Employing Community-Engaged Approaches to Develop and Implement E-Learning for Community Health Workers and Peer Specialists

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ABSTRACT

Background: New public policies support the growth of the Community Health Worker (CHW) and Peer Support Specialist/Peer Recovery Coach (peer) workforces in health and behavioral health settings. In their roles as a "bridge" to medical teams, they often face complex interpersonal situations.

Objectives: The current project used community-engaged methodologies to develop and evaluate a series of e-learning modules designed to teach behavioral health-related skills to CHWs and peers. The modules focused on Motivational Interviewing (MI) and Behavioral Activation (BA) approaches.

Methods: The project team consisted of university faculty and a Community Advisory Board (CAB) of frontline CHWs and peers as well as representatives from local community organizations and the state Department of Health and Human Services. The CAB and faculty worked collaboratively to design, implement, and evaluate the modules. Participants completed pre- and immediate post-learning surveys (N=87) and 3-month follow-up surveys (N=23). 75% were extremely satisfied and 23% were somewhat satisfied. Planned frequency of using the skills increased by 18% (MI) and 25% (BA). There was a 27% improvement in feeling prepared to use MI and a 16% improvement in feeling prepared to set goals and implement action plans. At 3 months, 100% of respondents reported having applied something they learned to their work. After project completion, the university transferred ownership of the modules to a community organization for sustainability.

Conclusions: Beyond degree-program learners, universities can provide education to the community through innovative partnerships. E-learning modules are one satisfactory option for providing sustainable education to the community.

KEYWORDS: Allied Health Personnel, Mental Health, Psychological Techniques, Education,

Professional, Health Facility Closure

Introduction

Safety net health and behavioral health clinics increasingly rely on community workforces that can leverage their experiential knowledge and lived experience to support the health and behavioral health of their patients. These workforces include Community Health Workers (CHWs), who are trained frontline health workers who are trusted members of, or closely connected to, the population served, and Peer Support Specialists and Peer Recovery Coaches (PSS/PRC, or "peers"), who are people in recovery from a mental health or substance use disorder and who have been trained to support others with similar experiences.² CHWs and peers can address underlying inequities in care access and quality through culturally acceptable interventions and linkages to support social determinants of health. The peer workforce has benefited from increased financial sustainability in safety net behavioral health settings since 2001, at which time a letter to State Medicaid Directors from the Centers for Medicaid and Medicare Services (CMS) outlined requirements for Medicaid reimbursement of peer counseling, including training and credentialing.³ The CHW workforce achieved an important financial sustainability milestone in 2023, when CMS proposed the first Physician Fee Schedule designed to include care involving CHWs, such as promoting patient self-advocacy and addressing unmet social needs.4

Public policies highlight the importance of teaching and learning to these workforces. State-specific CHW and peer certification and training curricula have been developed, with varying requirements for number of hours, topics, and priority populations served.^{5, 6} However, there are gaps in the research literature related to efficacy and characteristics of such training programs, with lingering ambiguity regarding workforce training needs.^{7, 8} This gap suggests the need for

deeper scholarly engagement relating to teaching and learning to ensure workforce preparation for expanding responsibilities under evolving public policies.

Within this context, our university-based team received funding from a local health-focused grantmaking foundation to develop and evaluate a series of e-learning modules that would sustainably provide behavioral health-related training and continuing education resources for CHWs and peers in health and behavioral health settings. We set out to create an educational experience that would reinforce the trans-diagnostic communication and engagement skills that are emphasized in CHW and peers' certification programs, focusing our content on Motivational Interviewing (MI), an approach that helps people resolve ambivalence to find the internal motivation to change, and Behavioral Activation (BA), an approach that uses supported behavior change to improve mental wellbeing. These approaches have empirical support, prior application with CHW and/or peer workforces, and are applicable to a wide range of health and behavioral health presenting concerns.

