Health and Emotional Wellbeing in the Workplace:
Behavior Screening and Intervention as an Effective Approach to Wellness

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Steve Dickens, MA
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Vermont Worksite Wellness Conference (Burlington, VT)
Recent Article

Views Helping clients address behavioral health in the workplace

By Paul Mulhausen

Published March 15 2018, 2:01pm EDT

Same Ideas:

• Scope of Problem
• Early Identification
• Workplace Tools
  • Wellness Coaching
  • EAP Support
Behavioral Health Screening and Intervention (BSI) is a new evidence-based approach to wellness. We’ll cover what BSI is about and how it works. We’ll explain how BSI, combined with counseling from an Employee Assistance Program (EAP), led to significant improvements in participant’s mental and physical health. These improvements produced an estimated annual healthcare savings of over $2,000 per case and over $5,000 per employee in workplace performance cost savings from avoided absenteeism and presenteeism. We’ll review the results of our two research studies done in collaboration with staff from the University of Wisconsin School of Medicine and Public Health and Dr. Mark Attridge, a leading researcher in the field of wellness. We’ll explain why BSI can be a more effective approach to workplace wellness and how it can be implemented.
Speakers

Mark Attridge, PhD, MA, is a leading researcher in the fields of wellness and employee assistance. He has produced over thirty peer-reviewed papers and chapters and over 200 articles and presentations. Mark is a popular presenter at international conferences and is known for translating research findings into practical applications.

Steve Dickens, MA, is the Director of Invest EAP. Steve also holds an appointment as a Visiting Scholar at the Harvard T.H. Chan School of Public Health. He is a licensed Psychologist-Master, with over 25 years’ experience in employee assistance.

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Beyond EAP

EAP

Employee Universe

EAP users

BSI
A Proactive Approach to EAP

- BSI is proactive
- EAP is responsive

- Substance Abuse
- Smoking
- Depression
- Nutrition/Exercise
- Family/Relationship
- Work-Life
EAP
- Employee facing difficult life issue
- Calls EAP for appointment
- EAP provides counseling and resources to resolve issue

BSI
- Employee interested in improving overall health
- Volunteers for health screen
- Completes behavioral health survey
- Counselor invites client to work on any identified risk factors
- Motivational Interviewing
HRA

- Employees complete online health risk assessment (HRA)
- Data from HRA compiled
- High risk individuals identified
- Worker calls employee in evening
- Provides suggestions

BSI

- Employee meets with coach to complete survey in person
- Coach offers employee opportunity to learn more
- Coach invites employee to work on change
- Work begins immediately
Screening & Intervention in One

• In-person

• Licensed counselor
  • Advanced training in Motivational Interviewing and PST
Motivational Interviewing

• Open Questions
• Affirmations
• Reflective Listening
• Summaries

“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
Counselors
Research Demonstration Sites

Incentive

- Participation
- Surveys
Demographic Profile of Study Participants
 Combined Study Sample from Employees at Two Sites in Vermont

- **Age:** 44 years
- **Married:** 62% Yes
- **Children at Home:** 50%
- **Race:** 95% White
- **Gender:** 74% Women & 26% Men
- **Household Income:** $40,204

N = 98 Employees
Clinical Experience of Study Participants
Combined Study Sample from Two Sites in Vermont

- Treatment Duration: 2.7 months average
- Number of Sessions: 4.3 average per case
- Session duration: 40 minutes average

N = 98 Employees
Reductions in Behavioral Health Risk Factors and Estimated Cost Savings in Health Care Claims
7 Health Risks Included in Screening

- Nutritious Diet (86% at-risk)
- Physical Exercise (78%)
- Depression (43%)
- Stress and Anxiety (39%)
- Binge Drinking (49%)
- Smoking (39%)
- Drug Use (23%)

92% of Cases Had Multiple Risks (2+)

Average = 3.6 risks per case

N = 98 Employees
Increase in Annual Health Care Claims Costs (Research)
Percentage Beyond Average Base Amount for 7 Risk Factors

- Nutrition: 10%
- Exercise: 11%
- Smoking: 15%
- Drinking: 66%
- Depression: 41%
- Stress: 16%
- Drug Use: 54%
### Excess Annual Health Care Claims Cost for Each Risk Factor:
Above the US Average (2015) Adjusted for Sex and NE Region & Additional Cost

