

Managerial leadership is associated with self-reported sickness absence and sickness presenteeism among Swedish men and women

Author(s): ANNA NYBERG, HUGO WESTERLUND, LINDA L. MAGNUSSON HANSON and TÖRES THEORELL

Source: *Scandinavian Journal of Public Health*, Vol. 36, No. 8 (November 2008), pp. 803-811

Published by: Sage Publications, Ltd.

Stable URL: <https://www.jstor.org/stable/45150075>

Accessed: 06-04-2020 05:18 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Sage Publications, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *Scandinavian Journal of Public Health*



ORIGINAL ARTICLE

Managerial leadership is associated with self-reported sickness absence and sickness presenteeism among Swedish men and women

ANNA NYBERG¹, HUGO WESTERLUND², LINDA L. MAGNUSSON HANSON² & TÖRES THEORELL²

¹Department of Public Health Sciences, Karolinska Institute, Stockholm, Sweden, and ²Stress Research Institute, Stockholm University, Stockholm, Sweden

Abstract

Aims: The objective of this study was to investigate the relationship between managerial leadership and self-reported sickness absence/presenteeism among Swedish men and women. **Methods:** Five thousand one hundred and forty-one Swedish employees, 56% of the participants in a nationally representative sample of the Swedish working population, were included in this cross-sectional questionnaire study. The leadership dimensions measured were five subscales of a standardized leadership questionnaire (Global Leadership and Organizational Behaviour Effectiveness Programme): Integrity, Team integration, Inspirational leadership, Autocratic leadership, and Self-centred leadership. Multiple logistic regression analyses were conducted, adjusting for factors in private life, employment category, labour-market sector, working conditions, self-reported general health, and satisfaction with life in general. **Results:** Inspirational leadership was associated with a lower rate of short spells of sickness absence (<1 week) for both men and women. Autocratic leadership was related to a greater amount of total sick days taken by men. Sometimes showing integrity was associated with higher rate of sickness absence >1 week among men, and seldom showing integrity was associated with more sickness presenteeism among women. Managers performing Team integration were sometimes associated with women taking fewer short (<1 week) and long (>1 week) spells of sickness absence. Adjustment for self-reported general health did not alter these associations for men, but did so to some extent for women. **Conclusions:** Managerial leadership was found to be relevant for the understanding of sickness absence in the Swedish working population. There were distinctive gender differences.

Key Words: Gender, health, managerial leadership, sickness absence, sickness presenteeism, working conditions

Background

There is some scientific evidence for an association between subordinates' perceptions of how their managers are and behave, and the level of stress and health that they experience [1–7]. The association between leader characteristics and the degree to which employees take sick leave or go to work while ill (sickness presenteeism), however, has not been extensively examined.

A few studies measuring associations between limited aspects of managerial leadership behaviours and sickness absence have been published. One

component of the concept organizational justice, relational justice, refers to the polite and considerate treatment of individuals by supervisors. Kivimäki et al. [8] found that low relational justice increased the risk for sickness absences (relative risk (RR) 1.3 in men and 1.2 in women) among Finnish hospital personnel. The relationships remained after adjustment for other psychosocial risk factors such as job control, workload, and social support. Vaananen et al. [9] studied domestic personnel working for a multinational forestry company, and found that lack of supervisor support increased the frequency of very long (more than

Correspondence: Anna Nyberg, Department of Public Health Sciences, Karolinska Institute, 171 77 Stockholm, Sweden. Tel: +46 8 737 37 35. Fax: +46 8 33 43 33. E-mail: anna.nyberg@ki.se

(Accepted 11 April 2008)

© 2008 the Nordic Societies of Public Health
DOI: 10.1177/1403494808093329

21 days) sickness absence among female employees (RR 1.6).

