Chapter 3

The associations between organizational social capital, perceived health and employees’ performance in two Dutch companies

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Abstract

Objective: To examine the associations between organizational (bonding, bridging and linking) social capital, employees’ health, and employees’ performance.

Methods: Linear regression on cross-sectional data among 718 employees in two Dutch companies.

Results: Organizational social capital was significantly associated with perceived health ($\beta = 0.20$, $P < 0.001$), and with emotional exhaustion ($\beta = -0.34$, $P < 0.001$). Both health indicators, in turn, were associated with absenteeism, presenteeism and effective personal functioning in the presumed direction, i.e. better health was associated with better functioning. Especially bonding social capital was significantly associated with health ($\beta = 0.14$, $P < 0.01$), and with emotional exhaustion ($\beta = -0.26$, $P < 0.001$). Linking social capital was associated with emotional exhaustion as well ($\beta = -0.09$, $P < 0.05$).

Conclusions: Organizational social capital was found to be a resource for employees’ health, with meaningful business implications.
Introduction

Social capital has become a major research issue in the field of work and health. Although originally grounded in sociology and economics, during the last decades, social capital has been applied meaningfully in health science as well. In this field, there is a growing consensus for the hypothesis that individuals with higher levels of social capital enjoy good health. Nevertheless, the way in which social capital and health influence each other and how this association holds in various contexts are unclear.

This study focuses on social capital in an organizational context. In the literature, organizational social capital has been associated with health but convincing uniformity in the literature about this is still lacking. Some studies, for instance, found only partial support for the hypothesis of organizational social capital as a health resource. Also, knowledge on the various forms of social capital and its association with employees’ health is still sparse.

The present study aims to contribute to knowledge on the presumed relation between various aspects of organizational social capital and employees’ health. To introduce the study, a brief literature review on social capital, its various forms, its application in the organizational setting, and the presumed relationships with health and employees’ functioning is described.

Social capital: a multifaceted construct

As seems from the variety of definitions used in the literature, social capital is seen as an asset of both individuals and communities. By defining social capital as “aspects of the social structure, obligations and expectations, informative channels, and a set of norms and effective sanctions that constrain and/ or encourage certain kinds of behavior,” Coleman mainly supports the individual view. Contrasting, Putnam supports the collective view by defining social capital as “features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit”. Despite the width and variety of definitions on social capital, there is a general agreement that social capital reflects the accumulated historical, cultural and social factors that give rise to (formal and informal) networks, shared norms, values, beliefs, mutual reciprocity, and collective action. It refers to the patterns and qualities of relations in a community and has been characterized as “the glue that holds societies together.”
Current debates in the literature emphasize the multifaceted characteristics of social capital and its complex relationship with health\(^9\). To unravel the underlying working mechanisms of social capital on individuals and communities, different forms of social capital are distinguished\(^8,10,11\). Often, the distinction between *structural* and *cognitive* social capital is used, in which the structural dimensions include the extent and intensity of social interactions that give access to resources, whereas cognitive social capital includes values, norms, support, sharing, reciprocity and trust\(^12\).

*Also horizontal* and *vertical* dimensions of social capital are distinguished\(^13\). The horizontal component elaborates on the knowledge of social support and networks and refers to the relations of trust and reciprocity between individuals at the same hierarchical level. Contrastingly, the vertical dimension reflects the ties between individuals and institutions of power and may increase feelings of participation, and facilitate use of health-promoting resources\(^11\). Whereas the horizontal dimension already can build on a long tradition in health science, the vertical dimension is mainly studied in economic and social science but may also reveal relevant insights in the mediating processes of social capital in relation to health\(^8,13\).

