

# Creating proactive boundary awareness

Observations and feedback on lower-level health care managers' time commitments and stress

Ellinor Tengelin

Department of Public Health and Community Medicine  
Institute of Medicine  
Sahlgrenska Academy at University of Gothenburg



UNIVERSITY OF GOTHENBURG

Gothenburg 2012

Cover illustration: Självreflektion by Åsa Lindgren

© Ellinor Tengelin 2012  
Creating proactive boundary awareness

[ellinor.tengelin@amm.gu.se](mailto:ellinor.tengelin@amm.gu.se)

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without written permission.

Printed by Kompendiet, Göteborg, Sweden 2012

# Table of Contents

List of papers	1
Abstract	2
Introduction	4
Background	5
Lower-level managers in health care	5
Investigating meaning and interaction in managers' work	7
Managers' daily hassles	8
<i>Stressors and the balancing of time commitments</i>	8
<i>Sources of managers' workplace stress</i>	10
<i>The concept of boundaries</i>	12
Stress management interventions	13
<i>Previous evaluations of interventions</i>	13
<i>Feedback as stress management</i>	13
<i>Setting boundaries as a method of stress management</i>	15
The study rationale	16
Aims	17
Methods	18
The mixed methods approach	19
Creating knowledge from the specific to the general	19
Physiological measures of stress perceptions	19
Data collection	20
<i>Setting</i>	20
<i>Sampling</i>	20
<i>Observations</i>	22
<i>Self-reported mood assessments</i>	24
<i>Stress indicators</i>	25
<i>Interviews</i>	28
<i>Interview data analyses</i>	30
Ethical considerations	31
Results	32
Proactively approaching boundary dilemmas (Study I)	32
Assessing and understanding patterns in one's stress and recovery (Study II)	35
Discussion	39
Managers' management of stressors	39
Possible behavioural change: achieving balance through boundary awareness	42
External evaluations of manager work	44
Caring work and its boundlessness	45
Changeability of managers' work situation	45
A tentative model of boundary awareness	47
Practical implications	50
<i>Feedback-assisted reflection</i>	50

<i>Boundary-setting supervisor support</i>	50
<i>Organizational communication of boundary dilemmas</i>	51
Summary of discussion	52
Methodological considerations	53
Conclusions	57
Attachment: Feedback guide	58
Acknowledgements	59
References	60

# List of papers

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

- I. Tengelin, E., Arman, R., Wikström, E., & Dellve L. 2011. Regulating time commitments in healthcare organizations – managers’ boundary approaches at work and in life. *Journal of Health Organization and Management*, 25(5), pp. 578–599.
- II. Tengelin, E., Jonsdottir, I., & Dellve, L. Making sense of stress indicators: managers’ perceptions of a non-normative feedback intervention. *Submitted manuscript*.

# Abstract

*Aim.* The aim of this thesis was to deepen the knowledge concerning health care managers' everyday work experiences and their handling of stress and balance.

*Background.* Health care managers' work is characterized by daily hassles, conflicting perspectives, and unclear boundary setting. They could therefore use support in boundary and stress management.

*Methods.* A qualitatively driven mixed methods approach was used. Qualitative interviews, focus groups and workplace observations were used for data collection in Study I. Physiological stress indicators, stress self-assessments, workplace observations and interviewing were used in Study II. Analyses were mainly carried out on the interview data, using grounded theory methodology (Study I) and conventional content analysis (Study II).

*Results.* Paper I shows that a first step in managers' boundary setting is to recognize areas at work with conflicting expectations and inexhaustible needs. Strategies can then be formed through proactive, continuous negotiating of their time commitments. These strategies, termed 'boundary approaches', are more or less strict regarding the boundary setting at work. Paper II shows that non-normative, interactive feedback sessions could encourage understanding and meaningfulness of previous stress experiences through a two-step appraisal process. In the first appraisal in the study, feedback was spontaneously reacted on, while in phase two it was made sensible and given meaning. However, during the sessions, some obstacles appeared to managers' learning about their stress, preventing a second appraisal of the feedback.

*Conclusions.* Awareness and continuous negotiation regarding boundary dilemmas can be effective as a proactive stress management tool among managers. Further, non-normative feedback on stress indicators may initiate key

processes of sensemaking which can aid managers' stress management by increasing awareness and supporting learning about their stress. *Proactive boundary awareness* is a concept leading to better understanding of lower-level managers' management of their time commitments and stress, which can be supported by continuous reflection, feedback situations and a supportive context.

# Introduction

The aim of this licentiate thesis was to deepen the knowledge concerning health care managers' everyday work experiences and handling of stress and balance. An interdisciplinary approach is used, combining knowledge from organizational theory, psychology, health promotion and stress physiology. The studies were conducted close to managers' everyday reality. Such studies of the everyday work of health care managers can contribute to new, empirically grounded perspectives on managerial work related to stress, balance and recovery.

The concept of 'time commitment' is frequently used in this thesis to refer to the managers' use of their time. Work is one type of time commitment, which in itself includes various other time commitments. The experiences that constitute the time commitments in one's life can, for example, be stressful, conflicting or balanced. Health care managers' time commitments are the subject of this thesis.