E-Learning Module Development Process

Creation, Maintenance, and Significance of the Community Advisory Board

Our work was informed by the practice of Community-Based Participatory Research for Health¹⁴ and Action Research in Education frameworks.¹⁵ A University of Michigan faculty member collaborated with a Community Advisory Board (CAB) and two community-based organizations on all aspects of program design from its outset. The impetus for the project was a series of discussions between the faculty member and the CAB during a different community-engaged project in spring and summer of 2020. Having observed face-to-face learning opportunities vanish during the early days of the pandemic despite continued need for education

and training, we began discussing whether an entirely digital educational experience could be feasible in meeting the ongoing training needs of the CHW and peer workforces during the pandemic. A request for proposals from a local health-focused foundation was released when these discussions were taking place, leading to our developing a proposal together, which was funded a few months later.

A minimum of a high school degree or GED is required to become a CHW or peer. As such, curricular and pedagogical best practices for these workforces are different from those of other health professions. As disclosure and utilization of experiential knowledge is an explicit tool of these trades, community-engaged approaches to developing curricula and pedagogy was particularly important and supported by impactful research literature. 14, 15 Our team was also aware of concerning power dynamics of innovative programs being launched but not sustained, fostering distrust in the community for academic-led initiatives; in the words of Smith & Blumenthal, "it is unethical to claim an academic-community partnership if all power and control is vested in the academic partner." We therefore selected community-engaged methodology not just for educational content development, but to foster connections that could ensure the sustainability of our program outside the university's walls after the grant period ended. We hoped to leverage the strengths of a public university toward community-based education supporting workforces that serve underserved members of our state. We also planned to end the university's ownership of the educational modules after the program evaluation culminated, allowing the community partners to use them as they saw fit.

The CAB was established at the initiation of the project in 2020. CAB member professions included a CHW, two peers, a social worker, and a psychologist, all of whom had experience supporting or training the CHW or peer workforces. All CAB members were offered a stipend to

acknowledge service to the project. Among the CAB members were a CHW trainer with the Detroit Health Department; a member of the Michigan Department of Health and Human Services (HHS) responsible for training and overseeing the peer workforce; and representatives from two community-based advocacy and training organizations: Michigan Peer Specialists United (MPSU) and the Michigan Community Health Worker Alliance (MiCHWA). The CAB met quarterly via video meetings and also exchanged regular emails. Topics discussed in CAB meetings included the needs of the community, module content, instructional design approach, program evaluation approach, and program evaluation results. All members of the CAB made significant contributions to the content, design, piloting, and implementation of the modules. Two non-academic members of the CAB contributed to the writing of this manuscript.

At the start of the project, CAB members shared personal experiences with, and their understanding of the community's experience with, MI and BA approaches. CAB members shared stories which suggested that the peer community sometimes did not feel MI was consistent with their professional values; typical concerns related to the approach being overly clinical, or even a form of manipulation. This in fact echoed similar, historical criticisms about MI noted in academic literature. On the CHW side, CAB members shared stories of significant stress stemming from providing emotional support to community members. They noted that CHWs often face complex interpersonal situations without the formal training that therapists receive. Once again, CAB anecdotal observations reflected findings from the academic literature; for example, one workforce development paper quotes a CHW as stating, "80% of the people I meet with end up crying at some point during our conversation ... I deal with a lot of domestic violence issues, a lot of mental health issues, that I try to just at least be that, that first point of contact where they know okay, somebody's actually hearing me." 18

CAB member stories and observations guided specific module content and program evaluation decisions. With respect to BA, for example, peers noted a negative connotation of the word "behavioral" (as in "bad behaviors"), leading us to use the more acceptable term "Goal Setting and Action Planning" to describe the approach instead. With respect to MI, we deemphasized the clinical aspects of this approach, instead discussing why the CHW and peer workforces may find these strategies especially helpful in their day-to-day work, and why their workforces may in fact be unusually adept at the non-judgmental "spirit" of MI. These examples illustrate some of the ways that community member input had a concrete impact on content and presentation style.

E-Learning Module Creation

The team selected e-learning modules as a more sustainable form of learning than periodic ad-hoc live trainings, particularly given that our project was conceived in 2020 at the height of the COVID-19 pandemic. Module content development took place with the faculty member sharing key facts about MI and BA with the CAB and obtaining their feedback and understanding of these approaches as they applied to the workforces. The CAB provided input during all stages of development to make the modules as applicable to our priority learners as possible, paying attention not only to content, but also to the voice-over and graphic design.