The distinction between *bonding* and *bridging* social capital is widely accepted. Bonding social capital refers to trusting and cooperative relations between members of a network who are similar in terms of social identity. Bridging social capital focuses on external relationships and comprises relations of respect and mutuality between people who belong to different social groups but are more or less equal in terms of their status and power. Both bonding and bridging social capital reflect a horizontal dimension of social capital. Recently, Szreter and Woolcock\(^14\) convincingly argued to add *linking* social capital as well, which may be seen as a vertical dimension of social capital. Linking social capital refers to norms of respect and networks of trusting relationships between people who are interacting across explicit, formal, or institutionalized power of authority gradients in society. Nevertheless, though often stated as relevant to enable a next step in health research on social capital, much has to be done to reveal the effects of separate forms of social capital on health in different contexts\(^10,11\).
Social capital in the organizational context

The importance of social capital in the organizational setting is recognized, both in health science and in organizational science. On the basis of these two scientific fields, organizational social capital is presumed to have a dual function with both health and business benefits. Grounded in health science, social capital is seen as a resource for employees’ health and health promoting activities\(^{15}\), whereas in organizational science, social capital is seen as a vital intangible organizational resource that can create competitive advantages\(^{16}\). In essence, from a health perspective, social capital is associated with employees’ health\(^{2,3,17}\) and performing a healthy lifestyle\(^{18,19}\) and is seen as a buffer against the negative impact of perceived cognitive load and job strain\(^{20,21}\). Also, social capital may influence the health-promoting willingness of companies\(^{22}\). From an occupational health perspective, the foundation to address social capital in organizations is found in the presumed relation between health and productivity\(^{23}\). Ill-health is seen as a cause of sickness absence\(^{24}\) and of sickness attendance or presenteeism\(^{25,26}\). Additionally, health is increasingly seen as a codetermining factor and resource for employees’ functioning\(^{27}\). The business relevance of social capital in this field is found in a more vital and, with that, a more productive workforce.

In organizational science, social capital refers to high quality relations, enabling trust and fostering cooperation and participation within social networks that make organizations more effective\(^{28}\). In this field, a direct relation between social capital and organizational functioning as a whole is presumed, without an intermediate step of healthy employees. Evidence, for instance, is found on the association between social capital and idea-generating behavior\(^{29}\), innovative climate\(^{30}\), organizational commitment\(^{31}\), and productivity\(^{32}\).

Currently, researchers are also looking for the synergy between both scientific fields\(^{17}\). With this, organizational social capital has become a concept that expresses the collective capability to fulfill the business objectives, whilst at the same time expressing the organizations’ ability to develop high quality relations with a positive effect on health and employees’ functioning\(^{17}\). Organizational social capital, thus, may become a topic with a
parallel interest of both managers and health promoters. It therefore, potentially, may contribute to sustainable interest of various stakeholders in companies.

Important to notice is that organizational social capital is not exclusively an attribute of individual employees, for it is shared between actors. Organizational social capital inherently concerns reciprocity and trust in relations among workmates and supervisors and requires an active participation of every individual. It, therefore, may be seen as an organizational resource. With this, research on organizational social capital may add to the research on associations between work conditions and health by adding the organizational level and adding to the limitations of an “individualist approach to population health”. It potentially opens up opportunities to broaden the scope of understanding of the processes leading to better health and quality of work.

This study

As shown earlier, research on organizational social capital makes sense both from a health and a business perspective. Organizational social capital is assumed to be associated not only with health, but also with employees’ performance. Also, an association between health as such and employees’ performance is described. Nevertheless, it is not yet clear how organizational social capital, health and employees’ performance are interlinked. Also, it is not clear what the relative contribution of the various forms of organizational social capital is. This study addresses these issues by examining the assumed relations between organizational social capital, its various forms, employees’ health, and employees’ performance. The aim of this study was twofold: (1) to investigate the associations between organizational social capital, employees’ health, and employees’ performance, and (2) to investigate the relative contribution of bonding, bridging and linking social capital to these factors.

Methods

This study was conducted as a part of a vitality project within two Dutch companies, aiming to create a working climate in which self-regulation and vitality are promoted. According to the Dutch legislation the study was checked by the Medical Ethics Committee of the VU
University Medical Centre, which ruled that for this study a written informed consent was not necessary.