Psychosocial workplace factors and sickness absence

Sickness absence has in several studies been shown to be related to different psychosocial workplace factors, such as decision authority, skill discretion [10], job autonomy, job complexity, co-worker support [9], role clarity, fairness in the division of labour, and organizational climate [11]. Hyde et al. [12] found, in a study of 9309 non-manager employees in Swedish and Finnish plants of a multinational forestry company, that workplace conflict resolution was related to employee sickness absence. The employees who reported that differences at the workplace were resolved through discussion were the least likely to report stress, poor general health, exhaustion, and sickness absence. Those who reported that authority was used or that no attempts were made to resolve differences reported worse health and more sickness absence.

Psychosocial workplace factors and sickness presenteeism

Aronsson and Gustafsson [13] studied the prevalence of sickness presenteeism (which means going to work despite judging one's current state of health to be such that sick leave should be taken) in a random sample of 3136 Swedish employees. During the preceding year, 53% had been present at work despite sickness on more than one occasion. There were several work-related and personal factors that were associated with sickness presence. These were difficulties in staff replacement, time pressure, insufficient resources, and having a poor personal financial situation. Aronsson et al. [14] found that employees in healthcare or welfare services, or in teaching occupations, have a substantially increased risk of being at work when sick. Johansson and Lundberg [15] studied questionnaire data from 4924 inhabitants in the county of Stockholm regarding consequences of illness flexibility at work. The results showed that low adjustment latitude at work increased sickness absence in women. Attendance requirements were strongly associated with sickness absence and sickness attendance in both men and women. Those more often required to attend were less likely to be absent and more likely to attend work despite illness. Kivimäki et al. [16] studied 5071 male British civil servants without previous myocardial infarction. They showed that employees who reported poor health at baseline had twice as high a risk of serious coronary events if they had had no sickness absence at the follow-up 3 years

later than those who had had moderate levels of sickness absence. Sickness presenteeism may, in a long-term perspective, be potentially harmful to employees.

There are different ways through which managerial leadership could affect, or be associated with, employee sickness absence and presenteeism. One is, of course, that managerial leadership affects the health of subordinates, which in turn has an impact on their amount of sickness absence and presenteeism [17]. Another is that the managerial leadership at the workplace directly affects employees' behaviours related to sickness absence and presenteeism, independently of their health status. Ability and motivation to work have, in theoretical models of absence and attendance from work, been viewed as two separate concepts [18]. The importance of work characteristics such as adjustment latitude and attendance requirements when predicting sickness absence or attendance as consequences of illness has been established by Johansson and Lundberg [15].

In conclusion, there is reason to believe that managerial leadership plays a role in the pattern of sickness absence and sickness presenteeism of the Swedish working population.

Aim

The aim of this study was to investigate the association between managerial leadership and self-reported sickness absence and sickness presenteeism among Swedish men and women.

Methods

Subjects and data collection

The Swedish work environment survey (SWES) is conducted biannually by Statistics Sweden (SCB) and consists of subsamples of gainfully employed people, aged 16–64 years, from the labour-force survey (LFS) [19]. These individuals were first sampled into the LFS through stratification by county, sex, citizenship, and occupation. The selected individuals were asked to fill out a supplementary self-completion questionnaire about the physical and psychosocial work environment, work-related morbidity, education and training, and attitudes to work. In 2003, SWES data were collected from October 2003 to January 2004 resulting in 9214 (64%) respondents. A follow-up of these respondents as part of a longitudinal study referred to as the Swedish longitudinal occupational survey of health (SLOSH) was conducted in March 2006 by Statistics Sweden on behalf of the National

Institute for Psychosocial Medicine (IPM)/Stress Research Institute at Stockholm University from 1 October 2007. SLOSH consists of two extended self-completion questionnaires, one addressed to the working population and one to the non-working population. These data are also linked, through the individual social security numbers, to registry data at Statistics Sweden. A total of 5985 (65%) individuals responded to the 2006 follow-up, of which 5141 (2405 men and 2736 women) used the questionnaire aimed at those who were currently working in gainful employment 30% or more of full-time. The latter comprise the final study population.

