Leadership in human service organisations

Conceptions, strategies and preconditions to promote and maintain health at work

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2010

UNIVERSITY OF GOTHENBURG

ISBN 978-91-628-8076-7

Printed by Geson Hylte Tryck, Göteborg, Sweden 2010

ABSTRACT

The aim of this thesis was to deepen knowledge of leaders' conceptions, strategies and preconditions to promote and maintain health at work in human service organisations.

Methods: The qualitative study I and prospective study II are both part of a research and development programme (The SAMS study) of workplace health promotion (WHP) projects and the setting was the City of Göteborg. Qualitative interviews with project leaders (n=23) and project applications were analysed in line with grounded theory in study I. Questionnaire and sick-leave register-based data were collected from the employer in study II and analysed on individual (n=2375) and workplace unit (n=34) level. Study III was a qualitative grounded theory study based on interviews with first and second line managers (n=21) in health care organisations and social insurance offices. Study IV was a prospective study of managers (n=216) within a longitudinal cohort questionnaire study of employees working in a large public healthcare organisation. The prevalence of maintaining a managerial post and health were related to work and work–life balance predictors at baseline, using Cox regression.
Results: Leaders' strategies for improving employee health were related to their *approaches to economic and human resources*. The employees and budget were viewed as either obstacles or as resources to organisational and health development. *How the workplace health promotion (WHP) projects were targeted* was related to the leaders' (a) views of responsibility for employee health and (b) focus for change. One project could deal with single or multiple factors. Leadership qualities and WHP strategies had a significant impact on increased work attendance in projects that had goals clearly focusing on changeable factors, in multi-focused projects and in units where leaders viewed the organisation or the society (rather than individual workers) as being responsible for employee health. Leaders attempted to handle stress at the workplace by *acting as shock absorbers*, characterised as leading in continuous change whilst maintaining trust. To manage their own stress, leaders tried to *sustain their own integrity*, characterised as either identifying with or distancing themselves from the leadership role. Sixty percent remained as healthcare managers after four years and 52 percent of them had a balanced work attendance. Maintaining as a manager was predicted by moderate/high job control and not having daily contact with patients. Maintained good health was predicted by having energy left for domestic work and feeling invigorated after sleep.
Conclusion: Leaders' conceptions of employees as either obstacles to or opportunities for development and their views on responsibility for employee health seem to influence their WHP strategies. Leadership qualities and WHP strategies have an important effect on implementation processes and on health in the workplace. Supportive structures and improved communication about everyday dilemmas seem to be needed in order to improve the basic conditions for practicing leadership in human service organisations and may be as good an investment as the development of individual leaders' competences if the turnover of leaders seems high.

Keywords: Workplace health promotion, participation, management, trust, sickness absence, psychosocial factors, exit, sickness presenteeism, turnover

ISBN: 978-91-628-8076-7

SAMMANFATTNING

Det övergripande syftet med denna avhandling var att öka kunskapen om ledares föreställningar, strategier och förutsättningar för att främja och bibehålla hälsan på arbetsplatser inom human service organisationer.

Metod: Delstudie I och II är en del av en större forsknings- och utvecklingsstudie (SAMS-studien) av hälsofrämjande projekt som genomfördes i Göteborgs stad. I delstudie I gjordes kvalitativa interjuver med projektledare (n=23) för de hälsofrämjande projekten och materialet analyserades enligt grounded theory. Kategoriseringarna i delstudie I användes i delstudie II, en prospektiv studie, tillsammans med data från medarbetarenkät rörande den psykosociala arbetsmiljön samt sjukfrånvarodata från arbetsgivaren. Analyser skedde både på individnivå (n=3275) och arbetsenhetsnivå (n=34). Studie III var en grounded theory studie baserad på intervjuer med första och andra linjens chefer (n=21) inom sjukhus och Försäkringskassan i Västra Götaland. Studie IV var en prospektiv enkätstudie av sjukhuschefer (n=216) ingående i en kohort (den s.k. KART-studien) av anställda inom Västra Götalandsregionen. Samband mellan predicerande faktorer vid baseline och att vara kvar i chefsposition med bibehållen hälsa vid uppföljningarna analyserades med Cox regressioner.

Resultat: Ledares strategier för att främja medarbetares hälsa var relaterade till deras förhållningssätt till resurser, där budget och medarbetare kunde uppfattas som möjlighet eller hinder för en hälso- och organisationsutveckling. Inriktningen på de hälsofrämjande insatserna var relaterad till ledarens syn på ansvaret för anställdas hälsa (dvs. om det var individens, organisationens eller samhällets ansvar) samt till ledarens målfokus. Ett projekt kunde omfatta en eller flera faktorer. Ledarskapskvaliteter och strategier för de hälsofrämjande insatserna stärkte anställdas hälsa där man fokuserade på faktorer som var påverkbara för enheten, insatsen omfattade flera faktorer samt där ledaren såg organisationen eller samhället snarare än den enskilda individen som ansvarig för anställdas hälsa. Ledare hanterade stress på arbetsplatsen genom att agera stötdämpare, vilket innebar att leda i ständig förändring med bibehållet förtroende. För att hantera den egna stressen detta kunde medföra, så försökte man bevara sin egen integritet genom att antingen identifiera sig med eller distansera sig från ledarrollen. I studie IV var sextio procent kvar som chefer inom sjukvården efter fyra år. Drygt hälften hade en stabil närvaro och andelen utan tecken på burnout var större än vid baslinjemätningen. Bland dem som var kvar som chefer var det vanligare att vid baslinjemätning uppfatta sig ha en god kontroll samt inte ha daglig kontakt med patienter. Bland dem med stabil närvaro respektive var utan tecken på burnout var det vanligare att vid baslinjemätningen ha upplevt sig ha energi kvar för hushållsarbete efter jobbet samt känt sig utvilad när man vaknade.

Slutsats: Ledares föreställningar om medarbetare som hinder eller möjlighet för utveckling samt synsätt på ansvaret för medarbetares hälsa influerade deras strategier för hälsofrämjande insatser. Dessa strategier och ledarskapskvaliteter tycks ha betydelse för projektens genomförande och effekter på arbetsplatsen. Stödjande strukturer och förbättrad kommunikation om vardagliga dilemman behövs för att förbättra de grundläggande villkoren för att utöva ledarskap i human service organisationer. Detta kan vara en lika bra eller bättre investering än insatser för individuell ledarskapsutveckling, då många inte stannar kvar som chefer under så lång tid.

Nyckelord: Hälsofrämjande insatser, tillit, delaktighet, sjukfrånvaro, psykosociala faktorer, personalomsättning

ISBN: 978-91-628-8076-7

ORIGINAL PAPERS

This thesis is based on the following papers, which will be referred to in the text by their Roman numerals.

I. Skagert, K. & Dellve, L
Leaders' conceptions in work place health promotion projects
In review process

II. Dellve, L., Skagert, K. & Vilhelmsson, R
Leadership in workplace health promotion projects: 1 and 2 years effects on long term work attendance
European Journal of Public Health, 2007: 17(5), 471–476

III. Skagert, K., Dellve, L., Eklöf, M., Pousette, A. & Ahlborg, G
Leaders' strategies for dealing with own and their subordinates' stress in public human service organisations
Applied Ergonomics, 2008: 39, 803–811

IV. Skagert, K., Dellve, L. & Ahlborg, G
Maintenance of position and health: a prospective study of female and male managers in a public health care organisation
Submitted

LIST OF ABBREVIATIONS

BWA	Balanced work attendance
CI	Confidence interval
e.g.	for example (*exempli gratia*)
ERI	Effort–reward imbalance model
HSO	Human service organisations
HR	Human resources
i.e	that is (*id est*)
JDC	Job demand–control model
NPM	New Public Management
NSB	No signs of burnout
OHS	Occupational health service
PBSE	Performance based self esteem
PR	Prevalence ratio
RR	Risk ratio
SAMS	Acronym for the research project "Systematiskt hälsofrämjande arbetsmiljöarbete inom social service och skola" (Systematic and promoting occupational health and safety management within social services and schools)
WHO	World Health Organization
WHP	Workplace health promotion

CONTENTS

BACKGROUND

Having a job to go to every day is, for most people, a health promoting factor. The prevalence of illness is higher among the unemployed than among the employed [1]. Nevertheless, being exposed to stressful or dissatisfying working conditions can have an adverse effect on health. Although the total number of cases of long-term sickness absence has declined since the early 2000s, absence due to mental health problems has continued to increase [2]. Several explanations for the increase in sickness absence in Sweden and some other countries during the late 1990s and early 2000s have been put forward in both public debates and research. Some of the explanations include aspects of the increasing stress associated with work and private life, properties of social security systems and failure of management to maintain a good psychosocial work environment (see for example [3-5]).

Currently, demographic and organisational changes present a challenge to human service organisations with respect to handling the shortage of manpower and maintaining a stable and healthy work force [6, 7]. The leadership in these organisations is seen as an important factor influencing employees' psychosocial work environment and the change processes [8, 9]. It seems that the leadership has both a direct influence (i.e. the relationships between managers and subordinates) and an indirect influence (how work is organised) on the health and well-being of the workers. On the other hand, the way in which the leadership is exercised can be influenced by the social context and the leader's own working environment. This thesis focuses on leaders' conceptions, strategies and preconditions for promoting and maintaining good health at work in human service organisations.

Human service organisations

Human service organisations are organisations where the work process not only includes interactions with people but also influences them in one way or another. Hasenfeld [10] defines human service organisations as:

> *"…a set of organizations whose principal function is to protect, maintain, or enhance the personal well-being of individuals by defining, shaping, or altering their personal attributes…"*
>
> (Hasenfeld, 1983, p. 1).

Client-orientation is one of the main characteristics of human service organisations. The clients, such as pupils in school or the elderly in home care, are seen as co-producers of the work done.

The majority of human service organisations have also been categorised as professional bureaucracies, dependent on the employees' professional skills and knowledge [11]. Most of them are also publicly funded and dependent of resource allocated by the political system. Prioritisation and allocation of resources is challenging and may be influenced of conflicting interests. There are political, professional and administrative cultures that coexist within human service organisations and this may be one source of conflicting goals. In addition, the individual employee, co workers, clients, their relatives and the public have expectations about the service delivered by HSO workers. Those different expectations about how the work should be performed may adversely influence employee health, if they are in severe conflict with the individual's own values [12, 13] (see figure 1).

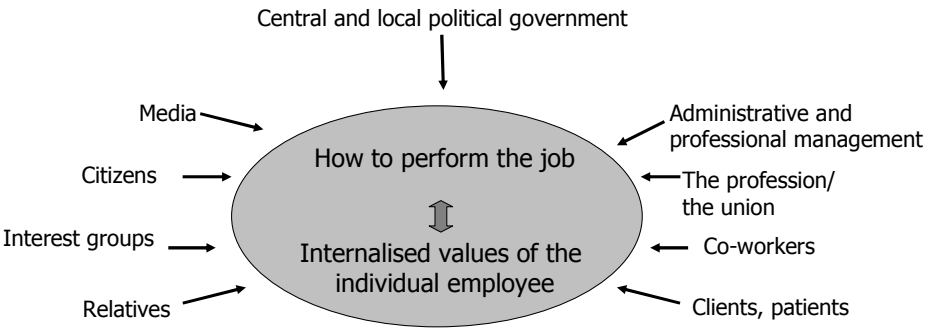

Figure 1. Different expectations about how to perform a job in human service organisations (Modified from Pousette, 2001 p. 9)

The human service sector is strongly gender segregated. The work of care, both paid and unpaid, has been seen as "women's work" and is related to the idea of "the good mother" (i.e. caring and self-sacrificing) [14]. Approximately 80 percent of the Swedish employees in human service organisations are women. Even inside human service organisations, men and women do not work in the same professions, although physicians are an exception, with quite equal distributions of women and men [15, 16].

Human service organisations in Sweden have undergone a structural change since the last recession in the early 1990s, changes inspired by the New Public Management (NPM) [17, 18]. NPM is influenced by the rationale of the (private) business sector with increased focus on the client as a consumer but also on the collaborators involved in the delivery of care. In order to increase efficacy and achieve sufficiently high quality care, NPM reforms include both decentralisation of organisational structures and accountability [17, 19]. In the social context of Sweden, several political reforms took place during the 1990s. For example, "Ädelreformen" involved the decentralisation of responsibility for elderly care from the counties to the municipalities. Another reform aimed to improve the care of the disabled and psychiatric care by strengthening the individual's right to

independence and assistance [20]. The school system went from a state-controlled, rule governed structure to one that was municipally governed and goal-orientated [20]. Public statistics reflect how these reforms transferred employees from the state and counties to the municipalities, but also demonstrate that the number of employees in this public sector decreased from a total of 1.6 million employed in 1992 to 1.3 million employed in 2001 [21]. NPM has clearly influenced not only the governing of the human service organisations but also daily tasks and performance [12, 17, 22, 23].

Health in the workplace

> *"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"*
>
> (WHO definition, 1948)

In the definition above, health is viewed as a state. From the biomedical perspective, health is rather defined as the absence of disease. From the humanistic point of view, health is more than the absence of disease and has been defined as a resource of the individual in a social context [24]. Health in the workplace is the complex interaction between the health resources of the individual employee and the influence of the physical and psychosocial organisation of work [25].

Physical health has had, and still has, a significant role in occupational health research. Approximately half of all reported work-related diseases are associated with ergonomic factors at work [26]. Mental and social well-being derives from the interaction between the individual and their surroundings. Work in human service organisations is, to a large extent, about handling social relationships; this has an impact on mental health and stress among employees [13, 27]. The focus

in this thesis is on mental and social well-being, although physical well-being is included in my consideration of health in the workplace.

My own view of health corresponds to that of Wreder [28], that it is a resource to achieve vital goals and to meet current demands without compromising future health, not only for the individual but also from an organisational perspective. Furthermore, I view health in the workplace as a resource to handle daily work without compromising future health and work attendance.