**Design and study population**

A cross-sectional on-line survey was conducted from May to June 2011 in two companies: a food and dairy company and the motor vehicle authority in the Netherlands. Whereas for the food and dairy company, the project was targeted on the whole population (n = 1132), in the motor vehicle authority, only two locations participated (n = 184). All targeted employees (N = 1316) received a letter or an email with a unique code to log in on the on-line questionnaire. Employees were free to fill in the questionnaire at work or at home. In total, 718 employees (54.6%) completed the entire questionnaire. Employees who did not fill out the questionnaire completely were excluded from data analyses. Participation in the survey was encouraged by the management and by the vitality project teams of the respective companies.

**Measures**

Social capital

- **Organizational social capital** was assessed by the eight-item Social Capital Scale of Kouvonen et al\(^2\), on five-point Likert scales (1, totally disagree; 5, totally agree). This scale was specifically developed to measure social capital in organizations and was found to be a valid tool to reflect the construct of organizational social capital\(^2\). Item examples are as follows: “We have a ‘we are together’ attitude”, and “People feel understood and accepted by each other”; Cronbach \(\alpha = 0.85\).

To investigate the relative contribution of bonding, bridging and linking social capital separately, the same scale of Kouvonen et al\(^2\) was used. Because this scale also taps the bonding, bridging and linking forms of social capital, the three forms of social capital were computed by averaging the respective items. Reliability of these subscales was acceptable. Bonding social capital comprised three items (Cronbach \(\alpha = 0.76\)), bridging social capital two items (Cronbach \(\alpha = 0.72\)), and linking social capital three items (Cronbach \(\alpha = 0.83\)). To confirm the various forms of social capital, a principal component analysis was performed.
As can be seen in Table 1, the various forms of social capital were well presented by the Social Capital Scale of Kouvonen et al\textsuperscript{2}.

In the analyses, either the total amount of perceived social capital or the subscales were used.

<table>
<thead>
<tr>
<th></th>
<th>Linking social capital</th>
<th>Bonding social capital</th>
<th>Bridging social capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our supervisor treats us with kindness and consideration</td>
<td>0.865</td>
<td>0.147</td>
<td>0.082</td>
</tr>
<tr>
<td>Our supervisor shows concern for our rights as an employee</td>
<td>0.815</td>
<td>0.216</td>
<td>0.127</td>
</tr>
<tr>
<td>We can trust our supervisor</td>
<td>0.808</td>
<td>0.220</td>
<td>0.226</td>
</tr>
<tr>
<td>We have a “we are together” attitude</td>
<td>0.212</td>
<td>0.789</td>
<td>0.217</td>
</tr>
<tr>
<td>People keep each other informed about work-related issues in the work unit</td>
<td>0.264</td>
<td>0.769</td>
<td>0.132</td>
</tr>
<tr>
<td>People feel understood and accepted by each other</td>
<td>0.119</td>
<td>0.740</td>
<td>0.331</td>
</tr>
<tr>
<td>People in the work unit cooperate in order to help develop and apply new ideas</td>
<td>0.176</td>
<td>0.203</td>
<td>0.847</td>
</tr>
<tr>
<td>Members of the work unit build on each other’s ideas in order to achieve the best possible outcome</td>
<td>0.147</td>
<td>0.307</td>
<td>0.802</td>
</tr>
</tbody>
</table>

Values given in bold indicate the highest factor loadings

Employee’s health was measured by the following:

- **Perceived health**, indicated by a self-rating health question on a five-point Likert scale: “How would you estimate your current state of health?” Response traits were 1, poor; 2, rather poor; 3, good; 4, very good; and 5, excellent.

- **Emotional exhaustion**, measured with a subscale of the Utrecht Burnout Scale\textsuperscript{34}. This five-item scale was assessed on seven-point Likert scales (0, never; 6, always). An item example is as follows: “I feel mentally exhausted by my work”; Cronbach $\alpha = 0.90$.  

