A Worksite Wellness Coaching Component of a Total Worker Health Intervention in a Manufacturing Setting

1st International Symposium to Advance TOTAL WORKER HEALTH
Bethesda, MD, October 6-8, 2014

Presented by:
Cassidy Branch, MA, ATC, LAT
Comprehensive Evaluation of an Integrated Health Protection and Health Promotion Program

Four year controlled trial

Examine effects of a TOTAL WORKER HEALTH™ intervention on:

- Exposure to ergonomic hazards and musculoskeletal health outcomes
- Indicators of modifiable health risks
Project Team

Nathan Fethke, PhD (PI)
Fred Gerr, MD (Co-I)
Linda Merlino, MS (Study Coordinator)
Cassidy Branch, MA (Wellness Coach)
Mark Schall, MS (Graduate Fellow)
Chronic Conditions in the Workplace

- Majority of chronic conditions caused by modifiable risk factors
- 25% of companies’ medical costs are spent on employees with chronic conditions
- Hourly workers are at higher risk
Health Promotion in the Workplace

- Comprehensive health promotion programs provide opportunity
  - Ideal setting
  - Coaching programs to alleviate risk factors
  - Reduce health care cost
  - Address work conditions

- 7% of employers offer comprehensive programs
Wellness Coaching with Motivational Interviewing

- Evidence-based approach to behavior change
  - Weight loss
  - Tobacco cessation
  - Medication adherence
  - Managing chronic conditions
  - Mental health

- Effective in a variety of settings
  - Medical clinics
  - Hospitals
  - College campuses

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Motivational Interviewing

“...a collaborative, person-centered form of guiding to elicit and strengthen motivation for change.”

- Communication style
- Collaborative
- Evocative
Agenda

- Description of study design
  - Preliminary results
- Description of Wellness Coaching Intervention using Motivational Interviewing
  - Preliminary results
Study Sites

- Global window manufacturing company with regional facilities across the US
  - Intervention Facility: Iowa
  - Control Facility: Ohio
Study Participants

- Permanent Employees
- 18-65 years old
- Enrolled in company-sponsored health insurance program
- Release of Information
  - HRA information
  - Employer-sponsored chronic condition management programs
Design and Cohort

Iowa

- Integrated Committee
- Questionnaire + Coaching N=56
  - Coaching BASELINE n=18
  - Coaching TIME 1 n=18
  - Coaching TIME2 n=18

Ohio

- Business as Usual
  + Questionnaire N=65
  - BASELINE n=36
  - TIME 1 n=36
  - TIME2 n=36

121 Participants

Participants

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Questionnaires

- Demographics
- Personal health
- Job Content Questionnaire
- SF-36v2
- Musculoskeletal Health
  - Neck/shoulder
  - Low back
  - Elbow/wrist/hand
Demographics

Average participant was...

- 42 years old
- BMI = 29
- 60% male
- 100% Caucasian

Majority of Participants...

- Production employees
- < 50% education beyond high school
- 40% use tobacco
- 80% had insurance

<table>
<thead>
<tr>
<th>Differences in Participants of Coaching Intervention</th>
<th>Baseline – Time2</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Female</td>
<td>11 (61.1)</td>
<td>11 (30.6)</td>
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</tbody>
</table>
Change in SF-36 Physical Composite Score

- **Baseline**
  - Wellness Coach: 50
  - Control: 52

- **Time 1**
  - Wellness Coach: 52
  - Control: 50

- **Time 2**
  - Wellness Coach: 54
  - Control: 50

Δ 4.2 (Wellness Coach) vs. Δ -0.1 (Control)

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Wellness Coaching

- Voluntary participation
- In-person encounters with certified wellness coach
  - Up to 4 encounters/year
- Conducted during work hours
  - 30 minute duration
  - Private room at worksite provided by employer
  - Audio recorded
- Format
  - Initial session
    - Description of intervention
    - Created vision
    - Discussed limitations
    - Set goals
  - Subsequent sessions
    - Progress and adjustments as needed
- Incentives
  - www.hwce.org
Coach Fidelity

- Coach met with a certified mentor monthly
  - Ensure Fidelity
    - Score audio files
  - One Pass
    - Intraclass correlation coefficients (ICC) used to assess reliability of scores between coach and mentor
- Improve skills
# One Pass

<table>
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<th></th>
<th>Baseline*</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Total</th>
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<tr>
<td>Number of</td>
<td>4</td>
<td>16</td>
<td>11</td>
<td>31</td>
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<tr>
<td>encounters scored</td>
<td></td>
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<tr>
<td>Rater 1</td>
<td>Mean (SD)</td>
<td>4.25 (0.50)</td>
<td>5.06 (1.12)</td>
<td>4.73 (0.90)</td>
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<tr>
<td>Rater 2</td>
<td>Mean (SD)</td>
<td>4.75 (0.50)</td>
<td>5.25 (0.86)</td>
<td>4.23 (0.68)</td>
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<tr>
<td>ICC</td>
<td>0.09</td>
<td>0.79</td>
<td>0.66</td>
<td>0.68</td>
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</table>

Coaching encounters conducted = 161
Coaching Topics

Topics at Baseline

- Physical Activity: 36%
- Nutrition: 24%
- Weight: 8%
- Stress: 6%
- Health: 6%

Topics at Time 2

- Physical Activity: 27%
- Nutrition: 15%
- Weight: 8%
- Stress: 27%
- Health: 6%
## Coaching Retention

<table>
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<tr>
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<th>Baseline</th>
<th>Follow-up 1</th>
<th>Follow-up 2</th>
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<tbody>
<tr>
<td>Coaching participants</td>
<td>20</td>
<td>37</td>
<td>40</td>
</tr>
<tr>
<td>Withdrew from Coaching</td>
<td>0</td>
<td>0</td>
<td>3</td>
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<tr>
<td>Retention</td>
<td>100%</td>
<td>100%</td>
<td>93%</td>
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</table>

- Most literature cites high dropout rate
- Retention rates for lifestyle behavior change interventions range from 75-100%
Summary

- Motivational Interviewing was delivered as indicated by One Pass scores
- Broad variety of topics discussed
- Retention rates are high
References