Workplace health promotion

Workplace health promotion (WHP) aims to enhance health and well-being and to prevent ill-health at work [29]. WHP has also been defined as including all activities performed within the workplace that are aimed at promoting good health and preventing ill-health among employees [30]. In general, there are two main approaches to implementing WHP in order to promote and maintain health among employees. The first views health and work ability as products of individual responsibility and health-related behaviour, while the second views health as a product of a large number of factors, many of which are beyond individual control [29]. WHP interventions that view health as an individual responsibility often focus on lifestyle habits and can, for instance, include losing weight, quitting smoking, physical activity and/or stress management. The other, more holistic view, does not focus only on the individual, instead interventions involve both workers and management in order to improve the workplace and environment to create a health-promoting situation [31]. The most successful WHPs have focused on broad strategies for maintaining health and also on special interventions targeted at specific risk groups [32, 33]. Targeting behaviour related to individual health as well as the work organisation , increases the likelihood that such interventions will succeed, but it is not enough [25]. Management support and a supportive management climate are also necessary.

How leaders' WHP intervention strategies are implemented and approached is poorly described in the literature [34].

Gender and health in the workplace

It has been demonstrated that gender is a crucial consideration in workplace health-related research since women have a higher incidence of sickness absence than men [5, 35, 36]. Younger men have also to a larger extent reported stability in positive health compared to women of the same ages [37].

Amongst women, almost one third of all reported work-related accidents accompanied by sick leave included another human being, mainly fall of person, compared to men where only seven percent of all accidents included another human being [26]. This reflects the segregation of work, where women and men undertake different occupations [16]. Eighty percent of the employees in education, healthcare and social services are women [38]. A higher degree of sickness absence among both women and men has been related to female dominated workplaces [39]; this suggests that working conditions *per* se need to be improved in female dominated workplaces. The difference in work-related determinants of health is related to the subordination of women. Female dominated occupations have a lower status, limited decision latitude and restricted career opportunities and are worse paid than male-dominated occupations [40]. However, in a study of municipal HSOs, women's incidence of long-term sick leave was twice as high as among men in the same occupation [41]. Responsibilities that are stereotyped as being women's work in private life [14, 42] and not directly related to paid work may have an impact on health. Responsibility for domestic work and having children have been shown to have a negative relationship with women's health [43-45]. Work–family conflicts [46] and opportunities to recover from work [47] have also been related to health outcomes among women in HSOs.

Measuring health in the workplace

Assessments of workers health may be conducted by HR-departments within organisations, by an Occupational Health Service (OHS) (internal or external to the organisation) or by researchers. There are many methods and instruments that can be used to measure aspects of mental health, stress and well-being (including work satisfaction) within the workplace. Several established self-rated questionnaires measure health and stress and are used to identify risk groups and factors in working life (see, for example, [27, 48-50].

Health in terms of sickness absence [51] can be measured via either self reported or register data [4, 52]. Some studies have investigated work attendance (i.e. lack of sickness absence) as an outcome of health and work ability. One study defined poor work ability as sickness absence exceeding 28 days in the last 12 months and excellent work ability as having no sickness absence or sickness attendance in the last 12 months [53]. In this study, 13 percent of the study group was classified as belonging to the excellent work ability category. More managers than the average belonged to the group with excellent work ability. In a prospective register study, measures of long-term work attendance, with respect to the number of days that were associated with good/poor working conditions, was explored. The researchers concluded that a total of 4-7 days of sick leave per year per employee was associated with good working conditions while more than 14 days of sick leave indicated poor working conditions [54]. Sickness presenteeism should be taken into account when estimating work attendance, because of its future impact on long-term sickness absence [55-57].

Job turn-over and intention to leave the workplace and/or profession seem to be influenced by the same factors as health [58] and sickness absence [59]. It can be seen as an indicator of health or rather a coping strategy to avoid a potentially unhealthy work situation [59-61]. Job mobility, a term closely related to turn-over, has been defined as the “individual transition from and/or to a place of

work, within or between different organizations" [62]. A longitudinal study has shown that job mobility predicted (and promoted) health [63].

Health in human service organisations

Demographic and organisational changes challenge our current human service organisations to deal with a shortage of manpower and maintain a stable and healthy work force [6, 7]. In these organisations, increased workload, decreased employee control and increased sickness absence have been obvious since the 1990s [64]. Tremendous changes, both technical and demographic, have increased the capital costs of HSOs [65]. Organisational and structural changes aimed at improving cost efficiency have led to inadequate staffing, lack of job security and a poor work environment. Physical as well as mental health problems related to stress are common among HSO workers [65]. The prevalence of sickness absence and sickness presenteeism is higher in HSOs than in other sectors in Sweden [5, 55]. However, the prevalence of work attendance (i.e. not more than seven days of sickness absence) was found to be 54 percent among female HSO workers and 69 percent among males [54].
Fourteen percent of the nurses had considered leaving the profession [60]. In a similar study, eighteen per cent of participating Swedish nurses had resigned during a three-year period [59].

Determinants of occupational health can be found at individual, organisational and societal levels. This is true for conditions such as musculoskeletal disorders, cardiovascular diseases as well as for mental disorders. One important societal factor is the demographic structure of the working population in general, but particularly in the Swedish public sector, with an increasing proportion of elderly people. Another societal factor that has undergone changes in recent years in Sweden is the social insurance system. The responsibility for sickness benefit in the first two weeks of absence was moved from the state to the employer in the

early 1990s. Shortly after this, an initial unpaid waiting day was introduced and the compensation decreased to a maximum of 80 percent [66].

Organisational determinants of occupational health in HSOs are often a combination of the physical, psychological and emotional demands associated with the work [47, 67]. Musculoskeletal disease was found to be the most common reason for receiving a disability pension among home care workers, highlighting the importance of the physical demands in HSO work [41].

Two of the most widely used theoretical models in occupational health research are the job demand-control model (JDC) [68] and the effort-reward imbalance model (ERI) [69]. The JDC model consists of the two dimensions demand and control (or decision latitude). The demand dimension includes how hard and fast you have to work, whether it requires too much effort, whether there is enough time available and whether there are conflicting demands within the work. The control dimension comprises both skill discretion and decision authority. The combination of low demands–low control is categorised as "passive" work, low demands–high control as "low strain" work, high demands–high control as "active" work and high demands–low control as "high strain" work. The social support dimension was added to the model subsequently. It refers to the social climate at work and the support that an individual can get, when needed, from colleagues and their supervisor.

The ERI model takes account of the effort put into the work and the rewards received; when there is an imbalance between the two (i.e. high effort and low reward) the result can be stress [69]. The effort dimension has similarities with the demand dimension in the JDC model. The reward dimension comprises (lack of) financial compensation, support and acceptance, career opportunities and job security. Organisational justice is, in turn, closely related to the reward dimension in ERI and to aspects of fairness [62].

Restructuring and downsizing have also been related to long-term sickness absence [70, 71]. High demands, low control and lack of support within a job have been identified as determinants of ill-health [53, 72], while goal clarity and positive feedback seem important for promoting good health [53]. Effort-reward imbalance has also been shown to be related to ill-health [73]. Exposure to high strain has been prospectively associated with nurses' consideration of leaving the profession [60]. Being exposed to high demands, negative consequences resulting from changes at work, and frequent work-family conflicts have also been related to turn-over [59, 74]. In addition, among managers, intention to leave has been related to ERI [75].

In summary, health has mostly been investigated in relation to ill-health and risks. The factors that promote health in the workplace are not necessarily the same as the determinants for ill-health [53]. In assessing workplace health promoting processes, positive factors and conditions should also be taken in to account. However, there have been few studies in this area. It is, however, important to individuals, organisations and society that we increase our knowledge of how to promote and maintain good health at work. Therefore, I have chosen to investigate health in terms of work attendance (i.e. almost no sickness absence) in the quantitative studies in this thesis. In addition, I investigated remaining in post (i.e. no turn-over) as an outcome.

Leadership

Research on leadership has, for nearly a century, tried to identify the qualities that best promote an organisation's effectiveness and employee job satisfaction [76]. Yukl [77] notes that all the definitions of leadership that have been advanced seem to have little in common other than that it is a process of influence between the leaders and the led:

> *"Leadership influence processes involving determination of the group's or organization's objectives, motivating task behaviour in pursuit of these objectives, and influencing group maintenance and culture."*
>
> (Yukl, 2002, p. 5)

Distinctions are sometimes made in the literature between a leader and a manager, where the former is defined in relation to the influence he/she has on the ones to be led. Leadership does not need to be tied to a formal position, while a manager is defined in relation to a formal function and power in the supervision of the organisation [77]. I did not base the analyses in this thesis on distinctions between the terms and chose to use the term leader except in the last paper, where the function of and preconditions for being managers were of interest.

Leadership as a function and a relationship

Leadership can be viewed from different perspectives derived from different research traditions. The structural perspective is derived from the sociological and management tradition and focuses on leadership as a function. The human relations perspective is derived from the psychological perspective and focuses on leadership skills and the relationship between the leaders and the led. Derived

from the anthropological tradition, the symbolic perspective focuses on norms and rituals [78].

Leadership is a coordinating function in which individual leaders have a formal position and status in their organisation, interact with others, process information and make decisions. The formal position and status gives rise to an interaction with others, which in turn leads to access to information. This access will be sorted, transmitted and used as the basis for decision-making [79]. The leadership (or management) function is mainly divided into three levels [11]. The top management is responsible for the formulation of overall objectives and strategic adaptation to external actors relevant to the business, but also for establishing a long-term and holistic view of the organisation and its work. The second line management has the function of organising, managing and integrating activities in order to achieve particular objectives. The function as a link between the highest level and the operational level is crucial. The first-line management works at the operational level and has daily oversight of the organisation's core activities. The tasks associated with this level of management are often supervising and coordinating the work of the unit. The leader works closely with a group, and one important function is to encourage, support and motivate [76, 80]. Note that in studies of HSOs, the knowledge and awareness of who has the formal position as the first-line manager has been found to be unclear to subordinates and to the managers themselves [81].

The leadership's interaction with employees has been classified as laissez-faire, transactional and/or transformational [82]. Laissez-faire leaders avoid interaction and are neither active in decision making nor in the supervision of the work. Transactional leaders clarify goals and expectations and provide employees with contingent rewards and recognition when they achieve expected levels of performance; they also correct unfavourable conduct among the employees. Transformational leaders are seen as visionary, they communicate goals, show individualised consideration and inspire employees to develop their potential [82,

83]. Transformational and transactional leadership positively influences team performance and cooperation [83]. Transformational leadership has similarities with resonant leadership, which reflects the competence of emotional intelligence [84]. It includes coaching, democratic, visionary and affiliative leadership styles, in contrast to dissonant leadership that is characterised by a commanding style, with a lack of emotional pace with subordinates [84].

Leadership and employee health

The influence of leadership on employee health has been highlighted in several studies (see, for example [85-89]). It has been demonstrated that deficient leadership qualities, such as poor support [90-92] and poor availability [91], are important risk factors leading to impaired health among HSO workers.

A fair leader attitude, confirmatory feedback, supportive leadership [15, 53, 93, 94] and well-structured management of work environment issues [95] have been related to improved or sustained health. In a qualitative study of units at a hospital that maintained health during a downsizing process, the leadership was characterised by a transformational style (i.e. visionary, motivating, delegating and solution-oriented) [96], similar to the result of resonant leadership mitigating the impact of hospital restructuring on employee health [84]. This emphasizes the importance of leadership during change processes, in order to avoid negative impacts on employee health. Experiences of stress may be reduced when the leadership in the change process: has an awareness of the diversity of individual expressions during the process; is available in order to handle uncertainty and communicate goals and the purpose of the change; clarifies roles at an early stage, thus avoiding role ambiguity; and handles conflicts immediately and constructively [8]. The direction of the influence between leadership behaviour and employee health has also been described as a feedback loop [97], i.e. leadership and employees each influence the others' conditions. Despite knowledge of the impact of leadership on employee health, few studies have

focused on how leaders act to maintain health in the workplace, both for themselves and for their employees.

Leadership and gender

The theoretical concept of gender order is built on two structural principles: vertical and horizontal separation of the sexes and a general subordination of women to and supervision of them by men [98]. The Swedish labour market is still strongly gender segregated, both vertically and horizontally [16]. The leadership norms as well as the work itself are part of society's wider patterns with respect to gender [14]. Leadership research has mainly been conducted with men as the subjects, in male dominated organisations and has been gender blind (see for example the work of Bass and Mintzberg: [79, 83]. Gender has tended to be highlighted only when women deviate from the leadership norm [99, 100].

From a structural gender perspective, it is of interest to study *who* are the managers and *how* managers perform in the function. Counting bodies is therefore relevant, because the norm for leadership is a man. The higher up in the hierarchy (i.e. the three levels mentioned above), the fewer women. Kanter [101] talks about opportunity, structure of power (and access to resources) and the significance of number (i.e. being in the majority or minority). Even if there are women in top positions both in private business and political life today, they are in the minority and are obvious because they deviate from the norm with respect to their physical bodies [14]. A meta-analysis has identified significant differences in favour of female leaders in most aspects of transformational leadership [102], even though it can be difficult to compare because men and women work in different types of organisations and areas. The researchers suggested that the so-called glass ceiling resulted in the selection of more highly skilled female than male managers. The function of the first-line management could be seen as closer to our concept of femininity and therefore may account, in part, for the so-called glass ceiling [14, 102].

Women in leading positions are nothing unusual in human service organisations. Even though there are far more women working as managers within the public than the private sector, the proportions of men and women are not the same among managers, as among all employees [16]. However, being a female manager in a female dominated organisation may conflict less with gender stereotypes than in a male dominated area [103].