We partnered with an instructional design vendor, InnoVersity (now MindSpring) to graphically design and digitize each of the e-learning modules after our content was finalized in PowerPoint-based "storyboards." We wrote voice-over scripts, for which the vendor hired a voice-over artist to read aloud over the graphically designed slides. We ensured that the vendor selected a voice-over artist whose vocal style could plausibly be that of a member of the priority

population. We hired a videographer and selected diverse members of the community, including one member of the CAB, to act the roles of CHWs, peers, and the people they serve in short video demonstrations of the skills. The community actors were diverse with respect to race, sex, and age, with the experiences of older adults particularly emphasized. These short videos were then integrated into the e-learning modules. Once digitized and produced, the modules were pilot tested by CAB members for a final round of revisions before being released more generally for the program evaluation.

Description of the E-Learning Modules

We entitled our program "Behavioral Health for Community Workers: A Learning Module Series for Peer Support Specialists, Peer Recovery Coaches, Community Health Workers, and Other Frontline Community Workers." The course was divided into six modules. Modules 1-4 covered MI while Modules 5 and 6 covered BA, which we termed "Goal Setting and Action Planning" (GSAP). Both sections contained dynamic text, voice-over, and video demonstrations of the skills. Table 1 lists each module and key learning content. Figures 1 and 2 display screenshots to demonstrate the "look and feel" of the modules. The modules were hosted on a learning management system (LMS) and accessible free of charge to CHWs and peers in the community. After completion of the program evaluation, the university transferred ownership of the modules to a community organization responsible for CHW certification and ongoing training statewide. This would dramatically improve the program's sustainability, as the organization not only owned an LMS on which the e-learning modules could be hosted, but also had the ability to market educational opportunities and award continuing education credits for CHWs. As the peer workforce did not have a similar LMS at the time of this writing, a formal

arrangement was made in which peers could access the modules and earn continuing education credits by request via the CHW organization.



Figure 1. Module 3. Core skills of motivational interviewing



Figure 2. Blue box

Program Evaluation

The program evaluation was reviewed by the University of Michigan Institutional Review Board and deemed non-regulated. Immediate pre- and post-learning survey links were embedded in the course webpage itself, while the 3-month follow-up survey was sent via email to participants who opted in to being contacted at that point. Evaluation design was guided by the Kirkpatrick model of program evaluation, ^{19, 20} with survey questions following four categories: (1) Reactions: How was the training overall? What did participants like and dislike? (2) Learning: What knowledge and skills did participants learn? (3) Behavior: How have training participants applied (or plan to apply) what they learned? (4) Results: What was the effect on the organization? The surveys consisted of questions about the extent learners felt knowledgeable and confident about using MI and BA skills, how often they used and planned to use them, and the extent they felt these approaches were consistent with their professional values. Satisfaction questions were asked on the post-learning survey. Sample questions include, "How well prepared do you feel to deliver Motivational Interviewing to the people you serve?" and "How likely is it that you will apply something from the e-learning modules to your work in the future?"

Data Analytic Approach

In our primary analysis, we compared participants responses to the post survey immediately after completion of the e-learning modules to their pre-module responses. We treated all survey items as continuous, Likert-like scales and focused on comparing the pre and post survey means. As necessary, items were reverse coded so that higher values always represent greater agreement, liking, consistency, or frequency. We used t-tests to estimate mean responses on the pre and post surveys among participants with responses to both. We computed

change scores form pre to post for each participant and estimate the mean change using paired ttests. In addition to difference in means, we also report mean percent change for each question
which we estimated by repeating the change-score analysis on the log scale and exponentiating
estimates. All results are reported with 95% confidence intervals; p-values are 2-sided,
unadjusted for multiple comparisons, and considered significant at the 5% level. Missing values
were omitted from the analysis and not imputed.

