of videotape modeling on staff acquisition of functional analysis methodology. *Journal of Applied Behavior Analysis, 40*(1), 197–202.
<https://doi.org/10.1901/jaba.2007.24-06>
- Nabeyama, B., & Sturmey, P. (2010). Using behavioral skills training to promote safe and correct staff guarding and ambulation distance of students with multiple physical disabilities. *Journal of Applied Behavior Analysis, 43*(2), 341–345.
<https://doi.org/10.1901/jaba.2010.43-341>

National Alliance on Mental Illness (2019, September). *Mental health by the numbers*.

<https://www.nami.org/mhstats>

National Association for Alcoholism and Drug Abuse Counselors (n.d.). *National certified peer recovery support specialist (NCPRSS) code of ethics*. [https://www.naadac.org/nprss-](https://www.naadac.org/nprss-code-of-ethics)

[code-of-ethics](https://www.naadac.org/nprss-code-of-ethics)

National Institute on Drug Abuse (2019, January). *Treatment approaches for drug addiction*

DrugFacts. [https://www.drugabuse.gov/publications/drugfacts/treatment-approaches-](https://www.drugabuse.gov/publications/drugfacts/treatment-approaches-drug-addiction)
[drug-addiction](https://www.drugabuse.gov/publications/drugfacts/treatment-approaches-drug-addiction)

National Institute on Drug Abuse (2020, April 6). *Costs of substance abuse*.

<https://www.drugabuse.gov/drug-topics/trends-statistics/costs-substance-abuse>

National Institute of Mental Health (2016, October). *Mental health medications*.

<https://www.nimh.nih.gov/health/topics/mental-health-medications/index.shtml>

National Rehabilitation Information Center (2019, October 16). *Peer providers – How your experiences make you right for the job*.

[https://naricspotlight.wordpress.com/2019/10/16/peer-providers-how-your-experience-](https://naricspotlight.wordpress.com/2019/10/16/peer-providers-how-your-experience-makes-you-right-for-the-job/)
[makes-you-right-for-the-job/](https://naricspotlight.wordpress.com/2019/10/16/peer-providers-how-your-experience-makes-you-right-for-the-job/)

Novak, M. D., DiGennaro Reed, F. D., Erath, T. G., Blackman, A. L., Ruby, S. A., Pellegrino, A.

J. (2019). Evidence-based performance management: Applying behavioral science to support practitioners. *Perspectives on Behavior Science*, 42(4), 955–972.

<https://doi.org/10.1007/s40614-019-00232-z>

Palmen, A., Didden, R., & Korzilius, H. (2010). Effectiveness of behavioral skills training on

staff performance in job training setting for high-functioning adolescents with autism

spectrum disorders. *Research in Autism Spectrum Disorders*, 4, 731–740.

<https://doi.org/10.1016/j.rasd.2010.01.012>

Parker, R. I., & Vannest, K. (2009). An improved effect size for single-case research:

Nonoverlap of all pairs. *Behavior Therapy*, 40(4), 357–367.

<https://doi.org/10.1016/j.beth.2008.10.006>

Parsons, M. B., Rollyson, J. H., & Reid, D. H. (2012). Evidence-based staff training: A guide for practitioners. *Behavior Analysis in Practice*, 5(2), 2–11.

<https://doi.org/10.1007/BF03391819>

Petry, N. M., Martin, B., Cooney, J. L., & Kranzler, H. R. (2000). Give them prizes and they will come: Contingency management for treatment of alcohol dependence. *Journal of Consulting and Clinical Psychology*, 68(2), 225–257. [https://doi.org/10.1037/0022-](https://doi.org/10.1037/0022-006X.68.2.250)

[006X.68.2.250](https://doi.org/10.1037/0022-006X.68.2.250)

Philadelphia Department of Behavioral Health and Intellectual Disabilities, & Achara Consulting, Inc. (2017). *Peer support toolkit*. Philadelphia, PA: DBHIDS.

http://dbhids.org/wp-content/uploads/1970/01/PCCI_Peer-Support-Toolkit.pdf

Phillips, J. R., (1998). Applications and contributions of organizational behavior management in schools and day treatment settings. *Journal of Organizational Behavior Management*,

18(2–3), 103–129. https://doi.org/10.1300/J075v18n02_06

Picker Wheel. (n.d.). *Picker Wheel*. <https://pickerwheel.com>

Pitt, V., Lowe, D., Hill, S., Pictor, M., Hetrick, S. E., Ryan, R., Berends, L. (2013). Consumer-providers of care for adult clients of statutory mental health services. *The Cochrane Database of Systematic Reviews*, 28(3), CD004807.

<https://doi.org/10.1002/14651858.CD004807.pub2>

- Pope, K. S., & Vettner, V. A. (1992). Ethical dilemmas encountered by members of the American Psychological Association: A material study. *The American Psychologist*, 47(1), 397–411. <https://doi.org/10.1037/0003-066X.47.3.397>
- Prendergast, M., Podus, D., Finney, J., Greenwell, L., & Roll, J. (2006). Contingency management for treatment of substance use disorders: A meta-analysis. *Addiction*, 101(11), 1546–1560. <https://doi.org/10.1111/j.1360-0443.2006.01581.x>
- Pritchett, M., Ala'i, S., Cruz, A. R., & Cihon, T. (2020). Social justice is the spirit and aim of an applied science of human behavior: Moving from colonial to participatory research practices. *Behavior Analysis in Practice*. <https://doi.org/10.31234/osf.io/t87p4>
- Quintero, L. M., Moore, J. W., Yeager, M. G., Rowsey, K., Olmi, D. J., Britton-Slater, J., Harper, M. L., & Zezenski, L. (2020). Reducing risk of head injury in youth soccer: An extension of behavioral skills training for heading. *Journal of Applied Behavior Analysis*, 53(1), 237–248. <https://doi.org/10.1002/jaba.557>
- Raiff, B. R., & Dallery, J. (2010). Internet-based contingency management to improve adherence with blood glucose testing recommendations for teens with type 1 diabetes. *Journal of Applied Behavior Analysis*, 43(3), 487–491. <https://doi.org/10.1901/jaba.2010.43-487>
- Reamer, F. G. (2001). *Tangled relationships: Managing boundary issues in the human services*. Columbia University Press.
- Recover to Practice (2014). *Module 6: Peer support values and guidelines* (v. 1). https://rtps.files.wordpress.com/2013/10/module_06_values1.pdf
- Reid, D. H., O’Kane, N. P., & Macurik, K. M. (2011). Staff training and management. In W. W. Fisher, C. C. Piazza, & H. S. Roane (Eds). *Handbook of applied behavior analysis* (pp. 281–294). The Guilford Press.

- Reif, S., Braude, L., Lyman, D. R., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Salim, O., & Delphin-Rittmon, M. E. (2014). Peer recovery support for individuals with substance use disorders: Assessing the evidence. *Psychiatric Services, 65*(7), 853–861.
<https://doi.org/10.1176/appi.ps.201400047>
- Rey, C. N., Kurti, A. N., Badger, G. J., Cohen, A. H., & Heil, S. H. (2019). Stigma, discrimination, treatment effectiveness, and policy support: Comparing behavior analysts' views on drug addiction and mental illness. *Behavior Analysis in Practice, 12*(4), 758–766. <https://doi.org/10.1007/s40617-019-00345-6>
- Ridgely, M. S., & Jerrell, J. M. (1996). Analysis of three interventions for substance abuse treatment of severely mentally ill people. *Community Mental Health Journal, 32*(6), 561–572. <https://doi.org/10.1007/BF02251066>
- Ritchie, H., & Roser, M. (2019, December). *Opioids, cocaine, cannabis and illicit drugs*. Our World in Data. <https://ourworldindata.org/illicit-drug-use#:~:text=Globally%20it's%20estimated%20that%20there,almost%2020%20deaths%20per%20100%2C000>
- Roberts, K., DeQuinzio, J. A., Taylor, B. A., & Petroski, J. (2020). Using behavioral skills training to teach interview skills to young adults with autism. *Journal of Behavioral Education. https://doi.org/10.1007/s10864-020-09389-z*
- Rodolfa, E. R., Kitzrow, M., Vohra S., & Wilson, B. (1990). Training interns to respond to sexual dilemmas. *Professional Psychology: Research and Practice, 21*(4), 313–315.
<https://doi.org/10.1037/0735-7028.21.4.313>

- Rubak, S., Sandbæk, A., Lauritzen, T., & Christensen, B. (2005). Motivational interviewing: A systematic review and meta-analysis. *British Journal of General Practice*, *55*(513), 305–312.
- Salzer, M. S., Schwenk, E., & Brusilovskiy, E. (2010). Certified peer specialist roles and activities: Results from a national survey. *Psychiatric Services*, *61*(5), 520–523.
<https://doi.org/10.1176/ps.2010.61.5.520>
- Sarokoff, R. A., & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis*, *37*(4), 535–538. <https://doi.org/10.1901/jaba.2004.37-535>
- Schulz, J. A. (2020). Training the peer workforce: A scoping review. [Unpublished systematic review]. University of Kansas.
- Silverman, K., Holtyn, A. F., & Toegel, F. (2019). The utility of operant conditioning to address poverty and drug addiction. *Perspectives on Behavior Science*, *42*(4), 1–22.
<https://doi.org/10.1007/s40614-019-00203-4>
- Simon, R. I. (1992). Treatment boundary violations: Clinical, ethical, and legal considerations. *The Bulletin of the American Academy of Psychiatry and the Law*, *20*(3), 269–288.
- Simpson, A., Quigley, J., Henry, S. J., & Hall, C. (2014). Evaluating the selection, training, and support of peer support workers in the United Kingdom. *Journal of Psychosocial Nursing*, *52*(1), 31–40. <https://doi.org/10.3928/02793695-20131126-03>
- Skinner, B. F. (1957). *Verbal behavior*. Prentice-Hall, Inc.
- Smith, D. (2007). *Letter to state Medicaid directors*. Department of Health and Human Services. Centers for Medicare & Medicaid Services. <https://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD081507A.pdf>

Stocco, C. S., Thompson, R. H., Hart, J. M., & Soriano, H. L. (2017). Improving the interview skills of college students using behavioral skills training. *Journal of Applied Behavior Analysis, 50*(3), 495–510. <https://doi.org/10.1002/jaba.385>

Strom-Gottfried, K. (2000). Ensuring ethical practice: An examination of NASW code violations, 1986-97. *Social Work, 45*(3), 251–261. <https://doi.org/10.1093/sw/45.3.251>

Substance Abuse Mental Health Services Administration (2015, December 7). *Core competencies for peer workers in behavioral health services*. https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tac/core-competencies_508_12_13_18.pdf

Substance Abuse Mental Health Services Administration (2019, April-a) *Substance use & mental illness in U.S. adults*. <https://www.samhsa.gov/node/60155>

Substance Abuse and Mental Health Services Administration (2019, August-b). *Key substance use and mental health indicators in the United States: Results from the 2018 national survey on drug use and health*. <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.pdf>

Substance Abuse Mental Health Services Administration (2020, April 16). *Peers*. <https://www.samhsa.gov/brss-tacs/recovery-support-tools/peers>

Sunderland, K., Mishkin, W., Peer Leadership Group, & Mental Health Commission of Canada (2013). *Guidelines for the practice and training of peer support*. Calgary, AB: Mental Health Commission of Canada. https://www.mentalhealthcommission.ca/sites/default/files/peer_support_guidelines.pdf.pdf

- Vamos, M. (2001). The concept of appropriate professional boundaries in psychiatric practice: A pilot training course. *Australian and New Zealand Journal of Psychiatry*, 35(5), 613–618. <https://doi.org/10.1080/0004867010060509>
- Walker, E. R., McGee, R. E., & Druss, B. G. (2015). Mortality in mental disorders and global disease burden implications: A systematic review and meta-analysis. *JAMA Psychiatry*, 72(4), 334–341. <https://doi.org/10.1001/jamapsychiatry.2014.2502>
- Walker, G., & Bryant, W. (2013). Peer support in adult mental health services: A metasynthesis of qualitative findings. *Psychiatric Rehabilitation Journal*, 36(1), 28–34. <https://doi.org/10.1037/h0094744>
- Ward-Horner, J., & Sturmey, P. (2012). Component analysis of behavior skills training in functional analysis. *Behavior Interventions*, 27(2), 75–92. <https://doi.org/10.1002/bin.1339>
- White, G. E. (2004). Setting and maintaining professional role boundaries: An educational strategy. *Medical Education*, 38, 903–910. <https://doi.org/10.1111/j.1365-2929.2004.01894.x>
- White, W., the PRO-ACT Ethics Workgroup, with legal discussion by Popovits R. & Donohue, B. (2007). Ethical Guidelines for the delivery of peer-based recovery support services. *Philadelphia Department of Behavioral Health and Mental Retardation Services*. https://www.naadac.org/assets/2416/whitew2007_the_pro-act_ethics_workgroup.pdf
- Wolf, M. M. (1978). Social validity: the case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11(2), 203–214. <https://doi.org/10.1901/jaba.1978.11-203>

Wood, A. L., Luiselli, J. K., & Harchik, A. E. (2007). Training instructional skills with paraprofessional service providers at a community-based habilitation center. *Behavior Modification, 31*(6), 847–855. <https://doi.org/10.1177/0145445507302893>

Yam, K. K. N., Lo, W. T. L., Chiu, R. L. P., Lau, B. S. Y., Lau, C. K. S., Wu, J. K. Y., & Wan, S. M. (2018). A pilot training program for people in recovery of mental illness as vocational peer support workers in Hong Kong – Job Buddies Training Program (JBTP): A preliminary finding. *Asian Journal of Psychiatry, 35*, 132–140. <http://dx.doi.org/10.1016/j.ajp.2016.10.002>

Table 1*Behavioral Skills Training Studies by Skill and Population*

Skills	Study	Populations						People living with mental illness	People living with a substance use disorder
		Adolescents	Children	College Students	Human service employees	People with a developmental disability			
Behavioral Skills Training	Erath et al., (2020)				✓				
Discrete-Trial Training	Catania et al. (2009)				✓				
	Clayton and Headley (2019)				✓				
	Hillman et al., (2021)		✓			✓			
	Sarokoff and Sturmey (2004)				✓				
Fire Safety Skills	Houvouras and Harvey (2014)	✓							
	Knudson et al. (2009)					✓			
Functional Assessments	Moore and Fisher (2007)				✓				
Guarding Responses	Nabeyama & Sturmey (2010)				✓				
Gun Safety Skills	Lee et al. (2019)		✓						
	Miltenberger et al. (2004)		✓						
Interview Skills	Brazeau et al. (2017)					✓	✓		
	Roberts et al. (2020)			✓		✓			
	Stocco et al. (2017)			✓					
Lockdown Skills	Dickson et al. (2017)		✓						
Medication / Symptom Management	Marder et al. (1991)						✓		
Picture Exchange Communication System	Homlitas et al. (2014)				✓				
	Wood et al. (2007)				✓				
Preference Assessments	Lavie and Sturmey (2002)				✓				
Promoting the Emergence of Advanced Knowledge Relational Training System	Belisle et al. (2016)				✓				
	Hahs and Jarynowski (2019)				✓				
Receive Feedback	Palmen et al. (2010)				✓				
Relapse Prevention Skills	Ridgely and Jerrell (1996)							✓	
	Hawkins et al. (1986)							✓	
Soccer skills	Chambers et al. (2019)	✓				✓			
	Quintero et al. (2020)		✓						
Social Skills	Liberman et al. (1985)						✓		

Table 2*Boundary Training Study Characteristics*

Study	Course Format	Target Population	Training Activities	Measurement
Davidson (2005)	1 day, 6-hr training	Social Workers	<ul style="list-style-type: none"> • Didactic lecture • Dyad activities • Small group activities • Large group activities 	Evaluation form
Fronek et al. (2009)	1 day, 6-hr training	<ul style="list-style-type: none"> • Doctors • Nurses • Physiotherapists • Occupational therapists • Social workers • Psychologists • Dietitians • Speech therapists 	<ul style="list-style-type: none"> • Group problem solving • Large and small group discussion • Case scenario discussion 	Self-rated questionnaire
Fronek & Kendall (2017)	1 day, 6-hr training	Rehabilitation practitioners	<ul style="list-style-type: none"> • Group problem solving • Large and small group scenarios • Scenario feedback 	Boundaries in Practice Scale
Gorton et al. (1996)	6, 50-min sessions held once a week	Postgraduate year 4 residents	<ul style="list-style-type: none"> • Videos of vignettes • Discussion • Clinical case reviews 	Questionnaire
Kunaparaju et al. (2018)	2-hr course	Medical students	<ul style="list-style-type: none"> • Pre-recorded cases • Discussion 	Pre- and post-survey
Rodolfa et al. (1990) – Training 1	1-day conference	Doctoral-level psychology interns	<ul style="list-style-type: none"> • Keynote presentation • Large and small group discussion 	Not described
Rodolfa et al. (1990) – Training 2	6-week seminar	Doctoral-level psychology interns	<ul style="list-style-type: none"> • Didactic presentations • Case presentations • Discussion 	Not described
Vamos (2001)	Three, 2-hr sessions held once a week	Psychiatry trainees	<ul style="list-style-type: none"> • Examples from personal experience • Handouts • Video vignettes • Newspaper articles • Role plays 	<ul style="list-style-type: none"> • Questionnaire • Written responses to a pre- and post-vignette
White (2004)	1 day, 6-hr workshop	Medical students	<ul style="list-style-type: none"> • Readings • Videotaped vignettes • Focused discussion • Role plays • Boundary stretching exercises 	• Questionnaires

Table 3*Boundary Setting Component Checklist*

1.	Fellow listens to the community member
	Correct: Orients toward the camera; maintains a neutral or positive facial expression, may nod head and engage in approving sounds (e.g., “uh huh”)
	Incorrect: (1) Reacts with an emotional face (e.g., surprised, disgusted), or (2) interrupts
2.	Fellow reflects back the community member’s need or situation
	Correct: Describes the community member’s needs, wants, or situation (e.g., “What you are saying is...” “I understand ...” “That must be difficult...”)
	Incorrect: (1) Incorrectly reflects back wants, needs, or situation
	Omission: (1) Does not reflect back the community member’s wants, needs, or situation, or (2) only says “I’m sorry.”
3.	Fellow sets the boundary
	Correct: Emits a “no” response class
	Incorrect: (1) Makes an excuse or gives an ambiguous response, or (2) complies with the request
	Omission: Does not emit a “no” response class
4.	Fellow redirects community member to an appropriate resource or
	Correct: (1) Describes an appropriate resource or another way to meet need or resolve situation (e.g., “Here is what I can do...”), or (2) begins discussing other topics on which to provide support
	Incorrect: Describes an inappropriate resource
	Omission: Does not redirect to another resource or topic
5.	Fellow repeats Steps 3 and 4
	Correct: Sets the boundary again and redirects to resources or another topic
	Incorrect: (1) Begins to make an excuse or give ambiguous response, or (2) complies with the request, or (3) completes only one of Steps 3 or 4
	N/A No opportunity to set the boundary for a second time on the trial

Table 4*Nonoverlap of all pairs (NAP) Results*

Participant	NAP Score			
	BL to PT	BL to FB	Average	PT to FB
1	.69	1.00	.84	.92
2	.70	.50	.60	.50
3	.86	.93	.89	.67
4	.69	1.00	.85	1.00
5	.72	.95	.83	.81

*BL = Baseline; PT = Posttraining; FB = Feedback; Effect size criteria: small NAP = .00–.65, medium NAP = .66–.92, and large NAP = .93–1.00.

