Sustainable employability: an evaluation of a worksite interventions

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Abstract

BACKGROUND: Sustainable employability (SE) is important for employers and governments, and many SE interventions have been developed. There is lack of evidence for the impact of worksite interventions on health, vitality and SE though.

OBJECTIVE: To examine how effective the training Greater Job Satisfaction (GJS | Meer Werkplezier) is on reducing stress and increasing work enjoyment among primary school teachers.

METHODS: A one group pre-test post-test design was used. Questionnaires were distributed among 33 teachers.

RESULTS: A positive trend was observed; all mean scores changed in the expected direction.

CONCLUSIONS: GJS (Meer Werkplezier) showed a significant effect on recognizing stress situations and problem-focused coping.

Keywords: sustainable employment; intervention; worksite health promotion; evaluation
1. Introduction

When a population greys, the labour force shrinks and there is an increased demand on state pension benefits (Dutch: AOW) [1]. Due to this shift in demographics and changing policies, people need to work until they are older. Since aging is associated with higher sickness absenteeism rates and greater disability, this result in a reduced working capacity and in decreased productivity [2, 3]. Therefore, many employers show an increased attention in order to maintain sustainable employment nowadays [1].

Van der Klink et al. [4] define sustainable employability as: “an employee’s capability to participate in present and future jobs while preserving good health and well-being as well as the necessary conditions for this to occur”. Many employers develop initiatives for sustainable employability, but not much is known about the effectiveness of worksite health programs similar to the interventions in this study. This study reports on the evaluation of an intervention promoting health at the workplace: (1) Meer Werkplezier [Greater Job Satisfaction] aimed at reducing stress among teachers (psychological perspective). This intervention aims to increase vitality, involvement and sustainable employment of employees. We were interested in the question whether this intervention would both be effective with regard to sustainable employment.

1.1 Greater Job Satisfaction: reducing stress

Employees working in jobs that involve having a lot of contact with other people experience more stress at work [10]. Being a teacher, for example, is one of the most stressful jobs [10-12]. In the Netherlands burnout rates are the highest in the educational sector: 17% of teachers show burnout symptoms [13]. Older teachers and fulltime workers are known to experience the highest levels of stress [11]. Notable stressors for teachers include a high workload, an increasing number of children with behavioural problems, the
diversity of tasks required, and the challenge of managing the demanding parents of pupils [10, 11, 14, 15].

*Greater Job Satisfaction (GJS)* is an intervention geared towards teachers in primary schools. In this training, participants learn to recognize and overcome ineffective personal habits at work. Teachers are encouraged to think about their own talents and qualities, and they learn how to recognize and appreciate colleagues’ qualities. Teachers also learn how to effectively use their qualities through different coping strategies. In order to harness the benefits of mutual contact, the whole team of teachers participates in at least the first session of the training. GJS aims to decrease stress levels and to increase individual and overall job satisfaction.

GJS is loosely based on the job demands-resources model of burnout [16]. This model suggests that work characteristics can be classified into two broad categories: job demands and job resources [16]. Job demands are physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological effort, which lead to certain physiological and/or psychological costs [16]. Disruptive pupil behaviours, work overload, and poor physical working environments are named as major causes of psychological strain among teachers [17]. Job resources are physical, psychological, social, or organisational aspects of a job that may reduce job demands and that are useful in achieving work goals and stimulating personal growth, learning and development [16]. Hakanen et al. identify five major resources as being key motivators for educators; when present, they increase commitment or engagement [17]. These motivators are job control, access to information, supervisory support, innovative school climate, and social climate [17]. GJS aims to increase the job resources, which will lower stress levels and improve job satisfaction.
1.3 Study and research questions

The purpose of this study was to evaluate the effectiveness of GJS on employees’ levels and work enjoyment. The research question of the present study was:

1. What is the effect of Greater Job Satisfaction on the stress levels and work enjoyment among primary school teachers?

2. Methods

2.1 Design and participants

A total of 33 teachers from three primary schools were included in a one group pre-test post-test design conducted between September 2014 and January 2015. Data were collected at two measurement points: baseline (T0) and 10 weeks after implementing the intervention (T1). Primary schools were recruited through contacting the school directors. All the teachers at all three schools were obliged to participate in at least the first session of the GJS training. Of the 33 teachers, 22 participants (3 male, 19 female) were included in the analyses (see Figure 1). Two teachers dropped out because they were transferred to a coaching trajectory by the trainer. At school 1, the training was mandatory for all teachers. This led to some resistance, and some of the teachers in this school dropped out. Other reasons for dropout are unknown. The study group was comprised of 19 women (86.4%) and three men (13.6%). The mean age of the respondents was 45 years. Figure 2 shows the variables measured for GJS (research model).