Results

Participants

We recruited learners from the CHW and peer communities to evaluate the modules. The modules were advertised by our community partners MPSU and MiCHWA, as well as through CAB member personal networks, social media, and listservs. We offered a \$10 incentive to complete pre- and immediate post-learning surveys. An additional \$15 was offered to participants who completed three-month follow-up surveys. One hundred nine participants completed pre-learning surveys and 88 completed immediate post-learning surveys, with 87 participants producing two valid surveys for comparison. At 3 months follow-up, 23 (26.4%) of the participants completed surveys. Table 2 describes the demographic information of the 87 program evaluation participants. With respect to place of work, participants most frequently reported (selecting all that applied) currently working at community-based organizations (N=34, 39.1%), Federally Qualified Health Centers (N=21, 24.1%), or Community Mental Health clinics or affiliated drop-in centers (N=14, 16.1%). The participants were geographically diverse, representing urban (N=48, 55.1%) rural (N=21, 24.1%), and suburban (N=15, 17.2%) areas of Michigan, with 3 (3.4%) not currently working or not responding.

Evaluation Category 1: Reactions. Table 3 presents the results of the primary pre-post analysis among 87 participants. There was broad agreement among survey participants that peer professionals should have both MI [7-point scale; pre: 6.7 (95% CI: 6.5-6.9); post: 6.8 (6.6-6.9)] and GSAP skills [7-point scale; pre: 6.8 (95% CI: 6.7-6.9); post: 6.9 (6.8-6.9)]. Respondents also generally liked both MI (N = 84) and GSAP (N = 87) prior to the modules [5-point scale; MI pre: 4.3 (95% CI: 4.1-4.5); GSAP pre: 4.6 (95% CI: 4.5-4.7)] with responses improving by 8.3% (95% CI: 4.0-12.8%) and 3.2% (95% CI: 0.1-6.4%) on the post survey. On average, 71 respondents reported finding both MI and GSAP consistent with their profession's core values on the pre survey [5-point scale; MI pre: 4.5 (95% CI: 4.3-4.6); GSAP pre: 4.5 (95% CI: 4.4-4.7)] and these values increased by 5.7% (95% CI: 1.0-10.5%) and 4.1% (95% CI: 0.5-8.0%), respectively. However, there was a greater nonresponse rate to questions addressing consistency [18.4% (16/87) for both questions vs ≤ 3.4% (≤ 3/87) for other questions]. With respect to satisfaction with the program, 65 (74.7%) were extremely satisfied, 20 (23.0%) were somewhat satisfied, and 2 (2.3%) were neither satisfied nor dissatisfied.

In addition to these primary analyses, we asked two questions about the e-learning module functionality. In response to the question, "How easy to use was the technological side of the e-learning modules?" one participant (1.1%) reported it was "somewhat difficult," two participants (2.3%) reported it was "neither easy nor difficult," twelve participants (13.7%) reported it was "somewhat easy," and 72 participants (82.7%) reported it was "extremely easy." In response to the question, "How easy to understand was the language in the e-learning modules?", no participants reported any difficulty, with 79 (90.8%) describing it as "extremely easy."

Evaluation Category 2: Learning. Participants reported feeling more prepared to use MI and GSAP after the e-learning modules. Among all 87 participants, there was a 27.2% (95% CI: 20.2-34.6%) improvement in feeling prepared to use MI from 5.0 (95% CI: 4.7-5.2) on a 7-point scale on the pre survey to 6.1 (95% CI: 5.9-6.3) on the post. Similarly, feeling prepared to set goals and implement action plans increased by 15.7% (95% CI: 10.1-21.6%) from 5.3 (95% CI: 5.1-5.6) to 6.1 (95% CI: 5.9-6.4). On average these are improvements from "somewhat prepared" (5) to "well prepared" (6).

Evaluation Category 3: Behaviors. On a 5-point scale [1 = "Less than one time per year", 2 = "Once a month", 3 = "Once a week", 4 = "More than once a week" and 5 = "Daily"], the average frequencies reported among 86 responses on the pre-survey were 3.5 (95% CI: 3.3-3.8) for MI and 3.4 (95% CI: 3.2-3.7) for GSAP. The planned frequencies of use reported on the post survey were higher, with plans to use MI increasing by 18.0% (95% CI: 7.1-30.0%) and plans to use GSAP increasing by 25.1% (95% CI: 12.7-38.8%). Specifically, while 57.0% (49/86) and 57.0% (49/86) reported already using MI or GSAP, respectively, more than once a week or daily, 75.9% (66/87) planned to use MI and 80.5% (70/87) planned to use GSAP at least once a week as reported on the post survey.