Table 5*Results of the Social Validity Questionnaire*

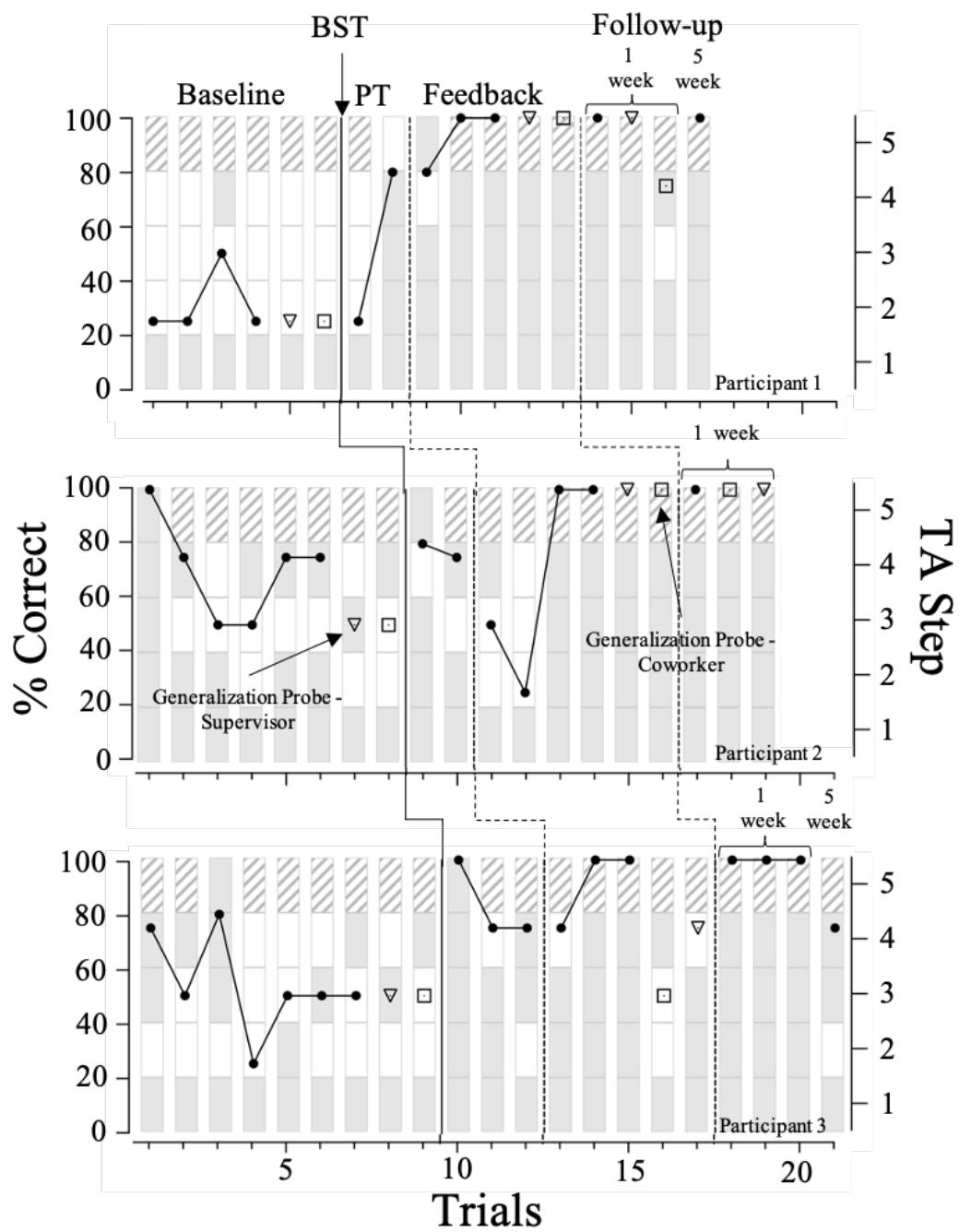
Question	Participants, % (<i>n</i>)						Mean
	1 (Strongly disagree)	2	3	4	5	6 (Strongly agree)	
The steps of setting boundaries learned today is an acceptable method to use with community members	0% (0)	0% (0)	0% (0)	0% (0)	40% (2)	60% (3)	5.6
The steps of setting boundaries learned today should prove effective in helping community members	0% (0)	0% (0)	20% (1)	0% (0)	20% (1)	60% (3)	5.2
This way of setting boundaries would help keep me safe at work	0% (0)	0% (0)	0% (0)	20% (1)	40% (2)	40% (2)	5.2
I would suggest other peers set boundaries in the same way	0% (0)	0% (0)	0% (0)	0% (0)	40% (2)	60% (3)	5.6
I like the setting boundaries skill learned today	0% (0)	0% (0)	20% (1)	0% (0)	20% (1)	60% (3)	5.2
I like the procedures (i.e., instructions, modeling, role play, and feedback) used today to teach me how to set a boundary	0% (0)	0% (0)	0% (0)	0% (0)	40% (2)	60% (3)	5.6
The training is an acceptable way for peers to learn how to set boundaries	0% (0)	0% (0)	0% (0)	20% (1)	20% (1)	60% (3)	5.4
I will set boundaries in the way I learned today at work	0% (0)	0% (0)	0% (0)	20% (1)	20% (1)	60% (3)	5.4

Table 6*Results of the open-ended social validity questions*

Which aspects of setting boundaries learned today were the most useful	<ul style="list-style-type: none"> • “Verbiage” • “Establishing clear understandings of what the peer role is and what boundaries might be necessary.” • “Talking about boundaries is usually very hypothetical given the ambiguous nature of setting a boundary. However I really appreciate that this training used a well-structured model to show how we can effectively set boundaries as well as structured examples and activities to really hammer home the methods learned and their implications.” • “the role playing I learned a lot from that” • “I really enjoyed learning better ways to set boundaries and examples of bad ways to set them”
Which aspects of setting boundaries learned today were the least useful	<ul style="list-style-type: none"> • “None” • “The overview at the end seemed like repetition of subjects we had already covered more than once.” • “Maybe trying to define it, because it's so hypothetical, but I still liked that we defined boundaries.” • “the power point was harder to focus on then the role playing” • “I feel like when it comes to personal safety the answers are mostly cut and dry and self explanatory.”
Which aspects of the training (e.g., instructions, modeling, role play, and feedback) used to teach boundary setting were the most useful?	<ul style="list-style-type: none"> • “Role play” • “The role-playing was very helpful and the group discussions of the videos and how many might respond in situations, also how this might look different with the different organizations.” • “Role-playing and boundary setting model” • “role play” • “role play was very helpful. I was able to watch and learn so much from the other peers in "real time" rather than a scripted video. The interactive aspect of role playing is great.”
Which aspects of the training (e.g., instructions, modeling, role play, and feedback) used to teach boundary setting were the least useful??	<ul style="list-style-type: none"> • “None” • “I think the instructions were good, but maybe we could have spent less time on them.” • “I thought it was all useful.” • “instructions” • “n/a. I thought it was all great!”
Please provide any other feedback.	<ul style="list-style-type: none"> • “None” • “I think overall it was good! Kind of hard to keep paying attention all the way through til the end because this was onlyyyy about boundaries. I would have liked some other material to keep it fresh.” • “I found this training highly useful!” • “I felt i absorbed more thru the role playing and modeling then the verbal instructions” • “Would have liked to explore how to respond to co-workers when it comes to boundaries.”

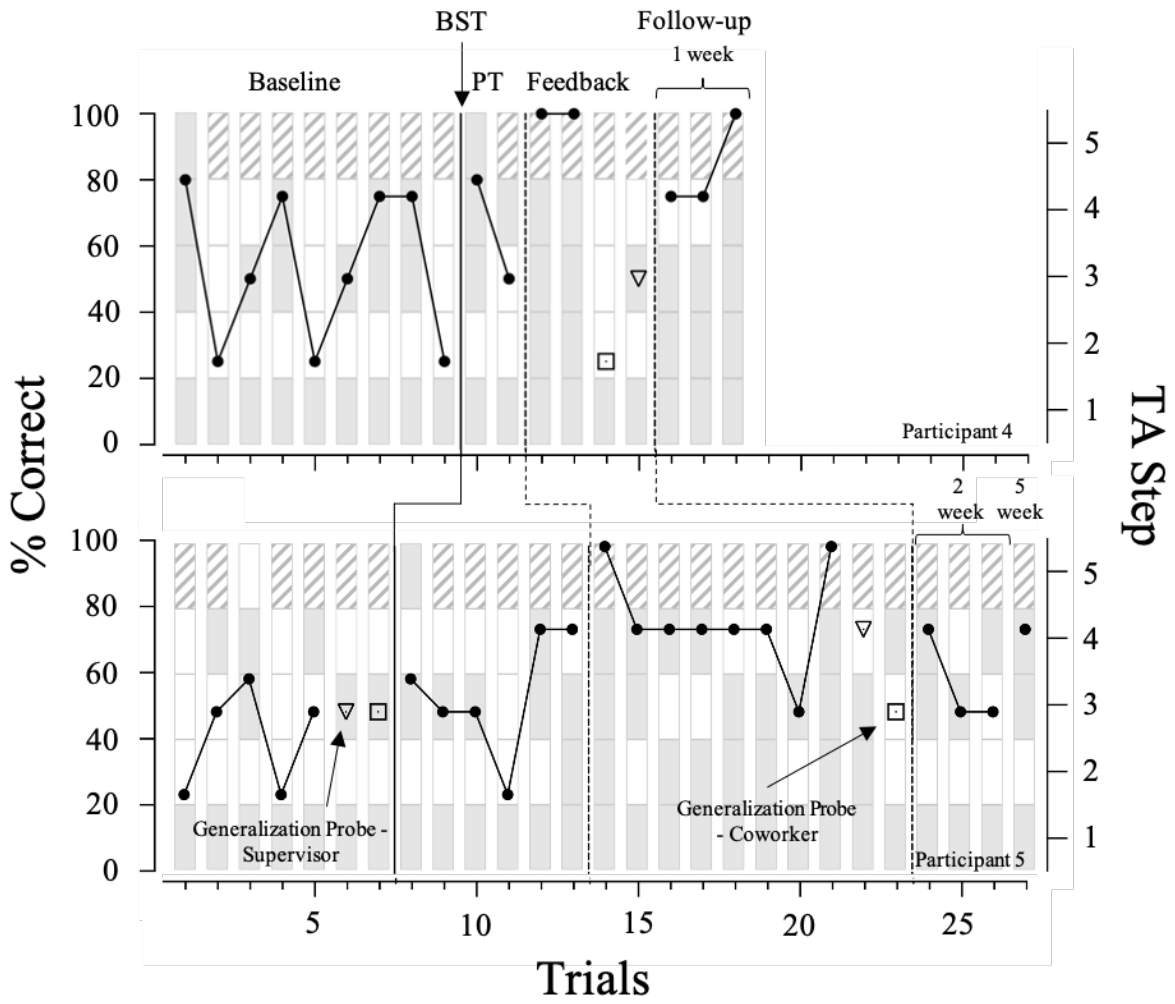
Figure 1

Results for Participants 1, 2, and 3



Note. Percentage of steps completed correctly on the task analysis. Along the left y-axis is percent correct, along the right y-axis is boundary steps implemented by participants, and along the x-axis is trial number. Shaded boxes indicate that the corresponding step in the task analysis was completed correctly, open boxes indicate that the corresponding step on the TA was completed incorrectly, and boxes with diagonal stripes indicate that the corresponding step on the TA was not applicable. PT = posttraining

Figure 2
Results for Participants 4 and 5



Note. Percentage of steps completed correctly on the task analysis. Along the left y-axis is percent correct, along the right y-axis is boundary steps implemented by participants, and along the x-axis is trial number. Shaded boxes indicate that the corresponding step in the task analysis was completed correctly, open boxes indicate that the corresponding step on the TA was completed incorrectly, and boxes with diagonal stripes indicate that the corresponding step on the TA was not applicable. PT = posttraining

Appendix A

Training the Peer Workforce: A Scoping Review

Behavioral health—a term that covers both substance use and mental illness (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019a)—needs pose a significant health and economic challenge in the United States (US). Approximately 1 in 12 adults in the US is living with a substance use disorder, 1 in 5 adults in the US is living with a mental illness, and 7.9 million adults in the US have both a mental illness and a substance use disorder (SAMHSA, 2019b). Additionally, the suicide rate is on an increasing trend since 2001 and was the 10th leading cause of death in 2018 (National Institute of Mental Health [NIMH], 2019). Behavioral health issues also have a detrimental effect on the economy, costing approximately \$53 billion a year in income lost (Bloom et al., 2011; Davlasheridze et al., 2018).

Addressing this public health issue requires a multidisciplinary approach that addresses the various determinants of behavioral health behaviors. One recommended aspect of treatment involves the use of peer support workers (Yam et al., 2018). In a behavioral health context, peer support workers, frequently referred to simply as “peers,” are people who help community members living with a mental illness and/or are in recovery from a substance use disorder by sharing insights from their own lived experiences successfully navigating similar situations (SAMHSA, 2020). Peer support for people living with a mental illness has demonstrated moderate success in improving such outcomes as a reducing inpatient service use, increasing engagement with care, and improving levels of empowerment (Chinman et al., 2014). Additionally, one-to-one peer support has been found to be significantly more effective at increasing self-efficacy for people living with severe mental illness as compared to treatment as usual (Mahlke et al., 2017). Peer support has demonstrated moderate effects in improving

relationships with providers, reducing relapse, increasing satisfaction with treatment, and increasing retention for people in recovery from a substance use disorder (Reif et al., 2014). Peer support was designated as an evidence-based model of care in 2007, which resulted in Medicaid reimbursement for peer support delivered by a trained and certified peer (Smith, 2007).

The training to become a certified peer is important as peers use a variety of skills in addition to their lived experience to support these positive outcomes for community members. SAHMSA (2015) outlines the core competencies necessary to be a successful peer and includes skills such as being able to share one's lived experience, aid in a crisis, and link community members to resources. Peers learn these competencies in various training programs that they take to become a certified peer support worker. However, the certification process varies by state, as does the training (Doors to Wellbeing, n.d.; Kaufman et al., 2016; see Table 1). These training programs range from only 32 hr of training to as much as 126 hr. Additionally, criteria for receiving the certificate vary, as some states require peers to pass a written exam after the training, some states require peers to pass both a written and oral exam, while yet other states have no exams. Finally, only a few of the state programs report what type of learning strategies they use to teach these core competencies, although many of the programs that do report their strategies mention they use role play and discussion. Chapman et al. (2018) note that this variation in training may be a barrier to integrating peers into traditional settings, creates a lack of consistency, and increases the difficulty of peers transferring their credentials if they move to a new state. These researchers also note that there is a need for ongoing training. Other researchers reflect this need for additional training, and it is important to note that the skills learned in certification training programs are a minimum requirement that cover only the basics (Salzer et al., 2010); therefore, peers may need additional training to cover topics not included in

this process. For example, Cronise et al. (2016) conducted a national survey of 597 peer support workers and respondents reported receiving insufficient training to address all the skills and knowledge necessary to successfully complete their role. Likewise, Moran et al. (2013) concluded that peers should receive additional training beyond generic training, and that this training should address the specific knowledge and skills necessary for the job they will be doing. Finally, Ahmed et al. (2015) surveyed peers in Georgia and found that these peers reported a need for continued training.

Although it is clear that peers need additional training beyond the certification process, details of current training programs, and therefore gaps in the literature to be addressed, remain unknown. Additionally, no systematic review focusing on peer training exists in the literature. Therefore, the purpose of this comprehensive review was to conduct a scoping literature review to systematically investigate peer training.

Method

To understand what training methods have been used to train peers, how these training procedures have been evaluated, and what topics are taught to peers through these procedures, I conducted a scoping systematic review (Arksey & O'Malley, 2002). A scoping review is used to understand key concepts of a research area that have not been comprehensively reviewed before. It aims to capture a wide breadth of information. Depending on the purpose of the review, the information is summarized in varying amounts of depth. This specific review aimed to summarize the studies in a greater amount of depth to ultimately identify gaps in peer training studies. Importantly, scoping reviews do include all types of studies, including studies with poor quality. Scoping systematic reviews use an iterative process to ask a research question, find

relevant studies, select the studies, code the data, and then summarize the data (Arksey & O'Malley, 2002). The following paragraphs outline the steps of conducting a scoping review.

Research Questions

The first step of conducting a scoping review involves identifying the research question(s). The main purpose of this review was to understand various aspects of peer training. Specifically, I wanted to answer the following research questions with this review:

1. What are the training methods used in peer training?
2. What are the evaluation methods used in peer training?
3. What are the topics taught in peer training?

Identification of relevant studies

After I developed the research questions, I identified search terms and relevant databases in collaboration with a librarian. This librarian is an active member in various Douglas County behavioral health initiatives and is therefore familiar with peers and their roles in the behavioral health system. I identified search terms related to three concepts that focused on the population and intervention of interest: (1) peers, (2) mental illness and/or substance use, and (3) training. I used the Boolean operator OR within each concept and connected the three concepts using the operator AND. Peers have a wide range of official job titles; therefore, I identified terms to use for “peers” with the aid of the librarian as well as by referencing a study that asked peers to name their job title (Cronise et al., 2016). I used the following terms for peers: "peer support" OR "peer mentor" OR "peer specialist" OR "peer staff" OR "peer providers" OR "persons with lived experience" OR "peer specialist" OR "peer support specialist" OR "recovery support specialist" OR "peer advocate" OR "recovery coach" OR "recovery educator" OR "recovery trainer" OR "peer coach" OR "peer bridger.” Peer support is used with a wide range of lived experiences

(e.g., people with physical disabilities, people with diabetes, people with cancer); however, I was interested in finding only studies related to mental illness and/or substance use disorders.

Therefore, I added search terms to filter this concept as well. I used the following terms for mental illness and substance use: "people with psychiatric disabilit*" OR "mental health" OR "mental illness" OR "substance use" OR "chronic mental illness" OR "chronic psychosis" OR "substance related and addictive disorders" OR "substance use disorder." Finally, I was interested in the training aspect of peers living with mental illness and/or substance use disorders, and therefore I identified terms for this final concept of training. I used the following terms for training: "training" OR "workforce development." I used PsycINFO, PubMed, and Web of Science for my databases. I limited my search to after 2001 as this is the year that Georgia became the first state to implement peer certification. I conducted the final search on July 4, 2020.

Figure 1 displays the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) diagram (Moher et al., 2009) documenting the search process. After removing duplicates, I screened the abstracts and titles of a total of 453 records. From this screening, I identified a total of 46 records, as well as an additional five from references, that I needed to further screen by reading the whole text. After reading the whole text, I removed an additional 18 records, leaving 33 total records to be included in the literature review. The 18 articles removed failed to meet a number of inclusion criteria, such as focusing on people with other lived experience (e.g., lesbian, gay, bisexual, transgender, queer, intersexed, ally; parents of people with mental illness) rather than people living with mental illness and/or substance use disorder.

Selecting the studies

I screened the studies for inclusion and exclusion criteria after I had identified potential articles. Studies needed to meet the following criteria to be included in the study.

1. Literature was written in English.
2. Literature focused on providing details on training peers.
3. Literature focused on peers who had lived experience with mental health and/or substance use disorders.
4. Literature focused on peers over the age of 18.

I first applied these criteria while reading all the titles and abstracts of the nonduplicated articles. I excluded articles that clearly did not meet inclusion criteria. I then read through the entirety of the remaining articles to conduct a full text screening and ensure that these articles met inclusion criteria.

Coding the data

While reading the full text articles, I coded the data in relation to the research questions. I used an excel file to collect data on topics trained, procedures used to train these topics, who implemented the training, the dependent variable if applicable, whether the researchers conducted procedural fidelity, and if trained skills were assessed while peers conducted their jobs. I also collected data on a few other aspects of the articles (e.g., how many people participated in training, location, methods of analysis), as a scoping systematic review is an iterative process and therefore I wanted to be prepared to answer any additional research questions that may have been developed in the process of conducting the review.

Summarizing the data

Once coded, I began summarizing the data by using my codes to quantify the number of studies that had the same results for each research question. I also identified themes as necessary

through an inductive approach, such as for outcomes assessed as studies measured similar constructs with different survey tools.

Results

A total of 33 records were included in the review. Table 2 summarizes the main findings from the literature review in relation to the research questions. The following sections will elaborate on the findings by first giving an overview of the studies and then answering the research questions.