[Insert Figures 1 and 2 here]

2.2 Data collection and measurement instruments

First, the demographic characteristics gender and age were measured. The UBOS [Utrechtse Burnout Scale] [20] (16-item scale, range 1-7) measured burnout level. It
consisted of three dimensions: *emotional exhaustion* (five items), *distance* (five items) and *competence* (six items). An example of an emotional exhaustion item is: ‘At the end of the day I feel empty’. An example of a distance item is: ‘I doubt the usefulness of my work’. An example of a competence item is: ‘I think I do my job well’. VOS-D [18] (12 item scale; range 1-4) measured *psychological strains*. Examples of included items are: ‘I feel lonely’, ‘I feel calm’ and ‘I feel irritated’. GHQ-6 [General Health Questionnaire][21] (6 item scale, range 1-4) measured *psychological distress*. Two example items are: ‘Have you recently felt unhappy and depressed?’ and ‘Did you lately lost confidence in yourself?’.

Coping behaviour was measured by means of the UCL [Utrecht Coping List] [22] (15 item scale, range 1-4), using three dimensions: *problem focused coping* (five items), *avoidant coping* (five items), and *social coping* (five items). An example item for problem focused coping is: ‘I immediately intervene if there are problems’. An example item for avoidant coping is: ‘I search for distraction’. An example item for social coping is: ‘I show my feelings’. *Knowledge and Awareness* of stress situations was measured by means of six self-developed questions. One item asked is: ‘Have changes occurred over the past two months in recognizing stress and or (personal) situations that require energy?’. *Job satisfaction* was measured through 12 self-developed questions. On job satisfaction item is: ‘To what extent is good contact with parents of pupils important to you?’.

Experiences with GJS were assessed using four items (different ranges). Two example items are: ‘Which grade do you give Greater Job Satisfaction?’ and ‘Would you recommend the training to others?’.

### 2.3 Data analysis

Several descriptive analyses (M, SD, Pearson correlation) were performed. To test the GJS’s effects on stress levels and job enjoyment, paired *t*-tests and chi-square (*χ²*) tests were performed between pre- and post-tests. The chi-square test was used to investigate
the association between pre- and post-tests categorical variables of knowledge and awareness items, such as recognizing and experiencing stressful situations. Results from respondents with missing data and from participants who did not complete the post measurements were excluded from the research sample. The significant level was set at \( p<0.10 \) because of the small sample size. Data were analysed using SPSS 22.0.

2.4 Ethical considerations

The study was not submitted to an ethical committee because according to Dutch law, surveys only have to be submitted to an ethical committee in a limited number of situations, none of which were applicable to the current study. However, all participants gave written informed consent before they participated in the study.

3. Results

The results of the paired samples \( t \)-test and Pearson correlation coefficient analyses, which tested the efficacy of MW on stress levels and work enjoyment among primary school teachers, are depicted in Table 1.

[Insert Table 1 here]

Two variables significantly increased positively; coping with personal situations and active coping (UCL). During the post-test, respondents stated they felt more confident about their own coping strategies with personal situations requiring energy and problem-focused coping. Although the other variables did not change significantly, a positive trend can be observed, because all mean scores changed in the expected direction (see Table 1). Using the Pearson correlation coefficient analysis, a significantly high positive correlation was observed between the pre- and post-measurement of UCL: active coping, UBOS competence
and VOS-D (0.70<r<0.90). All other variables showed a significant moderate correlation between pre- and post-test (0.50<r<0.70), except for health, UBOS emotional exhaustion, and UBOS distance. In addition, teachers recognized stressful situations or (personal) situations requiring energy significant more often ($x^2(2)=5.25$, $p=.07$). Furthermore, teachers experienced significantly less stress and/or energy-consuming situations ($x^2(4)=9.75$, $p=.05$). Teachers indicated that good contact with children, pleasant cooperation with colleagues and better contact with pupil’s parents had a largely positive impact on job satisfaction. Pleasant cooperation with colleagues, measured by the job satisfaction items, significantly increased after the intervention and positively contributed to the degree of job satisfaction. Overall satisfaction with the GJS training was ranked a 7.1 (range 1-10) and the overall trainer score was 7.6 (range 1-10). 73.9% of the participants would recommend the training to colleagues.