Evaluation Category 4: Results. At 3 months follow-up, 23 participants (26.4%) completed another survey to assess impact over time within their organization. All responding participants reported having applied something they learned in the MI modules to their work, and 22 (95.7%) reported they had applied something they learned in the GSAP modules to their work, with over 50% of participants stating they had applied their learning of both topics more than once a week.

Discussion

The current project employed community-engaged methodologies to develop and implement a series of e-learning modules designed for CHWs and peers. It leveraged the resources of a large public university in partnership with community-based organizations, state government, and a CAB to design and implement an educational experience for workforces serving underserved members of the state. New public policies supporting the growth and financial sustainability of CHW and peer workforces also highlight the importance of teaching and learning standards for these emerging workforces.²¹ Program evaluation results suggest that participants felt more prepared to use the skills after completing the modules and continued to apply them at follow-up. Satisfaction with the modules was high, suggesting that e-learning is an acceptable way to deliver education to this priority population.

Our program and evaluation should be understood in the context of certain limitations. Only 26% of respondents completing the baseline survey participated the 3-month follow-up survey. It is not known why the response rate at 3 months was not higher, although we can speculate that taking a freestanding survey is much less convenient than taking one that is embedded in the course itself, as the immediate pre- and post-learning survey had been. It is possible that participants with less favorable impressions of the program were less likely to respond to the survey or less likely to opt into being contacted at 3 months. Our evaluation design looked at factors such as confidence and affinity for the approaches, as well as self-reports of behaviors, and did not directly evaluate any learner's understanding or application of the skills. For the learners to become truly competent at either MI or BA, ongoing supervision and training would be required beyond the e-learning modules. Nevertheless, the community partners did discuss a need for fundamental information on these topics, which could serve to introduce learners to the

concepts or refresh their memory of past trainings, so as to prepare them for more in-depth onthe-job training in either approach.

The current project suggests a potential model for public universities to foster high quality educational experiences for communities other than their traditional undergraduate and graduate learners. Faculty with community-engaged interests can seek out external or internal funding to develop educational programs in collaboration with community organizations and community members, conduct scholarly examination and evaluation of the programs, and transfer ownership of the programs to community organizations once they are finalized and evaluated. With increasing attention to the necessity of continuing education for both CHWs²² and peers,²³ e-learning modules developed under these conditions can sustainably provide tailored, high-quality learning experiences over time. As of this writing, the modules are offered on the menu of MiCHWA's continuing education offerings; are used by MiCHWA trainers within its Michigan-based CHW certification program; and are also available to Michigan-based peers as an MDHHS-approved CE opportunity.

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Declaration of Interest Statement

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Table 1: E-learning module content, topics, and activities

Module title	Content	Topics & activities				
Motivational Interviewing Modules						
Module 1: Introduction to Motivational Interviewing	Introduction to the terms and concepts of Motivational Interviewing	 Understanding Community Workers, Peer Support Specialists, and Peer Recovery Coaches Overview of module objectives Click & Reveal Activity: Identifying Primary Goals of MI Knowledge Activity: Select each image to see examples of ambivalence Click & Reveal Activity: Move towards change Knowledge Check: Drag and dop sentences into their correct categories Module Conclusion/Summary 				
Module 2: Motivational Interviewing Basics	Identify the stages of change and recognize "change talk" (using the acronym DARN CATS)	 Defining Motivational Interviewing Click & Reveal Activity: Defining the Stages of Change Module Quiz: Identify the stages of change Knowledge Activity: Select each image to see examples of Pre-Contemplation and Contemplation Click & Reveal Activity: What to Listen for in MI Knowledge Check: Drag and dop sentences into their correct categories (sustain talk vs change talk) Overview of DARN-CAT Knowledge Check: Drag and drop actions into Do and Do Nots Module Quiz: Identify which response is MI Module Conclusion/Summary 				
Module 3: Core Skills of Motivational Interviewing	Four core skills: asking open-ended questions, providing affirmations, using reflective listening, and summarizing (using the acronym OARS)	 Defining Open-Ended Questions Module Quiz: Identify the open-ended question Defining Affirmations Knowledge Activity: Spot the Affirmation Click & Reveal Activity: Understanding Reflective Listening 				