General Study Characteristics

The 33 records were a combination of empirical studies, brief reports, theoretical papers, review papers, and book chapters. Nineteen of the records were empirical studies specifically examining the effects of peer training, eight records were studies that discussed peer training in some capacity but were not primarily conducted to evaluate the training discussed, two were reports on peer training methods, two records were reports describing either one peer training program or multiple peer training programs, one was a review paper, one was part of a book chapter, and one was a theoretical paper. Twenty-one records took place or were written by academicians in the United States, three in Australia, three in the United Kingdom, two in Hong Kong, one in China, one in Denmark, one in Scotland, and one in Switzerland. The majority of published records were in psychiatric journals (see Figure 2), with the *Psychiatric Rehabilitation Journal* publishing one-third of the records.

Research Question 1: Training Methods

A total of 19 records included in the literature review describe numerous training methods used to teach the peers including lecture, presentations, coursework, role plays, and group discussion. Table 2 presents a comprehensive list of all the training methods. Only a few

studies reported using the same methods, with nine studies using role play (47.4%), eight studies using group discussion (42.1%), and three using videos (15.8%). Details on the methods were minimal, with no study reporting how long peers engaged in each teaching procedure or mentioning that training used empirically based training procedures. Only three of the eight studies (37.5%; Kern et al., 2013; Oh & Solomon, 2014; Simpson et al., 2014) that used role plays provide any details on the role plays, with the remaining studies just mentioning that they used role plays.

Research Question 2: Evaluation Methods

The 19 empirical studies evaluating peer training used quantitative ($n = 11$), qualitative ($n = 3$), and mixed methods ($n = 5$) analyses. Like research question 1, studies used a variety of measures to assess numerous outcomes, as displayed in Table 2. However, a number of these outcomes can be grouped into similar constructs (see Figure 3). The measures used assessed the effect of training on a peer's own recovery most often, with four studies using recovery as a measure (21.1%). Of the constructs measured, only two studies used the same scale (i.e., Rosenberg Self-Esteem Scale; Meehan et al., 2002; Tse et al, 2014). In addition to these constructs, two studies (10.5%) administered multiple-choice posttests to evaluate learning, seven studies (36.8%) instructed peers to fill out questionnaires/surveys that asked about social validity and if they thought they had gained skills and knowledge from the training, and five studies (26.3%) assessed employment outcomes.

Research Question 3: Training Topics

Twenty-seven of the records discuss a wide range of topics in peer training (see Table 2). The records covered multiple topics during the training and many of the topics can be categorized into themes. For example, nine of the records (33.3%) discussed listening skills (e.g.,

active, reflective), eight noted the importance of being able to manage crises/emergency situations (20.6%), seven records listed boundaries as a necessary skill (25.9%), six records listed teaching peers how to tell their stories as an important training topic (22.2%), six discussed cultural competency/diversity (22.2%), and six noted the implementation of Wellness Recovery Action Planning as a training topic (22.2%). Finally, 12 training programs discussed the roles and responsibilities of peers (44.4%).

Discussion

The purpose of this scoping systematic review was to summarize previous research on peer training to identify gaps in the literature. Specifically, this review evaluated peer training methods, topics trained, and ways to evaluate learning. The results of this literature review indicate that there are opportunities to extend and improve the peer training literature, especially as it pertains to clearly defined training that ensures peers are able to perform specific job skills.

The results of the literature review indicate that studies used various methods to train peers. Although no article explicitly discusses using evidence-based training procedures, some of the methods discussed (e.g., role plays) are a component of best practices for training (Parsons et al., 2012). Additionally, this method, as well as other methods (e.g., discussion), could fall under active learning strategies, which are strategies that require learners to analyze, synthesize, and evaluate information (Bonwell & Eison, 1991). Active learning strategies have been shown to be more effective than other teaching strategies in a number of contexts, such as in higher education (Freeman et al., 2014; DeNeve et al., 1997) and training for healthcare professionals (Berkof et al., 2011; Pearce et al., 2012). As it pertains to peer training, Kern et al. (2013) used role plays—an active learning strategy—to train peers in a number of key competencies, such as listening skills, implementing job support with a client, and working with other professionals. These

researchers used a task analysis to provide instruction on skills, provided opportunities for peers to engage in simulated role plays while receiving feedback, and then included consumers in role plays for generalization purposes when appropriate. Likewise, Stoneking & McGuffin (2007) also modeled skills and then provided feedback after watching trainees perform the same skills. However, these two studies were the only studies that mentioned feedback as part of the training. The use of feedback is important as it is more effective at increasing skills during training than not providing verbal feedback (van Oorsouw, 2009). Additionally, feedback is the most effective component of a training method that is comprised of instructions, modeling, role play, and feedback (Ward-Horner & Sturmey, 2012). Oh and Solomon (2014) further advocate for the use of role plays to train peers. However, these researchers also note that research on role plays to improve peer performance is lacking. The remaining articles that mention role play seem to support this conclusion, as none of them give detail on how they implemented the role plays, nor do they discuss measuring peer performance during role plays.

A number of studies also use group discussion, which is another active learning strategy. For example, Simpson et al. (2014) used large group discussion so that peers could discuss how to handle various situations, such as what to do if a community member crosses a boundary. These researchers also note that they were able to record these discussions for use in subsequent training. Van Erp et al. (2010) used small group discussion in their training program in which peers would present what they discussed to other people in the training. The remaining studies that used discussion only noted that they used discussion but did not elaborate any further details.

Although various studies used active learning strategies in their training, details on the training methods were scarce. For example, researchers did not provide detail on length of time spent using the strategy, often did not write what topics they covered while using the strategy,

rarely gave examples of role plays or how they developed them, and did not note the role of the facilitators in the strategies. When the researchers did include details, the details were minimal. For example, Simpson et al. (2014) only mention that they structured the role plays and had guidelines for these role plays without expanding on the guidelines. However, it should be noted that Oh and Solomon (2014) and Kern et al. (2013) do write that role plays were based on real experiences of peers, and Oh and Solomon (2014) provide a few examples of role play scenarios. This general lack of details or technological precision across studies makes replication of any of the studies difficult. Additionally, none of the articles measured procedural integrity, and it is therefore unknown if the facilitators conducted the training as described in the study.

The reviewed peer training assessed effectiveness of the training over a number of outcomes, most of which measured constructs related to subjective feelings or recovery. For example, Hutchinson et al. (2006) found significant improvements on recovery attitudes in one subscale and improvements, although not significant, on recovery in a second subscale after implementing their 60-hr training over 5 weeks that covered a variety of topics (e.g., boundaries, conflict resolution, listening). Likewise, Yam et al. (2018) found an increase on the Mental Health Recovery Measure for their peers after training. The next most measured constructs included self-esteem, self-efficacy, and stress/anxiety. The peer training programs included in the review improved these constructs. For example, Compton et al. (2014) reported a significant increase in peers' self-efficacy for doing their job after peers completed their 5-day training.

It is important to measure the impact of training on those trained; however, peer support is designated an evidence-based model due to the benefits community members receive, not those of the peers. Therefore, it is also important to measure and ensure peers can do their job. However, no studies measured peer performance during training and only two attempted to

measure successful implementation of a skill learned during a training (Kern et al., 2013; Stoneking & McGuffin, 2007). Kern et al. (2013) measured implementation fidelity by completing two checklists, the Supported Employment Fidelity Scale and the Kansas Employment Specialist Job Performance Evaluation. The researchers completed the Supported Employment Fidelity Scale during a two-day review that included observations and interviews. The Kansas Employment Specialist Job Performance Evaluation also includes observations and interviews and measured a peer's ability to do specific components of their job on a Likert-type scale (1= *poor*; 5 = *superior*). In the study conducted by Stoneking and McGuffin (2007), participants completed a self-assessment immediately after training and supervisors filled out this same assessment based off the participant's work performance three months post training.

Although only two studies attempted to measure performance, a few studies did measure gain in knowledge through questionnaires. For example, Compton et al. (2014) conducted a pre- and post-multiple-choice question test on knowledge of recovery, whole health, and resilience and found significant increases in knowledge in their peers. Additionally, Salzer et al. (2009) administered a 60-question multiple choice questionnaire after training, 20 questions of which were also assessed pre-training, and found an increase in knowledge from a mean of 62% ($SD = 10.93$) to 84% ($SD = 8.50$) following training.

A number of studies also used questionnaires to assess social validity. Cleary et al. (2009) asked peers a number of questions related to the training itself and found that 97% of the peers found it interesting, 94% found it useful, and 69% thought it increased their knowledge. Yam et al. (2018) administered a questionnaire to assess training experience and found that peers appreciated the trainers, reported a positive personal growth after the training, and would recommend the training. Finally, Crisanti et al. (2016) implemented a posttraining survey,

including a question asking peers to rate baseline level of each item retrospectively, to assess both increases in knowledge and social validity, including satisfaction, comfort level, and difficulty level of training. These peers reported significant increases in perceived knowledge gained and were overall satisfied. Conducting social validity on interventions is certainly an important aspect of training and is important to behavior analysts as well (Wolf, 1978).

A final area of outcome measures related to employment. This is an important outcome because many of the training programs have an ultimate goal of long-term employment for peers. For example, Hegedüs et al. (2006) found that the majority of the peers who completed their training were able to get a job afterwards. Salzer et al. (2009) measured whether peers were employed one year after training and found that 10 out of the 15 peers who were not employed before training were employed a year after training.

Although studies used a variety of measures, it is important to emphasize that only Kern et al. (2013) and Stoneking and McGuffin (2007) attempted to measure skills outside of training. This on-the-job performance measurement is important to note as ultimately peers need to engage in the skills outside of training. Luthans and Kreitner (1985) mention that trainers should design training to maximize the transfer of learning to the natural setting. Furthermore, Crisanti et al. (2016) explicitly note that they do not know whether their training translates into action.

The topics trained in the literature and therefore translated into action cover a wide range of topics. One of the most covered topics was the roles and responsibilities of peers. In fact, Fan et al. (2018) deem clarifying the role of peers to be essential. Peer surveys have identified that peers have a wide range of responsibilities, such as connecting to resources, building community member skills, building relationships, administrative tasks, and vocational assistance (Cronise et al., 2016; Jacobson et al., 2012). Therefore, it is important to be clear about what peers will be

doing in the community. This clarity is particularly important to training, as it is necessary to understand job roles to develop appropriate training objectives and to define the skills to be taught and measured.

Aside from peer roles and responsibilities, training topics varied greatly among the studies and related to or extended the SAMHSA core competencies. A number of the core competencies relate to a peer's ability to listen to others, of which there are a number of types (e.g., reflective, active). The most common training topic outside of roles and responsibilities was some form of listening. Another peer core competency is to help others manage crises, which was the third most trained topic. Yet other training expanded to topics outside these core competencies. For example, peer support workers have various codes of ethics (e.g., Kansas Consumer Advisory Council for Adult Mental Health, n.d.; National Association for Alcoholism and Drug Abuse Counselors, n.d.), and therefore some training programs taught peers about ethics. In fact, setting boundaries was the fourth most trained topic. The wide range of topics and jobs peers perform support the importance of including peers and organizations that manage peers in developing local training so that they fit the local context.

Limitations

There are a number of limitations to this systematic review. First, a scoping systematic review does not assess study quality. Therefore, a number of studies included in this study may be of lower quality. However, the inclusion of these studies was important to ensure the identification of all the topics trained. Second, there was no secondary coder to assess articles for inclusion and exclusion criteria. Therefore, it is possible that I missed a study and did not include it in the review. Third, the review did not include peer training manuals, and therefore documents that may have had more specifics on topics trained or training procedures may have been missed.

However, anecdotally the peer training manuals identified throughout this research project did not add anything not already included in the above analysis and discussion, and if the training manual was empirically evaluated it would have been found in the review process and included.

Implications for Future Research

The results of this review illuminate a number of limitations in the peer training literature that future researchers can address. First, none of the studies used clearly defined evidence-based training procedures. In fact, the methods used were poorly defined, thus making replication of the studies difficult. Second, no fidelity measures of the training programs were conducted. Therefore, it is unknown whether facilitators implemented the training as planned. Third, no studies directly assessed peer performance of skills, and therefore it is unknown whether the peers could perform any skills taught in the training. Although it is certainly important and worthwhile to assess the impact of training on peers' attitudes and thoughts, this leaves an opportunity for future research. Finally, only one study assessed the peers' ability to perform the skills while conducting their job with community members. The need to understand if skills taught in training transfer to the setting in which peers work is another area to be further explored.

Behavioral Skills Training (BST)

Behavioral skills training (BST), which involves an instructor describing and providing a description of a skill, demonstrating the skill, allowing a trainee the opportunity to practice the skill, and providing feedback during this practice (Miltenberger, 2016; Parsons et al, 2012), is an evidence-based procedure that may address many of the limitations of the aforementioned studies. For example, BST would ensure an empirically based teaching method is used and that the skills peers need to perform are being described, practiced, and measured. BST has been

effective in teaching a wide variety of skills, such as fire safety skills (Houvouras & Harvey, 2014; Knudson et al., 2009), gun safety skills (Lee et al., 2019, Miltenberger et al., 2004), lockdown procedures skills (Dickson et al., 2017), interview skills (Roberts et al., 2020; Stocco et al., 2017), and soccer skills (Chambers & Radley, 2019; Quintero et al., 2020). BST is also frequently used to teach a variety of work skills to employees. Frequently, these employees work in human service organizations. For example, BST has been used to teach discrete-trial training (Clayton & Headley, 2019; Hillman et al., 2021; Sarokoff & Sturmey, 2004), BST (Erath et al., 2020; Parsons et al., 2012), Promoting the Emergence of Advanced Knowledge Relational Training System (Belisle et al., 2016; Hahs & Jarynowski, 2019) and guarding responses (Nabeyama & Sturmey, 2010). Erath et al. (2020) provide a representative study of using BST to teach staff skills. In this study, the researchers used a nonconcurrent multiple baseline design across participants design to train staff to use the steps of BST as measured by BST procedural integrity. Results indicated that the majority of staff were able to successfully demonstrate BST to mastery criterion after an approximately 50-min training.

BST has been used to teach skills listed above to a number of different populations. For example, the studies above teach skills to children (e.g., Dickson et al., 2017; Lee et al., 2019), people with autism (e.g., Roberts et al., 2020), and adults (e.g., Erath et al., 2020; Nabeyama & Sturmey, 2010). Expanding the literature review outside of behavior-analytic journals reveals studies that use the components of BST to teach people with mental illness, although the researchers do not always call the training BST. For example, Liberman et al. (1985) compared three interventions to teach people with mental illness social skills, all three of which included a therapist providing instructions, modeling a skill, providing an opportunity to role play, and giving feedback as a component. This study does not call any of the three training interventions

behavioral skills training. Furthermore, Ridgely and Jerrell (1996) adapted the findings from the aforementioned Liberman et al. (1985) study to create an intervention to address substance abuse and compared it to two other treatments. Ridgely and Jerrell (1996) do call this intervention BST and use this intervention to teach relapse prevention skills (e.g., symptom management, medication management, basic conversation skills). The results of this study indicate that BST produced better drug, alcohol, and psychiatric outcomes and the highest psychosocial adjustment.

BST, or at least interventions that use the four components of BST, has been used to teach people living with mental illness and/or substance abuse disorder various skills. However, to the best of my knowledge, BST has not been used to teach people with mental illness and/or substance use disorder peer workforce skills. Previous BST studies have successfully taught various skills to people with disabilities and work skills to employees—and sometimes both (i.e., work skills to people with disabilities, e.g., Hillman et al., 2021)—and therefore strongly suggest that BST may be useful in peer training. Additionally, using BST to train peers would require trainers to clearly define the behaviors peers are to learn, thereby improving the way trainers use role plays to teach skills.

Conclusion

Peer support is moderately effective at improving a number of outcomes for people who are living with a mental illness and/or a substance use disorder. To ensure implementation of peer support services with fidelity, it is important to define the services and provide the necessary training to peers. Previous research on peer training has demonstrated peer training can improve peers' self-efficacy, self-esteem, and recovery. However, gaps remain in the literature around the effects of these training programs on job performance. BST may provide an evidence-

based procedure to address this limitation, while extending the generality of BST to a new topic (i.e., peer support provider job skills).

References

- Ahmed, A. O., Hunter, K. M., Mabe, A. P., Tucker, S. J., & Buckley, P. F. (2015). The professional experiences of peer specialists in the Georgia mental health consumer network. *Community Mental Health Journal, 51*, 424–435.
<https://doi.org/10.1007/s10597-015-9854-8>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19–32.
<https://doi.org/10.1080/1364557032000119616>
- Belisle, J., Rowsey, K. E., & Dixon, M. R. (2016). The use of in situ behavioral skills training to improve staff implementation of the PEAK Relational Training System. *Journal of Organizational Behavior Management, 36*(1), 71–79.
<https://doi.org/10.1080/01608061.2016.1152210>
- Berkhof, M., Van Rijssen, H. J., Schellart, A., J., Anema, J. R., & Van der Beek, A. J. (2011). Effective training strategies for teaching communication skills to physicians: An overview of systematic reviews. *Patient Education and Counseling, 84*(2), 152–162.
<https://doi.org/10.1016/j.pec.2010.06.010>
- Bloom, D.E., Cafiero, E.T., Jané-Llopis, E., Abrahams-Gessel, S., Bloom, L.R., Fathima, S., Feigl, A. B., Gaziano, T., Mowafi, M., Pandya, A., Prettner, K., Rosenberg, L., Seligman, B., Stein, A. Z., & Weinstein, C. (2011). *The global economic burden of noncommunicable diseases*. World Economic Forum.
http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf

Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*.

ERIC Clearinghouse on Higher Education.