Different assumptions and expectations about how and what a leader should do may arise according to whether the leader is male or female [103, 104]. Women's and men's work, roles and responsibilities are stereotyped in both the workplace [105] and in private life [14, 42]. Being a female leader could, in this sense, be more challenging than being a male leader [100]. Thus, there may be differences between male and female leaders on the basis of working conditions as well as with respect to the possibility of maintaining an appropriate work–life balance.

Work characteristics for leadership in human service organisations

Managers' work can be characterised as "active work", with high demands and high levels of control [68]. Work tasks are often varied and complex, with verbal interactions upwards, downwards and outside the organisation [106]. Yet, to really understand leadership, you have to take into account the social context in which it is exercised [107]. In female dominated occupations, "active" work could, in relation to health, be classified as "high-strain" work [108]. Managerial positions in HSOs are complex [13, 64] and require the incumbents to deal with competing demands, interests and ethical dilemmas [13, 27]. The daily work of managers includes many different activities and can be characterised as fragmented and with almost no time for face-to-face contact with their superior, according to a recent Swedish study of healthcare managers [109]. The relationship between responsibility and power, as well as the relationship between clinical work and managerial work, seems to be unclear [110, 111].

According to Rodham and Bell [112], healthcare leaders may operate within a culture of acceptance and expectation of work stress. Their stress has been qualitatively related to overload, interruption, responsibility and relationships. Contradictory objectives (i.e. increasing productivity and quality while reducing the budget) can also lead to a paralysed leadership [64].

Leaders own work-load, due to real or perceived lack of authority, decision latitude and role ambiguity, may affect perceptions of opportunities to improve the psychosocial work environment and maintain employee health. The focus in this thesis is on leaders' assessed and experienced preconditions as well as how they act to promote and maintain health, both among employees and for themselves.

OVERALL AIM

The aim of this thesis was to deepen knowledge of leaders' conceptions, strategies and preconditions to promote and maintain health at work in human service organisations.

Specific aims

Study I aimed to deepen knowledge of leaders' conceptions of and attitudes towards improving the health of their employees through workplace health promotion projects in human service organisations.

Study II aimed to increase knowledge about how leadership qualities and strategies in workplace health promotion projects influence employees´ long-term work attendance.

Study III aimed to deepen knowledge of leaders´ own perceptions and strategies for dealing with their own and their subordinates´ stress in human service organisations.

Study IV aimed to assess the prevalence of health care managers remaining in post and of their health in a public healthcare organisation; to identify the work and work–life balance factors that supported this and; to explore differences between female and male managers.

MATERIALS AND METHODS

Design

Study I and II

Study I and II are part of a research and development programme (The SAMS study), a collaboration between researchers and the City of Göteborg. The SAMS study had the overall aim of increasing knowledge about conditions at the individual, work-group, organisation and societal levels that may have an influence on WHP-interventions (implementation, effects and evaluation), in order to decrease sickness absence and improve employee well-being among HSO workers. Study I focused on the leadership conceptions and strategies in WHP projects. In study II, a prospective approach was used to investigate the impact of leadership qualities and WHP strategies on the prevalence of long-term work attendance among employees. Qualitative analysis (in line with grounded theory) of interviews with project leaders and project applications in study I was followed by quantitative analyses of questionnaire and register-based data from the employer in study II.

Study III

A qualitative approach and a systematic explorative and theory-generating method (grounded theory) were used to identify central processes perceived by individual leaders. Qualitative interviews with first and second line managers in health care organisations and social insurance offices were made with leaders regarding experienced ability to influence and improve their own and their subordinates' psychosocial work environment.

Study IV

Study IV is a prospective study of managers within a longitudinal cohort study of employees working in a large public healthcare organisation. A random sample of all employees in the Region Västra Götaland received a mailed baseline questionnaire in May 2004, with follow-ups at the same time of year in 2006 and 2008. A sub-sample of the cohort was selected based on a) the response at the 2004 baseline to the question: "Do you have a staff and financial responsibility" and b) participated in both follow-ups.

Setting, sampling, study groups and data collection

Study I and II

The setting was the Swedish city of Göteborg. The municipality of Göteborg has 45,000 employees all covered by standard conditions of employment, labour rights and human service policies. The municipality is divided into 21 geographical areas and organisational factors may vary between the districts. The highly developed social security system in Sweden covers all citizens; sickness absence of more than one day is paid for by the employer, while certified sick leave of more than two weeks is paid for by the social security system. The study period 2002–05 was politically stable, with only minor changes in employment and staff turnover rates. The local authority has provided financial support for WHP projects in municipal HSOs. Applications for financial support for such projects must specify what the work units regard as health-promoting activities. Forty WHP projects applied for support and 21 were granted it by the local authority at the end of 2002; the actual project activities were performed in 2003. According to the applications, the WHP projects' activities comprised health

check-ups followed by exercise and/or massage and spa activities, competence development and work group tutoring, and the development of work tasks and processes. Two of the projects were intended to improve the systematic health promotion and safety system throughout the geographic district. All participating workplaces were in female-dominated HSO areas, i.e. preschools, schools, leisure activities, care of the elderly, social work, care of the disabled, school meals services and cleaning services.

The study group in study I consisted of all of the WHP project leaders (n=23), all of whom were women. Fourteen of the project leaders were first line managers, seven were from human resources and two were employees (table 1). In two projects, leadership was shared between an operations manager and a co-leader from the human resource division.

Table 1. Position and HSO area of the study group in study I.

WHP leaders (n=23)		
Position		**n**
	First line manager	14
	HR officer	7
	Employee	2
HSO area	Preschool/leisure acitivites	4
	School	4
	Care of the elderly	7
	Social work	2
	School meals and cleaning services	3
	All HSOs in the geographic district	3

In-depth interviews were conducted from January to March 2003 with all 23 project leaders of the supported WHP projects. The interview could be described as a focused conversation, where the interviewer takes the role of an active listener. The social interaction and a trusting relationship between the respondent and the interviewer are important to ensure that the richest data possible are obtained. The respondents were free to decide where they wanted the interview to take place. All of them chose to perform the interview in a location linked to their own workplace. The researcher informed the respondents, in writing and

orally, about the aim of the study and how the results would be published. Participation was voluntary. Informed consent was given and confidentiality was guaranteed. All quotations presented in the research results were approved by the respondents, some slightly edited to avoid identification of any individual. All interviews were tape-recorded; they lasted approximately one hour and covered processes related to the following themes:

- the substance of the WHP project (i.e. what, who, how and why)
- how the project started (i.e. initiative, idea and application)
- leaders' own views of work-related health and reasons for the high levels of sick leave in the studied HSOs
- leaders' own views of how to reduce sick leave and the leaders' self-perceived influence on opportunities to influence workplace health

The interviews were transcribed directly after the interview, twelve verbatim and the rest selectively based on preliminary categories, until theoretical saturation of concepts. In addition, the project applications were used as raw data.

The study group in study II comprised the 34 work units that participated in the 21 WHP projects, with 3 275 human service workers aged 20–65 years at baseline (table 2). Most of the workers were female (88%) and older than 45 years (61%). One-third was employed full-time. Most employees were working within elderly care (26%), schools (27%) or preschools (22 %). Other HSO workers were working in the care of people with disabilities (8 %), social work (5 %), leisure activities (1 %), administrative and other shared HSO tasks (school meals and cleaning services).

Table 2. Sex and age-group of the study group of employees in study II

		Employees	
		n	%
All		3275	100 %
Sex	Females	2875	88 %
	Males	400	12 %
Age	20-24 years	70	2 %
	25-34 years	437	13 %
	35-44 years	770	24 %
	45-54 years	1052	32 %
	55+ years	946	29 %

The employer's register-based data pertaining to their employees' sickness absence were used at an individual level and also aggregated to the work unit level (years 2002-2003-2004). The registers were anonymised before the researchers had access to the data. Data from the yearly employee satisfaction questionnaire regarding psychosocial workplace conditions [113] were used at the work-group level (years 2002- 2003- 2004). The questionnaire was developed, validated [113] and distributed by Statistics Sweden.
The project was conducted in a close cooperation with the City of Göteborg, as part of their continuous organisational development. The research application was formulated collaboratively and all steps in the research process were discussed and approved by a responsible person at the city office. Furthermore, the processes were also continuously discussed and approved by the central coordinating groups, including representatives from all the main trade unions.

Study III

The setting was the western region of Sweden and the organisations studied were regional social insurance offices and hospitals. The study group comprised first and second line leaders. A strategic sampling of leaders (n=21) was used to reflect various conditions related to leaders who had to deal with the psychosocial work environment. The selection of leaders covered the following

range of variations: organisation, hierarchical level (first and second line), age and gender, and also geographic (i.e. provincial – metropolitan) area. The respondents were contacted by e-mail with written information about the study and asked whether they wanted to participate. The respondents were free to decide where they wanted the interview to take place. Participation was completely voluntary. Informed consent was given and confidentiality was guaranteed. In-depth interviews were held at the respondents' workplaces (except one who was interviewed in the research department) between December 2003 and March 2004. Each interview lasted about an hour and covered the following areas:

- The respondent's own opinion of the causes of stress: stress in general, their own stress, their subordinates' stress (and the perceived relationships between these areas)
- The respondent's opinion about his/her own opportunities for dealing with and influencing the psychosocial environment
- Strategies and approaches that can hinder or promote the ability to influence the psychosocial work environment

The same researcher (KS) conducted all the interviews. They were taped and transcribed, eleven of them verbatim, the rest based on preliminary categories, until theoretical saturation of the concepts was achieved [114]. All quotations in the results were approved by the respondents.

The employers, the Västra Götaland region and the regional social insurance office, funded parts of the study. The study was approved by the regional ethical review board in Gothenburg, Sweden and conducted according the 1964 Declaration of Helsinki.

Study IV

The setting was the County Council Region Västra Götaland, which has a total of approximately 48 600 employees. The total study population was a random sample (n=5,300) of employees working in public healthcare (hospitals, primary care, dentistry and administrative offices) in the Västra Götaland region. Only subjects employed for at least one year and working at least half-time were included. A postal questionnaire was sent to the home address of these individuals in the spring of 2004 (response rate 62 %). Exactly two and four years later a follow-up questionnaire was sent to those who had responded to the previous survey (response rate 2006: 85% and 2008: 83%). The questionnaire included validated instruments, e.g. regarding health, symptoms and psychosocial working conditions [115]. For the purpose of the study, a sub-sample of the cohort was selected on the basis of: a) the response in the 2004 baseline study to the question: "Do you have a managerial position with responsibility for staff and budget"; and b) participation in both the 2006 and 2008 follow-ups (n=216, 166 women and 50 men). The female respondents were younger and more likely to work part-time than the men (table 3). Male managers were more likely to work in hospitals. Half of the study group had children living at home and 80 percent were married or lived with a partner.

Table 3. Description of the study group in study IV.

		Women (n=166)		Men (n=50)		Total (n=216)	
		n	%	n	%	n	%
Age	32 -44	39	24	11	22	50	23
	45-54	80	48	18	36	98	45
	55- 66	47	28	21	42	68	32
Civil status	Single	34	21	6	12	40	19
	Married/Partner	131	79	44	88	175	81
Children at home	Yes	90	46	27	46	117	46
	No	76	54	23	54	99	54
Area	Hospital	117	70	39	78	156	72
	Other (Primary care, Dental care, Admin.)	49	30	11	22	60	28
Full/part time work	Full time (40h/week)	131	79	48	96	179	83
	Part time	24	14	1	2	25	12

The employer, Region Västra Götaland, funded parts of the study. The study was approved by the regional ethical review board in Gothenburg, Sweden and conducted according the 1964 Declaration of Helsinki.

Variables in Study II and IV

Long-term work attendance

In study II, the outcome prevalence of long-term work attendance was defined as employees who had taken no, or at the most, 7 days of sick leave during one year [54]. Individual data on days of sick-leave were obtained from the employer's registers during the 3-year study period. The individual data was also aggregated to work unit level.

Leadership qualities

In study II, leadership qualities and leadership-related psychosocial workplace conditions were measured using the questionnaire 'Swedish Employee Satisfaction Index' (SESI), distributed each year by Statistics Sweden. Employees answered the questionnaire individually, and the answers were then grouped and presented as a mean for each work unit. An index of *general*

leadership qualities was constructed with regard to the following five items (cronbach alpha 0.98):

- My supervisor delegates responsibility wisely
- My supervisor delegates work tasks wisely
- My supervisor is sensitive to work climate and activities
- My supervisor has the ability to handle any conflicts that arise in a good way
- My supervisor has the ability to lead the group towards common goals.

Rewards were measured using an index based on three items (cronbach alpha 0.65):

- My supervisor appreciates my task performance
- My colleagues appreciate my task performance
- The clients appreciate my task performance

Respect was measured by a single item:

- I am respected in my workplace

Participation was measured using an index based on four items (cronbach alpha 0.76):

- I can influence how I perform my work tasks
- I can influence the content of my work
- I can influence when work tasks should be performed
- I have enough decision latitude to take responsibility in an effective manner

Goal clarity was measured on the basis of three individual items (cronbach alpha 0.46):

- I know the goals of my work
- The goals of my work are realistic
- I know what results are expected from me

Trust/stability was measured on the basis of five individual items (cronbach alpha 0.76, but not indexed for practical reasons):

- I trust my supervisor
- I have trust in the top management

- I feel confident in facing organisational changes
- There's a good atmosphere among my colleagues
- We can have an open and free discussion at my workplace

All items had a 10-scale response rate (1= I totally disagree and 10= I totally agree).

Leadership workplace health promotion strategies

In study II, qualities in leadership WHP strategies were dichotomously categorized (0/1 or, where not appropriate, as missing) for each work unit based on the results of the earlier qualitative study.

