

## Results

All participants will receive the same assessment battery and results. Participant assessments include established survey instruments, physiological measures and selected laboratory parameters of outcomes and potential mediating variables at the individual, interpersonal and organizational levels. Measures include physical activity and dietary assessment, anthropometrics, blood lipids, stress and sleep survey, quality of life, injury, illness and sick days, and theoretical constructs, mediating variables and outcomes. Repeat testing will occur at 6 and 12 months. Intervention delivery and fidelity will be assessed. Multilevel and latent growth modeling and mediation analyses will be used to assess outcomes and the relationships among variables. An economic outcome analysis with injury/illness, sick days, and worker's comp claims performed to determine cost benefit of intervention and Return-On-Investment.

## Conclusion

The hypothesis to be tested: COs health risks including exercise and nutrition habits, body weight, stress, injuries, substance abuse, rates of absenteeism and healthcare costs will be improved using an innovative, cost-effective, team-based worksite health promotion strategy.. At project completion there will be an evidenced-based, exportable occupational safety and health program for CO's. Its critical components will be defined, and its health and economic benefits clearly determined.

## THE COMPASS PILOT STUDY: A TOTAL WORKER HEALTH™ INTERVENTION FOR HOME CARE WORKERS

Ryan Olson, PhD, Oregon Health & Science University, Portland, OR; Robert R. Wright, PhD; Diane Elliot, MD; Jennifer Hess, PhD; Brad Wipfli, PhD; Annie Mancini, BA

## Statement of the Problem

Home care workers have an injury rate that is nearly four times higher than the US average and are at elevated risk for mental and physical health problems (BLS, 2010). These low-income workers, who are predominantly female and older than 40, assist the elderly and disabled with self-care and mobility in private homes. The work is stressful and caregivers regularly perform dangerous manual client transfers (Hess et al., 2007; Wipfli et al., 2012). Many home care workers are self-employed or employed by their client, and lack supervision and typical organizational support structures, such as safety committees or health promotion programs. Although supportive interventions developed for other caregiver populations improve wellbeing and knowledge (Sorenson et al., 2002), they have largely failed to address illness and injury prevention behaviors. No prior study has addressed the lack of occupational social support structures for home care workers from a Total Worker Health™ perspective.

To address this, we are evaluating the effectiveness and sustainability of a new work structure intervention for home care workers. Our approach is to organize workers into neighborhood-based teams that meet regularly for education and social support. The COMPASS (Community of Practice and Safety Support) team curriculum integrates health promotion and protection topics, and uses our established scripted peer-led education methods (Elliot et al., 2007) as well as proven elements of social support groups for caregivers (Toseland et al., 1990). The current paper will report results from the COMPASS pilot study, which is being conducted prior to a randomized controlled trial of intervention effectiveness.

## Methods

The pilot was a 6-month uncontrolled trial with pre and post intervention measures. The study was conducted in the Portland Oregon metropolitan area with home care workers serving clients in publicly funded programs. Pilot participants were recruited from our prior studies and through referrals from the Oregon Home Care Commission and the SEIU local 503. Nineteen workers (18 female, 13 Caucasian) were enrolled and organized into two COMPASS teams. Participants have an average age of 57.3 yrs (SD=7.4), body mass index of 28.3 (SD=8.4), and 20.1 weekly work hrs (SD=13.9). Eighty-nine percent (n=17) of workers reported musculoskeletal pain interfering with work or living activities during past 3-months. The intervention included an orientation workshop followed by 6 monthly 2-hour meetings. The workshop included team-building activities and an initial scripted lesson on how monthly COMPASS meetings would work. Each monthly meeting included the following structured components: (a) Work-Life check-in where each team member rated their personal and work lives on a scale of 1-10, (b) peer-led scripted

workbook lesson, (c) team and personal goal setting, (d) shared meal, and (e) social support through structured problem solving. Educational topics for the six monthly meetings addressed healthy eating, neutral spine postures, exercise and functional fitness, ergonomic tools, communication and correcting hazards, and mental health.