Chambers, C. & Radley, K. C. (2019). Training soccer skills to adolescents with autism spectrum disorder via peer-mediated behavioral skills training. *Behavior Analysis in Practice*, 13, 454–461. <https://doi.org/10.1007/s40617-019-00381-2>

Chapman, S. A., Blash, L. K., Mayer, K., & Spetz, J. (2018). Emerging roles for peer providers in mental health and substance use disorders. *American Journal of Preventive Medicine*, 54(653), S267–S274. <https://doi.org/10.1016/j.amepre.2018.02.019>

Chinman, M., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Swift, A., & Delphin-Rittmon, M. E. (2014). Peer support services for individuals with serious mental illnesses: Assessing the evidence. *Psychiatric Services*, 65(4), 429–441. <https://doi.org/10.1176/appi.ps.201300244>

Chinman, M., Shoai, R., & Cohen, A. (2010). Using organizational change strategies to guide peer support technician implementation in the Veterans Administration. *Psychiatric rehabilitation Journal*, 33(4), 269–277. <https://doi.org/10.2975/33.4.2010.269.277>

Clayton, M., & Headley, A. (2019). The use of behavioral skills training to improve staff performance of discrete trial training. *Behavioral Interventions*, 34(1), 136–143. <https://doi.org/10.1002/bin.1656>

Cleary, M., Hunt, G. E., Malins, G., Matheson, S., & Escott, P. (2009). Drug and alcohol education for consumer workers and caregivers: A pilot project assessing attitudes toward persons with mental illness and problematic substance use. *Archives of Psychiatric Nursing*, 23(2), 104–110. <https://doi.org/10.1016/j.apnu.2008.05.004>

- Compton, M. T., Reed, T., Broussard, B., Powell, I., Thomas, G. V., Moore, A., Cito, K., & Haynes, N. (2014). Development, implementation, and preliminary evaluation of a recovery-based curriculum for community navigation specialists working with individuals with serious mental illnesses and repeated hospitalizations. *Community Mental Health Journal, 50*, 383–387. <https://doi.org/10.1007/s10597-013-9598-2>
- Crisanti, A. S., Murray-Krezan, C., Karlin, L. S., Sutherland-Bruaw, K., & Najavits, L. M. (2016). Evaluation of an evidence-based practice training for peer support workers in behavioral health care. *Cogent Psychology, 3*, 1212453. <https://doi.org/10.1080/23311908.2016.1212453>
- Cronise, R. (2016). Collaborative learning: A next step in the training of peer support providers. *Psychiatric Rehabilitation Journal, 39*(3), 292–294. <https://doi.org/10.1037/prj0000218>
- Cronise, R., Teixeira, C., Rogers, E. S., & Harrington, S. (2016). The peer support workforce: Results of a national survey. *Psychiatric Rehabilitation Journal, 39*(3), 211–221. <https://doi.org/10.1037/prj0000222>
- Davlasheridze, M., Goetz, S., & Han, Y. (2018). The effect of mental illness on U.S. county economic growth. *The Review of Regional Studies, 48*(2), 155–171. <https://doi.org/10.52324/001c.7997>
- Delman, J. & Klodnick, V. V. (2017). Factors supporting the employment of young adult peer providers: Perspectives of peers and supervisors. *Community Mental Health Journal, 53*, 811–822. <https://doi.org/10.1007/s10597-016-0059-6>
- DeNeve, K. M., & Heppner, M. J. (1997). Role play simulations: The assessment of an active learning technique and comparisons with traditional lectures. *Innovative Higher Education, 21*(3), 231–246. <https://doi.org/10.1007/BF01243718>

- Dickson, M. J., & Vargo, K. K. (2017). Training kindergarten students lockdown drill procedures using behavioral skills training. *Journal of Applied Behavior Analysis, 50*(2), 407–412. <https://doi.org/10.1002/jaba.369>
- Doors to Wellbeing (n.d.). *Peer specialists*. Retrieved July 20, 2020, from <https://copelandcenter.com/peer-specialists>
- Erath, T. G., DiGennaro Reed, F. D., Sundermeyer, H. W., Brand, D., Novak, M. D., Harbison, M. J., & Shears, R. (2020). Enhancing the training integrity of human service staff using pyramidal behavioral skills training. *Journal of Applied Behavior Analysis, 53*(1), 449–464. <https://doi.org/10.1002/jaba.608>
- Fan, Y., Ma, N., Ma, L., Xu, W., Lamberti, J. S., & Caine, E. D. (2018). A community-based peer support service for persons with severe mental illness in China. *BMC Psychiatry, 18*, 170–180. <https://doi.org/10.1186/s12888-018-1763-2>
- Franke, C. C. D., Paton, B. C., & Gassner, L-A. J. (2010). Implementing mental health peer support: A South Australian experience. *Australian Journal of Primary Health, 16*, 179–186. <https://doi.org/10.1071/py09067>
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences, 111*, 8410–8415. <https://doi.org/10.1073/pnas.1319030111>
- Gates, L. B., Mandiberg, J. M., & Akabas, S. H. (2010). Building capacity in social service agencies to employ peer providers. *Psychiatric Rehabilitation Journal, 34*(2), 145–152. <https://doi.org/10.2975/34.2.2010.145.152>

- Gerry, L., Berry, C., & Hayward, M. (2011). Evaluation of a training scheme for peer support workers. *Mental Health Practice, 14*(5), 24–29.
<https://doi.org/10.7748/mhp2011.02.14.5.24.c8309>
- Gopalan, G., Lee, S. J., Harris, R., Acri, M. C., & Munson, M. R. (2017). Utilization of peers in services for youth with emotional and behavioral challenges: A scoping review. *Journal of Adolescence, 55*, 88–115. <https://doi.org/10.1016/j.adolescence.2016.12.011>
- Gournaris, M. (2016). Certified peer support specialists: Advancing peer support services in deaf mental health care, *JADARA, 50*(1). Retrieved from
<https://repository.wcsu.edu/jadara/vol50/iss1/1>
- Hahs, A. D., & Jarynowski, J. (2019). Targeting staff treatment integrity of the PEAK relational training system using behavior skills training. *Behavior Analysis in Practice, 12*(1), 209–215. <https://doi.org/10.1007/s40617-018-00278-6>
- Hegedüs, A., Seidel, E., & Steinauer, R. (2016). Participants' employment status and experiences in the year after the Experienced Involvement training. *International Journal of Social Psychiatry, 62*(3), 214–220. <https://doi.org/10.1177/0020764015623969>
- Hillman, C. B., Lerman, D. C., & Kosel, M. L. (2021). Discrete-trial training performance of behavior interventionists with autism spectrum disorder: A systematic replication and extension. *Journal of Applied Behavior Analysis, 54*(1), 374–388.
<https://doi.org/10.1002/jaba.755>
- Houvouras IV, A. J., & Harvey, M. T. (2014). Establishing fire safety skills using behavioral skills training. *Journal of Applied Behavior Analysis, 47*(2), 420–424.
<https://doi.org/10.1002/jaba.113>

- Hutchinson, D. S., Anthony, W. A., Ashcraft, L., Johnson, E., Dunn, E. C., Lyass, A., & Rogers, E. S. (2006). The personal and vocational impact of training and employing people with psychiatric disabilities as providers. *Psychiatric Rehabilitation Journal*, 29(3), 205–213. <https://doi.org/10.2975/29.2006.205.213>
- Jacobson, M., Trojanowski, L., & Dewa, C. S. (2012). What do peer support workers do? A job description. *BMC Health Services Research*, 12, 205. <https://doi.org/10.1186/1472-6963-12-205>
- Katz, J. & Salzer, M. S. (2007). *Certified peer specialist training program descriptions*. Philadelphia, PA: University of Pennsylvania Collaborative on Community Integration
- Kansas Consumer Advisory Council for Adult Mental Health (n.d.). *State of Kansas certified peer specialist code of ethics*. https://www.kdads.ks.gov/docs/default-source/csp/licensing/peer-support-training/kcps-code-of-ethics-2019.pdf?sfvrsn=321405ee_2
- Kaufman, L. Kuhn, W. B., & Manser, S. S. (2016). *Peer specialist training and certification programs: A national overview*. Texas Institute for Excellence in Mental Health, School of Social Work, University of Texas at Austin. Retrieved from <http://sites.utexas.edu/mental-health-institute/files/2017/01/Peer-Specialist-Training-and-Certification-Programs-A-National-Overview-2016-Update-1.5.17.pdf>
- Kern, R. S., Zarate, R., Glynn, S. M., Turner, L. R., Smith, K. M., Mitchell, S. S., Becker, D. R., Drake, R. E., Kopelowicz, A., Tovey, W., & Liberman, R. P. (2013). A demonstration project involving peers as providers of evidence based, supported employment services. *Psychiatric Rehabilitation Journal*, 36(2), 99–107. <https://doi.org/10.1037/h0094987>

- Knudson, P. J., Miltenberger, R. G., Bosch, A., Gross, A., Brower-Breitwieser, C., & Tarasenko, M. (2009). Fire safety skills training for individuals with severe and profound mental retardation. *Journal of Developmental & Physical Disabilities, 21*, 523–535.
<https://doi.org/10.1007/s10882-009-9161-9>
- Lee, N., Vladescu, J. C., Reeve, K. F., Peterson, K. M., & Giannakakos, A. R. (2019). Effects of behavioral skills training on the stimulus control of gun safety responding. *Journal of Behavioral Education, 28*, 187–203. <https://doi.org/10.1007/s10864-018-9309-8>
- Ley, A., Roberts, G., & Willis, D. (2010). How to support peer support: Evaluating the first steps in a healthcare community. *Journal of Public Mental Health, 9*(1), 16–25.
<https://doi.org/10.5042/jpmh.2010.0160>
- Liberman, R. P., Massel, H. K., Mosk, M. D., & Wong, S. E. (1985). Social skills training for chronic mental patients. *Hospital and Community Psychiatry, 36*(4), 396–403.
<https://doi.org/10.1176/ps.36.4.396>
- Luthans, F., & Kreitner, R. (1985). *Organizational behavior modification and beyond: An operant and social learning approach*. Scott, Foresman and Company.
- Mahlke, C. I., Priebe, S., Heumann, K., Daubmann, A., Wegscheider, K., & Bock, T. (2017). Effectiveness of one-to-one peer support for patients with severe mental illness – a randomized controlled trial. *European Psychiatry, 42*, 103–110.
<https://doi.org/10.1016/j.eurpsy.2016.12.007>
- McLean, J., Biggs, H., Whitehead, I., Pratt, R., & Maxwell, M. (2009). *Evaluation of the delivering for mental health peer support worker pilot scheme*. Scottish Government Social Research. Retrieved from <https://scottishrecovery.net/wp-content/uploads/2009/11/Full-report.pdf>

- Mead, S., Hilton, D., & Curtis, L. (2001). Peer support: A theoretical perspective. *Psychiatric Rehabilitation Journal*, 25(2), 134–141. <https://doi.org/10.1037/h0095032>
- Meehan, T., Bergen, H., Coveney, C., & Thornton, R. (2002). Development and evaluation of a training program in peer support for former consumers. *International Journal of Mental Health Nursing*, 11, 34–39. <https://doi.org/10.1046/j.1440-0979.2002.00223.x>
- Miltenberger, R. (2016). *Behavior modification: Principles and procedures* (6th ed.). Cengage Learning.
- Miltenberger, R. G., Flessner, C., Gatheridge, B., Johnson, B., Satterlund, M., & Egemo, K. (2004). Evaluation of behavioral skills training to prevent gun play in children. *Journal of Applied Behavior Analysis*, 37(4), 513–516. <https://doi.org/10.1901/jaba.2004.37-513>
- Moher, M. B., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, 151(4), 264–269. <https://doi.org/10.1371/journal.pmed.1000097>
- Moran, G. S., Russinova, Z., Gidugu, V., & Gagne, C. (2013). Challenges experienced by paid peer providers in mental health recovery: A qualitative study. *Community Mental Health Journal*, 49, 281–291. <https://doi.org/10.1007/s10597-012-9541-y>
- Nabeyama, B., & Sturmey, P. (2010). Using behavioral skills training to promote safe and correct staff guarding and ambulation distance of students with multiple physical disabilities. *Journal of Applied Behavior Analysis*, 43(2), 341–345. <https://doi.org/10.1901/jaba.2010.43-341>
- National Association for Alcoholism and Drug Abuse Counselors (n.d.). *National certified peer recovery support specialist (NCPRSS) code of ethics*. <https://www.naadac.org/ncprss-code-of-ethics>

National Institute of Mental Health (2019, April). *Suicide*.

<https://www.nimh.nih.gov/health/statistics/suicide.shtml>

Oh, H., & Solomon, P. (2014). Role-playing as a tool for hiring, training, and supervising peer providers. *The Journal of Behavioral Health Services & Research, 41*(2), 216–229.

<https://doi.org/10.1007/s11414-013-9350-2>

Parsons, M. B., Rollyson, J. H., & Reid, D. H. (2012). Evidence-based staff training: A guide for practitioners. *Behavior Analysis in Practice, 5*(2), 2–11.

<https://doi.org/10.1007/BF03391819>

Pearce, J., Mann, M. K., Jones, C., van Buschbach, S., Oloff, M., & Bisson, J. I. (2012). The most effective way of delivering a train-the-trainers program: a systematic review. *Journal of Continuing Education in the Health Professions, 32*(3), 215–226.

<https://doi.org/10.1002/chp.21148>

Pernell-Arnold, A., & Finley, L. (2012). Training mental health providers in cultural competence: A transformative learning process. *American Journal of Psychiatric Rehabilitation, 15*, 334–356. <https://doi.org/10.1080/15487768.2012.733287>

Quintero, L. M., Moore, J. W., Yeager, M. G., Rowsey, K., Olmi, D. J., Britton-Slater, J., Harper, M. L., & Zezenski, L. (2020). Reducing risk of head injury in youth soccer: An extension of behavioral skills training for heading. *Journal of Applied Behavior Analysis, 53*(1), 237–248. <https://doi.org/10.1002/jaba.557>

Reddy, S. B., Wolf, J., & Brown, L. D. (2020). Capacity-building in the peer workforce: A systems-level approach. *Psychiatric Services, 71*, 307.

<https://doi.org/10.1176/appi.ps.71301>

- Reif, S., Braude, L., Lyman, D. R., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Salim, O., & Delphin-Rittmon, M. E. (2014). Peer recovery support for individuals with substance use disorders: Assessing the evidence. *Psychiatric Services, 65*(7), 853–861.
<https://doi.org/10.1176/appi.ps.201400047>
- Ridgely, M. S., & Jerrell, J. M. (1996). Analysis of three interventions for substance abuse treatment of severely mentally ill people. *Community Mental Health Journal, 32*(6), 561–572. <https://doi.org/10.1007/BF02251066>
- Roberts, K., DeQuinzio, J. A., Taylor, B. A., & Petroski, J. (2020). Using behavioral skills training to teach interview skills to young adults with autism. *Journal of Behavioral Education. <https://doi.org/10.1007/s10864-020-09389-z>*
- Salzer, M. S. (2010). Certified peer specialists in the United States behavioral health system: An emerging workforce. In Brown, L. & Wituk, S. (Eds). *Mental health self-help* (pp. 169–191). Springer.
- Salzer, M. S., Katz, J., Kidwell, B., Federici, M., Ward-Colasante, C. (2009). Pennsylvania certified peer specialist initiative: Training, employment and work satisfaction outcomes. *Psychiatric Rehabilitation Journal, 32*(4), 301–305.
<https://doi.org/10.2975/32.4.2009.301.305>
- Salzer, M. S., Schwenk, E., & Brusilovskiy, E. (2010). Certified peer specialist roles and activities: Results from a national survey. *Psychiatric Services, 61*(5), 520–523.
<https://doi.org/10.1176/ps.2010.61.5.520>
- Sarokoff, R. A., & Sturmey, P. (2004). The effects of behavioral skills training on staff implementation of discrete-trial teaching. *Journal of Applied Behavior Analysis, 37*(4), 535–538. <https://doi.org/10.1901/jaba.2004.37-535>

Simpson, A., Quigley, J., Henry, S. J., & Hall, C. (2014). Evaluating the selection, training, and support of peer support workers in the United Kingdom. *Journal of Psychosocial Nursing*, 52(1), 31–40. <https://doi.org/10.3928/02793695-20131126-03>

Smith, D. (2007). *Letter to state Medicaid directors*. Department of Health and Human Services.

Centers for Medicare & Medicaid Services. Retrieved from

<https://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD081507A.pdf>

Stocco, C. S., Thompson, R. H., Hart, J. M., & Soriano, H. L. (2017). Improving the interview skills of college students using behavioral skills training. *Journal of Applied Behavior Analysis*, 50(3), 495–510. <https://doi.org/10.1002/jaba.385>

Stoneking, B. C., & McGuffin, B. A. (2007). A review of the constructs, curriculum and training data from a workforce development program for recovery support specialists. *Psychiatric Rehabilitation Journal*, 31(2), 97–106. <https://doi.org/10.2975/31.2.2007.97.106>

Substance Abuse Mental Health Services Administration (2015, December 7). *Core competencies for peer workers in behavioral health services*.

https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tacs/core-competencies_508_12_13_18.pdf

Substance Abuse Mental Health Services Administration (2019, April-a) *Substance use & mental illness in U.S. adults*. <https://www.samhsa.gov/node/60155>

Substance Abuse and Mental Health Services Administration (2019, August-b). *Key substance use and mental health indicators in the United States: Results from the 2018 national survey on drug use and health*. <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.pdf>

Substance Abuse Mental Health Services Administration (2020, April 16). *Peers*.

<https://www.samhsa.gov/brss-tacs/recovery-support-tools/peers>

Swarbrick, M., Tunner, T. P., Miller, D. W., Werner, P., & Tiegreen, W. W. (2016). Promoting health and wellness through peer-delivered services: Three innovative state examples.

Psychiatric Rehabilitation Journal, 39(3), 204–210. <https://doi.org/10.1037/prj0000205>

Tse, S., Tsoi, E. W. S., Wong, S., Kan, A., & Kwok, C. F-Y. (2014). Training of mental health peer support workers in a non-western high-income city: Preliminary evaluation and experience. *International Journal of Social Psychiatry*, 60(3), 211–218.

<https://doi.org/10.1177/0020764013481427>

van Erp, N. H. J., Hendriksen-Favier, A. I., & Boer, M. (2010). Training and employment of consumer provider employees in Dutch mental health care. *Psychiatric Rehabilitation Journal*, 34(1), 65–67.

<https://doi.org/10.2975/34.1.2010.65.67>

van Oorsouw, W. M. W. J., Embregts, P. J. C. M., Bosman, A. M. T., & Jahoda, A. (2009).

Training staff serving clients with intellectual disabilities: A meta-analysis of aspects determining effectiveness. *Research in Developmental Disabilities*, 30, 503–511.

<https://doi.org/10.1016/j.ridd.2008.07.011>

Ward-Horner, J., & Sturmey, P. (2012). Component analysis of behavior skills training in functional analysis. *Behavior Interventions*, 27(2), 75–92.

<https://doi.org/10.1002/bin.1339>

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11(2), 203–

214. <http://doi.org/10.1901/jaba.1979:11-203>

Yam, K. K. N., Lo, W. T. L., Chiu, R. L. P., Lau, B. S. Y., Lau, C. K. S., Wu, J. K. Y., & Wan, S. M. (2018). A pilot training program for people in recovery of mental illness as vocational peer support workers in Hong Kong – Job Buddies Training Program (JBTP): A preliminary finding. *Asian Journal of Psychiatry*, 35, 132–140.
<http://dx.doi.org/10.1016/j.ajp.2016.10.002>

Table 1*Summary of State Certification Programs*

State	Certification Process	Training Length	Exam	Training components
Alabama	Yes	40 hr	Yes	Instruction, discussion, role play
Alaska	No	40 hr training with 6-month follow-up support	No	Not reported
Arizona	Yes	Varies - approximately 48 hr	Each program must have an exam	Not reported
Arkansas	No	N/A	N/A	N/A
California	No state-wide, but various counties have	N/A	N/A	N/A
Colorado	No, but being developed	Proposed 60 hr of training	No	Not reported
Connecticut	Yes	80 hr	Yes - criteria: 80% or more	Not reported
District of Columbia	Yes	70 hr	Yes - criteria: 85% or more	Not reported
Delaware	Yes	54 hr	Yes - 100 multiple-choice questions, pass rate unknown	Not reported
Florida	Yes	40 hr	Yes - 100 multiple-choice questions - criteria: 65% or more	Not reported
Georgia	Yes	2-week training	Yes	Not reported
Hawaii	Yes	80 hr core curriculum and 40 hr WRAP	No	Not reported
Idaho	yes	40 hr	Yes - Includes behavioral assessment by training facilitators	Not reported
Illinois	Yes	100 hr	Yes	Not reported
Indiana	Yes	40 hr	Yes - criteria: 80% - online - open-book - Includes essay questions	Instruction, discussion, role play

State	Certification Process	Training Length	Exam	Training components
Iowa	Yes	Certified Mental Health Peer Support Specialist – 40 hr	Yes - multiple choice exam	Not reported
		Certified Peer Recovery Specialist – 46 hr		
Kansas	Yes	Level 1 – 2.5-day training Level 2 – 3-day training	Yes - Written exam	Classroom, group, and individual learning
Kentucky	Yes	5-day, 30 hr	Yes - Written - Oral	Not reported
Louisiana	Yes	76 hr	Yes - 80% on 6 take home quizzes - Final composed of 50% role play and 50% of grade on written exam	Not reported
Maine	Yes	9 full days of in class training	Yes	Not reported
Maryland	Yes	46 hr	Yes - 75 multiple-choice questions	Not reported
Massachusetts	Yes	60 hr	Yes - Combination of true/false, multiple-choice, and open response questions	Small group activities and homework
Michigan	Yes	56 hr	Yes - Short answer and essay questions	Unknown
Minnesota	Yes	80 hr	Yes - 80% on 6 take home quizzes - Final composed of 50% role play and 50% of grade on written exam	Written and role-play demonstrations of competencies and skills
Mississippi	Yes	Online pretraining Four days of classroom training and written examination	Yes - Criteria: 75% or more	Not reported
Missouri	Yes	37.5 hr	Yes - 26 multiple-choice and essay - criteria: 75% or more	Not reported