Leaders' *WHP goals* were categorised as:

- Strengthening physical resources
- Strengthening professional resources
- Strengthening organisational resources
- Increasing awareness of own (i.e. the employees') health.
- Multi-focused WHP (when two or more goals were targeted)

The leaders' *WHP focus* was categorized as being either on individuals or on the organisation.

The leaders' *platform* created for WHP projects was categorised as:

- derived from work groups expressing needs and ideas (versus being derived from leaders' own ideas)
- targeting clearly changeable goals (versus targeting unrealistic goals within the framework of available resources and decision authority)
- involving broad employee participation in the development of the WHP projects (versus the WHP project being performed mainly by the supervisor).

The leaders' *attitudes towards responsibility for employees' health* were divided into three categories:

- Individual lifestyle creates high sick leave rates
- Work conditions create high sick leave rates
- Societal conditions create high sick leave rates

The leaders' expressed view of both *the employees* and *the budget as organizational resources* (as opposed to the view of employees as an obstacle to the budget) was also categorised.
The categorisations were performed by the qualitative interviewer (KS) one year before the statistical analysis was performed.

Outcome of maintenance
In study IV, *maintenance of position* was measured by the item:
- Do you have a managerial position with responsibility for staff and budget?
Balanced work attendance (*BWA*): based on earlier research [54], we combined self-reported sickness absence and sickness presenteeism [56] and measured maintenance of health as less than eight days of sickness absence and/or less than two incidences of sickness attendance during the 12 months prior to the follow-up survey [116].
No signs of burnout (*NSB*) was related to scoring below the 75th percentile (3,6) of the total mean score of the Shirom-Melamed Burnout Questionnaire at baseline [48]. This measure was also regarded as a measure of maintenance of health.
Maintenance of health at the time of the follow-up was only assessed for individuals who were still managers.

Potential predictive factors in the work domain
In study IV, factors in the work domain were measured at baseline using the Swedish version of the Job Content Questionnaire [117], with five items on the questionnaire relating to *work demands* and six items relating to *control*. The four response options ranged from "No, almost never" to "Yes, often". The indices were divided into quartiles. The highest quartile of the demand index (>16) and the lowest quartile of the control index (<19) at baseline were treated as reference categories, while the other quartiles in the indices were categorised as "Low to moderate demands" and "Moderate to high control", respectively.

Social support was measured on the basis of the single item: Do you have any person at work that you totally rely on and you could turn to in difficult situations at work? The response option "No" was treated as the reference category, while the other answers ("Yes, a superior", "Yes a subordinate" and "Yes, a colleague") were categorised as "Yes".
Daily contact with patients was assessed on the basis of the single item: How often do you have contact with patients? The two response options "Never, rarely" and "Seldom", were categorised as "No daily contact" and used as the reference category while the response options "Sometimes each week", "Sometimes, usually all work days", "Several times, usually all work days", were categorised as "Daily contact ".

Potential predictive factors in the work-life balance domain
In study IV, factors in the work–life balance domain were measured on the basis of five items in the questionnaire. The first item concerned *parental responsibility*, where answering "Yes" to having children living at home was treated as the reference category. *The effect of work on home life* [118] was measured on the basis of two individual items: Do you have energy left for domestic work after a working day? and Do you have energy left for leisure activities and friends etc. after a working day? The three options "Sometimes", "Seldom" and "Never" were categorised as "No energy left" and used as the reference category, while the two options "Always" and "Very often" were categorised as "Having energy left".

Recovery was determined on the basis of two individual items derived from the Karolinska Sleepiness Scale [119]: "Do you feel recovered after a few days of leave?" and "How often do you feel thoroughly rested when waking up?" The five response options ranged from "Never" to "Every day/very often". The last two were categorised as "Feeling recovered" or "Feeling thoroughly rested" while the other three response options were categorised as "Not feeling recovered/fully rested" and used as the reference category.

Analysis

Qualitative analysis (study I and III)

Data collection and analysis are parallel processes in grounded theory. The raw data were collected stepwise, simultaneously coded, and analysed in line with grounded theory method [120]. The interview questions were refined during the process, based on preliminary categories, in line with theoretical sampling. For example, a preliminary category in study I described leaders' views of workplace health as a gender issue. Accordingly, questions about how gender was related to health were added.

Grounded theory analysis (the constructivist version) comprises a systematic process of coding and comparing raw data, and the parallel use of theoretical memos and ideas [114, 121]. The first step in coding was aimed at transforming and conceptualising raw data into theoretical constructs. In other words, the researcher: identified and labelled the substance in the raw data; constantly compared data and codes in order to identify differences and similarities; and sorted codes with the same content into categories. Each category was then further developed and related to its subcategories, dimensions or properties at a more conceptual level (i.e. focused coding) [121] to describe the processes central to the research question. Theoretical notes and discussion in the research group were used to deepen the analysis in both studies.

For example, in the first coding step (i.e. *in vivo* coding) [121], the preliminary category "being involved in a lot" emerged in study II, primary as a stressor. When comparing data, this preliminary category evolved into the categories "leading during continuous change" and "leading whilst maintaining

trustworthiness". In the last theoretical coding step, the core category "Acting as a shock absorber" integrated the subcategories and dimensions. The core category describes the basic social process that is centrally related to all other categories. Theoretical memos were systematically used to link, and verify, analytical interpretations with the empirical data. The results can be regarded as constituting substantive models, or as an empirically derived hypothesis that can be used for stratified quantitative analysis [114, 122].

Statistical analysis (study II and IV)

Study II

Prevalence ratios (PR) with 90 or 95% confidence intervals (CIs) were calculated to determine statistical relationships. In the analysis of work unit aggregated questionnaire data, we decided to use a 90% CI because of assumed low precision (the response rate varied between 47 and 95 % in the analysed work units).

At first, we linked individual-level register-based data relating to work attendance to work unit questionnaire-based data relating to leadership qualities and psychosocial workplace conditions. Next, we performed stratified analyses of pre-categorised leadership qualities and long-term work attendance (at both the individual and work-unit level). A statistical analysis of variance (ANOVA) was used to estimate relationships for the continuous variable, i.e. work unit prevalence of work attendance. Statistical calculations were performed using SAS, version 9.1, and JMP, version 5.0 (SAS Institute, Cary, NC, USA).

Study IV

Descriptive statistics relating to managers' maintenance of position and of health over time are presented in the form of proportions (%) and numbers (n). Differences between women and men were analysed using the chi-square test with figures considered to be statistically significant when $p<0.05$. Using Cox regressions with constant time at risk, associations were calculated between

putative predictive factors at baseline and the outcomes at the time of the follow-ups, expressed as risk ratios (RR), here interpreted as a "success ratio", with 95% confidence intervals (CI) and adjusted for age and civil status. Data were considered to be of borderline significance when the lower confidence limit exceeded 0.95. We performed separate bivariate analyses for female and male managers in order to explore whether there were different predictors for each outcome; no such differences were identified, however. In a further attempt to explore possible differences between the sexes, multivariate analyses, one including both the work and work–life balance variables, and separate analyses using only one of these sets of variables, were tested. None of these approaches provided any further explanation of the data compared with the bivariate analyses. Analyses were carried out using the software SPSS version 15.0.

RESULTS

Study I

Leaders' strategies for improving employee health were related to their *approaches to economic and human resources* (core category). Their conceptions of their own influence on resources and of employee participation in organisational development processes were related to strategies for developing health resources. The categories that leaders described were: (a) resignation to resource deficiency; (b) struggling to control human and economic resources; (c) economising human and financial resources; (d) refining resources; and (e) translating human service productivity into increased resources. In the first two, inward strategies, the employees and budget were viewed as obstacles to organisational and health development, while in the last three, outward strategies, they were viewed as resources.

How the workplace health projects were targeted (core category) was related to the leaders' (a) views of responsibility for employee health (i.e. whether it lies with the individual, the organisation and/or society) and (b) focus for change (i.e. on individual factors, organisational factors and/or societal/gender-related factors). One project could deal with single or multiple factors.

Study II

Increased leadership qualities, especially in terms of rewards and respect, were associated with higher prevalence of work attendance at follow up. Leaders' strategies and views about work-related health had a significant impact on

increased work attendance in projects with a WHP focus on individuals, targeting clearly changeable factors, in multi-focused projects and in projects aimed at increasing employees' awareness of their health. Workplace health promotion strategies with a goal single focusing on strengthening physical, professional or organisational resources were negatively associated with work attendance. A higher proportion of employee work attendance was also seen in units whose leaders viewed the organisation or the society (rather than individual workers) as being responsible for the high rate of sick leave.

Study III

Leaders attempted to handle stress at the workplace by acting as shock absorbers (core category). Perceived leadership demands served as basic stressors. Being a leader in public HSOs, in our time, was characterised as leading in continuous change (i.e. structuring tasks and stabilising the staffing situation) and leading whilst maintaining trust (i.e. strengthening their position, communicating and filtering problems, supporting and encouraging subordinates). In order to reduce stress reactions among subordinates and handle perceived leadership demands to maintain their role as leaders, leaders used these strategies to balance demands and maintain trust from both higher and lower levels of the organisation. Their own work-related stress was related to perceived leadership demands and elevated feelings of loneliness, inadequacy and frustration. These feelings were reactions to poor support, limited decision latitude and ethical dilemmas. To manage their own stress, leaders tried to sustain their own integrity (core category). This was characterised as either identifying with or distancing themselves from the leadership role.

Study IV

Seventy four percent were still managers after two years and sixty percent were still managers after four years (2008). The prevalence of *balanced work attendance* decreased from 59 percent to 52 percent during the study period, while the prevalence of no signs of burnout increased. Still being a manager after four years was predicted by having a moderate/high level of job control at baseline and not having daily contact with patients (borderline statistical significance). Both are factors within the work domain. No factor in the work–life balance domain predicted maintenance of position. Balanced work attendance was predicted by *energy left for domestic work* at both follow-ups and also by being *invigorated after sleep* at the follow-up after two years. *Having energy left for domestic work* at the baseline predicted *no signs of burnout* in 2006. *Energy left for leisure activities* and *invigorated after sleep* predicted *no signs of burnout* in 2008. Low/moderate demands did not predict any of the outcome factors nor did *support in difficult situations*. No factor in the work domain predicted *balanced work attendance* or *no signs of burnout*.

There were no statistically significant differences in the prevalence of still being a manager between females and males. There was a higher prevalence of *balanced work attendance* among males both at baseline and at follow-up in 2008, although the differences did not reach statistical significance. The prevalence of *no sign of burnout* was higher at baseline among females than males (77 and 64 percent, respectively) and increased in both sexes during the study period. The difference between females and males exhibiting *no signs of burnout* was statistically significant at follow-up in 2006. Separate analyses were conducted to explore whether different factors predicted each outcome (maintenance of position, balanced work attendance and no signs of burnout) for female and male managers respectively, but no explanation for the differences was found (tables 4-6).

Table 4. Risk ratios (RR) and 95% confidence interval (CI) calculated for different factors in the work-life balance domain and the work domain, respectively, with regard to maintenance of position 2006 and 2008, separately for female and male managers.

	STILL MANAGER 2006		**STILL MANAGER 2008**	
	Females (n=120)	**Males (n=39)**	**Females (n=100)**	**Males (n=30)**
BASELINE 2004	RR (95%CI)	RR (95%CI)	RR (95%CI)	RR (95%CI)
No children at home	1.04 (0.72-1.48)	1.01 (0.54-1.89)	0.93 (0.63-1.38)	0.90 (0.44-1.85)
Energy left for domestic work	1.08 (0.75-1.55)	0.94 (0.50-1.76)	1.24 (0.82-1.87)	1.09 (0.52-2.26)
Energy left for leisure activities	0.98 (0.67-1.42)	0.96 (0.51-1.81)	1.11 (0.72-1.68)	1.15 (0.55-2.42)
Thoroughly rested after sleep	0.89 (0.62-1.28)	0.86 (0.46-1.62)	0.83 (0.56-1.23)	0.87 (0.42-1.80)
Recovered after a few days leave	1.26 (0.81-1.95)	0.84 (0.41-1.75)	0.89 (0.62-1.28)	0.86 (0.46-1.62)
Low to moderate demands	0.91 (0.60-1.37)	0.99 (0.49-1.99)	0.95 (0.60-1.48)	1.28 (0.55-2.98)
Moderate to high control	1.19 (0.77-1.84)	1.63 (0.80-3.35)	1.77 (1.04-3.03)	1.85 (0.79-4.31)
Support in difficult situations	1.06 (0.72-1.57)	0.95 (0.48-1.89)	1.08 (0.71-1.64)	1.03 (0.48-2.20)
No daily contact with patients	1.11 (0.75-1.65)	1.33 (0.70-2.53)	1.23 (0.81-1.88)	1.86 (0.91-3.81)

Table 5. Risk ratios (RR) and 95% confidence interval (CI) calculated for different factors in the work-life balance domain and the work domain, respectively, with regard to balanced work attendance 2006 and 2008, separately for female and male managers.

