The Effect of Occupational Stress on Participant Success in a Worksite Weight Loss Program

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The Effect of Occupational Stress on Participant Success in a Worksite Weight Loss Program

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Learning Objective: The participant will be able to identify the role of supervisor support on employee success in a weight loss program.

Background: Occupational stress has been associated with body mass index and waist circumference, but the role of occupations stress on participant outcomes at a worksite wellness weight loss program has not been examined.

Methods: 16 university faculty and staff members (18.8% faculty, 50% staff, 12.5% administration, 18.8% other) participated in a 16-week weight loss program that consisted of 7 educational sessions on nutrition and physical activity. Participants had weight, height, body mass index (BMI), body fat percentage (BF%), blood pressure (BP), total cholesterol (TC), high density lipoprotein (HDL), triglycerides (TG), and blood glucose (BG) measured before and after the program. A validated job stress survey was completed by participants at the beginning of the program, at week 10, and at the conclusion of the program.

Results: Participants lost 4.3 kg ± 4.8. Significant improvements were noted in TG (33.3 ± 55.8) and BF% (2.4 ± 2.5). Supervisor support was found to be a significant predictor of weight loss, explaining 32.3% of the weight change variance. Co-worker and family support did not play a factor in weight lost during the program.

Conclusion: Worksite weight loss programs may see improved effectiveness by incorporating strategies designed to reduce occupational stress. Special attention should be placed on improving the employee-supervisor relationship to enhance likelihood of weight loss success.

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The Effect of Occupational Stress on Participant Success in a Worksite Weight Loss Program

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ABSTRACT

Occupational stress has been associated with body mass index and waist circumference, but the role of occupational stress on participant outcomes at a worksite wellness weight loss program has not been examined.

Methods: 16 University faculty and staff members (18.8% faculty, 50.0% staff, 12.5% administration, 18.8% other) participated in a 16-week weight loss program that consisted of 7 educational sessions on nutrition and physical activity. Participants had weight, height, body mass index (BMI), body fat percentage (BF%), blood pressure (BP), total cholesterol (TC), high density lipoprotein (HDL), triglycerides (TG), and blood glucose (BG) measured before and after the program. A validated job stress survey was completed by participants at the beginning of the program, at week 10, and at the conclusion of the program.

Results: Participants lost 4.3 kg ± 2.4 kg. Significant improvements were noted in TG (33.3±11.7) and BP (4.7±2.4). Supervisor support was found to be a significant predictor of weight loss, explaining 32.3% of the weight change variance. Co-worker and family support did not play a factor in weight lost during the program.

Conclusions: Worksite weight loss programs may see improved effectiveness by incorporating strategies designed to reduce occupational stress. Special attention should be placed on improving the employee-supervisor relationship to enhance likelihood of weight loss success.

METHODS

Participant Characteristics

<table>
<thead>
<tr>
<th>Occupation Type</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>33.0% tenure track</td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>18.8%</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>18.8%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>50.0%</td>
<td></td>
</tr>
</tbody>
</table>

Participant Occupations

<table>
<thead>
<tr>
<th>Total Percent</th>
<th>Faculty</th>
<th>Self</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.8%</td>
<td>18.8%</td>
<td>50.0%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Overall Design

Recruiting

- Email & Flyers
- Informational Session

Weeks 1 & 2: Baseline Testing
- Labs & Anthropometrics
- Job Stress Survey
- ASA-24 Diet Recall

Weeks 3-8
- Weekly Educational Sessions
- ASA-24 Diet Recall

Week 10
- Job Stress Survey
- ASA-24 Diet Recall

Weeks 11-15
- Weekly Educational Sessions
- Labs & Anthropometrics
- Job Stress Survey
- ASA-24 Diet Recall

RESULTS & DISCUSSION

Biochemical & Anthropometric Measures: Pre- & Post-Program

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-Program</th>
<th>Post-Program</th>
<th>Mean Change</th>
<th>SD</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol (mg/dL)</td>
<td>181.1±32.1</td>
<td>196.7±32.7</td>
<td>5.6</td>
<td>0.102</td>
<td></td>
</tr>
<tr>
<td>High Density Lipoprotein (mg/dL)</td>
<td>142.2±50.3</td>
<td>108.0±70.1</td>
<td>33.3</td>
<td>0.861</td>
<td></td>
</tr>
<tr>
<td>Blood Glucose (mg/dL)</td>
<td>116.8±11.8</td>
<td>90.0±14.0</td>
<td>26.8</td>
<td>0.032</td>
<td></td>
</tr>
<tr>
<td>Systolic Blood Pressure (mmHg)</td>
<td>84.7±12.5</td>
<td>70.4±17.5</td>
<td>14.3</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>41.9±8.6</td>
<td>38.5±8.0</td>
<td>3.4</td>
<td>0.025</td>
<td></td>
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</tbody>
</table>

CONCLUSIONS

- This pilot study suggests that the employee-supervisor relationship should be considered in workplace weight loss programs. A larger sample size will help to resolve remaining questions.
- While one session of the program addressed stress management, this advice centered on how to manage overtime while stressed.
- Future participants may benefit from programming that addresses how to deal with difficult people, especially supervisors, in the workplace.

REFERENCES