Employees’ performance was measured by the following:
• *Absenteeism*, with one question on self-reported sickness absenteeism over the last 12 months: “In the last 12 months, have you been absent from work due to sickness?” (0, no; 1, yes).

• *Presenteeism*, defined as being at work while sick, assessed with three items on five-point Likert scales (1, almost never, at most once in a month; 5, almost always, every day). Item examples are as follows: “How many times was your work hampered by health complaints”, and “How often are you at work, while you actually feel sick”; Cronbach α = 0.79.

• *Perceived effective personal functioning*, assessed by using three items of the Health Performance Questionnaire, on five-point Likert scales (1, almost never, at most once in a month; 5, almost always, nearly every day). Example items are as follows: “How often did you find yourself not working as carefully as you should”, and “How often was the quality of your work lower than it should have been”; Cronbach α = 0.79. To simplify the interpretation, this scale is transformed, so that a higher score represents a more often effective functioning of the employee.

Covariates were measured in the same questionnaire and consisted of the following variables: age (5-year groups), sex (women or men), educational level (low, medium and high), shift work (two, three of five shifts), and kind of work (more physical work than brainwork, both physical and brainwork, and more brainwork than physical work). For the analyses, shift work and kind of work were dichotomized (shift work: 0, no shift work; 1, shiftwork; and kind of work: 0, mainly physical work; 1, both physical work and brainwork or mainly brainwork).

*Statistical analyses*

To investigate the associations between organizational social capital, perceived health and emotional exhaustion, absenteeism, presenteeism and effective personal functioning, a series of regression analyses were estimated in the tradition of Baron and Kenny. First, employees’ perceived health, emotional exhaustion, absenteeism, presenteeism and effective personal functioning were regressed onto organizational social capital (model 1). Then, in model 2, absenteeism, presenteeism, and effective personal functioning were regressed onto organizational social capital, perceived health and emotional exhaustion.
This was done to investigate whether health mediates the association between organizational social capital and employees’ performance.

In addition, the relative contribution of the three specific forms of organizational social capital were investigated separately. Instead of organizational social capital in total, the various forms of organizational social capital were entered into the regression models (see Fig. 1).

All analyses were adjusted for the covariates age, sex, educational level, shift work, and kind of work.
Results

**Descriptive statistics**

Table 2 presents the participants’ characteristics. Most of the participants were aged 36 to 55 years, 6.8% of this sample was younger than 25, and 12.5% was older than 56 years. Men represented 76.6% of the sample. Educational level varied from “low”, indicating primary school or lower vocational education (25.1%), to “medium”, indicating higher secondary education and vocational education (34.5%), to “high”, indicating higher vocational and academic education (40.4%).

**Table 2.** Participant Characteristics (n = 718).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, y</td>
<td>16-25</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>26-35</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>36-45</td>
<td>29.5</td>
</tr>
<tr>
<td></td>
<td>46-55</td>
<td>32.8</td>
</tr>
<tr>
<td></td>
<td>&gt; 55</td>
<td>12.5</td>
</tr>
<tr>
<td>Sex</td>
<td>Men</td>
<td>76.6</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>23.4</td>
</tr>
<tr>
<td>Educational level</td>
<td>Low</td>
<td>25.1</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>34.5</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>40.4</td>
</tr>
<tr>
<td>Shiftwork</td>
<td>Shiftwork</td>
<td>25.9</td>
</tr>
<tr>
<td></td>
<td>No shiftwork</td>
<td>74.1</td>
</tr>
<tr>
<td>Kind of work</td>
<td>Mainly physical work</td>
<td>30.1</td>
</tr>
<tr>
<td></td>
<td>Mainly brainwork</td>
<td>69.9</td>
</tr>
</tbody>
</table>