	MANAGERS WITH BALANCED WORK ATTENDANCE 2006		**MANAGERS WITH BALANCED WORK ATTENDANCE 2008**	
	Females (n=69)	**Males (n=22)**	**Females (n=49)**	**Males (n=18)**
BASELINE 2004	RR (95%CI)	RR (95%CI)	RR (95%CI)	RR (95%CI)
No children at home	0.78 (0.48-1.26)	1.68 (0.72-3.94)	0.88 (0.50-1.55)	2.06 (0.80-5.30)
Energy left for domestic work	1.47 (0.92-2.35)	2.26 (0.95-5.40)	1.45 (0.82-2.54)	1.88 (0.74-4.75)
Energy left for leisure activities	1.37 (0.85-2.20)	1.20 (0.52-2.78)	1.29 (0.72-2.28)	1.10 (0.43-2.84)
Thoroughly rested after sleep	1.50 (0.94-2.42)	2.26 (0.95-5.40)	1.44 (0.82-2.53)	1.64 (0.64-4.14)
Recovered after a few days leave	1.37 (0.85-2.20)	1.20 (0.52-2.77)	1.44 (0.72-2.89)	2.33 (0.77-7.09)
Low to moderate demands	1.03 (0.60-1.77)	1.77 (0.60-5.22)	1.07 (0.55-2.06)	1.06 (0.35-3.24)
Moderate to high control	0.66 (0.39-1.11)	0.92 (0.36-2.35)	0.86 (0.42-1.77)	1.52 (0.44-5.26)
Support in difficult situations	0.97 (0.58-1.62)	0.68 (0.25-1.85)	1.03 (0.57-1.87)	1.00 (0.37-2.66)
No daily contact with patients	0.83 (0.48-1.42)	1.60 (0.69-3.69)	0.62 (0.31-1.20)	1.43 (0.56-3.62)

Table 6. Risk ratios (RR) and 95% confidence interval (CI) calculated for different factors in the work-life balance domain and the work domain, respectively, with regard to no signs of burn out 2006 and 2008, separately for female and male managers.

	MANAGERS WITH NO SIGNS OF BURNOUT 2006		**MANAGERS WITH NO SIGNS OF BURNOUT 2008**	
	Females (n=69)	**Males (n=22)**	**Females (n=49)**	**Males (n=18)**
BASELINE 2004	RR (95%CI)	RR (95%CI)	RR (95%CI)	RR (95%CI)
No children at home	0.99 (0.67-1.47)	1.56 (0.74-3.29)	0.98 (0.62-1.55)	1.31 (0.57-3.02)
Energy left for domestic work	1.21 (0.82-1,80)	No cases available	1.34 (0.84-2.11)	1.50 (0.65-3.46)
Energy left for leisure activities	1.14 (0.76-1,71)	No cases available	1.38 (0.87-2.18)	No cases Available
Thoroughly rested after sleep	1.15 (0.78-1.71)	No cases available	1.40 (0.89-2.20)	No cases available
Recovered after a few days leave	1.24 (0.79-1.97)	2.30 (0.87-6.05)	1.39 (0.80-2.41)	1.17 (0.49-2.78)
Low to moderate demands	1.25 (0.78-2.00)	1.81 (0.69-4.75)	1.09 (0.64-1.85)	3.04 (0.71-13.02)
Moderate to high control	1.02 (0.63-1.65)	1.03 (0.44-2.43)	1.26 (0.63-2.54)	1.04 (0.38-2.80)
Support in difficult situations	0.94 (0.61-1.46)	0.76 (0.32-1.79)	0.79 (0.47-1.31)	0.93 (0.38-2.29)
No daily contact with patients	1.01 (0.66-1.54)	1.04 (0.48-2.21)	0.97 (0.60.1.58)	1.14 (0.49-2.64)

DISCUSSION

The aim of this thesis was to deepen knowledge of leaders' conceptions, strategies and preconditions to promote and maintain health at work in human service organisations. Two qualitative studies, focused on promoting health and preventing ill-health, explored leaders' conceptions, strategies and perceptions of their working conditions. One prospective study explored how leaders' conceptions and strategies influence health at the workplace and the last prospective study assessed potential preconditions for maintenance of position and health among healthcare managers. Strategies to promote and maintain health in the workplace were related to the leaders' own conceptions and perceived decision latitude. Individual, organisational and societal preconditions could in turn facilitate or create barriers for those strategies.

Leaders' strategies to promote working conditions and health among employees

The interaction and communication between subordinates and superiors were essential elements in leaders' strategies to promote and maintain health among their employees. Trusting relationships seem to strengthen employee health and enhance conditions experienced by leaders, whilst a lack of trust and support in the work environment created somewhat of a barrier for the leaders' ability to promote working conditions and influence individual health behaviour. A trustworthy leadership plays an important role, not only through the direct influence on employee health [88], but also indirectly through enhanced motivation, performance and likelihood that employees [123] will participate in workplace health promotion activities. It has been suggested that leadership and employee attitudes, along with collaborative management involving leaders and employees, and developing a sustainable work environment all contribute to

good health, but these factors have been poorly studied empirically. There may be difficulties in promoting real participation in work unit developmental processes, since this places demands on both the leaders and the followers [124]. The leaders must be willing to share and utilise structures of power , and the employees should have the capacity and willingness to participate [125]. Problem-based learning methods appear to facilitate such processes [126] and such methods was seen in study I, in strategies attempted to strengthen organisational resources, empowering the employees and allowing employees in decision-making processes.

The WHP strategies examined in study I and II comprised either single-target interventions or more comprehensive multiple-target interventions. The projects with a single focus for change on individual factors were not related to improving working conditions directly, why there may be difficulties in making the changes sustainable. Some of the leaders' strategies reveal that they viewed development processes as being continuous, rather than stepwise, and as being natural parts of everyday work. Their WHP projects seemed to represent ongoing processes of improvement and change. Change processes involving employee influence and commitment , i.e. learning strategies, have been described as being more supportive of health than top–down strategies [127]. Learning activities that include empowerment processes have been related to sustained health [96]. Even though the WHP activities examined in study I and II were assumed to have arisen from the work units' views of what would promote their health when they applied for financial support, employee empowerment and ability to actively participate in organisational and health development could not be taken for granted. In one of our earlier studies, no significant correlations were found between participation processes and work attendance, while structures for systematic occupational health and safety management had a significant effect [95].

Leaders' attitudes toward employees have been associated to how well change processes succeed in the workplace [128]. In study II, leaders' approaches to human and economic resources and the targeting of their WHP projects were related to their views about who was responsible for employee health and to their change focus. In the WHP projects where the leaders solely adopted a strategy of lecturing, employees may have felt stigmatised (i.e. that they were viewed as the problem). This feeling can create a barrier to participation in health promotion in the workplace. Leadership behaviour and employee well-being seem to influence each other in a feedback loop [97]. This highlights the various dimensions and directions (i.e. upwards versus downwards, toward either health or productivity) associated with participative processes. A higher proportion of employee work attendance was also seen in units where leaders viewed the organisation or society (rather than individual workers) as responsible for the high rate of sickness absence. Consequently, in the absence of stigmatisation there was increased work attendance. (The opposite could be expected if individuals were being held solely responsible, since being regarded as a 'problem' may not necessarily result in increased work attendance among subordinates.) Likewise, increased trust in leaders and top management was related to higher work attendance.

In study II, WHP projects targeting clearly changeable factors lead to increased long-term work attendance. In addition, increased goal clarity among WHP leaders was related to increased work attendance. The results support the hypothesis of cybernetic regulation processes, in which target levels and workload affecting employee health in HSOs [13] and where decision authority with regard to resources and budget is dependent on political priorities. Individual demands among HSO workers can be described in terms of organisational and individual disagreement at the goal level [13]. Incongruity between agreed goals at different levels, i.e. poor goal clarity, can be an important factor when explaining work-related stress or beneficial mastery among human service workers. Feedback on task performance can give clarity

with regard to role and goals, and positively influence work satisfaction and commitment [129]. Goal clarity from the top management within organisations has been related to higher work attendance among home care workers [54]. Likewise, poor goal clarity has been related to long-term sick leave (>21 days) among white-collar workers [130].

The multi-target interventions in study I and II viewed individuals as both the subject and object of WHP, in line with WHO recommendations [29]. In addition, earlier WHP intervention studies have found that broader WHP interventions had more positive effects on work-related health [25]. Study II, based on the qualitative categorisation in study I, found a strong positive relationship between multi-target WHP projects and higher work attendance. The targeting of WHP projects may have a reasonably significant impact on such projects' feasibility and results. Leadership strategies are important conditions that influence the nature of workplace interventions. Leaders awareness and availability especially during change processes have been highlighted earlier [8]. These conditions can act as either risk factors or resources, which affect work ability and work attendance. The impact of a consistent leadership seems to be taken into consideration in future studies as well.

Managers own work conditions and health

Being a leader in public HSOs, at the present time, was described in the qualitative studies as dealing with (constantly decreasing) resources during continuous organisational and societal change. The challenge of handling constant societal and organisational change was considered to be a hindrance to maintaining and promoting health. Societal changes, organisational changes and management differences may cause a skewing of the distribution of risks in the work environment. These conditions seem to have influenced the human service

sector more negatively than other sectors [64] and the leadership function has been affected in several ways. According to our results in study III, the responsibility for dealing with these conditions has percept to land on the frontline leaders. By structuring their own work very strictly, leaders tried to be as efficient as possible. Their structuring strategies also focused on defining responsibilities and strengthening boundaries between the organisation and clients. This can be interpreted as the influence NPM has had on managerial work, where each manager is hold accountable to keep the budget in balance [17]. These efficiency-enhancing strategies may lead to negative consequences for clients and the quality of care, as argued by Firth-Cozens & Mowbray [131]. For example, individuals may be indiscriminately allocated to one service centre or another, and/or have their benefits from the social insurance systems reduced.

In study III, distress in the role of leader seemed to occur from feelings of a more or less individual moral responsibility for the role in combination with restricted circumstances, i.e. when there was limited decision latitude. Ethical dilemmas were related to (lack of) resources, rules versus praxis, conflicts of interest, and lack of supportive structures. Moral distress seemed to occur when the individual acted in a loyal and socially correct manner but against his/her own values (morally wrong) or when the action was morally right, but legally wrong [12]. In such cases, the leaders tried to sustain their own integrity by alternating between identifying with and distancing themselves from the role as a leader. Distancing strategies were used when leaders had to implement and adhere to decisions from above that they disliked but could not influence. They tried to sustain their own integrity by having a plan for leaving their post (i.e. returning to their original profession) or by speaking out and protesting against such decisions. Protesting is a more active strategy and, thus, probably helps the individual to externalise problems and relieve inner pressure. Protesting may not, however, be seen as a viable strategy for a “loyal” leader. Strategies where leaders choose to leave instead of speaking out may affect the organisation both economically (e.g. having to recruit a new leader) and strategically (unvoiced information and

increased risk of "groupthink" [132]). The results presented in Study IV show that there is a lack of continuity in leadership, as suggested in study III. Four out of ten participants did not remain as a manager within the four year study period.

Distancing as a coping strategy, which was seen in study III, may thus imply that, in order to preserve their mental balance, leaders actually perform at a lower level than intended or imagined by the higher-level decision-makers. Theories of individual and collective rationality presuppose that individuals are aware of the effects on themselves and others (the collective) of their choices and strategies. To gain as positive an outcome as possible for the collective, the keystones are cooperation and trustworthiness [133]. If higher-level decision-makers are not made aware of the true situation, due to filtering, general organisational irrationality may result [134]. Passive and covert coping may result from a lack of support from and trust in managers' own superiors. However, such strategies do not promote health in the long run [135]. The identifying and distancing strategies may in turn influence the strategies that managers direct towards their subordinates. Integrity and trust are important factors in effective leadership [136]. Unpredictability in managerial integrity has also been related to sickness absence among men; in contrast women reported poor health and more sickness presenteeism [88]. Proximity and everyday availability to allow cooperation between leaders and subordinates is necessary to build trust and to make everyday work safe and smooth [137, 138]. At the same time, the leaders' availability for subordinates conflicted with the demands the leader had to fulfil in order to maintain trustworthiness upwards in the organisation. This could also be explained as having lack of control. The opposite, medium to high control, predict and promote maintenance of managerial positions in study IV.

Individual commitment, or "moral competence", is a favoured trend in modern working life [139]. Strongly identifying with the role of a leader may be related to performance-based self-esteem (PBSE) [140]. Individuals with high PBSE have internal drive and may identify strongly with their occupational role and its

performance, instead of seeking help and support from others. In research into stress and burnout, “overcomittment” or “intrinsic reward” have been suggested as risk factors [69, 90]. Individuals with high levels of PBSE may become engaged to an unhealthy degree in intrinsically rewarding jobs. Thus, distancing oneself from the leadership role could be seen as an individual rational choice [133] and may be a health-promoting coping strategy for the individual leader. On the other hand, it is also necessary for a leader to communicate with and be available to his/her staff. This may not work if the leader is psychologically distanced from his/her role. In our clinical work with patients suffering from disorders related to work stress, we have found, in a large majority of cases, that distanced or overloaded superiors constitute part of the problem, resulting in insufficient social support for the workers. This lack of support may result in uncertainty concerning performance goals, and unlimited latitude for staff that tend towards over-commitment. One may speculate that this mechanism is also one that must be utilised in order to achieve more human service production with fewer resources. Distancing may also be an indicator of an ongoing burnout process [27, 140] that may be caused by strong motivation to fulfil the demands imposed by higher-level decision-makers, subordinates and/or clients. However, the results in study IV could not show any relation between a reasonable level of demands and maintaining health nor remaining as a manager.

It has been suggested that there are different predictors for positive and negative health outcomes [53]. Study IV suggests that predictors for sustained good health are associated with work–life balance, while remaining in post can be predicted by variables relating to working conditions. A positive selection may also operate with respect to managerial posts on the basis of health and work–life balance [53, 141]. The respondents’ professional background may also offer an exit route from the managerial post before work conditions have had a severe adverse effect on health. Having daily contact with patients may be an important way for individuals to legitimise their leadership and build trust downwards as well as upwards within the organisation [110, 142]; however, this seems to be

counterproductive with respect to remaining in post. Professional background (i.e. whether the manager was trained as a physician) may influence whether the managerial position is viewed as a temporary task in a long-term career [110], and may explain why individuals wish to maintain daily contact with patients and maintain their clinical skills. The conflict between clinical and managerial work [143] and a trustworthy relationship with both superiors and subordinates [61] needs to be explored further.

