

## **Total Worker Health intervention for construction improves safety, health and well-being**

**AUTHORS:** W. Kent Anger\*, Jason Z. Kyler-Yano, Katie A. Vaughn, Bradley Wipfli, Ryan Olson, Magali Blanco

**TOPIC/TARGET AUDIENCE:** occupational safety and health professionals

**ABSTRACT:** Objective: We tested the hypothesis that a Total Worker Health (TWH) intervention could be implemented in the commercial construction industry and produce targeted impacts on Kirkpatrick's 4 levels of training evaluation. Methods: Computer-based training on team building, work-life balance and reinforcing targeted behaviors was paired with self-monitoring to practice the skills for supervisors. Scripted healthy lifestyle training was provided in small groups and paired with incentivized practice activities completed outside work. Results: Reactions to the training were positive, and knowledge scores improved from pre- (78%) to post-test (98%); effect size  $d = 2.9$ . Supervisors reported significant self-reported behavior improvements in family-supportive behaviors ( $d = 0.72$ ) and a trend ( $p=0.54$ ) in improved safety climate ( $d = 0.27$ ). The lifestyle training led to significant changes in participant exercise ( $d = 0.50$ ) and muscle toning ( $d=0.59$ ), reduced sugary snacks, drinks and fast food ( $d=0.57$ ), and sleep time increases of 0.6 hours per day ( $d = 0.38$ ). Systolic blood pressure decreased significantly ( $d = 0.27$ ). Positive changes were seen in vitality ( $d = 0.42$ ) and feelings of team cohesion ( $d = 0.38$ ) Conclusions: A TWH intervention can change safety, health and well-being risk factors; all 4 levels of Kirkpatrick's training evaluation were impacted.

**OBJECTIVE(S):** Learn the definition of total worker health and its application in the workplace.

### **PRIMARY CONTACT INFORMATION:**

W Kent Anger, PhD

Professor

Oregon Health & Science University

5034942512 | [anger@ohsu.edu](mailto:anger@ohsu.edu)