Table 3 presents the means and standard deviations of the variables used in this study. Also, the correlation coefficients between these variables are presented.
Table 3. Means, Standard Deviations and Correlations Among the Variables Used in This Study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex (1, women; 2, men)</td>
<td>1.77</td>
<td>0.42</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Age (1, &lt; 25 y; 10, &gt; 60 y)</td>
<td>6.01</td>
<td>2.12</td>
<td>+.23*</td>
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<tr>
<td>3. Educational level (1, low; 3, high)</td>
<td>3.14</td>
<td>0.82</td>
<td>−.27*</td>
<td>−.35*</td>
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<tr>
<td>4. Shiftwork (0, no shiftwork; 1, shift work)</td>
<td>0.26</td>
<td>0.44</td>
<td>+.29*</td>
<td></td>
<td>+.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>−.44*</td>
<td></td>
<td></td>
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<tr>
<td>5. Kind of work (0, brainwork; 1 physical work)</td>
<td>0.30</td>
<td>0.46</td>
<td>+.24*</td>
<td></td>
<td>+.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>−.46*</td>
<td>+.49*</td>
<td></td>
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<tr>
<td>6. Organizational social capital, total score (1, low; 5, high)</td>
<td>3.70</td>
<td>0.55</td>
<td>−.05</td>
<td>−.01</td>
<td>+.08*</td>
<td>−.15*</td>
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<tr>
<td>7. Bonding social capital (1, low; 5, high)</td>
<td>3.46</td>
<td>0.69</td>
<td>−.05</td>
<td>−.01</td>
<td>+.01</td>
<td>−.09*</td>
<td>−.01</td>
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<tr>
<td>8. Bridging social capital (1, low; 5, high)</td>
<td>3.64</td>
<td>0.67</td>
<td>−.06</td>
<td>−.02</td>
<td>+.11*</td>
<td>−.18*</td>
<td>−.07</td>
<td>+.75*</td>
<td></td>
<td>+.57*</td>
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<tr>
<td>9. Linking social capital (1, low; 5, high)</td>
<td>3.99</td>
<td>0.68</td>
<td>−.02</td>
<td>−.01</td>
<td>+.09*</td>
<td>−.11*</td>
<td>−.03</td>
<td>+.81*</td>
<td></td>
<td>+.49*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10. Perceived health (1, poor; 5 excellent)</td>
<td>3.31</td>
<td>0.78</td>
<td>−.02</td>
<td>−.08*</td>
<td>+.08*</td>
<td>−.04</td>
<td>−.05</td>
<td>+.20*</td>
<td></td>
<td>+.19*</td>
<td>+.15*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11. Emotional exhaustion (0, never; 6 always)</td>
<td>1.19</td>
<td>1.06</td>
<td>+.05</td>
<td>−.01</td>
<td>+.02</td>
<td>−.07</td>
<td>−.07</td>
<td>+.33*</td>
<td>−.33*</td>
<td>−.22*</td>
<td>−.23*</td>
<td>−.38*</td>
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<td></td>
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<tr>
<td>12. Absenteeism (0, no; 1, yes)</td>
<td>0.45</td>
<td>0.50</td>
<td>−.03</td>
<td>+.05</td>
<td>−.03</td>
<td>+.04</td>
<td>+.07</td>
<td>−.03</td>
<td>−.06</td>
<td>+.00</td>
<td>−.02</td>
<td>−.15*</td>
<td>+.11*</td>
<td></td>
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<tr>
<td>13. Presenteeism (1, never; 5, always)</td>
<td>1.33</td>
<td>0.61</td>
<td>−.01</td>
<td>+.04</td>
<td>−.07*</td>
<td>+.03</td>
<td>+.05</td>
<td>+.26*</td>
<td>−.24*</td>
<td>−.16*</td>
<td>−.20*</td>
<td>−.42*</td>
<td>+.52*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Effective personal functioning (1, almost never; 5, almost always)</td>
<td>4.15</td>
<td>0.78</td>
<td>+.09*</td>
<td>+.05</td>
<td>−.20*</td>
<td>+.20*</td>
<td>+.22*</td>
<td>+.17*</td>
<td>+.18*</td>
<td>+.12*</td>
<td>+.10*</td>
<td>+.21*</td>
<td>−.42*</td>
<td>+.04</td>
<td>−.33</td>
<td></td>
</tr>
</tbody>
</table>

