# Supporting Peer Support Workers and Their Supervisors: Cluster-Randomized Trial Evaluating a Systems-Level Intervention

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**Objective:** Peer support workers are a substantial and growing part of the mental health workforce. Because little research has investigated how to effectively support and supervise peer support workers, the authors evaluated the efficacy of a training program to strengthen the peer support workforce and the supervision of its workers.

**Methods:** Mental health services sites with peer support workers and supervisors in Los Angeles County were recruited for this cluster-randomized trial and 10-month follow-up. Of 348 peer support workers and 143 supervisors at 85 sites, 251 (72%) peer support workers and 115 (80%) supervisors completed baseline surveys. SHARE! the Self-Help And Recovery Exchange, a peer-run organization, delivered four training sessions on strategies to reduce stigma and to build an effective peer workforce, cultural competence, and a trauma-informed developmental model of supervision. Primary outcomes were peer-supportive organizational climate, mental health stigma, and peer support worker recovery.

**Results:** Intention-to-treat analyses indicated that sites receiving the training had significantly higher scores on peer-supportive organizational climate (Cohen's d=0.35, 95% CI=0.02−0.68, p=0.04) relative to sites not receiving the training. No significant differences were found between the two conditions for mental health stigma (Cohen's d=0.04) or peer support worker recovery (Cohen's d=0.14).

**Conclusions:** The training had no impact on mental health stigma or peer support worker recovery. However, the findings suggest that the training increased the value organizations gave to peer support work, which may help improve peer support worker retention and outcomes among those served. Efforts to incorporate principles of the training into practice may strengthen outcomes.

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Peer support services are increasingly available in mental health systems across the United States, yet research on how to support the peer workforce has been minimal (1). Working in both mental health and substance use treatment settings, peer support specialists draw from their own experience of recovery and from skills obtained through formal training for peer services providers (2). Peer occupations are diverse, including consumer peer support workers who serve other consumers and parents of children with mental health issues who serve other parents of children having the same issues (3, 4). Nevertheless, the principles of peer support and supervision apply across contexts (5). Rather than treatment and control of symptoms, peer support services focus on a recovery-oriented, person-driven mutual support model (6). Findings from randomized trials (7, 8) have suggested the potential of peer support workers in improving mental health outcomes, reducing hospitalizations, and enhancing quality of life.

Despite the popularity of peer support services, creating work environments that aid the success of peer support workers remains challenging (9). Supervision of peer support workers is critical and requires a nuanced understanding

**HIGHLIGHTS**

- SHARE! the Self-Help And Recovery Exchange is a peer-run organization that created a series of training sessions designed to strengthen the mental health peer workforce and peer support workers' supervision.

- This cluster-randomized trial evaluated the training's efficacy among peer support workers and their supervisors at 85 mental health services sites in California.

- The findings suggest that the training increased the extent to which the sites provided an environment supportive of peer support workers, which may help with worker retention.

of their role (10, 11). Problematic issues include having supervisors who are inexperienced in the delivery of peer support services and a lack of clarity about the peer role (12). Stigma (both implicit and explicit) toward workers with lived experience of mental illness further impedes successful working relationships, as do trauma histories among mental health providers that are not accommodated by the workplace (13). Addressing these challenges requires organizational or systems-level interventions aimed at supporting the peer support workforce and its supervision.

To address problems with ambiguity and misunderstandings about peer support roles, peer support workers and their supervisors need common ground on best practices for peer support. Although more research is needed, five evidence-informed peer service interventions are peer listening and disclosing, peer bridging, use of the helper therapy principle, engagement in self-help support groups, and recovery planning (14). Peer listening and disclosing are core skills, which peer support workers cultivate through active listening and then sharing related experiences without advice or judgment (15). These skills are critical in peer bridging, in which peers use experiential knowledge to support others in making life transitions similar to those they have navigated, such as from inpatient to outpatient or from homeless to housed (16, 17). In using the helper therapy principle, peer workers support others' engagement in helper roles (18, 19). To this end, one avenue is that peer support workers can encourage their clients to join self-help support groups (20). Another peer support strategy is recovery planning, in which personalized guides are developed to achieve recovery-related goals, such as in the evidence-based Wellness Recovery Action Plan (7).

