The relative contribution of individual and organisational factors to vitality at work

Well-being and work conference, Manchester 21-23 May 2012

Arjella van Scheppingen

EMM de Vroome, CJM ten Have, GJIM Zwetsloot, NM Wiezer, M van Mechelen
Vitality in Practice,
Funded by: NUTS Fund OHRA.

Aim:
• to develop and evaluate health interventions in companies.

By:
• VU Medical Centre, Amsterdam
• TNO

Five projects:
• Three lifestyle interventions
• One cost-effectiveness study
• One organisational culture intervention
Project: Vitality and culture

Why organisational culture?

Dual function:
1. Company identity, employees‘- and organisational functioning: high quality relations (Dutton and Heaphy 2003)
2. Important health-influencing factor (Brug et al 2005, 2006)

→ Parallel interest (business and health).
→ Potentially of interest of both managers and health promoters!
What is vitality at work?

Positive psychology (Seligman and Csikszentmihalyi 2000)

Definition:
‘the positive feeling of having energy to the self’ (Ryan and Frederick 1997, Nix et al 1999)

• Feelings of positive arousal and a heightened sense of positive energy, subjective feelings of being alive, awake and alert (Dutton and Heaphy 2003, Quinn and Dutton 2005)

• An individual who is vital is energetic, feels physically and mentally well and is fully functioning.
Why vitality at work?

- Vitality as indicator of personal well-being: outcome (health perspective)
- Vital employees are ‘fully functioning’: co-determining factor for employees‘ functioning (management perspective).

→ Parallel interest (business and health).

Questions:
1. What should companies do to improve vitality at work, and in turn improve employees’ and organisational functioning?
2. What individual or organisational factors are important?
Study 1: The relative contribution of individual and organisational factors to vitality at work: a cross-sectional study in a Dutch company

Aim twofold:

• To investigate:

1) individual and organisational determinants of vitality at work
2) the association between vitality at work and employees’ functioning
Methods

- Vitality project in a Dutch food and dairy company.
- Literature search on determinants of vitality.
- Questionnaire among all employees (N=1132)
- Statistical analyses:
  1. Correlations.
  2. Regression analyses (Baron and Kenny 1986).
    1. Comprehensive model on vitality was tested
    2. Path analysis to investigate the association between vitality, presenteeism and effective personal functioning
Recognized determinants

Three main scientifically fields:
1. Health science
2. Social and personality psychology
3. Organisational psychology and sociology
Recognized determinants

1. Health science: Lifestyle behaviours:
   1. Physical activity
   2. Smoking
   3. Alcohol intake
   4. Dietary habits
   5. Relaxation.

2. Social and personality psychology: SDT (Ryan and Deci 2000)
   1. Autonomy
   2. Feeling competent
   3. Relatedness.

   1. Organisational social capital
   2. Transformational leadership
   3. Balanced workstyle
Measurements

Dependent variables:

1. **Subjective vitality**: subscale of the Utrecht Work Engagement Scale, UWES, (Schaufeli and Bakker 2003). Six items: ‘At my work, I feel bursting with energy’; Cronbach’s α=.88.

2. **Presenteeism**, being at work while sick (De Vroome 2010). Three items: ‘How often are you at work, while you actually feel sick?’; Cronbach’s α=.79.

3. **Perceived effective personal functioning**: Three items of the Health Performance Questionnaire (Kessler et al 2003): ‘How often was the quality of your work lower than it should have been?’; Cronbach’s α=.79.
Measurements

Independent variables: physical factors

- *Physical activity*: two items on weekly level of physical activity on a scale from 0-7 days a week.

- *Smoking and alcohol intake*: each on one item on smoking and alcohol intake habits in one week.

- *Dietary behaviour*: three items of the Short Food Frequency questionnaire (Van Assema et al 2002) on self-reported breakfast habits and vegetable and fruit intake

- *Relaxation*: two items on experiences of relaxation moments during work and in the private situation.
Measurements

Independent variables: psychological factors

Work-Related Basic Need Satisfaction scale (W-BNS) (Van den Broeck et al 2010)

• Autonomy: six items: ‘I feel like I can be myself at my job’; Cronbach’s α=.77.