*P < 0.05 (two-tailed)
Bonding, bridging and linking social capital were significantly correlated, but the scales were sufficiently differentiated to preclude multicollinearity. The correlation coefficient between bonding and bridging social capital was 0.57, between bonding and linking 0.49 and between bridging and linking social capital 0.40.

As can be seen in Table 3, the covariates sex ($r = -0.05$), age ($r = -0.01$), and kind of work ($r = -0.04$) were not significantly correlated with organizational social capital. Nevertheless, a significant correlation between organizational social capital and educational level ($r = 0.08; P < 0.05$), and between organizational social capital and shiftwork ($r = -0.15; P < 0.05$) was found.

Organizational social capital was significantly correlated with perceived health ($r = 0.20; P < 0.05$), emotional exhaustion ($r = -0.33; P < 0.05$), presenteeism ($r = -0.26; P < 0.05$), and effective personal functioning ($r = 0.17; P < 0.05$). There was no significant correlation between organizational social capital and self-reported absenteeism.

**Regression models**

Table 4 presents the results of the regression analyses. Model 1 presents the regression of organizational social capital on employees’ health and employees’ performance. Organizational social capital was positively associated with perceived health ($\beta = 0.20; P < 0.001$) and negatively associated with emotional exhaustion ($\beta = -0.34; P < 0.001$). This indicates that the higher organizational social capital, the better employees perceive their health. Also, organizational social capital was negatively associated with presenteeism ($\beta = -0.26; P < 0.001$) and positively associated with effective personal functioning ($\beta = 0.20; P < 0.001$). This indicates that employees who perceive a high degree of organizational social capital were able to work more optimally, without the work being hampered by health complaints or being less often at work while sick.

When perceived health and emotional exhaustion were included in the regression model (model 2), a substantial reduction in the strength of the association between organizational social capital and presenteeism was found (from $\beta = -0.26, P < 0.001$; to $\beta = -0.07, P < 0.05$), and the association between perceived organizational social capital and effective personal
functioning was not significant anymore (from $\beta = 0.20, P < 0.001$; to $\beta = 0.06$, not significant).

In this model 2, perceived health was negatively associated with absenteeism ($\beta = -0.12; P < 0.01$) and presenteeism ($\beta = -0.25; P < 0.001$) and positively associated with effective personal functioning ($\beta = 0.08; P < 0.05$). Emotional exhaustion was positively associated with absenteeism ($\beta = 0.09; P < 0.05$) and presenteeism ($\beta = 0.42, P < 0.001$) and negatively associated with effective personal functioning ($\beta = -0.36; P < 0.001$).

This means that the association between organizational social capital and presenteeism was largely mediated by perceived health and emotional exhaustion. The association between perceived social capital and effective personal functioning was almost fully mediated by perceived health and emotional exhaustion. The association between perceived social capital and employees’ functioning, thus, proceeds largely indirectly through health.

**TABLE 4.** Regression Analyses Regarding Perceived Organizational Social Capital, Perceived Health, Emotional Exhaustion, Absenteeism, Presenteeism, and Effective Personal Functioning