The mean age of the male participants was 48.2 years, and that of the female participants was 47.2 years; 66.6% of the men and 33.5% of the women were employed in the private sector, 2.4% and 1.9% respectively by voluntary organizations, 11.9% and 36.4% in municipalities, 11.0% and 8.9% by the state (central government), and 3.5% and 14.2% by county councils. Of the men, 42.3% were blue-collar workers, 34.1% white-collar workers, and 16.3% managers. Among the women, 38.3% were blue-collar workers, 43.7% white-collar workers, and 7.3% managers. Seventy-seven per cent of the men and 76.9% of the women were cohabitants, 45.5% of the men and 47.4% of the women had children living at home, and 5.1% and 9.1%, respectively, were taking care of elderly or handicapped family member(s).

Instruments and variables

Leadership. The leadership scales in this study were five of 21 subscales developed in the Global Leadership and Organizational Behaviour Effectiveness Program (GLOBE) project, an extensive international research programme focused on the relationships between culture and leadership [20]. The five subscales used in this study were selected according to degree of robustness of the scales, and degree of association with employee stress and health in another population, studied by Nyberg et al. [21]. Each subscale is composed of four items, and was presented to the respondent with an explanation. The subscales, and items with explanations within parentheses, are listed below:

1. Integrity: Honest (speaks and acts truthfully), Just (acts according to what is right or fair), Trustworthy (deserves trust, can be believed and relied upon to keep his/her word), Sincere (means what he/she says, earnest).
2. Inspirational leadership: Positive (generally optimistic and confident), Morale booster (increases morale of subordinates by offering

encouragement, praise, and/or being confident), Motive arouser (mobilizes and activates followers), Enthusiastic (demonstrates and imparts strong positive emotions for work).

3. Team integration: Integrator (integrates people or things into cohesive, working whole), Informed (knowledgeable, aware of information), Communicative (communicates with others frequently), Team builder (able to induce group members to work together).
4. Autocratic leadership: Autocratic (makes decisions in a dictatorial way), Bossy (tells subordinates what to do in a commanding way), Elitist (believes that a small number of people with similar backgrounds are superior and should enjoy privileges), Dictatorial (forces her/his values and opinions on others).
5. Self-centered leadership: Self-interested (pursues own best interests), Asocial (avoids people or groups, prefers own company), Loner (works and acts separately from others), Non-participative (does not participate with others).

Cronbach's alpha of these scales varied between 0.79 and 0.88.

In the GLOBE study, respondents were asked to rate their values regarding the leader behaviours and characteristics. In this study, we asked respondents to rate the actual behaviour of their closest manager for those same items. The four items included in each subscale were added up and divided by four. If one of four items was missing in an index, this value was calculated as a mean of the other three and imputed into the database. Each index was trichotomized (with the aim of creating three groups of equal size).

Control variables. Working conditions were measured as job demands, job control and social support with the demand-control questionnaire [22], and each variable was trichotomized.

Age was adjusted for as a categorical variable with 10-year intervals. Marital status, having children living at home and caring for elderly or handicapped family member(s) were all dichotomized variables. Staff category was categorized as blue-collar, white-collar, manager, and other. Employment category was categorized as private sector, voluntary organization, municipality, county council, state, and other. General health was controlled for in the five levels as very good, good, neither good nor bad, bad, and very bad. Satisfaction with life in general was adjusted for in seven levels ranging from very dissatisfied to very satisfied.

Outcome variables. (a) Sickness absence lasting less than 1 week over the past 12 months; odds ratios were calculated as the risk of having four occasions or more of sickness absence lasting for less than 1 week over the past year. (b) Sickness absence lasting more than 1 week over the past 12 months; odds ratios were calculated as the risk of having two such occasions or more over the past year. (c) Total amount of sick days over the past 12 months; odds ratios were calculated as the risk of having 31 or more days. (d) Sickness presenteeism over the past 12 months; odds ratios were calculated as the risk of having four such occasions or more over the past year. (e) General health; the variable was dichotomized, with very good, good and neither good nor bad health as the first "good" category and bad and very bad health as the other "bad" one.

