Comparing employee goals set during health coaching to health risk appraisal responses

In the Total Worker Health® (TWH) model, coordinated approaches addressing occupational hazards and non-occupational health risks can maximize employee safety, health and well-being. Musculoskeletal outcomes are common among manufacturing workers as a consequence of occupational exposure to physical and psychosocial risk factors. However, non-occupational factors including physical inactivity, non-work stress, tobacco use, and body mass increase the risk of both musculoskeletal outcomes and several chronic health conditions, including cardiovascular disease and diabetes.

Many employers use health risk appraisals (HRAs) to identify employees at risk of chronic health conditions and provide access to targeted programs to assist employees in managing these risks. Increasingly, health coaching is offered to assist employees in establishing goals related to the management of non-occupational health risks. It is not known, however, if HRA responses are reflected in the goals established during health coaching. We will address this question among a sample of manufacturing workers.

Data were collected during a non-randomized trial of a TWH intervention among manufacturing workers. The study was developed and executed under the 2011 TWH definition and all study procedures were approved by the University of Iowa Institutional Review Board. Participants were recruited from two facilities operated by the same company: an intervention site (n=212) and a control site (n=252). In one aspect of the intervention, participants were eligible to meet during work hours with a certified health coach for up to four in-person 30-minute sessions per year for up to four years. Sixty-seven participants enrolled in the coaching activity. Slightly more than half were male, the mean body mass index was

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30.0±6.2 m/kg², and the mean age was 40.8±11.1 years. All sessions were audio recorded, and goals set by participants were classified as relating to general health, physical activity, nutrition, weight loss, stress, or tobacco use. Participants granted access to HRA data collected annually by the employer’s third-party vendor.

The health coach conducted 393 sessions, with a median of 5 sessions per participant. Participants set a total of 403 unique goals, most frequently related to physical activity, followed by general health and stress. On average, participants’ HRA responses to ‘readiness to change’ questions did not meaningfully change over the course of the study, although results were mixed. For example, participants who set a physical activity goal during health coaching were more likely to indicate plans to increase exercise frequency on the HRA in comparison to those who did not. This pattern was similar for stress and weight loss. On the other hand, HRA responses indicating plans to improve dietary habits did not differ meaningfully between those who did and those who did not set nutrition-related goals.

The results suggest that goals set during health coaching, in some cases, appear consistent with HRA responses, although with substantial variability. High turnover at the intervention site, leading to small numbers of participants both engaged in health coaching and completing the HRA over multiple years, limits the extent to which conclusions can be drawn from our observations or generalized to the broader population of manufacturing workers.