<table>
<thead>
<tr>
<th>Factors</th>
<th>Perceived health</th>
<th>Emotional exhaustion</th>
<th>Absenteeism</th>
<th>Presenteeism</th>
<th>Effective personal functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>Model 1</td>
<td>Model 1</td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 1</td>
</tr>
<tr>
<td>Sex</td>
<td>+0.02</td>
<td>+0.08</td>
<td>-0.06</td>
<td>-0.07</td>
<td>-0.04</td>
</tr>
<tr>
<td>Age</td>
<td>-0.06</td>
<td>-0.02</td>
<td>+0.06</td>
<td>+0.05</td>
<td>+0.02</td>
</tr>
<tr>
<td>Educational level</td>
<td>+0.05</td>
<td>-0.01</td>
<td>+0.02</td>
<td>+0.02</td>
<td>-0.06</td>
</tr>
<tr>
<td>Shiftwork</td>
<td>+0.02</td>
<td>-0.12*</td>
<td>+0.02</td>
<td>+0.04</td>
<td>-0.05</td>
</tr>
<tr>
<td>Kind of work</td>
<td>-0.03</td>
<td>-0.05</td>
<td>+0.08</td>
<td>+0.08</td>
<td>+0.05</td>
</tr>
<tr>
<td>Organizational social capital</td>
<td>+0.20*</td>
<td>-0.34*</td>
<td>-0.03</td>
<td>+0.02</td>
<td>-0.26*</td>
</tr>
<tr>
<td>Perceived health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.12*</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+0.09*</td>
</tr>
<tr>
<td>Bonding social capital</td>
<td>+0.14*</td>
<td>-0.26*</td>
<td>-0.10*</td>
<td>-0.06</td>
<td>-0.20*</td>
</tr>
<tr>
<td>Bridging social capital</td>
<td>+0.05</td>
<td>-0.06</td>
<td>+0.06</td>
<td>+0.07</td>
<td>-0.02</td>
</tr>
<tr>
<td>Linking social capital</td>
<td>+0.05</td>
<td>-0.09*</td>
<td>+0.01</td>
<td>+0.03</td>
<td>-0.10*</td>
</tr>
</tbody>
</table>

*P < 0.05 (two-tailed)

*Model 1 represents the regression of organizational social capital on perceived health, emotional exhaustion, absenteeism, presenteeism and effective personal functioning. Model 2 represents the regression of organizational social capital, perceived health and emotional exhaustion on absenteeism, presenteeism and effective personal functioning. For all regression analyses first the regression of organizational social capital in total was made. Then, the regression of the various forms of social capital was made.
The distinction between bonding, bridging and linking social capital is presented in Table 4, and in Fig. 1 as well. The regression analyses revealed that especially bonding social capital accounts for the significant positive association between organizational social capital and health ($\beta = 0.14; P < 0.01$) and for the negative association between organizational social capital and emotional exhaustion ($\beta = -0.26, P < 0.001$) (model 1). Linking social capital, albeit less strongly, was negatively associated with emotional exhaustion as well ($\beta = -0.09; P < 0.05$). Bridging social capital was not independently associated with health, emotional exhaustion, absenteeism, presenteeism, and effective personal functioning.

Bonding social capital was negatively associated with absenteeism ($\beta = -0.10; P < 0.05$) and presenteeism ($\beta = -0.20; P < 0.001$) and positively associated with effective personal functioning ($\beta = 0.13; P < 0.01$). Linking social capital was negatively associated with presenteeism ($\beta = -0.10; P < 0.05$). Nevertheless, when perceived health and emotional exhaustion were included into the regression model, these associations were not significant anymore. This indicates that also when the specific forms of organizational social capital are regarded, the association between social capital and employees’ performance proceeds indirectly through health.

*Figure 1.* The associations between bonding, bridging and linking social capital, perceived health, emotional exhaustion, absenteeism, presenteeism and effective personal functioning. All regression analyses were adjusted for age, sex, educational level, shiftwork, and kind of work.
Discussion

In this study, organizational social capital was found to be significantly related to employees’ perceived health, emotional exhaustion, presenteeism and effective personal functioning, indicating social capital to be beneficial from both a health and a business perspective. The regression analyses revealed that the health indicators, to a large extent, mediated the association between organizational social capital and presenteeism and effective personal functioning. This indicates an indirect association between organizational social capital and employees’ performance, through health. Most likely, social capital is associated with better health, which, in turn, contributes to better functioning. Because organizational social capital may be understood as an organizational-bound construct, this study supports the idea that organizational development can contribute to the promotion of health and, with that, may increase productivity.