Statistical analyses

All statistical analyses were conducted in SPSS 14.0. Five separate multiple logistic regressions were conducted, built in three steps. The first step was adjusted for age, marital status, having children living at home, taking care of an elderly or handicapped person, employment category, and labour-market sector. In the second step we added the workplace variables demands, control, and social support, and in the third model self-reported general health and degree of satisfaction with life in general. In the regression model with sickness presenteeism, we did not adjust for self-reported general health, because bad health is one component of the term sickness presenteeism. First, all five leadership dimensions (and all adjustment variables) were included in the models, mutually adjusting for each other. Those leadership dimensions that were not significant were then deleted stepwise. The final models, presented as model 1, model 2 and model 3 in the tables, include only those leadership variables that, for either men or women or both, were significant after adjustment for control variables.

Results

Sickness absence < 1 week on four occasions or more during the past 12 months

Both men and women reporting that their closest managers were seldom inspirational had a greater amount of repeated short spells of sick leave than those who reported that their closest managers were often inspirational (Table I).

Women with managers who were sometimes team-integrating had, surprisingly enough, fewer

Table I. Odds ratios and 95% confidence intervals of having four or more occasions of < 1 week of sickness absence in the past 12 months, as compared to having zero to three such occasions.

Leadership dimension	Men (N=2135)			Women (N=2449)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Inspirational leadership	Often	1	1	1	1	1
	Sometimes	1.66 (0.78–3.55)	1.54 (0.71–3.32)	1.71 (1.18–3.32)	1.91* (1.13–3.22)	1.88* (1.10–3.22)
	Seldom	3.15** (1.31–7.56)	2.84* (1.16–6.94)	3.12* (1.22–7.97)	2.73** (1.39–5.34)	2.67** (1.32–5.40)
Team integration	Often	1	1	1	1	1
	Sometimes	0.79 (0.40–1.59)	0.76 (0.37–1.55)	0.42** (0.24–0.72)	0.40*** (0.30–0.70)	0.41** (0.23–0.72)
	Seldom	0.65 (0.28–1.49)	0.59 (0.25–1.39)	0.88 (0.48–1.63)	0.84 (0.45–1.55)	0.79 (0.41–1.52)

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Model 1: adjusted for age, marital status, children, care for family member, employment category, and labour-market sector. Model 2: model 1 plus demands, control, and social support. Model 3: model 2 plus general health and satisfaction with life in general. Values in bold type indicate significant results ($p < 0.05$).

occasions of short spells of sick leave than those who rated their managers as team-integrating either often or seldom. Accordingly, in this case a U-shaped relationship was observed.

Sickness absence > 1 week on two occasions or more during the past 12 months

Managers who, according to male participants, sometimes showed integrity were associated more with male participants reporting more occasions of sickness absence > 1 week than managers often showing integrity. Managers who seldom showed integrity were also associated with more sickness absence among male participants (Table II).

Women who reported that their closest managers were sometimes team-integrating had fewer occasions of sickness absence > 1 week than those who reported that their closest managers were often or seldom team-integrating. This relationship was, however, not significant after adjusting for general health and satisfaction with life in general.

More than 30 sick days in total during the past 12 months

Men with autocratic leaders had a greater total amount of sick days over the past 12 months than men with less autocratic leaders (Table III).

Sickness presenteeism on four occasions or more during the past 12 months

Women who rated their managers as seldom showing integrity had more sickness presenteeism than those who rated their managers as often showing integrity (Table IV). This relationship was, however, not significant after adjustment for satisfaction with life in general. The association between Integrity/Autocratic leadership and sickness presenteeism among men became non-significant when adjusting for working conditions.

Predictors of bad or very bad self-reported general health

The relationship between workplace leadership and general health was significant only for women, and only for the leadership dimensions Integrity and Team integration (Table V). Women rating their closest manager as seldom showing integrity reported worse general health than those who reported that their manager often showed integrity. Managers who were often team-integrating were associated with worse reported general health among women than managers who were sometimes

Table II. Odds ratios and 95% confidence intervals of having two or more occasions of > 1 week of sickness absence in the past 12 months, as compared to having zero or one such occasions.