State	Certification Process	Training Length	Exam	Training components
Montana	Yes	40 hr	Not reported	Role play, group discussion, and homework assignments
New Jersey	Yes	18 hr (3 days) of WRAP 108 hr of CORE training (18 days)	No exam	Not reported
New Mexico	Yes	40 hr	Yes	Not reported
New York	Yes	13 models of Academy Peer Services	No - Complete the post-test for each model	Not reported
North Carolina	Yes	40 hr of peer support training curriculum 20 additional hr of training	No	Not reported
North Dakota	Yes	12 online training modules	No	Not reported
Ohio	Yes	40 hr in-person 16 hr of e-based academy courses	Yes	Not reported
Oklahoma	Yes	40 hr	Yes - True/false, multiple choice, and essay questions - Criteria: 70% or more	Not reported
Oregon	Yes	Peer Support Specialist – 40 hr Peer Wellness Specialist – 80 hr	No	Not reported
Pennsylvania	Yes	75-hr	Yes - one oral exam that is academically based - one either written or an experiential, role-playing exam	Education, skill building, and experiential learning
Rhode Island	Yes	46 hr	Yes - 75 questions	Not reported
South Carolina	Yes	40 hr	Yes - two exams: one oral and one written	Not reported
South Dakota	No	N/A	N/A	N/A

State	Certification Process	Training Length	Exam	Training components
Tennessee	Yes	40	Yes - Includes demonstrating mastery in role-playing scenarios	Not reported
Texas	Yes	43 hr	Yes - Multiple-choice questions	Not reported
Utah	Yes	40 hr	Yes - Criteria: 70% or better	Not reported
Vermont	No	N/A	N/A	N/A
Virginia	Yes	46 hr	Yes	Not reported
Washington	Yes	40 hr	Yes - Written portion: true/false and multiple-choice questions (75% of score) - Oral portion (25% of score)	Not reported
West Virginia	Yes	Various - 40 hr to 120 hr	Yes	Not reported
Wisconsin	Yes	Not reported	Yes - 62 multiple choice question - Criteria: 85% or higher	Not reported
Wyoming	Yes	No less than 32 hr	No	Not reported

Table 2

Summary of Included Studies

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Chapman et al. (2018)	Not reported	N/A	<ul style="list-style-type: none"> Not reported Illness management and recovery Charting and documentation Crisis recognition Responding to a client crisis VA policies and procedures Peer code of ethics Peer's roles and responsibilities Communication techniques Methods to provide consumers with support Disengaging from peer support relationships Consumer self-advocacy 	40-75 hr	Not reported	N/A	N/A
Chinman et al. (2010)	Not reported	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Substance Use Prevalence of substance misuse Reasons for substance misuse Symptoms that suggest substance misuse Therapeutic treatment approaches Referral services Management strategies 	<ul style="list-style-type: none"> 30 hr 2-day training for Illness Management and Recovery 	<ul style="list-style-type: none"> Study staff Case management staff Contractors 	No	Yes
Cleary et al. (2009)	<ul style="list-style-type: none"> Presentations Activities 	<ul style="list-style-type: none"> Postworkshop survey Attitude Measurement: Brief Scales 	<ul style="list-style-type: none"> Confidentiality Therapeutic boundaries Employee code of conduct De-escalation and emergency procedures Person-centered care delivery Risk management and incident reporting Clients' rights Cultural competency Getting inside the recovery process Creating environments and relationships that promote recovery Effective listening and the art of asking questions Person-centered planning 	5 hr	Research Staff	No	No
Compton et al. (2014)	<ul style="list-style-type: none"> Didactic presentations Participatory learning exercises Role playing Grounding exercises Videos Practice sessions 	<ul style="list-style-type: none"> 24 question multiple-choice knowledge test 28-item self-efficacy scale 	<ul style="list-style-type: none"> Confidentiality Therapeutic boundaries Employee code of conduct De-escalation and emergency procedures Person-centered care delivery Risk management and incident reporting Clients' rights Cultural competency Getting inside the recovery process Creating environments and relationships that promote recovery Effective listening and the art of asking questions Person-centered planning 	<ul style="list-style-type: none"> Initial onboarding with length not reported 5-day training 	<ul style="list-style-type: none"> Community service board Appalachian Consulting Group 	No	No
Crisanti et al. (2016)	<ul style="list-style-type: none"> Grounding exercises Videos Practice sessions 	<ul style="list-style-type: none"> Survey 	<ul style="list-style-type: none"> Seeking Safety 	<ul style="list-style-type: none"> 6 Hr 	<ul style="list-style-type: none"> Author of Seeking Safety 	No	No

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Cronise (2016)	Recommends use of collaborative learning	N/A	N/A	N/A	N/A	N/A	N/A
Cronise et al. (2016)	N/A	N/A	<ul style="list-style-type: none"> Peer relationship Direct peer support Policy, legislation, advocacy, and rights protection Recovery concepts Traditional mental health and rehabilitation services Administrative, supervision, and workplace topics Alternative healing and wellness Pre-crisis and crisis support 	20 to 80 hr	N/A	N/A	N/A
Delman and Klodnick (2017)	N/A	N/A	<p>Recommend the following:</p> <ul style="list-style-type: none"> Workplace skills Stress management Self-care Work crises plans <p>Additional training</p> <ul style="list-style-type: none"> Wellness Recovery Action Planning (WRAP) Whole Health Action Management (WHAM) 	WRAP and WHAM – 1 to 3 days	Supervisors (recommend internal training)	N/A	N/A
Fan et al. (2018)	<ul style="list-style-type: none"> Coursework Group sharing and discussion Role play Storytelling 	N/A	<ul style="list-style-type: none"> Concept and theory of peer support services Working principles and requirements (e.g., confidentiality, boundaries, relationships) Designing and implementing group activities Effective listening and speaking skills Handling emergency situations Completing record forms 	Six total workshop sessions across five half-day sessions	<ul style="list-style-type: none"> Psychiatrist Clinical psychologist 	No	No
Frankle et al. (2010)	Not reported	<ul style="list-style-type: none"> Survey Focus group 	<ul style="list-style-type: none"> Peer work roles Boundaries Sharing your story Self-management Job opportunities <p>Suggested Additions</p> <ul style="list-style-type: none"> Social justice and recovery framework Mental health and mental health services Working within an organization Personal and professional development 	<ul style="list-style-type: none"> Information session: not reported Introduction to Peer Work course - 6 days Certificate III: Not reported 	Not reported	No	No
Gates et al. (2010)	Not reported	N/A	Content about including peers into an organization connection	3 hr	Not reported	N/A	N/A

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Gerry et al. (2011)	Not reported	<ul style="list-style-type: none"> Focus Groups 	<ul style="list-style-type: none"> Recovery Power of peer support Self-esteem and self-talk Meaning and purpose Telling your personal story Communication Employment as a path to recovery Being with people in challenging situations Peer support in action <p>Interpersonal support skills</p> <ul style="list-style-type: none"> De-escalation Active listening Engagement Assessment Collaboration Conversations <p>Skills to deliver an intervention</p> <ul style="list-style-type: none"> Specific intervention skills (e.g., Wraparound programs) <p>Empowerment/advocacy</p> <ul style="list-style-type: none"> Building confidence and self-esteem <p>Group work</p> <ul style="list-style-type: none"> Assertiveness skills Public speaking Laws and regulations Leadership Facilitation skills Cultural competence Administrative/agency specific processes Networking Stress management and wellness 	2 weeks	Not reported	No	No
Gopalan et al. (2017)	N/A	N/A	<ul style="list-style-type: none"> American Sign Language videos 	N/A	N/A	N/A	N/A
Gourmaris (2016)	<ul style="list-style-type: none"> Readings Group Discussion 	N/A	Not reported	Not reported	Not reported	N/A	N/A

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
			<ul style="list-style-type: none"> Promoting health and well-being Triadogue Empowerment in theory and practice Experience and participation Perspectives and experiences of recovery Independent peer advocacy Self-exploration Recovery-based assessment and planning for people in crisis Peer support Teaching 	<ul style="list-style-type: none"> 10 three-day sessions held once a month 40 hr of practical training after first five modules 150 hr of practical training after modules completed 			
Hegedus et al. (2016)	Not reported	<ul style="list-style-type: none"> Employment status Empowerment scale Recovery Attitudes Questionnaire-7 The Tennessee Self-Concept Scale The Personal Vision of Recovery Questionnaire Job acquisition and retention 	<ul style="list-style-type: none"> Ethics and boundaries Conflict resolution Cultural diversity Wellness Recovery Action Plan for Work Suicide prevention Communication Listening skills Community resources Resilience and emotional intelligence 		Not Reported	No	No
Hutchinson et al. (2006)	<ul style="list-style-type: none"> Information sharing Direct skill teaching Role plays 			60-hr over 5 weeks	Two instructors with lived experience	Noted that training was standardized; no formal measurement of fidelity	No

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
			Detailed list of training topics provided for 13 states, common examples include: <ul style="list-style-type: none"> Personal Development (e.g., meaning and purpose, emotional intelligence) Telling your personal story Communication skills Conflict resolution Code of Ethics and legal issues Roles and responsibilities Wellness Recovery Action Plan Recovery process Power differentials Cultural competency Asking open-ended questions Confidentiality Emergency procedures Education on basic diagnoses Effective listening Combating negative self-talk Problem solving Spirituality in recovery Self-determination Self-care Crisis intervention and trauma Psychoeducation Medication education and universal precautions Advocacy Facing one's fear Documentation Mental health system structure Trauma informed care Co-occurring disorders and boundary issues Workplace issues and practices 	<p>Arizona</p> <ul style="list-style-type: none"> 70 hr over 2, 3 or 5-week course <p>Georgia</p> <ul style="list-style-type: none"> 40 hr for nine days over 2-week period <p>Hawaii</p> <ul style="list-style-type: none"> 9 hr a day for 8 days <p>Illinois</p> <ul style="list-style-type: none"> 30 hr over 5-6 days <p>Iowa</p> <ul style="list-style-type: none"> Not reported <p>Massachusetts</p> <ul style="list-style-type: none"> 38 hr over 8 days <p>Michigan</p> <ul style="list-style-type: none"> 8 days <p>New Hampshire</p> <ul style="list-style-type: none"> 5 days to 2 weeks <p>New Jersey</p> <ul style="list-style-type: none"> 102 hr over 17 days <p>New York</p> <ul style="list-style-type: none"> Two weeks <p>North Carolina</p> <ul style="list-style-type: none"> WRAP – 16 hr <p>Peer Support</p> <ul style="list-style-type: none"> Specialist Training – 80 hr <p>WRAP facilitators</p> <ul style="list-style-type: none"> training – 40 hr <p>Trauma informed</p> <ul style="list-style-type: none"> Peer Support – 40 hr <p>Pennsylvania</p> <ul style="list-style-type: none"> 10 days <p>South Carolina</p> <ul style="list-style-type: none"> 30 hr over two weeks 	<p>Arizona, Georgia, Hawaii, Iowa, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, New York, North</p>	<p>No</p>	<p>No</p>
Katz and Salzer (2007)	<p>Arizona</p> <ul style="list-style-type: none"> Adult learning principles Georgia, Hawaii, Illinois, Iowa, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina Not reported 	N/A					
	<ul style="list-style-type: none"> Didactic instruction about specific skills Role-plays Modeling Social reinforcement Practice Prompting and cueing Corrective feedback Homework assignment 	<ul style="list-style-type: none"> 25-item Supported Employment Fidelity Scale Kansas Employment Specialist Job Performance Evaluation Number of job placements Mean job tenure 	<ul style="list-style-type: none"> Individual Placement and Support Model Developing working relationship with consumers Job development Job support and maintenance Integrating services within a multi-disciplinary team 				
Kern et al. (2013)				<ul style="list-style-type: none"> 1-2 hr per week up to 3 days per week for 1 year 	<ul style="list-style-type: none"> Clinical psychologist Master's level research associate 	<p>No</p>	<p>Yes</p>

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Ley et al. (2010)	Interactive training	Self-completed questionnaires	<ul style="list-style-type: none"> Intentional Peer Support (IPS) Connection Worldview Mutuality Moving towards Wellness Recovery 	<ul style="list-style-type: none"> 5-day course Two one-day refresher courses at two and five months 	<ul style="list-style-type: none"> Originator of IPS Associate of the originator of IPS 	No	No
McClellan et al. (2009)	Not reported	Interviews	<ul style="list-style-type: none"> Recommends additional training on: <ul style="list-style-type: none"> Suicide prevention (ASIST) Values and recovery-based training (e.g., Realising Recovery) Management of aggression Participatory listening Understanding perceptual frameworks Storytelling Considering trauma worldviews Alternative perceptual framework Flexible boundaries Building mutually empowering relationships Managing conflict 	Not reported	Not reported	No	No
Mead et al. (2001)	N/A	<ul style="list-style-type: none"> N/A Perceived Stress Scale Spielberger Anxiety Inventory Rosenberg Self-Esteem Scale, Locus of Control Scale Focus groups 		N/A	N/A	N/A	N/A
Meehan et al. (2002)	<ul style="list-style-type: none"> Lecture Group Work (e.g., role plays) 		<ul style="list-style-type: none"> Legal and ethical principles Mental illness overview Communication and counselling skill (e.g., reflective listening, self-advocacy, assertiveness and conflict resolution) 	16 5-hr sessions for four days a week	Preferred lecturers who had also been mental health services consumers	No	No
Oh and Solomon (2014)	Recommends role play	N/A	N/A	N/A	N/A	N/A	N/A
Pernell-Arnold and Finley (2012)	<ul style="list-style-type: none"> Lectures Small group work Large group discussion Videos Guest speakers who were cultural specialists from the community Role plays Large group presentations Small group presentations 	Logs	Cultural competence	2-day, monthly sessions for 10 months	Not reported	No	No

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Reddy et al. (2020)	<ul style="list-style-type: none"> • Discussion • Group activities 	N/A	<ul style="list-style-type: none"> • Strategies for an Effective Peer Workforce • Becoming an Ally • Trauma-Informed Developmental Model of Supervision • Anti-Stigma Workshop • Understanding job and job skills (e.g., mental health system structure, Code of Ethics, role of peer support workers, treatment goals/recovery goals, documentation, group facilitation skills, goal setting, advocacy) • Recovery process (e.g., 5 stages of recovery process, psychosocial rehabilitation, sharing recovery story) • Healing relationships (e.g., power dynamics, cultural competency, asking open-ended questions, conflict resolution) • Self-care (e.g., stress and burnout, Wellness Recovery Action plan, self-care tools) 	6 months – length and frequency of training sessions not reported	Leaders with extensive experience training peer workforce	No	No
Salzer (2010)	N/A	N/A	Recovery Action plan, self-care tools	N/A	N/A	N/A	N/A
Salzer et al. (2009)	<ul style="list-style-type: none"> • Didactic • Experiential curriculum 	<ul style="list-style-type: none"> • 60-item multiple-choice test • Employment 	<ul style="list-style-type: none"> • Communication skills • Cultural competency • Outreach • Engagement strategies • Problem solving skills • Self-directed recovery tools • Navigate the workplace • Exploring Peer Support • Tree of life • Recovery and personal recovery plans • Confidentiality, information sharing, and exploring boundaries • Active listening skills • Social inclusion • Appreciating differences • Responding to distressing situations • Preparing to be a peer supporter 	75 hr	Institute on Recovery and Community Integration at the Mental Health Association of Southeastern Pennsylvania	No	No
Simpson et al. (2014)	<ul style="list-style-type: none"> • Paired and small group work • Large group discussion • Role plays 	Nottingham Peer Support Training Evaluation Tool (V2)	<ul style="list-style-type: none"> • Recovery and personal recovery plans • Confidentiality, information sharing, and exploring boundaries • Active listening skills • Social inclusion • Appreciating differences • Responding to distressing situations • Preparing to be a peer supporter 	12 weekly, 1 day, 6-hr sessions	Two facilitators with experience in mental health and substance use services training	No	No

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
Stoncking and McGuffin (2007)	<ul style="list-style-type: none"> • Role play • Observing • Sharing personal experiences • Providing feedback • Small group discussion • Lectures • Panel presentations • Homework (e.g., reading articles and book chapters) 	<ul style="list-style-type: none"> • 35-item pre-post test (open book) • Pre-post knowledge, skills, and attitude self-rating questionnaire 	<ul style="list-style-type: none"> • Recovery: The vision • Developing a support system • Self-help strategies • Healthy lifestyle • Building self-esteem • Enhancing wellness • Beginning your personal journey of recovery • Developing your recovery plan • Wellness Recovery Action Plan (WRAP) 	7 day Institute followed by 12, two-hr practicum meetings	<ul style="list-style-type: none"> • Three trainers, one of which was a person in recovery • Guest speakers 	No	No
Swarbrick et al. (2016)	Not reported by any state	N/A	<ul style="list-style-type: none"> • Not reported • Not reported • Not reported • Health and wellness information • Mindfulness exercises • Wellness Recovery Action Planning • Whole Health Action Management • Chronic Disease Self-Management Program • Motivational Interviewing 	<ul style="list-style-type: none"> • Not reported • Not reported • Not reported • Georgia • Not reported • Two semesters • Not reported 	<ul style="list-style-type: none"> • Michigan • Not reported • New Jersey • Rutgers • School of Health Related Professions • Michigan • Not reported 	N/A	N/A
Tse et al. (2014)	Not reported	<ul style="list-style-type: none"> • Training Hope Scale • Recovery Assessment Scale • Rosenberg Self-Esteem Scale • Questionnaire • Written survey 	<ul style="list-style-type: none"> • Reconstructing an individual's own personal recovery account • Recovery concept • Peer support concept • Helping skills • Goal setting • Professional codes of conduct • Working relationships with users • Crisis management • Seeking supervision and self-care 	<ul style="list-style-type: none"> • 10, 3-hour classroom sessions • One full-day team-building workshop. 	<ul style="list-style-type: none"> • Program consultant • Social workers • University professor 	No	No

Article	Training Methods	Evaluation Methods	Training Topics	Training Length	Facilitator	Fidelity of Training	On-the-Job Assessment of Skills
van Erp et al. (2010)	<ul style="list-style-type: none"> • Instruction • Active learning (e.g., role-play, group discussions, practical cases examples, and experiential learning) 	<p>Interviews</p> <ul style="list-style-type: none"> • Mental Health Recovery Measure (MHRM) – Chinese version • Chinese Self-stigma of Mental Illness Scale (CSSMIS) • Chinese Occupational Self-efficacy Scale (COSS) • Questionnaire of Training Experience • Interviews 	<p>Regular Program</p> <ul style="list-style-type: none"> • Social sciences • Psychopathology • Social and communication skills • Methodological skills and ethical reflection • Supportive skills in housing • Client participation, supervision and thesis Recover program • Using one's recovery story • Role of peer support • Creating relationships • Effective listening and asking questions • Closeness and distance • Dual relationships • Writing an empowering letter • Introduction of program and recovery concepts • Wellness Recovery Action Plan - Taiwan version • Hope and goal setting • Self-image and strength • Positive thinking and resilience • Combating stigma • Advocacy • Recovery story telling • Peer support concepts and ethics • Supported employment service • Basic and work-related social skills • Communication skills • Managing conflicts • Practical vocational support skills (e.g., work-related social skills, job coaching, support skills) • Summary of coursework 	<p>Regular Program</p> <ul style="list-style-type: none"> • 2 years • 8 hr a week of classroom learning <p>Recover program</p> <ul style="list-style-type: none"> • 80 hr 	Not reported	No	No
Yam et al. (2018)	<ul style="list-style-type: none"> • Coursework • Storytelling workshop 	<ul style="list-style-type: none"> • Occupational therapist • University professor • Panel of occupational Therapist mentors • Job placement officer • Professional storytellers 	<p>Coursework and Storytelling workshop</p> <ul style="list-style-type: none"> • 72 hr Practicum • Additional 50 hr of training 	<ul style="list-style-type: none"> • Occupational therapist • University professor • Panel of occupational Therapist mentors • Job placement officer • Professional storytellers 	No	No	No