Despite evidence supporting the utility of the peer workforce, stigma remains a central challenge facing peer support workers (2). Along with internalized stigma, peer support workers face stigmatizing attitudes held by their nonpeer coworkers, whose attitudes may be comparable to those of the general population (21). Peer support workers also contend with being perceived as inferior service providers, with lower salaries, less formal training, and limited leadership in provider organizations (22). Antistigma training delivered by mental health consumers can help address these challenges (23).

Peer support workers and their supervisors often have histories of trauma, which affect work performance (24). If not recognized and accommodated, these trauma histories can lead to misunderstandings, conflict, further traumatization, and burnout (25). Self-care is critical to avoiding these issues (26). A trauma-informed approach to supervision can help build workplaces that accommodate trauma histories and reduce chronic work stress (27).

Despite these challenges, the supervisory relationship is critical for building peer workforce capacity (13). A developmental model of supervision, in which experts in the delivery of peer support cultivate the skills and performance of peer support workers over time, can help

maximize workers' efficacy (28). By collaborating with peer support workers as allies to ensure a supportive work environment, supervisors are central to peer workforce success (9).

Given the importance of peer workforce supervision and the absence of evidence-based training models, the peer-run organization SHARE! the Self-Help And Recovery Exchange developed and delivered a series of training sessions, called Supervising the Peer Workforce (14). The training was designed to develop the skills of supervisors, but also to develop peer support workers' abilities to use peer support in their own recovery and in helping others. Given the centrality of the worksite in shaping peer support worker experiences, we conducted a cluster-randomized trial, with baseline and 10-month follow-up data, to evaluate the efficacy of the training program. For our primary outcomes, we hypothesized that recipients of the training would report an improved peer-supportive organizational climate, reduced mental health stigma, and increased peer support worker recovery. For secondary outcomes, we examined the recovery orientation of services (i.e., valuing service users with honest and respectful communication), perceived utility of peer support, job satisfaction, supervision quality, quality of the supervisor–peer support worker relationship, discrimination experience, use of peer support (i.e., proportion of time spent delivering peer support services), mental health symptoms, work-related burnout, sick leave taken, and social support.

## METHODS

### Trial Design
With funding from the State of California, SHARE! initiated and helped direct this evaluation of the Supervising the Peer Workforce training. This cluster-randomized trial used parallel assignment, with mental health provider sites serving as clusters assigned to one of two arms via a balanced 1:1 allocation ratio. Sites in the intervention arm received the training, whereas sites in the control arm did not have access to the training until after the data collection was complete. Peer support workers and supervisors at all sites completed baseline and 10-month follow-up surveys. All study procedures were approved by the institutional review board at the University of Texas Health Science Center at Houston. No adverse events were reported.

### Mental Health Provider Site Recruitment
To be eligible, mental health services sites had to have peer support workers and supervisors who could attend the training in Los Angeles County. All directly operated and contracted service-providing sites for the Los Angeles County Department of Mental Health (LACDMH) were invited to participate in the study. Sites unaffiliated with LACDMH were not actively recruited but were allowed to participate if staff members were willing to travel to the in-person training.

Site recruitment began in June 2018, with an e-mail from the LACDMH director to all provider sites explaining the study and encouraging participation. Project team members followed up with the sites via telephone and e-mail to further explain the study and to obtain contact information of peer support workers and supervisors. Site recruitment concluded in October 2018. The study sample size depended on the number of LACDMH-serving worksites employing peer support workers willing to enroll, because grant funding was for those providers only.

## Allocation of Sites to a Study Arm

After site recruitment, we matched pairs of sites according to the following four rank-ordered criteria: whether the site was directly operated by the LACDMH, annual budget, number of peer support workers and supervisors, and whether the site focused on youths and families, with parent partners hired as peer support workers. Because of the rank ordering of the matching criteria, we could exactly match sites solely on whether a site was directly operated by LACDMH. We matched sites to their nearest neighbor on lower-ranking criteria, without compromising nearest-neighbor matches from higher-ranking criteria (29). After the matching was complete, a person unaffiliated with the study used the random.org website to generate a random number seed for use with the SAS PROC SURVEYSELECT procedure in order to assign one site from each matched pair to the intervention condition and the other to the standard practice condition. The intervention and comparison groups showed no significant differences in any matching criteria. Data collection staff were blind to intervention status.