Leadership dimension	Men (N=2133)			Women (N=2450)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Integrity	Often Sometimes Seldom	1 2.49* (1.22-5.07) 1.70 (0.77-3.78)	1 2.50* (1.21-5.18) 1.72 (0.75-3.91)	1 2.81** (1.30-6.10) 1.85 (0.77-4.43)	1 1.62 (0.90-2.92) 1.74 (0.91-3.32)	1 1.42 (0.72-2.77) 1.41 (0.77-2.58)
	Often Sometimes Seldom	1 0.99 (0.49-2.02) 1.39 (0.60-3.24)	1 1.01 (0.49-2.09) 1.39 (0.59-3.31)	1 0.95 (0.44-2.06) 1.30 (0.52-3.27)	1 0.52* (0.29-0.92) 0.70 (0.36-1.36)	1 0.59 (0.33-1.05) 0.72 (0.36-1.43)

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Model 1: adjusted for age, marital status, children, care for family member, employment category, and labour-market sector. Model 2: model 1 plus demands, control, and social support. Model 3: model 2 plus general health and satisfaction with life in general. Values in bold type indicate significant results ($p < 0.05$).

Table III. Odds ratios and 95% confidence intervals of having 31 or more days of sickness absence over the past 12 months.

Leadership dimension	Men (N=2116)			Women (N=2425)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Autocratic leadership						
Often	2.24** (1.32–3.80)	1.89* (1.08–3.30)	1.81* (1.00–3.25)	1.42 (0.98–2.04)	1.29 (0.87–1.91)	1.12 (0.74–1.70)
Sometimes	1.73 (0.99–3.01)	1.62 (0.92–2.85)	1.74 (0.96–3.17)	1.09 (0.74–1.60)	1.04 (0.70–1.55)	0.97 (0.64–1.46)
Seldom	1	1	1	1	1	1

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Model 1: adjusted for age, marital status, children, care for family member, employment category, and labour-market sector. Model 2: model 1 plus demands, control, and social support. Model 3: model 2 plus general health and satisfaction with life in general. Values in bold type indicate significant results ($p < 0.05$).

Table IV. Odds ratios and 95% confidence intervals of having four or more occasions of sickness presenteeism over the past 12 months, as compared to having zero to three such occasions.

Leadership dimensions	Men (N=2132)			Women (N=2458)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Integrity						
Often	1	1	1	1	1	1
Sometimes	1.33 (0.91–1.95)	1.13 (0.76–1.66)	1.10 (0.74–1.62)	1.23 (0.88–1.73)	1.11 (0.78–1.55)	1.03 (0.72–1.46)
Seldom	1.79*** (1.27–2.52)	1.35 (0.94–1.94)	1.20 (0.83–1.74)	1.81*** (1.34–2.46)	1.42* (1.03–1.95)	1.31 (0.94–1.81)
Autocratic leadership						
Often	1.76** (1.18–2.61)	1.42 (0.94–2.14)	1.40 (0.92–2.12)	1.36 (0.98–1.88)	1.03 (0.73–1.45)	1.02 (0.72–1.45)
Sometimes	1.33 (0.90–1.98)	1.18 (0.79–1.77)	1.18 (0.79–1.78)	0.98 (0.71–1.36)	0.81 (0.58–1.13)	0.75 (0.53–1.06)
Seldom	1	1	1	1	1	1

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Model 1: adjusted for age, marital status, children, care for family member, employment category, and labour-market sector. Model 2: model 1 plus demands, control, and social support. Model 3: M=model 2 plus satisfaction with life in general. Values in bold type indicate significant results ($p < 0.05$).

team-integrating. This was valid also after adjusting for working conditions and satisfaction with life in general.