4. Discussion

The purpose of this study was to assess the effects of GJS on the level of stress and work enjoyment among primary school teachers. This study showed a significant effect on teachers’ coping with personal situations and their problem-focused coping. Coping is described as dealing with stressors. According to the job-demands resources model, job demands turn into job stressors when meeting those demands require high consistently effort from which the employee cannot adequately recover [27]. Job stressors are tightly connected to stress reactions [16]. Through coping strategies, teachers can reduce job demands and thereby reduce their level of stress [28]. These findings are in accordance with Wangberg [29], who emphasizes the importance of providing programs to support teachers coping with the high levels of stress they continuously experience. Billings and Moos [30] mention that coping strategies are compensatory factors that help individuals maintain their
health. The training helped learn to recognize stressful situations and situations requiring energy. An important part of helping teachers cope is educating them about the signs and symptoms of stress, so they know when to apply the learned techniques [31]. Although no significant effect was seen in the variables of emotional exhaustion, distance, competence, psychological strains, psychological distress, avoidant coping, and social coping, a positive trend was observed. All mean scores moved in the expected direction. The literature emphasizes the importance of avoidant coping strategies, which are related to emotional exhaustion, depersonalization and personal accomplishment [32]. Successful coping styles and good health lead to better working abilities; thus promoting such factors can help improve sustainable employment [33]. Teachers indicate that good contact with children has the greatest positive impact on job satisfaction. This corresponds to the literature; the teacher–student relationship is the most important source of enjoyment, motivation and well-being [34-36]. Although the effect evaluation did not show many significant effects, participants were satisfied with the intervention.

Although all variables changed in the desired direction, only two variables were significant. A possible explanation for the lack of effect was that the training was obligatory at the first primary school. The trainer noticed that many of the teachers were not open to the intervention, which might have negatively influenced the effect and outcomes. This is in line with the findings of Horstman [37]. Horstman et al. emphasize that worksite health promotion programs can promote health, vitality, and vigour, however, these programs can also have unintended side-effects [37]. For example employees may experience worksite health promotion as unwanted interference in their private lives, which may evoke resistance among employees [37]. Worksite health promotion programs imply a strong involvement in private lives of employees [38]. Therefore, employees emphasize the importance of voluntarily choosing to participate in an intervention [39].
4.1 Strengths and limitations of the study

The study had several limitations that should be kept in mind when interpreting the results. The internal validity of this study was compromised since it lacked a control group. A threat for the generalizability of the results of this study arises from the small sample sizes. In addition, the use of small sample sizes may have reduced statistical power and increased the possibility of sample bias [40]. Sample bias means that the fewer the number of participants, the greater the chance that the sample size will not be representative of the population from which it was drawn [40]. Furthermore this study focused on short-term effects. A follow-up study is needed to study the long-term effects of such interventions. A problem associated with using repeated measures in paired sample t-tests is it results in a small number of degrees of freedom. This results in the need of a higher t-value to reach significance. An advantage of using repeated measures is that each person is used as his/her own control; thus there is less overall variation.

4.2 Recommendations for future research and practice

The following research and practical recommendations are aimed to improve the effectiveness of the GJS. A recommendation is to learn the employee’s perspective and take it into account while developing and implementing these interventions [37]. Therefore, employees should be involved as subjects in creating worksite health promotion programs, and not consider them as objects of the intervention. Employees should be given a voice in developing, implementing and evaluating worksite health promotion [37, 41]. This will increase the chances of better effects and successful implementation [42].

GJS. Schools need to become more aware of the fact that stress management can help teachers identify their problems, find ways to deal with these problems, provide support for one another, and increase their self-esteem [29]. In this respect, it is important to make
schools aware of the high burnout ratio among teachers. It is also important to include more schools in this training in order to have a larger sample size and better generalization of results. Employees can however, see health management as an unwanted interference into their private life; it has the potential to restrict the freedom of employees [39]. In addition, employees emphasize the importance of voluntary choices, but employers seem more inclined to enforce health behaviours [39]. Therefore, it is recommended to only require employees to attend the first meeting, after which they can choose whether to continue participating. It is also recommended to strengthen the methodological quality by adding at least one control group.