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Average Costs</th>
<th>Additional Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>$5,756</td>
<td>$574</td>
</tr>
<tr>
<td>Exercise</td>
<td>$5,756</td>
<td>$625</td>
</tr>
<tr>
<td>Smoking</td>
<td>$5,756</td>
<td>$832</td>
</tr>
<tr>
<td>Drinking</td>
<td>$5,756</td>
<td>$3,822</td>
</tr>
<tr>
<td>Depression</td>
<td>$5,756</td>
<td>$2,329</td>
</tr>
<tr>
<td>Stress</td>
<td>$5,756</td>
<td>$889</td>
</tr>
<tr>
<td>Drug Use</td>
<td>$5,756</td>
<td>$3,080</td>
</tr>
</tbody>
</table>

**Estimated Dollars**

*INVEST FAP*
Health Care Savings Calculations

For cases at-risk, examine % change from pre to post-counseling and % change from pre to both follow-up periods.

Multiply health care cost burden associated with each risk by % change in reduce risk symptoms.

Net Savings = Subtract costs of cases not at-risk at baseline that became at-risk.

Total Cost Savings.

Repeat for all 7 risk factors.
# Health Care Annual Cost Savings

<table>
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<tr>
<th>Metric</th>
<th>Diet</th>
<th>Exercise</th>
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<th>Stress / Anxiety</th>
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<th>Smoking</th>
<th>Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Case IF At-Risk</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Excess Health Cost Burden $ (12 mo.)</td>
<td>$574</td>
<td>$625</td>
<td>$2,329</td>
<td>$889</td>
<td>$3,822</td>
<td>$832</td>
<td>$3,080</td>
</tr>
<tr>
<td>Reduction After EAP use (3 mo.)</td>
<td>- 14%</td>
<td>- 38%</td>
<td>- 58%</td>
<td>- 46%</td>
<td>- 52%</td>
<td>- 51%</td>
<td>- 37%</td>
</tr>
<tr>
<td>Reduction at both follow-ups (9 mo.)</td>
<td>- 16%</td>
<td>- 43%</td>
<td>- 56%</td>
<td>- 35%</td>
<td>- 59%</td>
<td>- 55%</td>
<td>- 26%</td>
</tr>
<tr>
<td>Annual Savings</td>
<td>$89</td>
<td>$262</td>
<td>$1,312</td>
<td>$338</td>
<td>$2,196</td>
<td>$448</td>
<td>$871</td>
</tr>
<tr>
<td>Per Case (Everyone)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Annual Savings Gross</td>
<td>$76</td>
<td>$203</td>
<td>$562</td>
<td>$131</td>
<td>$1,076</td>
<td>$174</td>
<td>$205</td>
</tr>
<tr>
<td>Annual Savings NET</td>
<td>$18</td>
<td>$130</td>
<td>$485</td>
<td>$72</td>
<td>$1,076</td>
<td>$174</td>
<td>$205</td>
</tr>
<tr>
<td>(deduct increased costs from cases who</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>became at-risk later on)</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$76</strong></td>
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<td><strong>$1,076</strong></td>
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<td><strong>$205</strong></td>
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<tr>
<td><strong>N = 98 Employees</strong></td>
<td></td>
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</table>
Estimated Savings Health Claims

Average = $2,159
Per Case Per Year
Employee Work Productivity
Estimated Cost Savings
WHY CARE? Hours of Workplace Lost Productive Time (LPT) in Past Month By Number of Behavioral Health Risks - Per Employee at Baseline

% Sample | # Risks | Hours of LPT per Month
---|---|---
1 | 1 | 39
2 | 2 | 57
3 | 3 | 65
4 | 4 | 68
5 | 5 | 96
6 | 6 | 85
7 | 7 | 133

$r = .48^*$

More Health Risks = More Lost Work
WHY CARE? Hours of Workplace Lost Productive Time (LPT) in Past Month By at Baseline: By Risk Status for Each Risk Type

If At-Risk = More Lost Work – But This Varies By Type of Behavioral Health Risk
WHY CARE? Hours of Workplace Lost Productive Time (LPT) in Past Month By Number of Behavioral Health Risks - Per Employee at Baseline

<table>
<thead>
<tr>
<th>% Sample</th>
<th># Risks</th>
<th>Hours of LPT per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>9 124</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>18 67</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>18 78</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7 58</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>7 59</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2 36</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3 13</td>
</tr>
</tbody>
</table>

$r = .48^*$

More Health Risks = More Lost Work
Hours of Employee Absenteeism & Presenteeism in Past Month – At 3 Time Points

Before EAP: Presenteeism (40 hours) + Absenteeism (30 hours) = 70 hours per Month
After EAP: Presenteeism (12 hours) + Absenteeism (18 hours) = 30 hours per Month
Follow-up: Presenteeism (10 hours) + Absenteeism (10 hours) = 20 hours per Month

N = 98 Employees
Results for Workplace Lost Productive Time:

% Reductions in Hours of LPT (combined absenteeism & presenteeism)
After EAP at End of Case and At Follow-ups

- End of Case: -40%
- Follow-up Average: -28%

N = 98 Employees
What is an Hour of Productive Work Worth to the Employer?