• Feeling competent : six items ‘I have the feeling I can accomplish even the most difficult tasks during work’; Cronbach’s α=.80.

• Relatedness: Six items: ‘At work, I can talk about things that really matter to me’; Cronbach’s α=.70.
Measurements

Independent variables: organisational-cultural factors

- *Organizational social capital*: eight-item social capital scale of Kouvonen et al (2006); ‘We have a “we are together” attitude,’ Cronbach’s α=.84.

- *Transformational leadership*: four-item scale adapted from the Charismatic Leadership in Organizations Questionnaire (CLIO, De Hoogh et al 2004). ‘My manager stimulates me to develop my talents’; Cronbach’s α=.90.

- Having a *balanced work style*: six-item work style questionnaire, based on Feuerstein et al (2005, 2006): ‘At the end of a working day, I experience physical complaints that are due to my work style’; Cronbach’s α=.65.
Results

Participants (n=629)

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>7.6 %</td>
</tr>
<tr>
<td>26-35</td>
<td>18.9 %</td>
</tr>
<tr>
<td>36-45</td>
<td>28.3 %</td>
</tr>
<tr>
<td>46-55</td>
<td>33.0 %</td>
</tr>
<tr>
<td>&gt;56</td>
<td>12.2 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender: ( % male)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78.2 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational level:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>27.9 %</td>
</tr>
<tr>
<td>Medium</td>
<td>37.0 %</td>
</tr>
<tr>
<td>High</td>
<td>35.1 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shift work:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>29.6 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kind of work:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>% 'mainly physical work'</td>
<td>34.3 %</td>
</tr>
</tbody>
</table>
Correlations

- High correlation between organizational social capital and transformational leadership ($r=0.707$), multicollinearity?
- Transformational leadership excluded from analysis.

- Vitality at work is significantly correlated with:
  - physical activity, dietary habits, relaxation,
  - autonomy, competences, relatedness,
  - organizational social capital and having a balanced work style.

- No correlation between smoking and alcohol intake.
Regression

Physical factors
- Physical activity
- Smoking
- Alcohol Intake
- Dietary habits
- Relaxation
- Autonomy
- Feeling competent
- Relatedness
- Perceived organizational social capital
- Balanced work style

Psychological factors

Organisational-cultural factors

Vitality at work

$R^2 = .328$

$\beta = .18^{**}$
$\beta = .23^{***}$
$\beta = .19^{***}$
$\beta = .12^{**}$
$\beta = .13^{**}$
In sum: What factors are associated with vitality at work?

1. ‘Basic needs’ of self-determination
   • autonomy $\beta=0.23$, $p<0.001$,
   • feeling competent at work $\beta=0.19$, $p<0.001$)

2. Organisational cultural factors:
   • balanced work style ($\beta=0.13$, $p<0.01$)
   • perceived organizational social capital ($\beta=0.12$, $p<0.01$).

3. Physical activity ($\beta=0.18$, $p<0.001$)

→ As ‘basic needs’ for self-determination require a supportive social context as well, vitality at work should mainly be seen as an organisational-cultural issue.
In sum: Is vitality at work associated with employees’ functioning?

1. Vitality at work was significantly associated with:
   • presenteeism ($\beta=0.22$, $p<0.001$)
   • effective personal functioning ($\beta=0.11$, $p=0.01$)

→ Vitality at work in this study indeed may be seen as co-determining factor for employees’ functioning.
Discussion

- Regarding vitality at work as an organisational-cultural issues enables the use of organisational change theories
  → Opportunity to combine health and organisation science.
  → Business relevance should be further investigated.

- Physical activity: energy expenditure or the meaning one gives it to ‘the self’

- Limitations:
  - Self reported: common method variance.
  - Cross-sectional data
  - Generalizability may be low (only one company).
Conclusion

1. Vitality at work: an organisational-cultural issue, rather than focusing on individual employees

2. Organisational theories may:
   • contribute to knowledge to develop a supportive organisational culture
   • provide appropriate change strategies

3. A LSI, fostering basic needs for self-determination and organisational social capital, will be investigated in future vitality studies. Main components: social dialogue, reflection and self-awareness.