Discussion

This study showed a cross-sectional relationship between managerial leadership and employee sickness absence in a representative sample of the Swedish working population. The extent to which managers are inspiring, trustworthy, communicative and autocratic appears to be related to employee behaviours regarding how often and how much they take sick leave. This has, to our knowledge, not been established previously.

Inspirational leadership is one component of transformational leadership, which has been extensively investigated since the 1980s, and has gained substantial support regarding organizational effectiveness, job satisfaction [23], and, to some extent, subordinate health [4,24]. This study further suggested that a more inspirational manager will have employees who take fewer short spells of sickness absence (<1 week). One interpretation of these results is that inspiring leaders may enhance subordinates' sense of their work being meaningful, and perhaps also of themselves being needed at work.

Managers who were rated as often being bossy, elitist, dictatorial and autocratic had male employees who took a greater total amount of sick days. A combination of leadership behaviours of high structure and low consideration has been shown to be related to poor health in subordinates [7,25]. However, our study suggested that autocratic behaviours in managers were associated with behavioural responses rather than with health in subordinates. Taking sick leave could, in this case, be seen as a coping strategy not to get sick, as has been suggested by Kristensen [26].

The leadership dimensions Integrity and Team integration were not, in all instances, linearly related to the outcomes. Male employees with managers who sometimes showed integrity (were sometimes honest, just, trustworthy, and sincere) had more spells of sickness absence >1 week than employees with closest managers rated as often showing integrity. The dimension Integrity resembles the relational component of organizational justice, which has been proved to be related to sickness absence in a previous study [8]. Our study further suggested that unpredictability in managerial integrity (honesty, trustworthiness and so forth) was related to employees' sickness absence.

Table V. Odds ratios and 95% confidence intervals of having bad or very bad health.

Leadership dimensions	Men (N=2141)			Women (N=2463)		
	M1	M2	M3	M1	M2	M3
Integrity	1	1	1	1	1	1
	1.19 (0.66-2.12)	1.03 (0.57-1.86)	0.94 (0.49-1.66)	1.86** (1.07-3.23)	1.67 (0.96-2.92)	1.47 (0.83-2.61)
Team integration	1.37 (0.76-2.48)	1.04 (0.56-1.94)	0.80 (0.42-1.51)	2.55*** (1.44-4.51)	2.09* (1.17-3.75)	1.86* (1.02-3.40)
	1	1	1	1	1	1
Team integration	0.98 (0.57-1.69)	0.88 (0.51-1.53)	0.89 (0.51-1.56)	0.57* (0.33-0.98)	0.52* (0.30-0.89)	0.47** (0.27-0.82)
	1.51 (0.79-2.89)	1.29 (0.66-2.52)	1.23 (0.62-2.43)	1.05 (0.59-1.87)	0.93 (0.52-1.67)	0.82 (0.45-1.50)

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Model 1: adjusted for age, marital status, children, care for family member, employment category, and labour-market sector. Model 2: model 1 plus demands, control, and social support. Model 3: model 2 plus satisfaction with life in general. Values in bold type indicate significant results ($p < 0.05$).

Managers who were sometimes team-integrating (integrator, informed, communicative, team builder) were associated with a low prevalence of shorter (<1 week) and longer (>1 week) spells of sickness absence among women than were managers who were seldom or often team-integrating. However, for longer spells of sickness absence, the relationship appeared to be mediated by general health. One interpretation of why managers rated as very often communicating, team-building and so forth had more sickness absence among their female employees is that these managers may have failed to exert leadership in other areas, e.g. in the provision of clear demands, goals, and directives.

The relationship between Integrity and sickness presenteeism tended towards a dose-response relationship. Having a manager who seldom showed integrity was associated with an increased risk of sickness presenteeism for both men and women. However, this relationship was not significant after adjustment for working conditions among men, and for satisfaction with life in general among women. Leadership dimensions appeared to be less important than working conditions and satisfaction with life in general for amount of sickness presenteeism, as reported by employees.