- Compensation of Hourly Wages & Benefits for Study Participants = $17.74
- Productivity Value Multiplier of 1.25
- $22.18 Hourly Rate

N = 98 Employees
### Value of Restored Work Productivity

<table>
<thead>
<tr>
<th></th>
<th>Post-BSI First 3 months</th>
<th>Post-BSI Following 9 months(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/month</td>
<td>28.35</td>
<td>19.89</td>
</tr>
<tr>
<td>Hours total period</td>
<td>29 x 3 mos. = 85</td>
<td>20 x 9 mos. = 179</td>
</tr>
<tr>
<td>Productivity Value (per hour of work)</td>
<td>$22.18</td>
<td>$22.18</td>
</tr>
<tr>
<td>Value of productivity gain per period</td>
<td>$1,886</td>
<td>$3,970</td>
</tr>
</tbody>
</table>

**Total Annual Restored Work Productivity:**

$5,857 per employee participant

\(^1\) Based on average of results on 3- and 6-month follow-up surveys

N = 98 Employees
Estimated Savings Workplace (LPT)

Average = $5,857 Per Employee Case Per Year
Does this make sense for other organizations?

Let’s Do the Math
## Adjusted Health Care Annual Cost Savings – Normal Risk Levels

<table>
<thead>
<tr>
<th>Metric</th>
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<th>Smoking</th>
<th>Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Sample At-Risk</td>
<td>86%</td>
<td>78%</td>
<td>43%</td>
<td>39%</td>
<td>49%</td>
<td>39%</td>
<td>23%</td>
</tr>
<tr>
<td>Prevalence VT</td>
<td>71%</td>
<td>77%</td>
<td>8%</td>
<td>19%</td>
<td>19%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>Difference in Prevalence</td>
<td>-15%</td>
<td>-1%</td>
<td>-35%</td>
<td>-20%</td>
<td>-30%</td>
<td>-22%</td>
<td>-4%</td>
</tr>
<tr>
<td>Annual NET Savings Per Case</td>
<td>$18</td>
<td>$130</td>
<td>$485</td>
<td>$72</td>
<td>$1,076</td>
<td>$174</td>
<td>$205</td>
</tr>
<tr>
<td>Adjusted Savings</td>
<td>$15</td>
<td>$129</td>
<td>$315</td>
<td>$58</td>
<td>$753</td>
<td>$136</td>
<td>$197</td>
</tr>
</tbody>
</table>

*Adjusted for Normal Rates of Risk Prevalence in Vermont:*

Annual Net Savings in Health Care Costs = $1,603

Per Case Per Year Averaged Across All Risks
### Estimated Cost Savings Combined Health and Work Productivity

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount per Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoided Future Health Care Claims</td>
<td>$1,603</td>
</tr>
<tr>
<td>Restored Lost Work Productivity</td>
<td>$5,857</td>
</tr>
<tr>
<td><strong>Combined Total</strong></td>
<td><strong>$7,460</strong></td>
</tr>
</tbody>
</table>

### Reality Check

- **What** is reasonable actual cost savings to ascribe to our intervention if done for your work organization?
  - 50% - 75% - 90%

- **We can put your** numbers into this analysis
Return on Investment (ROI)

Assume: 100 employee population

10 employees participate

BSI Investment
$5,000

Health Care Claims Savings
$1,603
X 10 Employees
$16,030

ROI > 3:1

Workplace Savings
$5,857
X 10 Employees
$58,570

ROI > 11:1
Would you be interested in learning how BSI could be implemented in your workplace?

A) Not at all
B) Somewhat
C) Definitely
Given the return on investment, do you think that organizations would pay $500 per individual screened?

A) No
B) Somewhat possible
C) Somewhat likely
D) Definitely
How do you think BSI is best implemented at your organization?

A) Screen all employees (mandatory)

B) Provide $50 incentive to encourage voluntary participation

C) Other idea