Job demands did not serve as predictors for any of the outcomes in study IV. When an individual takes on a managerial post, they may expect the job to be demanding but not that they will have limited control. This may explain why demand was not a predictor for remaining as a manager but control was. Other potentially important factors relating to managers' working conditions, not considered here, would probably help to explain the high turnover rates identified in study IV as well. For example, span of control [144, 145] and the relationship between managers and their subordinates and superiors, which may influence an individual's intention to leave the position and/or affect their health. The possibility of getting another, more attractive job, without being unhappy in the managerial role, is another obvious factor [59]. Due to the study design, all of the participants that were no longer managers at the times of the follow-up had remained with the same employer but had moved to another job. In addition, the excluded group, i.e. those who did not respond to both follow-up surveys, is likely to include individuals who reached retirement age during the study period. Thus, the high turnover rates among health care managers are particularly noteworthy. Turnover of only half the level of that recorded herein is considered high among nurses [59, 60].

Demographic and organisational changes currently present challenges to healthcare organisations with respect to handling the shortage of employees and maintaining a stable and healthy work force; leadership has been identified as a major factor when dealing with these issues [6, 7]. The results of study IV

indicate that difficulties can arise if organisations rely on individual managers to address issues concerning long-term stability and employee health, since many will not stay in post long enough to pursue such goals. To my knowledge, no other study has investigated continuity in the managerial position among healthcare managers. It would be interesting to explore how employee health may be affected of frequent change of managers.

Gender aspects

The construction of men's and women's roles seemed central to the leaders examined in study I, even to those leaders who lacked explicit awareness of gender order. The theoretical concept of gender order [98] was used by some respondents to describe how power and societal values affected health among human service employees. This power relationship is built on two principles: vertical and horizontal separation of the sexes and a general subordination of women to and supervision of them by men. The Swedish labour market is still strongly gender segregated, both vertically and horizontally [146]. In the City of Göteborg, 81% of employees and 67% of all managers are women [147]. The municipality of Göteborg is divided into 21 geographical areas, each with its own District Committee, directly subordinate to the City Council; women account for only 33.3% of District Committee top managers (Personal communication with M. Warpare, 2008). The inward strategies of being "resigned" and of "struggling" provided little opportunity for leaders to mobilise resources within their perceived decision latitude. These limitations were imposed, according to the leaders, by both their subordinates and superiors. In contrast, the outward strategies showed evidence of a confidence in relationships with both superiors and subordinates. These results can be related to Kanter's [101] upward and downward spiral of opportunities and the power to mobilise resources. Through being aware of gender order, leaders could better understand and handle their

situations. The various functions of leadership practice and communication strategies in an organisation have also been described in the more gender-neutral leadership strategy literature (see e.g. Mintzberg and Bass [79, 83]). However, the translating strategy described in study I captures another dimension, that of bridging the impact of gender order through being the translating link between the operational women-dominated areas of interest and the male-dominated top management culture.

The lack of differences in predictors between female and male managers in study IV suggests that there simply are no such differences. The study group was homogeneous in many respects, with similar working conditions in the same organisation. A female-dominated organisation may also neutralise the barriers that female managers often have to deal with in male-dominated sectors of working life [103, 104, 148]. Previously, figures measuring work attendance [54] and excellent health [37] have been found to differ between women and men, in favour for men. Here, the prevalence of NSB was higher among female managers, which can indicate a positive selection of individual females with additional resources in their private life and of health to managerial posts [141, 149]. However, the likelihood of BWA was higher among male managers at the time of the baseline and the 2008 follow-up, even though the differences were not statistically significant. Organisational factors such as the vertical division of work or other gender-related psychosocial and behavioural factors were not explored in this study and these may contribute to explaining the difference between female and male managers.

Methodological discussion

Combination of qualitative and quantitative approaches

Both qualitative and quantitative methods were used in the studies described in this thesis, sequentially in a research process (studies I, III, IV) and in a mixed design (study II). In study II, we used the qualitative categorisations (study I) of leaders' conceptions and strategies in the quantitative estimation of the influence of WHP projects on work attendance among employees. Studies I and II used grounded theory, which is considered suitable for sequential use in quantitative stratified analysis [114, 121]. The potential of the grounded theory approach, in terms of developing knowledge through a combination of qualitative and quantitative methods, lies in the fact that it provides a description of the systematic and logical procedure of *how* theories are developed [150]. It is an attempt to address scientific activity within the context of discovery, which is different from how one achieves verification (the context of verification) [150]. The results of study I and III were considered in the context of substantive grounded theories, including concepts and conceptual relationships, generating empirical hypotheses and specifying variables for further quantitative studies. The formulation of the logic of discovery is an important step prior to developing a predictive model [150]. Results from study II, and also study I, have been used to develop an instrument for quantitative estimations of HSO managers' exposure to stress, their coping and supportive resources [151]. All studies are part of a broader research programme, comprising both quantitative and qualitative methods, investigating preconditions for "sustainable leadership" [152]. Combining qualitative and quantitative approaches is particularly important for understanding the rapidly changing work environment, employment situations and women's working situations [153]. In my view, qualitative and quantitative methods are complementary and pragmatically used order to best respond the research question [154].

Sampling and study groups

Study I and II were conducted in collaboration with a large employer (approximately 45 000 employees); one of the aims was to improve the preconditions for and handling of employee health within the organisation. Thus, the sampling was limited to the organisation studied. This gave contextual insights but limited opportunities to perform randomisations. We could not randomise the WHP-projects, as they were selected by the employer. Their selection aimed to cover various WHP interventions and to support creative proposals; they also wished to support projects were there was some kind of employee participation (according to the written proposals). However, as the results showed and as discussed above, there was variation in employee participation.

In study I and III, a grounded theory approach was used. The sampling procedure in study I was compromised. Instead of a strategic and later, a theoretical sampling (as in study III) all WHP-project leaders were interviewed. The "theoretical sampling" was conducted by means of theoretically refined interview questions, as suggested by Charmaz [121].

In study II, sampling of employees was conducted from the employers' register, which was linked to the payment of salary and therefore updated every month. Appropriately, HSO-workers on parental leave or leave of absence for any other reason than sick leave were excluded. We considered problems related to a possible unequal distribution of part-time and hourly employees between various work units by examining the relative estimated number per number of employees and per full-time worker equivalents.

With regard to managerial position, 14 out of the 23 project leaders in study I were also the formal first line manager. The difference between being a project

leader with or without occupying a formal managerial position may confound the results, though the preconditions (of decision latitude for example) probably depend mostly on the formal power within the organisation. This may be the reason why the project leaders' view of their subordinates and budget as an obstacle did not show significant impact on the employee health. However, we did not get any indications that the categories were related to formal position. In study III, the study group comprised both healthcare and social insurance managers. Their challenges may be of a different character. The descriptions indicated to some extent that the social insurance managers were more preoccupied (stressed) with laws and rules. In the results, we chose to describe the central processes experienced by both kinds of managers. In study IV, the questionnaire did not distinguish between first and second line managers. This may have had an impact on the results, as degree of control and closeness to practice varies between the different roles. Furthermore, it would have been favourable to distinguish between managers who were physicians or nurses but this was not possible. An earlier study indicates that managers that are doctors tend to see the managerial position as an intermediate state in their clinical work [110]. In addition, data on managerial conditions, such as span of control regarding employees, would have strengthened the study.

In this thesis, it is primarily leaders themselves that were the source of the data. This adds knowledge of leaders' own conceptions, strategies, managerial qualities and conditions, in contrast to most of the research studying leadership and health in the workplace, which most often has the employees as source of data.

Data collection

In the qualitative studies (I and III), the interviewer and the researcher were considered as a component of the interactive processes of data collection and analysis. This may also introduce the risk of reduced scientific rigour. In order to

meet requirements for scientific rigour in qualitative research (credibility, dependability, conformability and transferability) [155], the researcher must acknowledge the effects of his/her prior knowledge and the interaction between the researcher and the respondent on the data content. These issues were continuously discussed in the project groups, in order to improve the quality.

In study II, the response rate to the questionnaire varied between the work units. This may have reduced the precision of these data. The register-based data pertaining to sickness absence were checked to delete duplicates, which may be a common problem.

In study IV, there was internal missing data for the item relating to over-time work. We therefore excluded this item. The questionnaire was not designed specifically to capture managers' psychosocial conditions and challenges. These may be different to those experienced by employees who are not in a managerial position, e.g. the relationship with subordinates may constitute a main stressor and/or resource (as shown in study I and III). We therefore intend to add such questions in future studies of managers in HSOs.

CONCLUSIONS

Leaders' conceptions of employees as either obstacles to or opportunities for development and their views on responsibility for employee health are key factors in WHP strategies. Leadership qualities and leaders' WHP strategies and attitudes to the work-related health of employees have an important effect on implementation processes and on health in the workplace.

Leaders' conceptions of their own responsibility for preventing stress and related health problems in the workplace were expressed as they had to act as shock absorbers. Strategies to handle constant change whilst maintaining trust were necessary but could, in turn, adversely influence the balance between the leadership role and leaders' own health resources. Preconditions in terms of supportive structures and improved communication about everyday dilemmas seem to be needed in order to improve the basic conditions for practicing leadership in human service organisations.

Preconditions to promote and maintain health among healthcare managers were found to be associated with work–life balance factors, while remaining in a managerial post was mainly linked to work-related factors; there were no clearly observed differences between female and male managers. The relatively high proportion of those not remaining as managers highlights the importance of identifying and enhancing preconditions for exercising leadership that are necessary to promote and maintain health in human service organisations.

Implications for research and practice

How leadership is practised in order to promote and maintain health in the workplace should not be underestimated. Leadership dimensions regarding respect, recognition, trust and goal clarity seem to promote health. The leaders' attitude towards responsibility for health should be taken into account in leadership instruments for measuring health-promoting leadership as well as in workplace health promotion interventions. Balanced work attendance may serve as a measure of workplace health, in particular in evaluations of WHP activities.

There is a need for future research and development of instruments exploring leadership preconditions and possible relationships with the performance and health of leaders. The employee influence on leadership with respect to participation, cooperation and engagement in organisational development needs to be investigated as well as structural factors such as staff size and proportion of clinical work performed by the managers. The seemingly high turn-over of managers indicates that organisations cannot rely on individual managers to address issues of long-term stability and employee health, since many will not stay in post long enough to pursue such goals. Strengthening leadership conditions in practice may, therefore, be an equally good or even better investment than the development of individual leaders' competences.

ACKNOWLEDGEMENTS

Ten years ago, I had just started my academic education in HRM, and was still employed as a blue-collar worker at the paper-mill in Mölndal. I could not have imagined that I would be here today. I would not have succeeded without the tremendous social and practical support I've been given by the people around me! From the bottom of my heart, I want to express my gratitude to those of you who helped me along the road.

First of all, my supervisors Gunnar Ahlborg and Lotta Dellve:
Thank you for your trust and patience, when I doubted my own capacity. Gunnar, being a member of your staff is a privilege. Lotta, if it were not for you, I would never have started this scientific journey!

Everyone involved in the SAMS project:
Helen Torstensson at the Göteborg city office, for your collaboration. Rebecka Vilhelmsson, for your statistical expertise. All the leaders and employees involved in making your workplaces a little bit healthier than before.

My co-authors Mats Eklöf and Anders Pousette, who have also done a fantastic job of creating an instrument aimed at improving research relating to managers, based on our qualitative studies. Gudrun Swan, who transcribed the interviews.

All of you respondents, who generously shared your conceptions and thoughts with me.

VINNOVA, who financed study I and II. RegionVästra Götaland, who financed study III and IV.

The rest of my research colleagues in LMAH, not mentioned before: Fredrik Bååthe, Stefan Tengblad, Marianne Törner and Ewa Wikström. Our different perspectives are strengthening my own scientific development!

Present and former colleagues and PhD students in the research group at the Department of Public Health and Community Medicine, in particular:Christina Grill, Jesper Löve, Ellinor Tengelin, Sara Tomée and Linda Åhlström.

All of my dear colleagues at the Institute of Stress Medicine:
Thank you for putting up with my emotional roller coaster lately. A special thanks for all the chitchats on the coffee sofa!

My former HR- colleagues, in particular Maria Tuvegran, Ulla Fransson, Elin Mannebo and Malin Warpare, and all the fantastic leaders that I have met during the years in Göteborgs stad. I have learned a lot from you!

Friends through the years, who have shared canoeing weekends in Dalsland with me.

Last but not least, my big lovely family:
My dear parents, Inger and Hasse, and my sisters Kerstin and Lena for babysitting, understanding, laughing (and crying) over the years. My husband and hunk Peter, who has given me space as well as support and love when I've needed it. Our fabulous children Sara, Alexander, Eliott and My, who have helped me to gain personal insights and perspectives on life. I love you all!