## Participants

Participants were peer support workers and their supervisors at the enrolled sites. Peer support workers were defined as people with lived experience in the mental health system (as consumers or as parents, other family members, or caregivers of consumers) employed to provide peer support services in the system. Job titles of these workers included family advocates, family navigators, parent partners, peer specialists, and peer navigators. To ensure sufficient work investment, unpaid peers volunteering <15 hours per week were excluded. Supervisors tended to be clinicians or administrators and had little or no training in peer services. Supervision practices varied greatly, possibly because of a lack of standards for supervision of peer support workers.

## Data Collection

In October 2018, we e-mailed the initial online survey invitation to peer support workers and supervisors listed by the participating sites. An accompanying letter explained the study. Nonresponders received weekly e-mail reminders and telephone calls to encourage completion. Peer support workers and supervisors were allowed to complete the baseline survey up until their first training session.

As detailed in the flow diagram in the online supplement to this article, 348 peer support workers and 143 supervisors from 85 sites were eligible for study participation, after four sites dropped out during baseline data collection. Of the 85 sites, 32 were directly operated by LACDMH, 51 had contracts with LACDMH, and two were unaffiliated sites north of the county. In total, 251 peer support workers and 115 supervisors completed the baseline survey, yielding a response rate of 72% among peer support workers and 80% among supervisors. Between the baseline and 10-month follow-up data collection events, 39 peer support workers and 15 supervisors left their jobs. Those who left and those remaining did not significantly differ in demographic characteristics or outcome measures at baseline. The follow-up survey was administered only to the 212 peer support workers and 100 supervisors who completed the baseline survey and remained employed at their site. Of these participants, 169 peer support workers and 86 supervisors completed the survey, yielding a response rate of 80% for peer support workers and 86% for supervisors. Data collection ended in January 2020. Details of the outcome measurement are reported in the online supplement (30–43).

## The Peer Workforce Intervention

SHARE! provided the following four training sessions from December 2018 through May 2019: Strategies for an Effective Peer Workforce, Cultural Competence: Becoming an Ally, Trauma-Informed Developmental Model of Supervision, and Stigma . . . in Our Work and in Our Lives. To accommodate participants' schedules, these workday training sessions were held in several Los Angeles County locations and at various times. Box 1 outlines the session topics. The curriculum was delivered as intended by the developers of the training, with peer support workers and supervisors attending on average 2.0 and 1.5 sessions, respectively. Among the 91 peer support workers in the intervention condition with baseline and follow-up data, 57 (63%) attended the first session, 40 (44%) attended the second, 47 (52%) attended the third, and 40 (44%) attended the fourth. Among the 44 peer supervisors in the intervention condition with baseline and follow-up data, 22 (50%) attended the first session, 15 (34%) attended the second, 16 (36%) attended the third, and 12 (27%) attended the fourth.

Two aspects of the planned intervention proved difficult to implement. The first was a learning collaborative, imagined as monthly conference calls with intervention participants. The second was the creation of implementation teams at the participating sites to facilitate implementation of the training principles into practice. Interest among participating sites for these two components of the intervention was limited, and both aspects were abandoned before reaching 10% of the participating sites.

## Statistical Analysis

A statistical power analysis, conducted with Optimal Design software (44), indicated that a sample size of 68 sites, with two

participants per site (intraclass correlation coefficient=0.05), would provide a power of 0.80 to detect an effect size of Cohen's d=0.50 at p=0.05. We completed intention-to-treat analyses in 2022 to test our hypotheses that recipients of the training would report improvements in all the previously listed primary and secondary outcomes, relative to participants in the practice-as-usual comparison condition. With each outcome serving as a dependent variable in a separate regression model, intervention status was the primary independent variable. All regression models included baseline levels of the dependent variable, gender, age, educational attainment, and mental health consumer status (yes or no) as covariates. Mixed-effects regression models accounted for the nesting of participants within sites, with multiple imputation used to estimate missing data. Dependent variables were standardized (mean=0 and SD=1), so regression estimates for the intervention effect reflected Cohen's d measures of effect size. All analyses were done with SAS, version 9.4.