Module 4: Putting It All Together	Key theme review. Deeper dive into reflective listening. Relationship to codes of ethics.	 Defining Summaries Review of DARN-CAT Module Conclusion/Summary Video: Motivational Interviewing Techniques Overview of Readiness Ruler Review of DARN-CAT Video: Readiness Ruler Click & Reveal Activity: Understanding MI Guiding Philosophy Video: The Spirit of Motivational Interviewing Overview of MI & Code of Ethics Resources Module Conclusion/Summary
	Behavioral A	Activation Modules
Module 5: Goal Setting & Action Planning for Community Workers	Basics of goal setting and action planning. SMART© goals: goals that are specific, measurable, achievable, relevant, and time-bound	 Overview of Setting Goals Review of Stages of Change Motivational Interviewing vs Goal Setting Long-term vs Short-term goals Click & Reveal Activity: Understanding SMART© Goals Module Conclusion/Summary
Module 6: Values & Goals for Action Planning	Create goals that align with the unique values of the person setting them	 Challenges to Goal Setting Video: Action Plan Follow-up Defining Values Understanding Values Click & Reveal Activity: What is Valuing Video: Review of SMART© Goals Module Conclusion/Summary

Table 2: Participant demographics

N Percent (%)	Table 2: Farticipant demographics		D (0/)
Gender Female 72 82.8% Male 15 17.2% Age 18-34 34 39.1% 35-44 20 23.0% 45-54 18 20.7% 55-74 15 17.2% Race/ethnicity¹ White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education 4 4.6% High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training		N	Percent (%)
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Age 18-34 34 39.1% 35.44 20 23.0% 45.54 18 20.7% 55.74 15 17.2% Race/ethnicity White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Female	72	82.8%
18-34 34 39.1% 35-44 20 23.0% 45-54 18 20.7% 55-74 15 17.2% Race/ethnicity¹ White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status 7 Training status 7 Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ 1 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour	Male	15	17.2%
35-44 20 23.0% 45-54 18 20.7% 55-74 15 17.2% Race/ethnicity¹ White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Age		
45-54 18 20.7% 55-74 15 17.2% Race/ethnicity¹ White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education Thigh-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	18-34	34	39.1%
55-74 15 17.2% Race/ethnicity¹ 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education Tatino-control of the control of the contro	35-44	20	23.0%
Race/ethnicity	45-54	18	20.7%
White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education Education High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	55-74	15	17.2%
White 42 45.2% Black 32 34.4% Other/multiracial 10 9.7% Latino/a 7 7.5% Education Education High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Race/ethnicity ¹		
Other/multiracial 10 9.7% Latino/a 7 7.5% Education High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	White	42	45.2%
Latino/a 7 7.5% Education 4 4.6% High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Black	32	34.4%
Education 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Other/multiracial	10	9.7%
High-school graduate or equivalent 4 4.6% Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Latino/a	7	7.5%
Some college 29 33.3% 2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Training in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Education		
2-year degree 14 16.1% 4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	High-school graduate or equivalent	4	4.6%
4-year degree 33 37.9% Graduate degree 7 8.0% Training status Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 8 9.2% None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Some college	29	33.3%
Graduate degree 7 8.0% Training status 70.1% 70.1% Trainee in initial certification Continuing Education (CE) 26 29.9% Profession¹ 10 11.5% Peer Specialist Peer Recovery Coach Recovery	2-year degree	14	16.1%
Training status 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ 10 11.5% Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	4-year degree	33	37.9%
Trainee in initial certification 61 70.1% Continuing Education (CE) 26 29.9% Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Graduate degree	7	8.0%
Continuing Education (CE) 26 29.9% Profession¹	Training status		
Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 8 16 18.4% Not sure/ Don't know 8 9.2% 1 11.5% 11.5% 11.5% 2-10 hours 38 43.7%	Trainee in initial certification	61	70.1%
Profession¹ Peer Specialist 10 11.5% Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training 16 18.4% None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Continuing Education (CE)	26	29.9%
Peer Recovery Coach 8 8.8% Community Health Worker 73 80.2% Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%			
Community Health Worker 73 80.2% Prior MI/BA training	Peer Specialist	10	11.5%
Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Peer Recovery Coach	8	8.8%
Prior MI/BA training None 16 18.4% Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%	Community Health Worker	73	80.2%
Not sure/ Don't know 8 9.2% 1 hour or less 10 11.5% 2-10 hours 38 43.7%			
1 hour or less 10 11.5% 2-10 hours 38 43.7%	-	16	18.4%
2-10 hours 38 43.7%	Not sure/ Don't know	8	9.2%
	1 hour or less	10	11.5%
More than 10 hours 15 17.2%	2-10 hours	38	43.7%
	More than 10 hours	15	17.2%