"Att arbeta är bra så länge man inte glömmer bort att leva"

REFERENCES

1. Graetz, B., *Health consequences of employment and unemployment: longitudinal evidence for young men and women.* Soc Sci Med, 1993. **36**(6): p. 715-24.
2. AFA Försäkring, *Allvarliga arbetsskador och långvarig sjukfrånvaro, 2009*. 2009. p. 78.
3. Arbetslivsinstitutet, *Den höga sjukfrånvaron – problem och lösningar*, ed. S. Marklund, et al. 2005, Stockholm: Arbetslivinstitutet.
4. Statens beredning för medicinsk utvärdering ,SBU., *Sjukskrivning: orsaker, konsekvenser och praxis : en systematisk litteraturöversikt* 2003, Stockholm: Statens beredning för medicinsk utvärdering (SBU)
5. Statistiska centralbyrån, SCB. *Sjukfrånvaro och ohälsa i Sverige-en belysning utifrån SCB:s statistik*. 2004 [cited 2008 2008-08-29]; Available from: www.scb.se/Grupp/Sjukfranvaro/_Dokument/Bfakta_analys.pdf.
6. Allin, S., et al., *The European health report 2009. Health and health systems*. 2009, WHO Regional Office for Europe.
7. Godue, C., *Human Resources for Health: a global public health issue?*, in *Canadian Public Health Association 97th Annual Conference*. 2006: Vancouver, Canada.
8. Tvedt, S., P. Saksvik, and K. Nytrö, *Does change process healthiness reduce the negative effects of organizational change on the psychosocial work environment?* Work & Stress, 2009. **23**(1): p. 80-98.
9. Whitehead, D., *Workplace health promotion: the role and responsibility of health care managers.* J Nurs Manag, 2006. **14**(1): p. 59-68.
10. Hasenfeld, Y., *Human service organizations*. 1983, Englewood Cliffs, N.J.: Prentice-Hall, cop.
11. Mintzberg, H., *Structure in fives : designing effective organizations* 1993, Englewood Cliffs, New Jersey: Prentice-Hall, cop. .
12. Kalvemark, S., et al., *Living with conflicts-ethical dilemmas and moral distress in the health care system.* Soc Sci Med, 2004. **58**(6): p. 1075-84.
13. Pousette, A., *Feedback and stress in Human Service Organizations*, Thesis *Department of psychology*. 2001, Göteborg University: Göteborg.
14. Connell, R., *Gender*. Second ed. 2009, Cambridge: Polity Press.
15. Elovainio, M., M. Kivimaki, and J. Vahtera, *Organizational justice: evidence of a new psychosocial predictor of health.* Am J Public Health, 2002. **92**(1): p. 105-8.
16. Statistics Sweden. *Women and Men in Sweden, Facts and figures 2008.* 2008 [cited 2009 10 october]; Available from: http://www.scb.se/Pages/PublishingCalendarViewInfo___259924.aspx?PublObjId=9015.
17. Connell, R., B. Fawcett, and G. Meagher, *Neoliberalism, New Public Management and the human service professions: Introduction to the Special Issue.* Journal of Sociology, 2009. **45**(4): p. 331-338.
18. Theorell, T., *I spåren av 90-talet*. 2006, Stockholm: Karolinska institutet University Press.

19. Blomgren, M. and K. Lindberg, *Mellan offentligt och privat i hälso- och sjukvården*, in *Om styrning, praktik och intressen i hälso- och sjukvården*, K. Lindberg and M. Blomgren, Editors. 2009, Santérus Academic press Sweden: Stockholm. p. 11-19.
20. SOU 2000:38, *Välfärd, Vård och omsorg [Welfare, health and social care]*, Socialdepartementet, Editor. 2000, Fritzes: Stockholm.
21. Statistiska centralbyrån, SCB. *Sysselsatta inom landstings-, primärkommunal-, kyrkokommunal-, statlig- samt övrig sektor efter sektor och kön. År 1992-2008* 2009 [cited 2009 2009-08-19]; Available from: http://www.ssd.scb.se/databaser/makro/MainTable.asp?yp=jhieek&xu=94183001&omradekod=AM&omradetext=Arbetsmarknad&lang=1.
22. Hertting, A., et al., *Downsizing and reorganization: demands, challenges and ambiguity for registered nurses.* J Adv Nurs, 2004. **45**(2): p. 145-54.
23. Kippist, L. and A. Fitzgerald, *Organisational professional conflict and hybrid clinician managers: the effects of dual roles in Australian health care organizations.* J Health Organ Manag, 2009. **23**(6): p. 642-55.
24. Medin, J. and K. Alexandersson, *Begreppen hälsa och hälsofrämjande: en litteraturstudie*. 2000, Lund: Studentlitteratur.
25. Shain, M. and D.M. Kramer, *Health promotion in the workplace: framing the concept; reviewing the evidence.* Occup Environ Med, 2004. **61**(7): p. 643-8, 585.
26. Arbetsmiljöverket, *Arbetsskador 2008. Occupational accidents and work-related diseases*, in *Arbetsmiljöstatistik 2009:1*. 2009, Arbetsmiljöverket (Swedish Work Environment Authority): Stockholm.
27. Maslach, C., Schaufeli, W., Leiter, M., *Job Burnout.* Annual Review of Psychology, 2001. **52**(1): p. 397-422.
28. Wreder, Å., M. Gustavsson, and B. Klefsjö, *Management for sustainable health: A TQM-inspired model based on experiences taken from succesful Swedish organizations.* Journal of Quality and Reliability Management, 2008. **25**(6): p. 561-584.
29. World Health Organization, WHO. *Good Practice in Occupational Health Services - A Contribution to Workplace Health*. 2002 [cited 2004-09-28; Available from: http://www.euro.who.int/document/e77650.pdf.
30. Menckel, E. and L. Österblom, *Hälsofrämjande processer på arbetsplatsen. Om ledarskap, resurser och egen kraft*. 2000, Stockholm: Arbetslivsinstitutet.
31. Chu, C., et al., *Health-promoting workplaces-international settings development.* Health Promot. Int., 2000. **15**(2): p. 155-167.
32. Pelletier, K.R., *A review and analysis of the clinical- and cost-effectiveness studies of comprehensive health promotion and disease management programs at the worksite: 1998-2000 update.* Am J Health Promot, 2001. **16**(2): p. 107-16.
33. Pelletier, K.R., *A review and analysis of the clinical and cost-effectiveness studies of comprehensive health promotion and disease management programs at the worksite: update VII 2004-2008.* J Occup Environ Med, 2009. **51**(7): p. 822-37.
34. Kelloway, E.K., M. Teed, and E. Kelley, *The psychosocial environment: towards an agenda for research.* International Journal of Workplace Health Management, 2008. **1**(1): p. 50-64.

35. Alexanderson, K., K. Borg, and G. Hensing, *Sickness absence with low-back, shoulder, or neck diagnoses: an 11-year follow-up regarding gender differences in sickness absence and disability pension.* Work, 2005. **25**(2): p. 115-24.
36. Hensing, G., L. Andersson, and S. Brage, *Increase in sickness absence with psychiatric diagnosis in Norway: a general population-based epidemiologic study of age, gender and regional distribution.* BMC Med, 2006. **4**: p. 19.
37. Eriksson, J., et al., *Early inequalities in excellent health and performance among young adult women and men in Sweden.* Gend Med, 2007. **4**(2): p. 170-82.
38. Statistiska centralbyrån, SCB. *På tal om kvinnor och män 2004*. 2004 [cited 2008 2008-10-06]; Available from: www.scb.se/Statistik/LE/LE0201/2004A01/LE0201_2004A01_BR_X10ST0401.pdf.
39. Mastekaasa, A., *Sickness absence in female- and male-dominated occupations and workplaces.* Soc Sci Med, 2005. **60**(10): p. 2261-72.
40. Alexanderson, K. and P. Östlin, *Work and Ill-health among Women and Men in Sweden*, in *Worklife and Health in Sweden 2000*, S. Marklund, Editor. 2001, National institute for working life: Stockholm. p. 119-134.
41. Dellve, L., et al., *Macro-organizational factors, the incidence of work disability, and work ability among the total workforce of home care workers in Sweden.* Scand J Public Health, 2006. **34**(1): p. 17-25.
42. Lundberg, U. and M. Frankenhaeuser, *Stress and workload of men and women in high-ranking positions.* J Occup Health Psychol, 1999. **4**(2): p. 142-51.
43. Sandmark, H., *Work and family: associations with long-term sick-listing in Swedish women - a case-control study.* BMC Public Health, 2007. **7**: p. 287.
44. Voss, M., B. Floderus, and F. Diderichsen, *How do job characteristics, family situation, domestic work, and lifestyle factors relate to sickness absence? A study based on Sweden Post.* J Occup Environ Med, 2004. **46**(11): p. 1134-43.
45. Staland-Nyman, C., K. Alexanderson, and G. Hensing, *Associations between strain in domestic work and self-rated health: a study of employed women in Sweden.* Scand J Public Health, 2008. **36**(1): p. 21-7.
46. Voss, M., et al., *The influence of household work and of having children on sickness absence among publicly employed women in Sweden.* Scand J Public Health, 2008. **36**(6): p. 564-72.
47. Dellve, L., M. Lagerstrom, and M. Hagberg, *Work-system risk factors for permanent work disability among home-care workers: a case-control study.* Int Arch Occup Environ Health, 2003. **76**(3): p. 216-24.
48. Melamed, S., T. Kushnir, and A. Shirom, *Burnout and risk factors for cardiovascular diseases.* Behav Med, 1992. **18**(2): p. 53-60.
49. Sullivan, M. and J. Karlsson, *The Swedish SF-36 Health Survey III. Evaluation of criterion-based validity: results from normative population.* J Clin Epidemiol, 1998. **51**(11): p. 1105-13.
50. Kristensen, T.S., et al., *The Copenhagen Psychosocial Questionnaire--a tool for the assessment and improvement of the psychosocial work environment.* Scand J Work Environ Health, 2005. **31**(6): p. 438-49.
51. Marmot, M., et al., *Sickness absence as a measure of health status and functioning: from the UK Whitehall II study.* J Epidemiol Community Health, 1995. **49**(2): p. 124-30.

52. Ferrie, J.E., et al., *A comparison of self-reported sickness absence with absences recorded in employers' registers: evidence from the Whitehall II study.* Occup Environ Med, 2005. **62**(2): p. 74-9.
53. Lindberg, P., et al., *Promoting excellent work ability and preventing poor work ability: the same determinants? Results from the Swedish HAKuL study.* Occup Environ Med, 2006. **63**(2): p. 113-20.
54. Dellve, L., J. Eriksson, and R. Vilhelmsson, *Assessment of long-term work attendance within human service organisations.* Work, 2007. **29**(2): p. 71-80.
55. Aronsson, G. and K. Gustafsson, *Sickness presenteeism: prevalence, attendance-pressure factors, and an outline of a model for research.* J Occup Environ Med, 2005. **47**(9): p. 958-66.
56. Bergstrom, G., et al., *Sickness presenteeism today, sickness absenteeism tomorrow? A prospective study on sickness presenteeism and future sickness absenteeism.* J Occup Environ Med, 2009. **51**(6): p. 629-38.
57. Kivimaki, M., et al., *Working while ill as a risk factor for serious coronary events: the Whitehall II study.* Am J Public Health, 2005. **95**(1): p. 98-102.
58. Hayes, L.J., et al., *Nurse turnover: a literature review.* Int J Nurs Stud, 2006. **43**(2): p. 237-63.
59. Josephson, M., et al., *The same factors influence job turnover and long spells of sick leave--a 3-year follow-up of Swedish nurses.* Eur J Public Health, 2008. **18**(4): p. 380-5.
60. Hasselhorn, H.M., et al., *Contribution of job strain to nurses´ consideration of leaving the profession-results from the longitudinal European nurses´ early exit study.* SJWEH, 2008. **Suppl**(6): p. 75-82.
61. Skytt, B., B. Ljunggren, and M. Carlsson, *Reasons to leave: the motives of first-line nurse managers' for leaving their posts.* J Nurs Manag, 2007. **15**(3): p. 294-302.
62. Liljegren, M., *Health at Work: The Relationship between Organizational Justice, Behavioural Responses, and Health*, in *Department of Medicine and Health Sciences*. 2008, Linköping University: Linköping.
63. Liljegren, M. and K. Ekberg, *The longitudinal relationship between job mobility, perceived organizational justice, and health.* BMC Public Health, 2008. **8**: p. 164.
64. Härenstam, A. and MOA Researchgroup, *Different development trends in working life and increasing occupational stress require new work environment strategies.* Work, 2005. **24**: p. 261-277.
65. Yassi, A., G.J. Wickstrom, and M. Palacios, *Globalization and the health of the health care workforce.* Int J Occup Environ Health, 2004. **10**(4): p. 355-9.
66. Palme, J., et al., *Welfare in Sweden: The Balance Sheet for the 1990s*, Socialdepartementet, Editor. 2000, Fritzes: Stockholm.
67. Lagerström, M., Hansson, T & Hagberg, M., *Work-related low-back problems in nursing.* Scandinavian journal of Work, Enviroment & Health, 1998. **24**(6): p. 449-464.
68. Karasek, R. and T. Theorell, *Healthy work*. 1990, New York: Basic books.
69. Siegrist, J., *Adverse health effects of high-effort/low-reward conditions.* Journal of occupational health psychology, 1996. **1**(1): p. 27-41.
70. Szücs, S., Ö. Hemström, and S. Marklund, *Organisatoriska faktorers betydelse för långa sjukskrivningar i kommuner*. 2003, Arbetslivsinstitutet: Stockholm.