Bryman [27] stated in a literature review that "Qualitative research on leadership seems to identify as particularly important for effective leadership (a) good communication on the part of the leader, and (b) the leader's integrity and how far he or she is trusted and how far he or she trusts others." These dimensions were, to a large extent, captured by the subscales Integrity and Team integration of this study, supporting the findings by qualitative researchers.

Degree of managerial Self-centered leadership (self-interested, asocial, loner, non-participative) was not significant in predicting sickness absence or presenteeism among employees.

Considering the large amount of statistical analyses conducted in this study, the risk of mass significance findings forces us to interpret findings with *p*-levels between 0.05 and 0.01 with some caution. In general, the total number of significant findings far exceeds the number that could be expected by chance alone. Many of the results are significant at the 0.01–0.001 level in model 1. The adjustments in models 2 and 3 have been performed to ascertain the independent contribution of perceived leadership to subordinate sickness absence/presenteeism over and above working conditions and general health, but the relationships could also be mediated by these. In less significant results, the trends often follow patterns of significant results in

other outcomes/models/the other gender. This, in combination with the large total amount of significances in the first model [14], makes it likely that our results are not random findings.

We tried to diminish the limitations of self-reported data by controlling for how satisfied the respondents were with their life in general, considering this measure as a proxy for negative affectivity. The relationships persisted in most cases after this adjustment. The relationship was also independent of which labour-market sector and staff category the employee belonged to, his/her self-reported job demands, control, and social support, and, in most cases, also his/her self-reported general health status. The latter forces us to consider sickness absence not only as a measure of health status, but also as a behavioural response related to perceptions of managerial leadership. These results support findings by Johansson and Lundberg (15) describing the importance of workplace factors when predicting sickness absence and/or presenteeism as consequences of illness. This study also supports the findings from several other studies on the relationship between psychosocial working conditions and sickness absence and presenteeism, showing different patterns between men and women [9,11]. This difference could, however, in this study, be affected by the large gender segregation between the private and public sectors in Sweden (in this study, 67% of the men worked in the private sector, and 34% of the women). By and large, women and men have different labour markets, and differences in communication patterns between male- and female dominated occupations could play a role in our findings.

Conclusion

This study suggested that workplace managerial leadership is directly related to behaviours regarding sickness absence and sickness presenteeism among Swedish employees. However, studies with longitudinal designs and more objective outcome measures are needed to fully establish this relationship.

Acknowledgements

The SLOSH project is funded by the Swedish Council for Working Life and Social Research (grant no. 2005-0734). There are no conflicts of interest.

References

- [1] Gilbreath B, Benson PG. The contribution of supervisor behaviour to employee psychological well-being. *Work Stress* 2004;18:255–66.