## RESULTS

Table 1 shows the gender, race, age, educational attainment, and consumer identity of the peer support worker and supervisor samples, by study condition. Among the 169 peer support workers included in the analysis, 74% (N=125) were women; most workers were ages 36–50 years and had a high school diploma, GED, or less. The sample of peer support workers was racially diverse (29% White, 18% Black, and 30% "other" race). Most of the peer support workers self-identified as mental health consumers (N=96, 57%). Peer support workers also self-identified as family members (N=56, 33%), parents (N=54, 32%), and caregivers (N=28, 17%) of a consumer.

The 86 supervisors were similar to peer support workers in terms of gender and age. However, supervisors had substantially more education than peer support workers, with 74% possessing a graduate degree. Supervisors' professional discipline was typically administrator (N=46, 54%) or clinician (N=27, 31%), rather than peer support worker (N=5, 6%). Overall, 29% (N=25) of the supervisors self-identified as mental health consumers, 40% (N=34) as a family member of a consumer, 13% (N=11) as a parent of a consumer, and 14% (N=12) as a caregiver of a consumer. Supervisors spent a mean±SD of 3.3±3.4 hours per week supervising peer support workers, with 28 (33%) having received peer support worker supervision training at baseline.

Table 2 shows the findings from the intention-to-treat analysis for all primary and secondary outcomes. Analyses identified significant improvements in the site outcomes—peer-supportive organizational climate and recovery orientation of services. After the training, peer support workers in the intervention condition rated their organization as having peer-supportive organizational climate scores that were significantly higher than those reported by peer support workers in the comparison condition (Cohen's d=0.35, p=0.04). Similarly, being in the intervention

**BOX 1. Overview of the mental health workforce training for peer support workers and their supervisors**

**Session 1: Strategies for an Effective Peer Workforce (7 hours)**
- Discuss best practices in peer services:
  ○ Peer listening and disclosing
  ○ Recovery planning
  ○ Use of self-help support groups
  ○ Peer bridging
  ○ Use of the helper therapy principle
- Explain differences between peer worker and clinician responsibilities.
- Introduce strategies for peer providers and supervisors to reduce stress and improve self-care.

**Session 2: Cultural Competence: Becoming an Ally (7 hours)**
- Address discrimination within agencies and the community.
- Convey that allies allow people to move away from stigma and "othering."
- Convey that allies support people by speaking up when they witness stigma and discrimination.
- Cultivate a dialogue with balanced inquiry and advocacy.

**Session 3: Trauma-Informed Developmental Model of Supervision (7 hours)**
- Teach trauma-informed practical tips and strategies for self-care and supervision.
- Emphasize that supervisory relationships are between allies working together for better results.
- Help peers and supervisors understand how their trauma experience is connected to mental health.
- Build self-awareness, motivation, and autonomy.
- Help peers and supervisors to develop a joint trauma-informed developmental model of supervision for their specific work.

**Session 4: Stigma . . . in Our Work and in Our Lives (3 hours)**
- Present evidence-based training, delivered by On Our Own of Maryland, a peer-run organization (23).
- Help participants recognize how they are impeded by stigma against people with mental illness.
- Teach participants to recognize stigma within and around them and gain awareness of stigmatizing comments and behaviors.
- Explore changing behavior to reduce stigma in the workplace.

condition predicted a significant increase in ratings of the recovery orientation of services, relative to the comparison condition (Cohen's d=0.44, p=0.01). Recovery orientation of services was based on peer support workers' ratings of how providers interacted with service users.