71. Westerlund, H., Ferrie, J., Hagberg, J., Jeding, K., Oxenstierna, G. & Theorell, T., *Workplace expansion, long-term sickness absence, and hospital admission.* Lancet, 2004. **363**(9416): p. 1193-1197.
72. Magnusson Hanson, L.L., et al., *Demand, control and social climate as predictors of emotional exhaustion symptoms in working Swedish men and women.* Scand J Public Health, 2008. **36**(7): p. 737-43.
73. van Vegchel, N., et al., *Reviewing the effort-reward imbalance model: drawing up the balance of 45 empirical studies.* Soc Sci Med, 2005. **60**(5): p. 1117-31.
74. Fuss, I., et al., *Working conditions and Work-Family Conflict in German hospital physicians: psychosocial and organisational predictors and consequences.* BMC Public Health, 2008. **8**: p. 353.
75. Kinnunen, U., T. Feldt, and A. Makikangas, *Testing the effort-reward imbalance model among Finnish managers: the role of perceived organizational support.* J Occup Health Psychol, 2008. **13**(2): p. 114-27.
76. Thylefors, I., *Ledarskap i vård omsorg och utbildning*. 1991, Stockholm: Natur och Kultur.
77. Yukl, G., *Leadership in organizations*. Fifth edition ed. 2002, New Jersey (USA). Prentice-Hall inc.
78. Bolman, L.G. and T.E. Deal, *Nya perspektiv på organisation och ledarskap*. Third ed. 2005, Lund: Studentlitteratur.
79. Mintzberg, H., *The Nature of Managerial Work*. 1973, New York: Harper & Row.
80. Jacobsen, D. and J. Thorsvik, *Hur moderna organisationer fungerar.* 1998, Lund: Studentlitteratur.
81. Vingård, E., *HaKul: Hållbar arbetshälsa i kommuner och landsting*. 2004, Karolinska Institutet: Stockhlm.
82. Avolio, B.J. and B.M. Bass, *Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire.* Journal of Occupational & Organizational Psychology, 1999. **72**(4): p. 441-462.
83. Bass, B., et al., *Predicting Unit Performance by Assessing Transformational and Transactional Leadership.* Journal of Applied Psychology, 2003. **88**(2): p. 207-218.
84. Cummings, G., L. Hayduk, and C. Estabrooks, *Mitigating the impact of hospital restructuring on nurses: the responsibility of emotionally intelligent leadership.* Nurs Res, 2005. **54**(1): p. 2-12.
85. Corrigan, P., Diwan, S., Campion, J. & Rashid, F., *Transformational leadership and the mental health team.* Administration and Policy in Mental Health, 2002. **30**(2): p. 97-108.
86. Dellve, L., M. Lagerstrom, and M. Hagberg, *Rehabilitation of home care workers: supportive factors and obstacles prior to disability pension due to musculoskeletal disorders.* J Occup Rehabil, 2002. **12**(2): p. 55-64.
87. Kuoppala, J., et al., *Leadership, Job Well-Being, and Health Effects-A Systematic Review and a Meta-Analysis.* J Occup Environ Med, 2008. **50**(8): p. 904-915.
88. Nyberg, A., et al., *Managerial leadership is associated with self-reported sickness absence and sickness presenteeism among Swedish men and women.* Scand J Public Health, 2008. **36**(8): p. 803-11.
89. Offermann, L.H., P., *Leadership behavior and subordiante stress: a 360 degree view.* Journal of occupational health psychology, 1996. **1**(4): p. 382-390.

90. de Jonge, J., Bosma, H., Peter, R. & Siegrist, J., *Job strain, effort-reward imbalance and employee wellbeing: a large-scale cross-sectional study.* Social science & Medicine, 2000. **50**(9): p. 1317-1327.
91. Dellve, L., Lagerström, M. & Hagberg, M., *Work system risk factors for permanent work disability among home care workers: a case-control study.* International Archives of occupational and Environmental Health, 2003. **76**(3): p. 216-224.
92. Bourbonnais, R., et al., *Development and implementation of a participative intervention to improve the psychosocial work environment and mental health in an acute care hospital.* Occup Environ Med, 2006. **63**(5): p. 326-34.
93. Eklof, M., et al., *Feedback of workplace data to individual workers, workgroups or supervisors as a way to stimulate working environment activity: a cluster randomized controlled study.* Int Arch Occup Environ Health, 2004. **77**(7): p. 505-14.
94. Pohjonen, T., *Perceived work ability of home care workers in relation to individual and work-related factors in different age groups.* Occup Med (Lond), 2001. **51**(3): p. 209-17.
95. Dellve, L., K. Skagert, and M. Eklof, *The impact of systematic occupational health and safety management for occupational disorders and long-term work attendance.* Soc Sci Med, 2008. **67**(6): p. 965-70.
96. Nilsson, K., et al., *Pride and confidence at work: potential predictors of occupational health in a hospital setting.* BMC Public Health, 2005. **5**: p. 92.
97. van Dierendonck, D., et al., *Leadership behavior and subordinate well-being.* J Occup Health Psychol, 2004. **9**(2): p. 165-75.
98. Hirdman, Y., *Genus- Om det stabilas föränderliga former*. 2001, Malmö: Liber AB.
99. Wahl, A., Holgersson, C. Höök, P. & Linhag, S., *Det ordnar sig - Teorier om organisation och kön*. 2001, Lund: Studentlitteratur.
100. Eagly, A.H. and S.J. Karau, *Role congruity theory of prejudice toward female leaders.* Psychol Rev, 2002. **109**(3): p. 573-98.
101. Kanter, R.M., *Men and women of the corporation*. 1993 edition ed. 1993, New York: BasicBooks, cop.
102. Eagly, A.H., M.C. Johannesen-Schmidt, and M.L. van Engen, *Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men.* Psychol Bull, 2003. **129**(4): p. 569-91.
103. Heilman, M.E. and T.G. Okimoto, *Why are women penalized for success at male tasks?: the implied communality deficit.* J Appl Psychol, 2007. **92**(1): p. 81-92.
104. Heilman, M.E., et al., *Penalties for success: reactions to women who succeed at male gender-typed tasks.* J Appl Psychol, 2004. **89**(3): p. 416-27.
105. Gjerberg, E. and L. Kjolsrod, *The doctor-nurse relationship: how easy is it to be a female doctor co-operating with a female nurse?* Soc Sci Med, 2001. **52**(2): p. 189-202.
106. Tengblad, S. and O. Vie, *Management in practice: Overview over classic studies about managerial work* in *The work of managers*, S. Tengblad, Editor. in press.
107. Alvesson, M., *Organisationskultur och ledning*. 2001, Malmö: Liber-Hermods AB.

108. Waldenstrom, K. and A. Harenstam, *Does the job demand-control model correspond to externally assessed demands and control for both women and men?* Scand J Public Health, 2008. **36**(3): p. 242-9.
109. Arman, R., et al., *What health care managers do: applying Mintzberg's structured observation method.* J Nurs Manag, 2009. **17**(6): p. 718-29.
110. Johansen, M.S. and E. Gjerberg, *Unitary management, multiple practices?* J Health Organ Manag, 2009. **23**(4): p. 396-410.
111. Suominen, T., et al., *Work empowerment as experienced by head nurses.* J Nurs Manag, 2005. **13**(2): p. 147-53.
112. Rodham, K. and J. Bell, *Work stress: an exploratory study of practices and perceptions of female junior health care managers.* Journal of nursing management, 2002. **10**(1): p. 5-11.
113. Fornell, C., *A National Customer Satisfaction Barometer: The Swedish Experience.* Journal of marketing, 1992. **56**(1): p. 6-21.
114. Charmaz, K., *Grounded theory. Objectivist and Constructivist Method*, in *Handbook of Qualitative Research´*, N.K. Denzin and Y.S. Lincoln, Editors. 2000, Sage: California. p. 509-536.
115. Ahlborg, G., Jr., et al., *Stressrelaterad ohälsa bland anställda vid Västra götalandsregionen och Försäkringskassan i Västra Götalands län*. 2006, Institutet för stressmedicin: Göteborg.
116. Dellve, L., E. Hadzibajramovic, and Ahlborg. G. Jr., *Work attendance among health care workers*. in *The 7th International Conference on Occupational Health for Health Care Workers*. 2007. Vancover, Canada.
117. Karasek, R., et al., *The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics.* J Occup Health Psychol, 1998. **3**(4): p. 322-55.
118. Håkansson, C. and G. Ahlborg, *Perceptions of employment, domestic work, and leisure as predictors of health among women and men.* J Occup Sci, 2010. **17**(3): p. In press.
119. Akerstedt, T., et al., *Sleep disturbances, work stress and work hours: a cross-sectional study.* J Psychosom Res, 2002. **53**(3): p. 741-8.
120. Glaser, B. and A. Strauss, *The discovery of grounded theory: strategies for qualitative research.* 1967, New York: Aldine cop.
121. Charmaz, K., *Constructing Grounded Theory: A practical guide through qualitative analysis*. 2006, London: Sage Publications.
122. Miller, S. and Fredericks. M., *How does grounded theory explain?* Qualitative Health Research, 1999. **9**: p. 538-551.
123. Grant, A.M. and J.J. Sumanth, *Mission possible? The performance of prosocially motivated employees depends on manager trustworthiness.* J Appl Psychol, 2009. **94**(4): p. 927-44.
124. Degeling, P. and A. Carr, *Systemization of leadership for the systemization health care of health care: the unaddressed issue in health care reform.* J Health Organ Manag, 2004. **18**(6): p. 399-414.
125. Braynion, P., *Power and leadership.* J Health Organ Manag, 2004. **18**(6): p. 447-63.
126. Arneson, H. and K. Ekberg, *Evaluation of empowerment processes in a workplace health promotion intervention based on learning in Sweden.* Health Promot Int, 2005. **20**(4): p. 351-9.

127. Eklöf, M., A. Ingelgård, and M. Hagberg, *Is participative ergonomics associated with better working environment and health? A study among Swedish white-collar VDU users.* International Journal of Industrial Ergonomics, 2004. **34**(5): p. 355-366.
128. Ingelgård, A., *On macroergonomics and learning strategies in improving working conditions*, in *Department of psychology*. 1998, Göteborg University: Göteborg.
129. Jacobsson, C., A. Pousette, and I. Thylefors, *Managing Stress and Feelings of Mastery among Swedish Comprehensive School Teachers.* Scandinavian Journal of Educational Research, 2001. **45**(1): p. 37-53.
130. Vaananen, A., et al., *Role clarity, fairness, and organizational climate as predictors of sickness absence: a prospective study in the private sector.* Scand J Public Health, 2004. **32**(6): p. 426-34.
131. Firth-Cozens, J. and D. Mowbray, *Leadership and the quality of care.* Qual Health Care, 2001. **10 Suppl 2**: p. ii3-7.
132. Janis, I., *Victims of groupthink*. 1972, Boston: Houghton-Mifflin.
133. Kollock, P., *Social Dilemmas: The Anatomy of Cooperation.* Annual Review of Sociology, 1998. **24**: p. 183-214.
134. Argyris, C., *Managers, workers, and organizations.* Society, 1998. **35**(2): p. 343-346.
135. Bernin, P., Theorell, T. & Sandberg C-G., *Biological correlates of social support and pressure at work in managers.* Integrative physiological and behavioral science, 2001. **36**(2): p. 121-36.
136. Bryman, A., *Effective leadership in higher education: a literature review.* Studies in Higher Education, 2007. **32**(6): p. 693-710.
137. Firth - Cozens, J., *Organisational trust: the keystone to patient safety.* Qual Saf Health Care, 2004. **13**(1): p. 56-61.
138. Nilsson, K., *Mandat-Makt-Management: En studie av hur vårdenhetschefers ledarskap konstrueras*, in *Institutionen för Vårdpedagogik, Sahlgrenska Akademin*. 2003, Göteborgs universitet: Göteborg.
139. Docherty, P.H., T., *Marknads-, management- och medarbetartrender 1985–2005*, in *Ute och inne i svenskt arbetsliv. Forskare analyserar och spekulerar om trender i framtidens arbete*, C. von Otter, Editor. 2003, Arbetslivsinstitutet: Stockholm. p. 135-157.
140. Hallsten, L., M. Josephson, and M. Torgén, *Performance-based self-esteem: A driving force in burnout processes and its assessment*. 2005, National Institute of Working Life: Stockholm.
141. Lyness, K.S. and M.K. Judiesch, *Can a manager have a life and a career? International and multisource perspectives on work-life balance and career advancement potential.* J Appl Psychol, 2008. **93**(4): p. 789-805.
142. Dellve, L. and E. Wikstrom, *Managing complex workplace stress in health care organizations: leaders' perceived legitimacy conflicts.* J Nurs Manag, 2009. **17**(8): p. 931-41.
143. Glouberman, S. and H. Mintzberg, *Managing the care of health and the cure of disease--Part I: Differentiation.* Health Care Manage Rev, 2001. **26**(1): p. 56-69; discussion 87-9.
144. Lee, H. and G.G. Cummings, *Factors influencing job satisfaction of front line nurse managers: a systematic review.* J Nurs Manag, 2008. **16**(7): p. 768-83.

145. Lucas, V., H.K. Laschinger, and C.A. Wong, *The impact of emotional intelligent leadership on staff nurse empowerment: the moderating effect of span of control.* J Nurs Manag, 2008. **16**(8): p. 964-73.
146. Wamala, S., *Gender and social inequalities in health*. 2002, Lund: Studentlitteratur.
147. Göteborg, C.o. *City of Göteborg: Annual report 2007*. 2008 [cited; Available from: www.goteborg.se.
148. Sebrant, U., *Being female in a health care hierarchy. On the social construction of gender and leader identity in a work organization having a predominance of women.* Scand J Caring Sci, 1999. **13**(3): p. 153-8.
149. Krantz, G. and U. Lundberg, *Workload, work stress, and sickness absence in Swedish male and female white-collar employees.* Scand J Public Health, 2006. **34**(3): p. 238-46.
150. Miller, S. and Fredericks, M., *How Does Grounded Theory Explain?* Qual Health Res, 1999. **9**(4): p. 538-551.
151. Eklöf, M., et al., *Utveckling av ett variations- och förändringskänsligt frågeinstrument för mätning av stressexponering, copingbeteende och copingresurser bland 1:a och 2:a linjens chefer inom offentlig vård och omsorg*, in *ISM-rapport*. 2010, Institutet för stressmedicin: Göteborg.
152. Ahlborg, G., Jr., *Developing efficient and health-promoting management – employee interaction in hospitals.*, in *3rd NOVO Symposium. Sustainable Nordic Health Care Systems*, J. Winkel, Editor. 2009: National Research Centre for the Working Environment (NRCWE). Copenhagen, Denmark.
153. Mergler, D., *Combining quantitative and qualitative approaches in occupational health for a better understanding of the impact of work-related disorders.* Scand J Work Environ Health, 1999. **25 Suppl 4**: p. 54-60.
154. Tashakkori, A. and C. Teddlie, *Mixed methodology: Combining Qualitative and Quantitative Approaches*. Applied social research methods series, ed. L. Bickman and D. Rog. Vol. 46. 1998, Thousand Oaks: SAGE publications, Inc.
155. Lincoln, Y. and E. Guba, *Naturalistic Enquiry*. 1985, London: Sage.