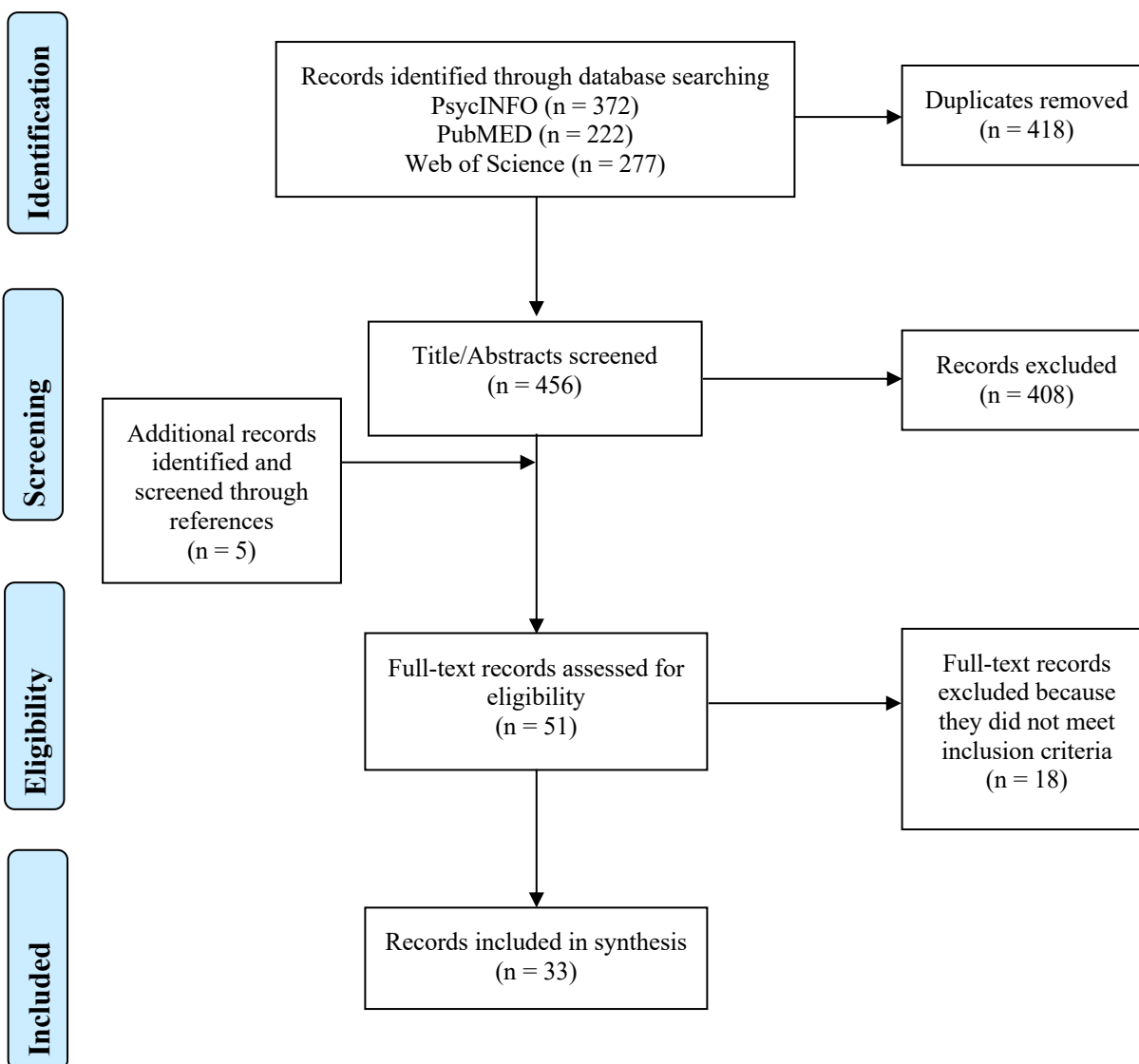
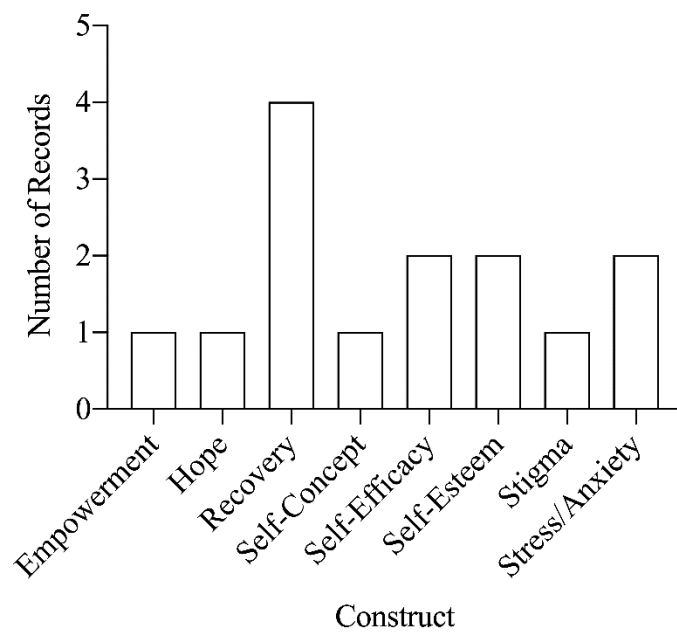
Figure 1*PRISMA flow diagram*

Figure 3

Constructs measured in training records



Note. Along the x-axis is the construct and along the y-axis is the number of records.

Appendix B

Training Topics

Professional Development Seminar Curriculum Components:

Certified Peer Specialist Level One Certification - Online Prerequisite	12 hr
CPS Beyond the Basics	14 hr
Crisis Intervention Strategies	18 hr
LEAP Training & " <i>I AM NOT SICK, I Don't Need Help!</i> " Book Group	8 hr
Mental Health First Aid	8 hr
CPS Level Two Certification- KDADS Training Team	16 hr
Trauma Informed Care for Peer Specialists	8 hr
Suicide Prevention, Intervention & Postvention Strategies	8 hr
KLC Leadership Framework for Peer Specialists	14 hr
Ask the Experts	12 hr
Skills Building, Practice, and Application (2 hr per month)	20 hr
Storyworx	16 hr
Peer Coaching Circles	36 hr
Independent Study and Capstone Project	40 hr

KCPM & CPS Beyond the Basics 14 hr

- Effective Communication in the Workplace
- Facing Fears
- Negative Self-Talk
- Code of Ethics
- Self-Care
- Boundaries
- Recovery Stages Model
- Problem Solving
- Strengths Model
- KCPM topics

Crisis Intervention Strategies 18 hr

- Engagement Strategies & Techniques
- De-Escalation Techniques
- Understanding MH Assessment
- Understanding SUD Assessment
- Understanding ED policies, practices and procedures

- Understanding Involuntary Hospitalization & Discharge
- LEAP Reflective Listening
- Advance Psychiatric Directives, Crisis Plans, & WRAP
- Understanding MATx for Substance Use Disorders

Ask the Experts

12 hr

- Bert Nash Access Center Team
- DCCCA First Step, Options, and Outpatient Services
- Douglas County Psychiatrists/APRNs
- Heartland RADAC Care Coordinators and Recovery Coaches
- Peer Support with Community Partners
- Homeless Outreach Team, Lawrence Community Shelter and Housing Specialists
- Willow Domestic Violence Center & Care Center
- LPD Mental Health Team
- Douglas County Specialty Courts

Trauma Informed Care for Peer Specialists

8 hr

- Alive and Well Organizational & Community Training
- Brain Architecture Game
- MyStrength Trauma Module
- Introduction to PTSD Treatment

Appendix C

Focus Group Questions

First Focus Group Questions:

1. What were your experiences as a Peer Fellow?
2. How did you feel about your time as a Peer Fellow?
3. What are the qualities that are necessary to succeed as a Peer Fellow?

Second Focus Group Questions:

1. What parts of the weekly seminars were helpful?
2. What parts of the weekly seminars were not helpful?
3. What skills should we be teaching during the seminars?
4. What real life scenarios should we incorporate into training seminars?

Appendix D

Focus Group Notes

Peer Fellows Focus Group
9/9/2020

Notes

- Goals of this Focus Group
 - Find out what it is like to be a peer in Douglas County
 - Objectively – what do you do?
 - Subjectively – how do you feel about it?
 - Discuss what we should look for in future peers
- Peers in attendance worked either at the library or the ED
 - In the ED they work in the crisis unit (e.g., “gold”)
 - However, if someone is not in the unit but still might be going through a crisis, they can go out and support them as well.
- What are the people like that you work with? What are their problems, etc.?
- One peer:
 - Usually sit and talk with people who are in the middle of loss and/or trauma
 - When someone goes to the gold unit, it is a very specific need
 - Whereas at the library it is a wide range of things
 - They may be lonely and need to talk
 - One of the peers plays chess with them
 - Or, people at the library are in the middle of a crisis and peers can get them connected with services
 - E.g., a patient was recently homeless and this peer got them a ride and access to food
 - It is really a wide range of topics and needs
 - Every person the peer sits down with is a completely different experience
- What is a day like? Do you sit there and every few hours someone comes in, or someone comes in every 5 minutes?
 - Another peer:
 - Every shift is different
 - Some days nobody comes in and they conduct no mental health evaluations (MHEs) in the ED
 - Other days it is one after the other all day and you will be busy all 5 hours helping patients and nurses
 - What situation is more common?
 - It usually comes in waves, sometimes a wave of slow shifts, sometimes a wave of busy shifts

- Right now, it is busy, but March through May it was slow, which makes sense as it was the start of the pandemic and nobody wanted to be in the hospital
 - How does it feel on the slow days when you are sitting and not doing much?
 - Even when there are people there sometimes you cannot do much
 - Especially in the hospital, the nature of why they are there makes it a sensitive time to introduce yourself and offer services. Sometimes people do not want that
 - How do you introduce yourself?
 - Go into the room, tell my name, and tell them my job. Tell them I support them by any means necessary, and that I have been through trauma myself. Sometimes it is nice to bounce things back from one another
 - Will ask them if they want to talk, if they want food, a drink, a blanket
 - What percent of people say thank you and take you up on a talk?
 - Hard to say, but much lower than 50/50
 - Maybe 15% say they would love to talk
 - They are in a state that is not conducive to talk, people are crying and distraught and do not want to be at the hospital
 - Are they alone when they are at the hospital?
 - Sometimes. For example, a kid was with their mom in one peer's last shift
 - It seems men might not really care, and women might feel uncomfortable
 - Is it hard to go in knowing people might say no?
 - It was hard at the beginning, but you get used to it
- Another peer's perspective:
 - It is different each day
 - We can have someone with substance use
 - Or someone with a dual diagnosis
 - Or someone can come in with suicidal thoughts, or a plan, or someone stopped them
 - Or someone has no other place to go
 - One example was someone came in who was nonverbal and the emergency room got "stuck" with him
 - ED is more of a systematic care than library
 - The role of a peer in the ED may be a little more defined. They need to get someone a ride afterwards or connect patients to someone afterwards
 - They have Bert Nash skype numbers – so they can give that to patients and do follow up or call backs
 - Most of the time they get a good report during the call back
 - There have been a few situations that have been more difficult and might need more training on

- If you are looking at peers in the future you can ask them if they are comfortable with people in crisis
- A third peer:
 - Anything you want to add that you did not hear already?
 - Pretty familiar, one thing this peer wanted to comment on is when it comes to who to look for is that they were not comfortable with the crisis
 - This peer left the ED after a few months, but reflecting back they are happy they had the experience
 - It allowed them to be able to see what the potential outcome of a crisis is
 - And to understand what happens once they get there, that they can be safety planned or sent to this place or whatever may happen to them
 - The peer thinks it is a good experience for everyone to have
 - All the peers started at the hospital because it was the only option
 - This peer thinks if it is just a month or two just to get that experience, that would be good
 - The peer noted that they now understand where the crisis can lead, and it lets you know who is at the hospital and who they can recommend being talked to
- Another peer:
 - To piggyback quickly off of the previous peer, this peer thinks it was useful to see the ED as well. This peer would like to have left it after 3 months as it was stressful to them personally
 - It is important that peers have adequate supervision and support
 - BHCCs are wonderful, there are staff on the same page, but there are also other staff who make the environment more difficult
 - It was particularly difficult to give any sort of alternative perspective than some staff
 - Are there certain types of staff (not specific staff, but groups of staff)?
 - Some nurses, sometimes security
 - This peer thinks that sometimes the way security treats patients is not the best (although not all security guards)
 - This might also relate to that this peer has been a patient and had the security guard stop her from leaving, so it is triggering
 - And physicians have treated this person as less than human too (as a patient)
 - This peer has also seen someone be restrained where it was more that the nurse was triggered or something and escalated it quicker than it needed to be

providers of services in the community. When this program started they talked about how they are creating a new workforce of people with lived experience who are modeling how to have conversations about trauma-informed care. It has and will continue to inspire the community and other programs like it around the country.

- For another peer
 - It has been positive in so many ways. This peer has been pushed to face her own healing. This peer realizes that her self-care directly relates to how effective they are in their job. Working on their weak spots (e.g., how to improve their communication, how to work on a team). Still has work to do but has made lots of progress. Feels like this is the first job where their live experiences and their talents are put to use. It has been very fulfilling, even on difficult days. It has increased self-efficacy. And their self-esteem and their view of the future and what they want to do in the future. And this peer has meet incredible people, people who have been supportive and interested in her growth. They feel as if they are part of a community now. Negatives deal more with the system and how it is broken in some parts.
- Another peer:
 - The whole experience has been for the most part positive. Everything involved with the work has been positive (minus some relationships / people in the hospital). This person wanted to get into behavioral health in college and this has allowed him to and learn more about it, especially how some parts are broken
- What parts are broken?
 - People coming to a hospital – then waiting in the hospital for some times up to two weeks to get a position in another hospital (e.g., Osh), then they get released, then they are back at the ED, and then back to Osh, etc.
 - Realizing this for was a negative, it was discouraging
- Most part has been a positive. Working at the hospital for a year has been really cool and the last peer is glad they are able to do it.
- How has it impacted you personally?
 - Has made this peer more empathetic towards people’s situations, especially people involved with mental health – this peer noted they was not always empathetic in the past, now they can use the knowledge and experience gained to help other people to understand they need to be more empathetic
- How did your lived experience impact you? That is to ask, one would think your lived experience helped give you more empathy already, so how did you get more?
 - For this peer, they were not super empathetic to begin with because of their trauma, they have a history of pushing the trauma into the closet

- Another peer noted that they have really enjoyed today, that everyone experiences life differently, so they have liked hearing about how they experienced the fellowship
- The peer mentioned that they have been working through depression for a number of years, so they are comfortable with crisis
 - And that they have experienced psychosis – so when they are with people hallucinating, they can connect and understand, and this makes it so they can intervene better
- It makes this peer feel like it has given her a voice
- This peer also does not feel the negative interpersonal interactions at the hospital anymore
- The fellowship is very rewarding. It allows this peer to give back. It has built this peer's network. The peer has used her insight over the years to give back. The peer likes to help people get to the core of what they are feeling.
- Does anyone know the last day? And is it different for different people?
 - The first group has an 18-month fellowship, the second group is a year
 - Bob has made it clear that even when that time comes, they will continue to have work to do and a paycheck until they find a placement, whenever that might be
 - That is what others have heard too, the goal of this is for community partners to create jobs for us
- Tell us a bit about the training? What did you like? What did you not like? As it relates to topics, what would you want more of? Less of?
 - Would not do the Storyworx, because it does not apply at the hospital
 - This peer noted for today they would prefer to do another 1.5 hours of focus group
 - One peer noted that they appreciate this Wednesday group
 - And that they would like to be a guest and come back to these Wednesday trainings
 - Another peer, who noted that these are their own thoughts
 - These meetings are at least an hour too long – four hours of Zoom is a lot
 - This peer proposes four 4-hour shifts, and a 3 hour zoom meeting, the peer has a hard a time looking at zoom for 3 hours
 - Another peer agrees that four hours is long
 - It was a little different when it was not virtual and four hours was not as bad
 - Another noted that a problem is they talk to Lisa for an hour a week, and thinks it should be longer, she is the program manager and an extra hour a week would be great
 - This peer notes that they would like that hour to be a time to field specific questions that they are having
 - They could get validation on what they are feeling is normal and help for solving problems

- As of right now, Lisa checks in on things, but because of time it feels like they are restricted in actually discussing their real issues
- They do have individual meetings (e.g., one peer talks virtually for like half an hour a week)
 - The peers are not doing live supervision yet, but think that this will happen in the future once things start to be safer
 - The peers are indifferent to live supervision
 - Because Lisa is an “outsider” at these areas (i.e., she works for Bert Nash, not the ED), peers do not know how ED staff would perceive it
 - And the ED rooms are small
- Bob has done a lot to improve the ratio of supervisors to supervisees
 - Lisa does have other people that she supervises as well
- There is consensus from all the peers that they are content with the supervision they are getting now
 - But they would like a little longer as a group and more feedback
 - Lisa is encouraging and practical
- Do others agree with the Storyworx comment?
 - Another peer noted that personally, storyworx not helpful as well
 - The peer does not find storytelling is helpful for the hospital
 - Peers are in crisis and do not want to hear your story
 - Another peer noted it is interesting, but it is probably not as important as other things
 - They have currently spent probably about 9 hours on it, which is too much in their opinion
 - Another peer noted, in general, they have enjoyed the Storyworx. It relates to library work because we are relating our stories to them or hearing their stories. This peer also noted they are not sure if they need as much time spent on it
 - Consensus is it is useful to learn about, but not sure they need it to do so much of it
 - One peer thinks that storytelling probably relates to some peers more than others
 - In the hospital, usually did not share the story
 - One peer noted there is a way to find your story and tell it, and it is important to know how to share one’s lived experience, but the amount of time spent on it is a lot

Peer Fellows Focus Group – Training

9/30/2020

Notes

- Core competencies
 - What would you all say are the core competencies you need to know?
 - Different forms of listening
 - E.g., reflective
 - Strengths-based model
 - Always remember it is self-directed care
 - Use nonclinical language
 - Proper communication, giving proper feedback
 - Trauma-informed care
 - Understand people have went through things and advocate for people who do not have that mindset
 - Urge people to be self-directed, focus on asking powerful questions less than giving advice
 - This has been taught a lot from peer coaching circles
 - Let people come to their own answers
 - Peer circles also help with listening and questioning skills
 - Focus on asking powerful questions to get people to come to their own answers
 - Sharing lived experience
 - Different levels of this, but help people understand that we as peers have been through some things too so that community members understand they are with someone who has been there
 - What percent of encounters include you telling your story?
 - 30-40% of the encounters
 - Modeling recovery and hope
 - I have been there before, and look, there is hope. You can get through it. I am an example of that
 - Sharing resources
- To what extent did you have the skills before, and to what extent did you get these through the trainings?
 - One peer mentioned they were nervous about the trainings and wondered what they would already know
 - “Wednesdays have been great” learned a lot
 - A lot of it we know already, but the trainings help us put it into words and practice
 - One peer mentioned that Marsha said at the beginning that she thought the peer had an idea of where they wanted to go, but they needed to tweak it and get it more technical
 - For example, the listening skills were there but proper professional communication was not there

- Being with your friends and giving them advice is different than sitting with a community member
 - We as peers might have the lived experiences, but we do not always know how to ask the right questions, or link to the right resources
 - Wednesdays helped this peer to build those skills
- What components on Wednesdays were the best?
 - Role playing and learning our resources
 - When Emily gave a slideshow on DBT
 - Learning resources and going through the role play
 - Here is a scenario, what would be a good response to this
 - Learning about ways to communicate
 - One peer mentioned that role plays can be uncomfortable and they do not like it, but when you apply it out in the field where before they had to think about it now it becomes natural
 - One peer noted that they learned a lot through the Wednesdays
 - Biggest jump is asking the important questions, and has learned a lot in the peer coaching circles
 - Beforehand did not come up with many questions
 - Coaching circles were helpful for this peer
 - Most of the in-person was very important, easier to be more interactive
 - This is better for this peer's learning (as opposed to Zoom)
- What are the things we can do away with?
 - Still a little bit about the storyworx
 - This is less useful for the ED peers
- One peer noted that Wednesdays were nice that people could come together and talk (especially the coaching circles)
- How open were you all with your stories?
 - It was not everyone sat down and said this is what I have been through. Most people had their stories slowly come out. Little bits and pieces of what you have overcome and been through.
- What should someone who is hiring peers know about people's lived experience?
 - Bert Nash – you have to do a cover letter that touches in on it. Short, sweet, and to the point. Why would you be good for a peer, whether it was a diagnosis or a trauma
- How many people left the program because of life?
 - About 4
 - What is the antidote for this?
 - One left because she was pregnant and the pandemic hit
 - One left because she realized it was not for her, but she left on good terms and it was best for everyone
 - Another one had a hard time with the transition to online
 - It is hard to have a part-time position for an entire year
 - Two people left because they got a job offer