No significant differences between the intervention and comparison conditions were detected in supervisor outcomes after the training. Supervisors' mental health stigma, perceived utility of peer support, job satisfaction, and ratings of supervisor–peer support worker relationships were similar across the two study conditions. The training did not

TABLE 1. Characteristics of the peer support workers and their supervisors, by study condition

| | Peer support worker | | | | Supervisor | | | |
|---|---|---|---|---|---|---|---|---|
| | Intervention group (N=91) | | Comparison group (N=78) | | Intervention group (N=44) | | Comparison group (N=42) | |
| Characteristic | N | % | N | % | N | % | N | % |
| Gender | | | | | | | | |
| Male | 20 | 22 | 19 | 24 | 11 | 25 | 8 | 19 |
| Female | 70 | 77 | 55 | 71 | 33 | 75 | 33 | 79 |
| Other[a] | 1 | 1 | 3 | 4 | 0 | — | 1 | 2 |
| Missing | 0 | — | 1 | 1 | 0 | — | 0 | — |
| Race-ethnicity | | | | | | | | |
| White | 24 | 26 | 25 | 32 | 13 | 30 | 20 | 48 |
| Black or African American | 13 | 14 | 17 | 22 | 6 | 14 | 4 | 10 |
| Native Hawaiian or Pacific Islander | 1 | 1 | 0 | — | 0 | — | 1 | 2 |
| Asian American | 4 | 4 | 3 | 4 | 5 | 11 | 5 | 12 |
| American Indian or Alaska Native | 0 | — | 2 | 3 | 0 | — | 0 | — |
| Other | 31 | 34 | 20 | 26 | 15 | 34 | 8 | 19 |
| More than one race-ethnicity | 6 | 7 | 5 | 6 | 2 | 5 | 3 | 7 |
| Missing | 12 | 13 | 6 | 8 | 3 | 7 | 1 | 2 |
| Age in years | | | | | | | | |
| 18–35 | 12 | 13 | 18 | 23 | 12 | 27 | 3 | 7 |
| 36–50 | 38 | 42 | 33 | 42 | 17 | 39 | 24 | 57 |
| 51–65 | 33 | 36 | 20 | 26 | 11 | 25 | 9 | 21 |
| ≥66 | 6 | 7 | 5 | 6 | 4 | 9 | 2 | 5 |
| Missing | 2 | 2 | 2 | 3 | 0 | — | 4 | 10 |
| Educational attainment | | | | | | | | |
| Less than high school | 7 | 8 | 6 | 8 | 1 | 2 | 0 | — |
| High school diploma or GED | 40 | 44 | 39 | 50 | 5 | 11 | 4 | 10 |
| Associate's or technical degree | 23 | 25 | 16 | 21 | 1 | 2 | 0 | — |
| Bachelor's degree | 20 | 22 | 14 | 18 | 5 | 11 | 6 | 14 |
| Graduate degree | 1 | 1 | 2 | 3 | 32 | 73 | 32 | 76 |
| Missing | 0 | — | 1 | 1 | 0 | — | 0 | — |
| Identity[b] | | | | | | | | |
| Mental health care consumer | 51 | 56 | 45 | 58 | 11 | 25 | 14 | 33 |
| Family member of a consumer[c] | 31 | 34 | 25 | 32 | 17 | 39 | 17 | 41 |
| Parent of a consumer | 32 | 35 | 22 | 28 | 3 | 7 | 8 | 19 |
| Caregiver of a consumer | 18 | 20 | 10 | 13 | 6 | 14 | 6 | 14 |

[a] "Other" gender included a response to the question, "With which gender do you most identify?"
[b] Participants could check all that apply.
[c] "Family" is a broader term than "parent" and may not involve caregiving.

produce significant differences between the intervention and comparison conditions in the peer support worker outcomes of discrimination experience or workers' time spent on actual peer support services (e.g., peer mentoring and referral to self-help groups, rather than other tasks, such as case management and clerical work). Finally, the distal peer support worker outcomes were all nonsignificant for recovery, work contributions, job satisfaction, work-related burnout, sick leave and disability days used, brief symptom inventory score, stress, and social support.

## DISCUSSION

To our knowledge, this study is the first randomized trial of an intervention designed to strengthen supervision of the peer

workforce. The training did not improve individual-level supervisor or peer support worker outcomes. However, the intervention improved peer support workers' perceptions of the supportiveness of their organization. Significant improvement in site outcomes was observed for peer-supportive organizational climate and recovery orientation of services, yielding small to medium effect sizes (45). The improved ratings of peer-supportive organizational climate suggest that the training led the provider organizations to place greater value on their peer support workers. Although recovery orientation of services is a complex construct, it was defined in this study as the presence of respectful, honest, and equitable relations between service providers and recipients (31). These changes in the culture of the sites are important outcomes, linked to job satisfaction and service quality (30). The changes may

also be related to client treatment outcomes, which could be examined in future research.