- [2] van Dierendonck D, Haynes C, Borrill C, Stride C. Leadership behaviour and subordinate well-being. *J Occup Health Psychol* 2004;9:165–75.
- [3] Stordeur S, Vandenberghe C, D'hoore W. Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. *J Adv Nurs* 2001;35:533–42.
- [4] Sosik JJ, Godshalk VM. Leadership styles, mentoring functions received and job-related stress: a conceptual model and preliminary results. *J Organizational Behav* 2000;21:365–90.
- [5] Tepper BJ. Consequences of abusive supervision. *Acad Manag J* 2000;43:178–90.
- [6] Offerman LR, Hellman PS. Leadership behaviour and subordinate stress: a 360 degrees view. *J Occup Health Psychol* 1996;1:382–90.
- [7] Seltzer J, Numerof RE. Supervisory leadership and subordinate burnout. *Acad Manag J* 1988;1:439–46.
- [8] Kivimäki M, Elovainio M, Vahtera J, Ferrie JE. Organizational justice and health of employees: prospective cohort study. *Occup Environ Med* 2003;60:27–33.
- [9] Vaananen A, Toppinen-Tanner R, Kalimo R, Mutanen P, Vahtera J, Peiró JM. Job characteristics, physical and psychological symptoms, and social support as antecedents of sickness absence among men and women in the private industrial sector. *Soc Sci Med* 2003;57:807–24.
- [10] Christensen KB, Nielsen ML, Rugulies R, Smith-Hansen L, Kristensen TS. Workplace levels of psychosocial factors as prospective predictors of registered sickness absence. *J Occup Environ Med* 2005;47:933–40.
- [11] Vaananen A, Kalimo R, Toppinen-Tanner S, Mutanen P, Peiro JM, Kivimäki M, Vahtera J. Role clarity, fairness, and organizational climate as predictors of sickness absence: a prospective study in the private sector. *Scand J Public Health* 2004;32:426–34.
- [12] Hyde M, Jappinen P, Theorell T, Oxenstierna G. Workplace conflict resolution and the health of employees in the Swedish and Finnish units of an industrial company. *Soc Sci Med* 2006;63:2218–27.
- [13] Aronsson G, Gustafsson K. Sickness presenteeism: prevalence attendance-pressure factors, and an outline or a model for research. *J Occup Environ Med* 2005;47:958–66.
- [14] Aronsson G, Gustafsson K, Dallner M. Sick but yet at work. An empirical study of sickness presenteeism. *J Epidemiol Community Health* 2000;54:502–9.
- [15] Johansson G, Lundberg I. Adjustment latitude and attendance requirements as determinants of sickness absence or attendance. Empirical tests of the illness flexibility model. *Soc Sci Med* 2004;58:1857–68.
- [16] Kivimäki M, Head J, Ferrie JE, Hemingway H, Shipley MJ, Vahtera J, Marmot MG. Working while ill as a risk factor for serious coronary events: the Whitehall II study. *Am J Public Health* 2005;95:98–102.
- [17] Marmot M, Feeney A, Shipley M, North F, Syme SL. Sickness absence as a measure of health status and functioning: from the UK Whitehall II study. *J Epidemiol Community Health* 1995;49:124–30.
- [18] Johansson G. The illness flexibility model and sickness absence. PhD dissertation, Stockholm: Karolinska Institutet; 2007.
- [19] Magnusson Hanson LL, Theorell T, Oxenstierna G, Hyde M, Westerlund H. Demand, control, and social climate as predictors of emotional exhaustion symptoms in working Swedish men and women. *Scand J Public Health* 2008;36:737–43.
- [20] Hanges PJ, Dickson MW. The development and validation of the GLOBE culture and leadership scales. In: House RJ, Hanges PJ, Javidan M, Dorfman PW, Gupta V, editors. *Culture, leadership and organization: a GLOBE study of 62 societies*. Thousand Oaks: SAGE; 2004. p 122–51.
- [21] Nyberg A, Åkerblom S, Bernin B, Alderling M, Magrin ME, D'Angelo G, et al. Leadership, working conditions, and employee stress in Swedish, Polish, and Italian hotels. *J Organ Behav* (in press).
- [22] Theorell T, Perski A, Akerstedt T, Sigala F, Ahlberg-Hultén G, Svensson J, Eneroth P. Changes in job strain in relation to changes in physiological state. A longitudinal study. *Scand J Work Environ Health* 1988;14:189–96.
- [23] Bass BM. Does the transactional–transformational leadership paradigm transcend organizational and national boundaries? *Am Psychologist* 1997;52:130–9.
- [24] Corrigan P, Diwan S, Campion J, Rashid F. Transformational leadership and the mental health team. *Admin Policy Mental Health* 2002;30:97–108.
- [25] Duxbury ML, Armstrong GD, Drew DJ, Henly SJ. Head nurse leadership style with staff nurse burnout and job satisfaction in neonatal intensive care units. *Nurs Res* 1984;33:97–101.
- [26] Kristensen T. Sickness absence and work strain among Danish slaughterhouse workers: an analysis of absence from work regarded as coping behaviour. *Soc Sci Med* 1991;31:15–27.
- [27] Bryman A. Qualitative research on leadership: a critical but appreciative review. *Leadership Q* 2004;15:729–69.