- One was not related to this, but she could not afford to live on this part time work
 - The other got a full-time peer position
- How well do you feel as it relates to community services? Do you know all the services available in our community? And, what else would you need?
 - Coming into it one peer only knew Bert Nash
 - Now though, he knows all about Heartland, DCCCA, Valeo, Johnson County Detox, etc.
 - This comes with working at the hospital as well and being around people with different needs and wants
 - It does take a bit to learn everything as different services have different requirements
 - Another peer mentioned that when they started, they were not prepared, they had no clue on what they were doing, and had no preparation for what they would be doing at their job site
 - People told them that they have a blank canvas, do what you want
 - This was not helpful to this peer
 - This was not intentional though and this peer knows this. Housing authority and peer support there with Bert Nash was brand new
 - This peer wishes we could have touched on boundaries
 - They had a great training with Marsha, but it is different as a peer
 - Still need to have some personal and professional boundaries, but it is different than a case manager
 - This peer wishes they could have known more about the location they were going to be working at
- Boundaries
 - One thing that was a struggle for some of the peers
 - Did not know what she was walking into
 - One peer had never worked with homeless population and this is the population they were asked to work with
 - The peer found out that when people who have experienced homelessness get their own space they do not want you in it
 - It is not just my boundaries, it is their (the community members) boundaries
 - Building a professional relationship, but it is the friend professional, not the case manager, not the therapist
 - Peers have their own boundaries
 - One peer mentioned that shares their story in order to make a relationship, but there are some things they might not want to share. They have things they have not shared with their best friend but have shared with community members
 - Another boundary they have difficulty is when a community member asks for their personal number
 - Not all the peers have a work cell
 - In a relationship with someone outside of work, if you ask someone something you do not want to answer

- You can ignore it or say it is not your business
 - A client asks you something you do not want to answer, how do you go about that?
 - How do you keep those secrets you want to keep while still building a relationships? I do not feel comfortable talking to you about that, but I don't want you to say well I will not talk to you about my stuff either
- Asking for a phone number
 - One peer has felt obligated to give a number
 - Not comfortable at the time, but is fine now
 - One peer has an example where they got a text message way past hours
 - Someone was in a very bad situation and they wanted the peer to come get them
 - In this situation, the peer came up with a plan with the community member
 - Who else could get them? Peer came up with a plan with them to get their help
 - Every part of the peer wanted to go save them, but could not
- What is their definition of boundaries?
 - It is hard to define
 - Personal boundaries – based on recovery story and trauma
 - Professional boundaries – within their job descriptions what they can and cannot do
 - Properly communicate those boundaries to people you are working with
- Another peer had a few things come to mind
 - Sometimes people at the library ask for money
 - Usually just responds with “I am not allowed”
 - Someone asked for playing for money for chess
 - I am not allowed to play for money
 - You could say it as I am not going to do it or I am not allowed
 - The two things communicate something different, either I am not doing it personally or I am doing it professional
- Another peer has experiences from the hospital
 - Need to make boundaries with certain patients
 - Some want to get too close
 - Some want to touch you
 - Not okay for him
 - Some use the wrong language
 - They try to flirt
 - As far as professional boundaries
 - Bill would say from 8-5 you can contact me, but after that I will not respond until the next day
 - That is a boundary this peer has as well

- This peer mentioned that as far as boundaries go, you need to set them, you need to be clear about them, you need to be firm on them
 - If you let people break them it will continue to happen
 - Bruce's definition of boundaries:
 - Individual boundaries: rules, standards, policies that are based on an individual's core beliefs and values
 - Organizational boundaries: rules, standards, policies that are based on an organization's core beliefs and values
 - A female peer mentioned that they will not go into a male's apartment alone
 - Never been hit on, but she will not go into their apartment
 - If she is talking to them, she is in their doorway with the door open
 - Only goes in when another person is there
 - Even with the women, she is in public
 - Because, for example if something goes missing she does not want them to think it was her
 - Another boundary people try to cross: Do things for them (fill this out, help me with this)
 - It goes beyond the self-directed work (professional)
 - When does someone's safety and well-being become your job?
 - Where do you draw the line at what you are capable of fixing or not fixing
 - One peer mentioned that they will meet community members half way, but that means they need to meet half way too
 - If you are working harder than the client, you are doing something wrong
 - They will keep asking for help if you just do it for them
 - Need to walk beside the community member
 - Another peer
 - Knowing when to support someone and when not to
 - Thinks they has done pretty good at this at the hospital
 - Some view them as lazy
 - Sometimes boundaries may be crossed with coworkers
 - For example, a social worker tells them to hand the paper to someone
 - This peer does it because of a pick your battles kind of thing
 - Or nurses will tell you to talk to someone that is crossing a boundary
 - For example, it will not help the patient
 - Some patients will just want the peer to listen
 - However, if someone is on meth, they just want to talk, and they are not making sense, he is not helping anyone so not to do it anymore
 - Another peer
 - People who are feeling a certain way (e.g., they are delusional), it is not helpful to have them talk their way through more psychosis

- So the peer will leave the room because it will make them worse to listen
 - Alcohol you have to be under a certain level to do the screen
 - Need to figure out if it is mental health issue or an alcohol issue
 - The qualified mental health screening to see if they need hospitalization or what not, should they go to Osh, should they be involuntary or voluntary, etc., they need to be under a certain amount of intoxicated
 - Do you sometimes feel like you are used as a babysitter?
 - All the time
 - Even the security guards sometimes
 - One peer mentioned they do not mind though as they feel like they are helping because it is hard to be alone at that time
 - Nurses and ED staff can have a “Thank goodness you are here, go occupy them” attitude
 - Go get them water, go get them something
- Any skills you want to build, anything you wish you had been taught (not a community resource)
 - Boundaries is an ongoing thing
 - Maybe that could be covered like supervisions every week
 - Lisa asks if any celebrations or anything
 - We could add, have there been any other situations you would like to discuss?
- Other training ideas
 - Sometimes trainings talk about a “proper response”
 - Then in the training you are thinking about correct or incorrect responses rather than being natural
- Another thought - The hospital might not be the best situation
 - Could be extra triggering
 - Some peers might not want to be here
 - Certain personalities are meant for certain places
 - Another peer mentioned they would not like to be at the library, as they do not like having her face put out there, does not want things written about her
- All the peers noted they would be happy to come back for a training if needed
- What did everyone get out of today’s session?
 - Feels valued
 - That you take our thoughts into consideration is appreciated
 - Recommends asking for feedback during the program, for example, every two months or so
 - What do you need more of? what do you not like? etc.
- Glad we came back for this and that he was part of it. Feels valued and heard
 - Continue feedback sessions, next group should get to give feedback as well.
- Good reflection on everything, feels heard too, these types of sessions pave the way to make the program smoother and better, appreciate doing it twice

Appendix E

Consent Form

Peer Fellows Program: Training the Peer Workforce and Impacts of the Program

Consent and Authorization Form

Key Information

- This project is studying the effects of trainings and the impact of the Peer Fellows Program.
- Your participation in this research project is completely voluntary.
- Your participation will not take any additional time from that required as part of the Peer Fellows program.
- You will be asked to do the following procedures: Participate in trainings, complete pre- and post-tests, engage in role plays, and collect data on work tasks. Some of the role plays will be recorded for evaluation purposes. These tasks are part of your Peer Fellows Program required activities and will be followed regardless of whether you sign this consent form. More detailed information on the procedures can be found below.
- There are no anticipated risks or discomforts related to this study.
- Participation in this study will help ensure trainings are being successful in their stated objectives. Additionally, participation in this study will provide important information on peer training that may be beneficial to other peer training programs. Finally, participation in this study will be helpful in disseminating the impact of the program to key stakeholders.
- Your alternative to participating in this research study is not to participate.

Introduction

The Department of Applied Behavioral Science at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do withdraw from this study, it will not affect your relationship with the University of Kansas or the services it may provide to you.

Purpose

The primary purpose of this research is to understand the effects of Behavioral Skills Training on teaching workforce development skills to peer fellows. A secondary purpose of this research is to evaluate the training component of the Peer Fellows Program and to understand the impact of the Peer Fellow Program.

Procedures

You will not be asked to do anything additional as it relates to the Peer Fellows Program. This consent form is necessary only to allow your data to be used for research purposes. As part of the Peer Fellows Program, you will participate in a weekly 3-hour seminar. In order to assess skills



taught in these seminars, pre- and post-tests will be administered. Additionally, key skills will be taught using instructions, modeling, roleplay, and feedback (i.e., Behavioral Skills Training). For various skills, we will ask you to demonstrate a skill through short role plays before receiving training. We will then give detailed instructions on the skill, model the skill, and then ask you to complete role plays while giving feedback. At the end of the training session, we will ask you again to use the skill to complete a role play. We will also collect follow-up data by asking you to role play scenarios in future trainings. These procedures, as well as the pre- and post-tests, are part of the weekly seminar and will be followed regardless of whether you sign this consent form or not. By signing this consent form, you are agreeing to allow your data to be stripped of identifying information and used for the research purpose of understanding whether behavioral skills training can successfully be implemented to teach workforce development skills to peers and whether the weekly seminars are effective in teaching you critical skills.

As part of the skill assessment before and after the training we will record your role play. This recording is required to participate in the study. This will be done by recording the Zoom training. You can ask to stop this recording at any time. The recordings will be stored in a secured location by the principle investigator, and only approved researchers will have access to the videos. The videos will be erased when the study is finished.

Additionally, as part of the Peer Fellows Program, you will be collecting data on the impact of the program by documenting your daily activities through an online form. This task is also part of the Peer Fellows Program and you will be required to do this whether you sign this consent form or not. By signing this form, you are agreeing to allow the daily data you collect to be stripped of identifying information and used for the research purpose of understanding the overall impact of the program.

Risks

There are no anticipated risks to participants who choose to participate in this study.

Benefits

Participation in this study will benefit you directly by systematically collecting data to ensure the curriculum is effective and you are learning the skills necessary to successfully complete your job. Additionally, the information obtained from this study will help us know if changes are needed so as to create an improved curriculum for future peers, if necessary. Finally, the data will help key stakeholders understand the impact of the program.

Payment to Participants

Participants will not be paid for this study.



Participant Confidentiality

Your name will not be associated in any publication or presentation with the information collected about you or with the research findings from this study. Your identifiable information will not be shared unless (a) it is required by law, or (b) you give written permission. Permission granted on this date to use and disclose your non-identifiable information remains in effect indefinitely. By signing this form or giving oral consent, you give permission for the use and disclosure of your information for purposes of this study at any time in the future.

Your identifiable information will not be used or distributed for future research studies even if your identifiable information is removed.

Alternatives

You do not have to participate in this research and allowing your data to be used for research purposes is not required as part of the Peer Fellows Program. If you choose not to sign this consent form, there will be no consequences. Whether or not you participate will have no effect on your standing in the Peer Fellows Program. If you choose not to participate, it will not exempt you from any part of the Peer Fellows Program. It will only affect whether or not your data may be used for research purposes.

Cancelling This Consent and Authorization

You may withdraw your consent to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about you, in writing, at any time, by sending your written request to:

Jonathan Schulz
1000 Sunnyside Ave.
Department of Applied Behavioral Sciences
University of Kansas
Lawrence, KS 66045

If you cancel permission to use your information, the researchers will stop collecting additional information about you. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

Questions

Before signing this form, Jonathan Schulz will answer any questions that you have. Please feel free to talk to the researcher about any more questions or concerns even after signing this form. If you have any questions about your rights as a participant in research, you can contact the Human Subjects Protection Office at (785) 864-7429 or by emailing irb@ku.edu.

PARTICIPANT CERTIFICATION:



KU Lawrence IRB # STUDY00145979 | Approval Period 9/24/2020 – 7/9/2023

I have read this Consent and Authorization form, or had it read to me. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 8647429 or (785) 864-7385, write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email irb@ku.edu.

I agree to take part in this study as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

Print Participant's Name

Signature of Participant

Time

Date

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Appendix F

IRB Approval



Date: July 10, 2020

TO: Jonathan Schulz, (jayschulz@ku.edu)

FROM: Alyssa Haase, IRB Administrator (785-864-7385, irb@ku.edu)

RE: **Approval of Initial Study**

The IRB reviewed the submission referenced below on 7/10/2020. Approval expires on 7/9/2023.

IRB Action: APPROVED		Effective date: 7/10/2020	Expiration Date : 7/9/2023
STUDY DETAILS			
Investigator:	Jonathan Schulz		
IRB ID:	STUDY00145979		
Title of Study:	Peer Fellows Program: Training the Peer Workforce and Impacts of the Program		
Funding ID:	None		
REVIEW INFORMATION			
Review Type:	Initial Study		
Review Date:	7/10/2020		
Documents Reviewed:	• Consent Form.docx, • Demographics.docx, • HRPP Human Research Protocol.docx, • Social Validity Questionnaire.docx		
Expedited Category(ies):	• (5) Data, documents, records, or specimens		
Special Determinations:			
Additional Information:			

KEY PROCEDURES AND GUIDELINES. Consult our [website](#) for additional information.

1. **Approved Consent Form:** You must use the final, watermarked version of the consent form, available under the “Documents” tab, “Final” column, in eCompliance. Participants must be given a copy of the form.
2. **Continuing Review and Study Closure:** Submit a [Continuing Review](#) request and required attachments at least 4 weeks in advance of the expiration date. If Continuing Review is not approved before 7/9/2023, the study approval will expire on that date and all human subjects research activities must stop. Please close your study to IRB oversight once your study meets the first 4 milestones, as outlined in the [Closing a Study guidance](#).
3. **Modifications:** Prior to making any significant changes to the project, a [Modification](#) request must be submitted *and* approved.
4. **Add Study Team Member:** [Complete a study team modification](#) if you need to add investigators not named in original application. Note that new investigators must take [the online tutorial](#) prior to being approved to work on the project.
5. **Data Security:** [University data security and handling requirements](#) apply to your project.
6. **Submit a Report of New Information (RNI):** If a subject is injured in the course of the research procedure or there is a breach of participant information, an RNI must be submitted immediately. Potential non-compliance may also be reported through the RNI process.
7. **Consent Records:** When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity.
8. **Study Records** must be kept a minimum of three years after the completion of the research. Funding agencies may have retention requirements that exceed three years.

Appendix G

Boundary Violation Scenarios

Potential example scenarios with community members:

- A community member asks a peer if they should stop taking their medication
- A community member asks peer if they agree with their diagnosis
- A community member asks a peer if they should voluntarily go to the Osawatomie State Hospital
- A community member contacts a fellow outside of work hours in a bad situation (e.g., drunk) and asks for help (e.g., a ride)
- A community member asks for money for something such as food
- A community member asks the fellow to complete tasks for them that they should be doing themselves (e.g., fill out a form for housing aid or food aid, complete their resume)
- A community member asks a peer if they can do work (e.g., mow the peer's lawn) for the peer for money
- A community member offers a service (e.g., to fix a peer's car for a reduced rate) when the community member learns that the peer has a need
- A community member asks about an aspect of their story they are not comfortable sharing (e.g., your diagnosis)
- A community member asks for a personal number
- A community member asks the fellow to go into their apartment alone
- A community member asks a peer to promise the community member they will get the community member a service (e.g., approved for Social Security Disability Benefits)
- A peer sees a community member at a personal meeting (e.g., 12-step, SMART recovery) and the community member begins asking personal questions about the peer's past
- A peer sees a community member while the peer is eating with friends off of work hours and begins asking personal questions
- A community member invites a peer to come to his child's birthday party and also suggests some toys the child would like
- A community member asks a peer on a date
- A community member asks a peer to get lunch or a cup of coffee as friends
- A community member demands to be a peer's friend on social media
- A community member asks a peer to be their 12-step sponsor

Potential example scenarios for generalization probes

- A coworker asks a peer to use undue influence/a threat to get a community member to do what the coworker wants
- A supervisor asks a peer to commit fraud

Appendix H

Scenario Difficulty Questionnaire

Boundary Violation	Level of difficulty					
	Extremely easy					Extremely Difficulty
A community member asks a peer if they should stop taking their medication	1	2	3	4	5	6
A community member asks peer if they agree with their diagnosis	1	2	3	4	5	6
A community member asks a peer if they should voluntarily go to the Osawatomie State Hospital	1	2	3	4	5	6
A community member contacts a fellow outside of work hours in a bad situation (e.g., drunk) and asks for help (e.g., a ride)	1	2	3	4	5	6
A community member asks for money for something such as food	1	2	3	4	5	6
A community member asks the fellow to complete tasks for them that they should be doing themselves (e.g., fill out a form for housing aid or food aid, complete their resume)	1	2	3	4	5	6
A community member asks a peer if they can do work (e.g., mow the peer's lawn) for the peer for money	1	2	3	4	5	6
A community member offers a service (e.g., to fix a peer's car for a reduced rate) when the community member learns that the peer has a need	1	2	3	4	5	6
A community member asks about an aspect of their story they are not comfortable sharing (e.g., your diagnosis)	1	2	3	4	5	6
A community member asks for a personal number	1	2	3	4	5	6
A community member asks the fellow to go into their apartment alone	1	2	3	4	5	6
A community member asks a peer to promise the community member they will get the community member a service (e.g., approved for Social Security Disability Benefits)	1	2	3	4	5	6
A peer sees a community member at a personal meeting (e.g., 12-step, SMART recovery) and the community member begins asking personal questions about the peer's past	1	2	3	4	5	6
A peer sees a community member while the peer is eating with friends off of work hour and begins asking personal questions	1	2	3	4	5	6
A community member invites a peer to come to his child's birthday party and also suggests some toys the child would like	1	2	3	4	5	6
A community member asks a peer on a date	1	2	3	4	5	6
A community member asks a peer to get lunch or cup of coffee outside of work hours as a friend	1	2	3	4	5	6
A community member demands to be a peer's friend on social media	1	2	3	4	5	6
A community member asks a peer to be their 12-step sponsor	1	2	3	4	5	6

Appendix I

Scenario Difficulty Ratings

Boundary Violation	Level of Difficulty			Average Difficulty	Rank
	Conf. 1	Conf. 2	Conf. 3		
A community member contacts you outside of work hours in a bad situation (e.g., drunk) and asks for help (e.g., a ride)	4	4	5	4.33	1
A community member invites you to come to his child's birthday party and also suggests some toys the child would like	5	3	4	4	2
You see a community member while you are on Mass St. off of work hours and they begin asking you personal questions	4	3	4	3.67	3
A community member gives you a small gift to thank you for working with them	2	4	5	3.67	3
A community member asks you if they should voluntarily go to Osawatomie State Hospital	3	3	3	3	5
A community member asks you for a ride	4	2	3	3	5
A community member asks you if they agree with their diagnosis	1	4	3	2.67	7
A community member asks you to complete tasks for them that they should be doing themselves (e.g., fill out a form for housing aid or food aid, complete their resume)	4	3	1	2.67	7
A community member asks you for your personal number	2	1	5	2.67	7
A community member asks you to get lunch or cup of coffee outside of work hours as a friend	2	2	4	2.67	7
A community member asks you if they should stop taking their medication	2	2	3	2.33	11
A community member asks you to be their 12-step sponsor	1	4	2	2.33	11
A community member sees you with another client and begins asking confidential questions about the other client	2	2	3	2.33	11
A community member asks you for money for something such as food	2	3	1	2	14
A community member offers you a service (e.g., to fix a peer's car for a reduced rate) when the community member learns that you have a need	2	3	1	2	14
A community member asks you to go into their apartment alone	2	2	2	2	14
A community member asks you if they can do work (e.g., mow the peer's lawn) for the peer for money	2	2	1	1.67	17
A community member asks you on a date	1	2	1	1.33	18
A community member demands to be your friend on social media	2	1	1	1.33	18