In this study, the perceived organizational social capital was measured, and found to be associated with health. In the literature, a collective measure on social capital such as work-unit social capital, is presumed to be associated with health as well. Therefore, multilevel analyses are preferred to unravel the beneficial effects of perceived social capital versus collective work unit social capital. In this study, it was not possible to investigate work-unit social capital, because the study was conducted in only two companies, with a limited amount of departments. Further research on both perceived and work unit social capital is needed to obtain a more comprehensive grasp on both resources.

From the various specific forms of social capital, bonding organizational social capital was found to be most strongly associated with perceived health and emotional exhaustion. This finding corresponds to other empirical studies in which horizontal social capital was found to be associated with health. As bonding social capital focuses on the extent of high quality relations among colleagues on an equal level, this study supports the idea that the so-called “social dimension” of health among employees should not be neglected in health-promoting activities.

Although (bonding) social capital may, to some extent, overlap with social support, these constructs are not interchangeable. Social capital, inherently, is about mutual trust in relations and requires active collaboration of every individual, while social support does not
necessarily reflect this reciprocity. Also, recent notions address differences in underlying health-influencing mechanisms of both constructs. In the literature, several alternative pathways through which social capital may affect health, beyond social support, have been described as follows: (1) social capital may contribute to a sense of purpose and belonging that enhances health outcomes; (2) social capital may give access to instrumental resources for health; and (3) network members may affect each other’s health status by influencing health behaviors. In their study, Verhaeghe et al. indeed found an association between network social capital and self-rated health, after adjustment for social support.

Practical implications

By addressing organizational social capital, this study aims to contribute to broaden the scope of understanding health-influencing organizational processes. The results support the idea of organizational social capital to be an important construct to promote health within companies, and to carry meaningful business implications as well. Organizational social capital, however, is not naturally given, but should be constructed through investment strategies by the company. Building social capital cannot be legislated or managed in a directive sense. It requires interventions that encourage natural development, and provide nourishment rather than blueprints. Making connections, enabling trust and fostering cooperation are primary components to promote social capital. When it comes to social capital, companies and health promoters may help people to meet face-to-face, to facilitate personal conversations and to encourage active participation. Leaders may have a decisive role by paying attention to interpersonal relations. Also, it is argued that social capital is a by-product of an ethical work context, aligned with the “humanizing culture”, resulting from both organizational design and ongoing managerial activity. The promotion of organizational social capital should therefore primarily seen as a process of organizational development. This provides the ability to work on both health promotion and organizational development simultaneously.

By addressing the relations between (various forms of) social capital, health and performance in an organizational setting, this study contributes to a better understanding of the meaning of social capital from both a health and business perspective. Some limitations of this study should be mentioned, however. The data are self-reported and common
method variance may have contaminated the findings. The data were collected cross-sectionally. Therefore, a definitive statement about cause and effect relationships between social capital and health is not possible. Moreover, reciprocity between social capital and health is also conceivable. With that, social capital potentially may serve as a resource for creating a positive spiral in organizations through which employees and organizations may flourish. Longitudinal studies are required to investigate this potential more thoroughly. Finally, this study was conducted in only two Dutch companies. Because of the Dutch legislation and cultural traditions, a certain amount of social dialogue in Dutch companies is to be expected. Therefore, generalizability to other companies in other countries is limited. Studies on social capital should ideally be expanded to a variety of companies in different countries and regions.

Conclusion

This study supports the idea of organizational social capital to be a primary organizational resource for employees’ health and to carry meaningful business implications. With this, social capital addresses a parallel interest of management and health promoters. Organizations may obtain parallel profits by extending social dialogue and fostering interaction, participation, social cohesion, trust and cooperation, both between managers and employees and among employees.
References