The intention-to-treat analyses indicated null findings for all supervisor and peer outcomes. Limited attendance at the training sessions among participants in the intervention condition (ranging from 27% to 63% participation per session) may have affected the detection of statistically significant findings. Supervisors and peer support workers were not paid to attend the sessions and had to manage ongoing work responsibilities while pursuing the training voluntarily. Financial support to undergo training may have enhanced training engagement and trial outcomes.

A more robust intervention, as initially planned, may also be needed to bring the training principles into practice and to have an impact on supervisor and peer support worker outcomes. Previous research (46) has suggested that ongoing support is necessary for training to successfully lead to a change in behavior. We were unable to implement the full intervention as planned. Specifically, the monthly learning collaborative and the formation of implementation teams at worksites reached <10% of the study participants. Formal action planning among all supervisors and peer support workers at a given site is likely necessary to fully integrate training content into practice (47).

This study's strengths included the high internal validity of the randomized trial and the use of established measures with good internal consistency. The intervention was carried out under the substantial constraints of a real-world practice setting, which improved the study's external validity. Positive response bias was a threat to validity because participants knew their intervention condition. However, why this bias would drive site outcomes, but not individual outcomes, remains unclear.

The minimal funding available for this trial presented challenges, particularly the absence of participant incentives for survey completion. The large number of outcomes examined increased the risk for type I error. Additional research is needed to ensure that the findings are replicable. Another challenge was the project's short timeline. Training sessions had to be developed quickly, without the benefit of pilot testing. Finally, mental health stigma may have impeded the project's success: supervisors with stigmatizing attitudes may have been reluctant to learn supervision techniques from a peer-run organization.

## CONCLUSIONS

Our findings suggest that the Supervising the Peer Workforce training program of SHARE! did not improve supervisor or peer support worker outcomes. However, the results suggest that the training helped change organizational culture to be more supportive of peer support workers and to create more equitable relationships between service providers and recipients. The training helped supervisors and peer support providers recognize and address barriers to successful inclusion of peer support workers. Further integration of the training's principles into practice

**TABLE 2. Difference between intervention and comparison conditions in primary and secondary outcomes, by outcome level[a]**

| Outcome | Cohen's d | 95% CI | p |
|---|---|---|---|
| **Site** | | | |
| Peer-supportive organizational climate (primary outcome)[b] | .35 | .02 to .68 | .04 |
| Peer-recovery orientation of services[b] | .44 | .13 to .74 | .01 |
| **Supervisor** | | | |
| Mental health stigma (primary outcome)[c] | .04 | −.30 to .39 | .81 |
| Perceived utility of peer support[c] | −.10 | −.39 to .19 | .49 |
| Supervisor job satisfaction[c] | −.10 | −.52 to .31 | .63 |
| Supervision quality[b] | .09 | −.21 to .38 | .57 |
| **Proximal for peer support worker** | | | |
| Supervisor–peer support worker relationship[c] | .20 | −.05 to .46 | .11 |
| Discrimination experience[b] | .04 | −.26 to .35 | .78 |
| Time spent on peer support activities[b] | .16 | −.17 to .49 | .35 |
| **Distal for peer support worker** | | | |
| Recovery (primary outcome)[b] | .14 | −.16 to .45 | .35 |
| Work contributions[c] | .13 | −.07 to .33 | .19 |
| Job satisfaction[b] | −.04 | −.36 to .28 | .79 |
| Work-related burnout[b] | .09 | −.19 to .36 | .54 |
| Sick leave and disability days used[b] | .19 | −.50 to .89 | .58 |
| Brief symptom inventory[b] | .12 | −.11 to .35 | .32 |
| Stress[b] | −.16 | −.41 to .10 | .23 |
| Social support[b] | .12 | −.18 to .42 | .43 |

[a] Assessed at the 10-month follow-up. Only primary outcomes are specified in parentheses; all others were secondary outcomes. See the online supplement for further definitions of outcomes.
[b] Peer rated.
[c] Supervisor rated.

may strengthen peer support workers' capacity to improve the quality of life and recovery of the individuals they serve.

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