

Safety and Health Support for Home Care Workers: The COMPASS Randomized Control Trial

Take Away Points

- Results of the Community of Practice and Safety Support (COMPASS) randomized control trial support the efficacy of a peer-led group program for creating professional social support resources and improving variety of important safety and health behaviors among HCWs.
- Compared to previous interventions for in-home caregivers, COMPASS enhanced the community of practice experience, increased safety behaviors and improved healthy dietary behavior.

The Issue

Currently, there are more than 2.1 million personal care and home health aides working in the US and the number is expected to rise to more than 3.1 million in the next decade. Despite the demand, home care workers (HCWs) receive low wages and limited occupational resources. They work alone in unregulated environments (private homes) under consumer-employers (CEs), who are not required to complete occupational health or safety training and may have disabilities that further limit their ability to protect workers from harm. COMPASS, a peer-led social support group intervention, was designed to improve social resources, reduce the risk of injuries and promote health among caregivers. The primary objective of the study was to determine the effectiveness of the Total Worker Health intervention for HCWs in improving their experience of community of practice, well-being, daily fruit and vegetable consumption, reduced daily consumption of high-fat and high-sugar foods, physical activity, and in enhancing safe behaviors and conditions when working in CEs' homes.

Study Methods and Design

Recruitment

The study randomized 16 clusters of workers (N=149) to intervention or usual practice. Participants were recruited from Portland and Eugene metropolitan areas in Oregon through fliers, emails, referrals and direct recruitment at training events. Recruitment focused on members of the Service Employees International Union (SEIU) Local 503 who cared for CEs enrolled in publicly funded programs managed by the Oregon Home Care Commission (OHCC). Clusters were developed based on which day and time (Tuesday mornings or Sunday evenings) and location of HCW residence. Once 2 clusters were filled, one was randomized to the intervention and the other to usual practice. Data was collected at baseline, 6 months, and 12 months.

Study Procedures

At baseline HCWs met with researchers at SEIU facilities to complete informed consent, surveys, and objective physical measures (i.e., blood pressure, cholesterol, triglycerides, glucose, body mass index, grip strength, hamstring flexibility and 6-minute walk test). Feedback on physical measurements relative to normal or healthy standards were provided to participants. HCWs also delivered surveys and return envelopes to their CEs who would receive a \$10 gift card for responding. CHWs received \$15 (initially \$11) per hour spent with the study team for data collection and intervention meetings and \$30 retention bonus at each study visit.

Source

Olson R, Thompson SV, Elliot DL, Hess JA, Rhoten KL, et al. Safety and Health Support for Home Care Workers: The COMPASS Randomized Control Trial. *Am J Public Health*, 2016; 106:1823-1832.
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The control group had access to the usual resources provided by the SEIU and the OHCC. This included leadership development and service opportunities with the union and paid 3-hour classes offered by the OHCC (multiple monthly offerings, > 20 total courses). So it is possible that control participants attend monthly paid training that matched or exceeded total paid monthly activities for intervention participants. Before finishing enrollment, the intervention group received a brief intervention orientation and additional materials (i.e., workbook, knee pad, step counter). Additionally, the intervention group received a researcher led half-day workshop followed by 12 monthly peer led meetings that were implemented using scripted workbooks and supporting materials. Team leader manuals included additional instructions for peer leaders. The monthly meetings included WorkLife check-in and support, an educational lesson, goal setting, healthy meal break, and a reflection.

Outcomes

Primary outcomes included experienced community of practice, well-being, safety behaviors, and health behaviors (i.e., physical activity; fruit, vegetable, sugary drinks and snacks, and fast food consumption; bringing meals from home). Secondary outcomes assessed CEs' satisfaction, conflict with their HCW, and report of HCWs safety actions. Additional secondary outcomes included HCWs' sleep quality, psychosocial experiences and stress, musculoskeletal pain and discomfort, and functional impairment with activities of daily living.

Analysis

Using intent-to-treat principles, outcome measures were analyzed with study condition as the primary predictor. Differences between intervention and usual practice samples were assessed using generalized linear mixed models to account for clustering of the participants. To examine the longitudinal changes in outcomes, multilevel mixed modeling with identify link approach to model the hierarchical structure of the data with measurement at each time point. Clustering was accounted through random intercepts for cluster and additional random effects of study participants to account for temporal correlation of observations within a participant. Intervention effects (i.e., change in mean outcome from baseline) was estimated by using linear combinations of regression coefficients from multilevel mixed models. Standardized effect sizes (denoted as d) were also computed.

Key Findings

- In the intent to treat analysis, relative to control, the intervention produced significant and sustained improvements in workers' experienced community of practice (6-month, $d = 0.36$; $p = .023$; 12-month $d = 0.37$; $p = .024$).
- Additional improvements talking with CEs about improving unsafe conditions (12-month $d = 0.84$; $P < .001$); correcting slip, trip, or fall hazards (12-month $d = 0.45$; $P = .027$); using new tools or techniques for moving objects or CEs (6-month $d = 0.65$, $P = .009$); using new tools or techniques for house cleaning (6-month $d = 0.51$; $P = .041$; 12-month $d = 0.64$; $P = .006$); and daily fruit and vegetable servings (12-month $d = 0.31$; $P = .038$).
- CEs' reports of caregiver safety behaviors showed significant increases in their HCWs' adoption of new tools or techniques for housecleaning (6-month, $d = 0.69$; $p = .019$); correcting slip, trip, and fall hazards (12-month, $d = 0.51$; $p = .049$); and large sustained increases in correcting "other hazards" at 6 months ($d = 0.82$; $p = .007$) and 12 months ($d = 1.01$, $p = .002$) significantly improved.
- Other outcomes included significant improvements in high-density lipoprotein (6-month $d = 0.22$; $P = .045$) and grip strength (12-month $d = 0.29$; $P = .011$), as well as a significant reduction in lost work days because of injury (6-month $d = -0.66$; $P = .01$).

Limitations

- Analysis was limited to outcomes collected during and immediately after the intervention.
- Study lacked more direct measures of primary outcomes such as observations of safety behaviors.
- Study findings are more generalizable to HCW populations in states with similar publicly funded CE home care systems, such as California and Washington.

- Workers with limited or no English proficiency may have been underrepresented in the sample since the intervention was presented in English only.

Final Thoughts

The results of COMPASS randomized control trial supports the efficacy of a peer-led group program for creating professional social support resources and improving a variety of important safety and health behaviors among HCWs. However, additional research is needed to address sustainability, which can translate into long-lasting benefits for individual workers and home care systems. Furthermore, this unique cross-level intervention included systemic, environmental, and resource change should be considered by home care systems to accommodate this rapidly growing workforce.