The primary outcomes for our project are post intervention changes in experienced community of practice, worker well-being, and prevention behaviors in both health and safety domains. Additional survey factors were measured, as well as physical health assessments that included body measurements, heart disease biomarkers, and fitness testing. We also collected intervention process measures of reaction, learning, behavior change, and well-being at each team meeting using anonymous TurningPoint polling.

## Results

Process measures suggest that the intervention is enjoyable and producing changes. Average attendance was 81%, mean favorability rating was 4.2 on a 5 point scale (SD=0.2), and the average knowledge gain (pre/post meeting) was 17.6% (SD=3.0). Sixty-three percent (SD=18.7) of participants reported making behavior changes between meetings. Baseline levels of primary outcomes show room for improvement post-intervention. Self-reported experienced community of practice averaged 44.2 (SD=7.1) on a 60-point scale (60 = highest/best score), and physical and mental wellbeing averaged 9.3 and 9.2, respectively, on 14-point scales (14 = highest/best score). The sample averaged 2.6 (SD=1.4) days per week with 30 min of moderate exercise, 6.8 (SD=4.9) daily servings of fruits and vegetables, and 29.7% (SD=5.9) dietary calories from fat. Self-reported safety compliance averaged 4.3 (SD=0.7) on a 5-point scale (5=best). When asked to report new safety practices in the past 6 months, 16% (n=3) had adopted a new tool for lifting or transferring clients, 26% (n=5) adopted a new tool for housekeeping, 42% (n=8) talked with a client about safety, and 47% (n=9) corrected a hazard in a client's home.

## Discussion

If COMPASS teams are successful in Oregon, the intervention will provide a new organization of work structure that can be disseminated to other states. Preliminary findings from the current pilot study are promising, and intervention efficacy will be examined with a subsequent randomized controlled trial. Post intervention assessments are scheduled for pilot participants in October of 2012, and pre/post changes will be presented at the conference.

## WORK-LIFE AND SAFETY SUPPORT AMONG CONSTRUCTION WORKERS: EFFECTS ON HEALTH AND WELL-BEING

Leslie Hammer, PhD, Portland State University, Portland, OR; Donald Truxillo, PhD; Todd Bodner, PhD; Mariah Kraner, MS

### Statement of the Problem

This presentation contributes to understanding work-family issues and health and safety outcomes among aging construction workers. Construction workers represent a large part of the U.S. workforce. According to the Bureau of Labor Statistics (2007a), the construction industry (NAICS 23) is one of the nation's largest, with 7.7 million wage and salary workers and 1.9 million self-employed or unpaid family workers in 2006. Moreover, construction workers are significantly more prone to injury than U.S. workers on average. Construction work also requires physical stamina, and it involves exposure to weather, dangerous tools and equipment, and long hours (CPRW, 2007). However, despite the large numbers of construction workers and their susceptibility to workplace injury, they are an understudied group, specifically targeted as such by the National Occupational Research Agenda (NORA; NORA Construction Sector Council, 2008).

Further, it is widely recognized that managing work and family roles is challenging for workers and their families, and that these challenges lead to diminished worker health, safety, and well-being (Cullen & Hammer, 2007; Hammer & Zimmerman, 2010). However, construction workers have received relatively little attention in the work-life balance literature.

The proposed study addresses these gaps by examining the relationship between resources (e.g., family supportive supervisor behaviors and supervisor safety supportive behaviors), demands (e.g., work-family conflict and low control),

- M7** Interpreting Hazards in the Work Environment: Scale Development of a Multifaceted Measure of Perceived Risk
- Timothy J. Bauerle, MA, University of Connecticut, Storrs, CT; Zandra Zweber, MA; Katrina Burch, BA; Vicki J. Magley, PhD