¹ Totals exceeds 100% as participants could select all that apply.

Table 3: Primary pre-post learning analysis

Survey Question	N	Pre, mean (95% CI)	Post, mean (95% CI)	Change, mean (95% CI)	% Change, mean (95% CI)	p-value
How strongly do you agree that community workers like CHWs, CPSSs, and CPRCs should have Motivational Interviewing skills? [7-point Likert]	87	6.7 (6.5-6.9)	6.8 (6.6-6.9)	0.1 (-0.1 to 0.3)	2.2 (-3.1 to 7.8)	0.45
How strongly do you agree that community workers like CHWs, CPSSs, and CPRCs should have action planning and goal setting skills? [7-point Likert]	87	6.8 (6.7-6.9)	6.9 (6.8-6.9)	0.0 (-0.1 to 0.1)	0.4 (-1.3 to 2.1)	0.66
How do you currently feel about Motivational Interviewing? [5-point Likert]	84	4.3 (4.1-4.5)	4.6 (4.5-4.8)	0.3 (0.2-0.5)	8.3 (4.0-12.8)	< 0.001
How do you currently feel about goal setting and action planning? [5-point Likert]	87	4.6 (4.5-4.7)	4.7 (4.6-4.9)	0.1 (0.0-0.3)	3.2 (0.1-6.4)	0.028
How consistent is Motivational Interviewing with your profession's core values? [5- point Likert]	71	4.5 (4.3-4.6)	4.7 (4.5-4.8)	0.2 (0.0-0.4)	5.7 (1.0-10.5)	0.021
How consistent is goal setting and action planning with your profession's core values? [5- point Likert]	71	4.5 (4.4-4.7)	4.7 (4.6-4.8)	0.2 (0.0-0.3)	4.1 (0.5-8.0)	0.022
How often do you currently use [plan to use] ¹ Motivational Interviewing skills with the people you serve? Choose the closest answer. [1 = Less than 1 time per year, 2 = Once a month, 3 = Once a week, 4 = More than once a week, 5 = Daily]	86	3.5 (3.3-3.8)	4.1 (3.8-4.3)	0.5 (0.3-0.8)	18.0 (7.1-30.0)	< 0.001
How often do you currently use [plan to use] goal setting and action planning skills with the people you serve? Choose the closest answer. [1 = Less than 1 time per year, 2 = Once a month, 3 = Once a week, 4 = More than once a week, 5 = Daily]	86	3.4 (3.2-3.7)	4.1 (3.9-4.4)	0.7 (0.4-0.9)	25.1 (12.7-38.8)	< 0.001
How well prepared do you feel to deliver Motivational Interviewing to the people you serve? [1 = Very Unprepared, 2 = Unprepared, 3 = Somewhat Unprepared, 4 = Neither	87	5.0 (4.7-5.2)	6.1 (5.9-6.3)	1.1 (0.9-1.4)	27.2 (20.2-34.6)	< 0.001

prepared nor unprepared/not sure/don't know, 5 = Somewhat Prepared, 6 = Well Prepared, 7 = Very Prepared]						
How well prepared do you feel to set goals and create action plans with the people you serve? [Same scale as previous question]	87	5.3 (5.1-5.6)	6.1 (5.9-6.4)	0.8 (0.6-1.0)	15.7 (10.1-21.6)	< 0.001

Abbreviations: CHW = Community Health Worker, CI = Confidence Interval, CPSS = Certified Peer Support Specialist, CPRC = Certified Peer Recovery Coach

¹Brackets designate changes in wording from the pre to post survey.