Note. Conf. = Confederate

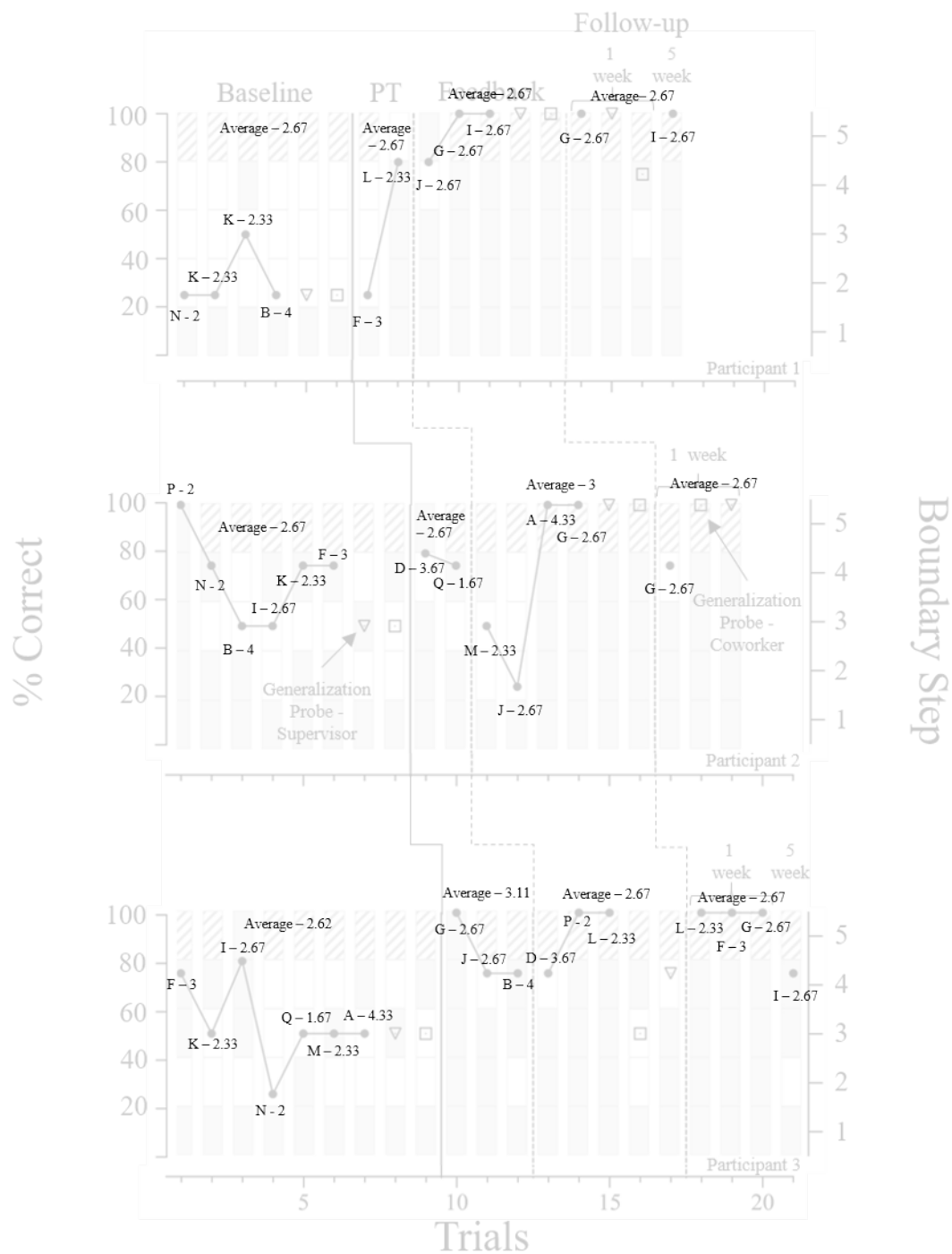
Appendix J

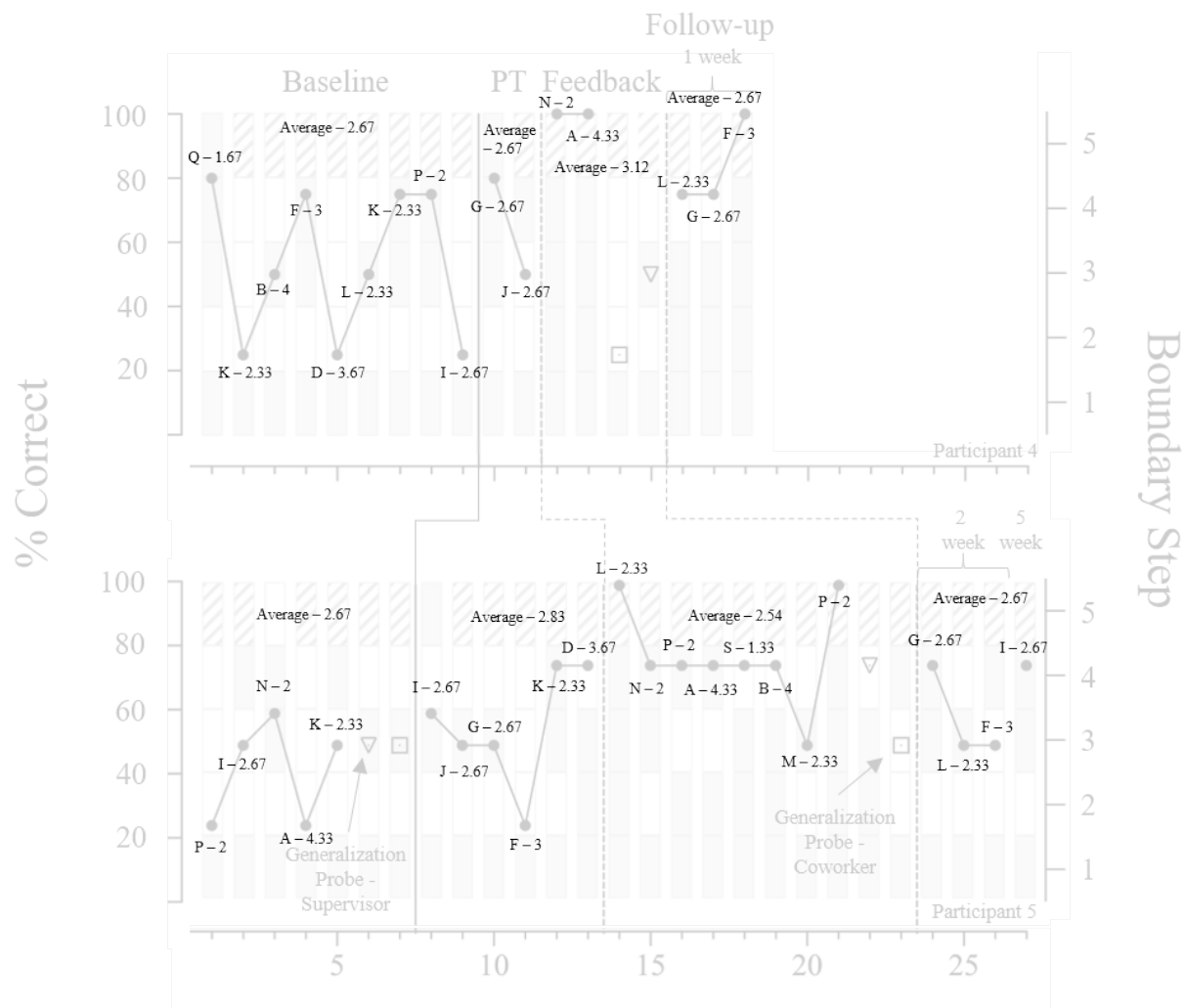
Scenario Identification and Use

Scenario Identification	Average Difficulty	Boundary Violation	Training Use
A	4.33	A community member contacts you outside of work hours in a bad situation (e.g., drunk) and asks for help (e.g., a ride)	Baseline / Posttraining Probe
B	4	A community member invites you to come to his child's birthday party and also suggests some toys the child would like	Baseline / Posttraining Probe
C	3.67	You see a community member while you are on Mass St. off of work hours and they begin asking you personal questions	Modeling Component
D	3.67	A community member gives you a small gift to thank you for working with them	Baseline / Posttraining Probe
E	3	A community member asks you if they should voluntarily go to Osawatomic State Hospital	Modeling Component
F	3	A community member asks you for a ride	Baseline / Posttraining Probe
G	2.67	A community member asks you if they agree with their diagnosis	Baseline / Posttraining Probe
H	2.67	A community member asks you to complete tasks for them that they should be doing themselves (e.g., fill out a form for housing aid or food aid, complete their resume)	Modeling Component
I	2.67	A community member asks you for your personal number	Baseline / Posttraining Probe
J	2.67	A community member asks you to get lunch or cup of coffee outside of work hours as a friend	Baseline / Posttraining Probe
K	2.33	A community member asks you if they should stop taking their medication	Baseline / Posttraining Probe
L	2.33	A community member asks you to be their 12-step sponsor	Baseline / Posttraining Probe
M	2.33	A community member sees you with another client and begins asking confidential questions about the other client	Baseline / Posttraining Probe
N	2	A community member asks you for money for something such as food	Baseline / Posttraining Probe
O	2	A community member offers you a service (e.g., to fix a peer's car for a reduced rate) when the community member learns that you have a need	Modeling Component
P	2	A community member asks you to go into their apartment alone	Baseline / Posttraining Probe
Q	1.67	A community member asks you if they can do work (e.g., mow the peer's lawn) for the peer for money	Baseline / Posttraining Probe
R	1.33	A community member asks you on a date	Modeling Component
S	1.33	A community member demands to be your friend on social media	Baseline / Posttraining Probe
T	N/A	A coworker asks a fellow to withhold food to get a community member to do what the coworker wants	Generalization Probe
U	N/A	A supervisor asks a fellow to commit billing fraud	Generalization Probe

Appendix K

Scenario Order





Appendix L
Boundary Setting Task Analysis

Participant ID: _____

Observer: _____ Date: _____

Primary/Reliability

Steps Example Scenario Number	Trial									
	B/P	B/P	B/P	B/P	B/P	B/P	B/P	B/P	B/P	B/P
Step 1: Fellow listens to community member										
Step 2: Fellow reflects back the community member's request/need										
Step 3: Fellow sets the boundary										
Step 4: Fellow redirects community member										
Step 5: Fellow repeats steps 3 and 4 if community member continues to try to cross the boundary										
Total correct steps										
Percent correct steps										

Code: + = correct - = incorrect 0 = omission n/a = not applicable | B = Baseline P = Posttraining

Appendix M

Treatment Integrity Data Collection Sheet

Fidelity

Date:

Observer:

Steps	Score
Instructions	
Trainer provides rationale	
Trainer leads discussion on boundary definitions	
Trainer states the steps of responding to a boundary violation	
Trainer provides an opportunity to ask questions	
Modeling Phase	
Trainer shows video models	
Trainer leads discussion on correct and incorrect steps	
Trainer provides an opportunity to ask questions	
Rehearsal phase	
Trainer provides opportunities for rehearsal	
Feedback phase	
Trainer provides praise for steps implemented correctly	
Trainer provides corrective feedback for steps implemented incorrectly	
Debrief	
Trainer summarizes the training	
Trainer provides opportunity to ask questions and convey thoughts about the training	
Total Correct Steps	
Percent Correct Steps	

Notes:

Code: + = correct

o = omission

- = incorrect

Appendix N

Training Presentation Slides



1

Objectives

- Define boundaries
- List example boundary crossings
- Respond to a community member crossing a boundary

2

Boundaries

International Association of Peer Supports: "Boundaries are the formal and informal understanding of how people interact with each other"

What is acceptable for a peer to do

3

Boundary Crossing

Community member asking you to do something that is not acceptable for you to do

4

Peer Support Boundaries

Roles and Responsibilities

- Sponsors - no
- Therapists - no
- Nurses/physicians - no
- Clergy person - no

5

Code of Ethics for Kansas Certified Peer Mentors

- Peer Mentors will respect the privacy and confidentiality of those people utilizing peer support services. Peer Staff are particularly conscious in public settings and with friends and family. Peer Mentors will be conscious that simply subtracting a person's name from a descriptive story of a person's life can violate confidentiality and privacy, if the information is identifying.
- Peer Mentors will never engage in sexual/intimate activities with the people utilizing peer support services.
- Peer Mentors will not enter into dual relationships or commitments that conflict with the interests of the people utilizing peer support services. These relationships are based on mutuality or a relationship of health for both persons.

6

Code of Ethics for Kansas Certified Peer Mentors

- Peer Mentors will never intimidate, threaten, harass, use undue influence, physical force or verbal abuse, or make unwarranted promises of benefits to the people that utilize peer support services.
- Peer Mentors will not accept gifts of significant value from those utilizing peer services.
- Peer Mentors will acknowledge limits to knowledge, when discussing areas outside the expertise of the field of wellness, like prescribing medications or making diagnoses.

7

Ethics



8

Ethics

III. Support Specialist/Client Relationship

As a Peer Recovery Support Specialist, I will:

17. Clearly explain my role and responsibilities to those served.
18. Terminate the relationship with a person(s) served when services appear no longer of benefit and to respect the rights of the person served to terminate services at his/her request.
19. Request a change in my role as a NCPRSS with a person being served if the person served requests a change.
20. Not engage in sexual activities or personal relationships with persons served in my role as a NCPRSS, or members of the immediate family of person(s) served.

21. Set clear, appropriate, and culturally sensitive boundaries with all persons served.

9

Importance of Boundary Setting

Legal

Psychological

Special Considerations for Peer Support?

10

Examples

11

Responding to a Boundary Crossing

12

Rationale

Literature
 Relate to Core Competencies
 MyStrength

13

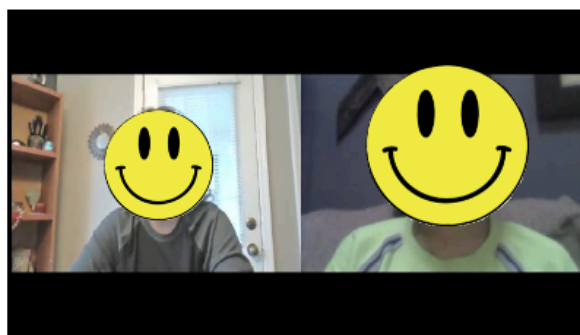
Responding to Boundary Crossings

What you do	What you say	Common Errors
Listen	Nod "uh huh" Attend with neutral or positive facial expression Be polite	React with facial expressions Interrupt
Reflect	"I understand..." "What you are saying is..." "I hear that..."	Saying only "sorry" Not reflecting back people's wants
Set boundary	"Unfortunately..." "I'm sorry..." "I'm uncomfortable doing that..." "I am not allowed because..."	Making excuses Putting off the answer Saying "yes"
Redirect	"Here is what I can do..." "One way you can get..." "There is this great resource..." "Last time we met you discussed..."	Failing to provide additional help and leaving the conversation at "no"
Repeat steps 3 and 4	"I understand, but I still cannot..." "That is not what I am here for, but I can help you with..."	Making excuses Putting off the answer Saying "yes"

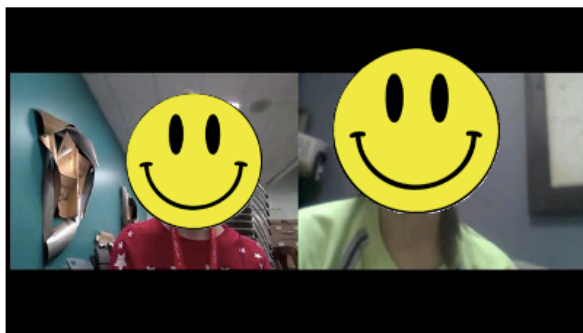
14

Modeling

15



16



17



18



19



20

Role Play

21

Debrief

- Definition
- Importance
- Emotional Effects
- Examples

22

Additional Examples

23

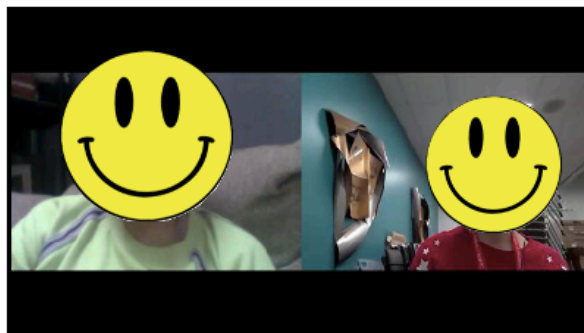
Instructions

What you do	What you say	Common Errors
Interrupt	"I'm going to stop you there"	React with facial expressions Listening
Set boundary	"I'm sorry, we are not going to talk about that" "Please do not say that"	Going along with the comment Agreeing
Redirect	"Here is what we can talk about..." "Last time we met you discussed..."	Leaving the conversation at "no"
Repeat steps 3 and 4	"No, we are not going to talk about that"	Going along with the comment Agreeing

24



25



26

Additional Resources



Saying no is simple and hard at the same time. The words are simple, but often it takes courage to say them. Which topic would you like to learn more about?

Three Ways to Say No

Two Steps: Rights and Needs

A Gift, Not a Request for Some Strategies

[Here](#)
[Skip this](#)

27

Summary

What you do	What you say	Common Errors
Listen	Nod "Uh huh" Attend with neutral or positive facial expression Be polite	React with facial expressions Interrupt
Reflect	"I understand..." "What you are saying is..." "I hear that..."	Saying only "sorry" Not reflecting back people's wants
Set boundary	"Unfortunately..." "I'm sorry..." "I'm uncomfortable doing that..." "I am not allowed because..."	Making excuses Putting off the answer Saying "yes"
Redirect	"Here is what I can do..." "One way you can get..." "There is this great resource..." "Last time we met you discussed..."	Failing to provide additional help and leaving the conversation at "no"
Repeat steps 3 and 4	"I understand, but I still cannot..." "That is not what I am here for, but I can help you with..."	Making excuses Putting off the answer Saying "yes"

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Thoughts or Questions

29

Survey and Responding to Scenarios

30

Appendix O

Social Validity and Demographic Questionnaire

The purpose of this questionnaire is to understand what you think about the skill learned today as well as the way in which the skill was taught. Please circle the number that best describes your agreement or disagreement with each statement.

	Strongly disagree					Strongly agree
The way to set boundaries learned today is an acceptable method to use with community members	1	2	3	4	5	6
The way to set boundaries learned today should prove effective in helping community members	1	2	3	4	5	6
This way of setting boundaries would help keep me safe at work	1	2	3	4	5	6
I would suggest setting boundaries this way to other peers	1	2	3	4	5	6
I like the setting boundaries skill learned today	1	2	3	4	5	6
I like the procedures (i.e., instructions, modeling, role play, and feedback) used today to teach me how to set boundaries	1	2	3	4	5	6
This training is an acceptable way for peers to learn how to set boundaries	1	2	3	4	5	6
I will set boundaries in the way I learned today at my work.	1	2	3	4	5	6

1. Which aspects of setting boundaries learned today were the most useful?
2. Which aspects of setting boundaries learned today were the least useful?
3. Which aspects of the training (e.g., instructions, modeling, role play, and feedback) used to teach the skills were the most useful?
4. Which aspects of the training (e.g., instructions, modeling, role play, and feedback) used to teach the listening skills were the least useful?
5. Please provide any other feedback.

Demographic Questions

1. How old are you?
2. What is your gender?
3. What is your ethnicity?
4. What is your highest level of education?

5. How long have you been in the Peer Fellows Program?
6. Have you received training over boundary setting outside of this training?
 - a. Yes \ No
 - b. If yes, describe the other boundary training you have had.
7. Do you have lived experience with a substance use disorder?
 - a. Yes \ No
 - b. If yes, please describe:
 - i. Prefer not to answer
8. Do you have lived experience with a mental health condition?
 - a. Yes \ No
 - b. If yes, please describe:
 - i. Prefer not to answer
9. How long have you been in recovery?