#### **Positive Psychology in the Workplace**

- N1** When Work Stress Leads to Employee Creativity and Job Satisfaction: Role of Positive and Negative Task Feedback From Supervisor
- Laura Riolli, PhD, California State University, Sacramento, CA; Alice Hon, PhD
- N2** Organizational Benefits of Alternate Mindsets: How Meditative Techniques Enhance Well-Being and Creative Production Amongst Employees
- Marie E. Holm, PhD (Cand), ESCP Europe School of Business, Paris, Ile de France, France; Martin Storme, PhD (Cand); Nils Myszkowski, PhD (Cand)
- N3** Job Resources, Personal Resources and Nurses' Job Satisfaction: The Mediating Role of Flow at Work
- Margherita Zito, University Degree, University of Turin, Italy; Lara Colombo, PhD
- N4** Job Crafting: The Pursuit of Happiness at Work
- Cristina D. Kirkendall, PhD, Wright State University, Dayton, OH; Nathan A. Bowling, PhD
- N5** High-Arousal and Low-Arousal Job-Related Positive Affect as Predictors of Low-Grade Inflammation
- Dr. Galit Armon, University of Haifa, Israel; Prof. Samuel Melamed
- N6** Resilience in Men Dealing With Occupational Stress and Burnout
- Danielle Nahon, PhD, University of Ottawa, ON, Canada; Nedra R. Lander, PhD
- N7** Positive and Negative Changes in Students' Experiences During Their First Academic Semester
- Shoshi Chen, PhD, Tel Aviv University, Israel; Mina Westman, PhD; Ornit Davidson, PhD

**9:30-9:45 a.m.**

**Break**

**9:45-11:00 a.m.**

**Concurrent Sessions**

#### **Derailed Organizational Health and Well-Being Interventions: Confessions of Failure, Solutions for Success (Symposium)**

*San Gabriel C*

**Chairs:** Caroline Biron, PhD, Laval University, Quebec, Canada; Maria-Karanika Murray, PhD, Nottingham-Trent University, UK

- Paper 1** Interventions to Prevent Mental Health Problems at Work: Three Main Principles Emerging From Research
- Nathalie Jauvin, PhD, CSSS de la Vieille Capitale, Québec City, Canada; Michel Vézina, MD, MPH; Chantal Brisson, PhD; Renée Bourbonnais, PhD

- Paper 2** Derailed, but Implemented: A Study of Two Natural Work Life Interventions

- Emir Kico, MS, Norwegian University of Science and Technology, Norway; Per Ø. Saksvik, PhD

- Paper 3** Challenges in the Evaluation of a Mental Health Promotion Intervention in Small-to-Medium Enterprises
- Angela Martin, PhD, University of Tasmania, Hobart, Australia; Kristy Sanderson, PhD; Jenn Scott PhD; Paula Brough, PhD

- Paper 4** How Do We Know What "Worked"? Developing Criteria for Successful Organizational Health and Well-Being Interventions

- Caroline Biron, PhD, Laval University, Quebec, Canada

- Paper 5** The Four Pillars of Organizational Interventions: Context, Content, Criterion, and Process

- Maria-Karanika Murray, PhD, Nottingham-Trent University, UK

#### **Total Worker Health™ Interventions at the Oregon Healthy Workforce Center (Symposium)**

*Santa Barbara C*

**Chair:** Ryan Olson, PhD, Oregon Health & Science University, Portland, OR

- Paper 1** Health Promotion and Protection Intervention Among Oregon Correctional Officers
- Kerry Keuhl, MD, Oregon Health & Science University, Portland, OR; Diane Elliot, MD; Carol DeFrancesco, MA; Adriana Sleight, BS; Jennifer Smith, MPH

- Paper 2** The COMPASS Pilot Study: A Total Worker Health™ Intervention for Home Care Workers

- Ryan Olson, PhD, Oregon Health & Science University, Portland, OR; Robert R. Wright, PhD; Diane Elliot, MD; Jennifer Hess, PhD; Brad Wipfli, PhD; Annie Mancini, BA

- Paper 3** Work-Life and Safety Support Among Construction Workers: Effects on Health and Well-Being
- Leslie Hammer, PhD, Portland State University, Portland, OR; Donald Truxillo, PhD; Todd Bodner, PhD; Mariah Kraner, MS

# Work, Stress, and Health

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