5. Conclusion

This study demonstrated that GJS has a significant positive effect on participant’s ability to recognize both stress situations and situations that require energy, and problem-focused coping. These coping strategies, good contact with children, and pleasant interactions with colleagues decrease stress levels and increase work satisfaction. The findings of this study do add new insight to the current theoretical knowledge of lunch-time exercises at the workplace and worksite interventions at primary schools that can serve as an inspiration for further research in order to find reliable, valid and generalized insights. Overall, it can carefully be said that health promotion results in a healthier workforce, which is probably also a more productive workforce.

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Table 1. Descriptive statistics, t-tests and Pearson correlations for study variables for primary school teachers who participated in Greater Job Satisfaction at T0 and T1 (n=22)

<table>
<thead>
<tr>
<th>Variables (range)</th>
<th>Mean T0</th>
<th>Mean T1</th>
<th>∆ mean</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Health score (1-10)</td>
<td>7.27</td>
<td>7.59</td>
<td>.32</td>
<td>1.23</td>
<td>21</td>
<td>.23</td>
<td>.45*</td>
</tr>
<tr>
<td>2 Coping score personal situations (1-10)</td>
<td>6.41</td>
<td>6.95</td>
<td>.55</td>
<td>2.09</td>
<td>21</td>
<td>.05</td>
<td>.53*</td>
</tr>
<tr>
<td>3 Work enjoyment score (1-10)</td>
<td>7.41</td>
<td>7.50</td>
<td>.09</td>
<td>.37</td>
<td>21</td>
<td>.72</td>
<td>.53*</td>
</tr>
<tr>
<td>4 UBOS - emotional exhaustion (1-7)</td>
<td>2.87</td>
<td>2.76</td>
<td>-.11</td>
<td>-.45</td>
<td>21</td>
<td>.66</td>
<td>.49*</td>
</tr>
<tr>
<td>5 UBOS - distance (1-7)</td>
<td>2.40</td>
<td>2.32</td>
<td>-.08</td>
<td>-.37</td>
<td>21</td>
<td>.71</td>
<td>.34</td>
</tr>
<tr>
<td>6 UBOS - competence (1-7)</td>
<td>5.07</td>
<td>5.23</td>
<td>.16</td>
<td>1.12</td>
<td>21</td>
<td>.25</td>
<td>.75**</td>
</tr>
<tr>
<td>7 VOS-D (1-4)</td>
<td>2.02</td>
<td>1.95</td>
<td>-.07</td>
<td>-1.25</td>
<td>21</td>
<td>.22</td>
<td>.85**</td>
</tr>
<tr>
<td>8 GHQ-6 (1-4)</td>
<td>1.80</td>
<td>1.69</td>
<td>-.11</td>
<td>-.95</td>
<td>21</td>
<td>.35</td>
<td>.51*</td>
</tr>
<tr>
<td>9 UCL: PAS (1-4)</td>
<td>2.22</td>
<td>2.14</td>
<td>-.08</td>
<td>-1.01</td>
<td>21</td>
<td>.32</td>
<td>.50*</td>
</tr>
<tr>
<td>10 UCL: SS (1-4)</td>
<td>2.55</td>
<td>2.68</td>
<td>.13</td>
<td>1.12</td>
<td>21</td>
<td>.27</td>
<td>.52*</td>
</tr>
<tr>
<td>11 UCL: ACT (1-4)</td>
<td>2.80</td>
<td>3.05</td>
<td>.25</td>
<td>3.13</td>
<td>21</td>
<td>.00</td>
<td>.72**</td>
</tr>
</tbody>
</table>

Note t-test. Significant p-levels are printed in bold (alpha was set at .10).

Note Pearson correlation. Missing values were handled by listwise deletion. #(<=.10), *(<=.05), or **(<=.01).

a For these variables a relatively high mean score should be interpreted positively, for the other variables a relatively high mean score should be interpreted negatively.
Fig. 1. Flow chart of the GJS Training

Fig 2. Research model of the Greater Job Satisfaction Training