# Background

## Lower-level managers in health care

The studies in this thesis investigate the work of lower-level managers in public health care in Sweden and includes first and second-line managers working close to health care practice. Their managerial duties include responsibility for improving efficiency and quality of care, subordinates' work environment, financial issues, and supporting and developing the ward's operation and its employees (see e.g. Kihlgren and Johansson, 2000; Öberg and Dahlenborg, 2003; Wikström and Dellve, 2009; Olsson and Lutz, 2011). Inherent in first-line management is a great deal of cooperation (Nilsson, 2003) due to the manager's position of acting as a link between the operational level and the strategic management in the organization (Öberg and Dahlenborg, 2003; Skagert, et al., 2008). Leading, motivating and empowering subordinates are further important tasks for frontline managers (Laschinger, Shamian and Thomson, 2001; Öberg and Dahlenborg, 2003; MacPhee, Skelton-Green, Bouthillette and Suryaprakash, 2011). The decentralization of health care and human service management over the past years in Sweden has influenced lower-level managers' work by increasing their responsibilities and at the same time the demands put on them (Richard, 1997; Nilsson, 2003). First-line managers are typically nurses who supervise registered nurses and assistant nurses. Women nurses constitute the majority of first-line managers in health care, which mirrors the gender distribution among health care personnel in general, but not among general managers in the sector (Gillingsjö and Lindquist, 2005).

There is evidence that health care managers affect employees' work situation and work culture in a number of ways (Kane-Urrabazo, 2006; Cummings, et al., 2008; Lewis, et al., 2010). The key position occupied by managers is also evident in their impact on workplace interventions (Pettersson and Arnetz, 1998; Nielsen, Randall, Holten and Gonzáles, 2010) and on their employees' physical health

(Nyberg, et al., 2009) and psychological wellbeing (van Dierendonck, Borrill, Haynes and Stride, 2004; Skakon, Nielsen, Borg and Guzman, 2010).

The research conducted on lower-level managers in Sweden is diverse but limited regarding time commitments and stress. Dissertations in past years have focused health care managers' work activities from the perspectives of fragmentation and power (Arman, 2010), construction and development of nurses' leadership (Nilsson, 2003) and their desire to give, and preconditions for giving, each patient the best possible care (Johansson, 2010). The health-promoting potential in leadership in human service organizations has been investigated (Skagert, 2010), as well as their changing professional roles in human service management (Wolmesjö, 2005) and their dilemma of needing to be attentive 'downwards' at the same time as showing loyalty 'upwards' (Richard, 1997), to name a few. As seen, different perspectives regarding lower-level managers' work have been investigated, but little research has aimed to deepen the understanding of the stressors they are exposed to in the health care context or extended attempts to adjust them.

The concern of this thesis is to explore managers' everyday work experience and their handling of stress and balance. This interest is grounded in the research tradition of managerial work studies, which concretely investigate what managers actually do in their daily work. Managerial work studies use successful and experienced managers' behaviours and activities as the primary data for theorizing about good management (Tengblad, 2012) and include descriptions of 'manager behaviour outside prescriptive management theory and its assumption that management should be seen as deliberate choices' (ibid., p. 25). According to Tengblad, there is a mismatch between normative, rigid management theories, which falsely focus perspectives of rationality, and the actual applied knowledge among managers. To bridge this gap, managerial work needs to be empirically studied in detail. Having narrow theoretical assumptions may carry the risk of 'self-fulfilling results, where the researcher imposes his/her assumptions on the empirical material' (ibid., p. 22). An empirical study of everyday work can

explore this area of research and contribute to new, empirically grounded perspectives.

Studying managers' everyday time use to find out what their workday consists of is not a new area of interest. Carlson's study on executive behaviour (Carlson, 1951) and Mintzberg's study on the nature of managerial work (Mintzberg, 1973) are landmarks in this field. Early studies of managerial work focused on private company managers, but recently the structured observational method developed by Carlson and Mintzberg was used to examine what health care managers do in their work (Arman, Dellve, Wikström and Törnström, 2009). The present studies developed the methods used in Arman et al.'s study to investigate perspectives of health care managers' stress and balance in their work (see Methods). The stress perspective is often overlooked in research on lower-level health care managers, and methods borrowed from the managerial work tradition can add aspects to the understanding of their stress by concretely investigating their work activities.

In this thesis the term 'manager' is used to refer to a person in a managerial position. 'Manager' is an occupational title for the formal leader of an organizational unit. By contrast, the term 'leadership' can be used to describe processes of social influence that may come from others as well as the manager (Yukl, 2002). The purpose of this thesis was to explore and better understand managers' daily work experiences, and their handling and perceptions of stress and balance; the aim was not to specifically investigate their leadership practices. Therefore the term 'manager' was deemed more appropriate than 'leader'.

## Investigating meaning and interaction in managers' work

Principles of symbolic interactionism directed the choice of aims, methods and perspectives in these studies. First-line managers' work practice in their everyday work, as well as their social work environment were investigated using qualitative and interpretive research methods. Such methods are grounded in the micro-sociological tradition of symbolic interactionism, a school of thought suggesting that all humans strive to create individual meaning from their experiences in the

world (Prasad, 2005). It is assumed that people make sense of the social situations they encounter by defining their roles, self-images and place in them, and that one's understanding of the world is achieved through dynamic relationships and 'symbolic' interaction with others (ibid.). Individuals construct themselves, society and reality through such social life interactions (Charmaz, 2006). Specifically, the focus on meaning and the active process of sensemaking in individuals' everyday life is central in studies using symbolic interactionism as a point of departure (Prasad, 2005).

This framework motivated the present studies' emphasis on exploring rather than explaining, and the exploration of managers' coping with and making sense of their everyday work life contexts. Both studies used observational methods and the findings are derived from detailed individual-level data. The focus on everyday life dilemmas in Paper I and the interacting design of the feedback session in Paper II are consequences of the symbolic interactionist point of departure.

## Managers' daily hassles

### **Stressors and the balancing of time commitments**

The causes of stress, or 'hassles', inherent in first-line managers' work on a daily basis are several. Daily hassle management may lead to perceptions of stress and other consequences for the work performance and wellbeing of managers. A common understanding of stress is that it arises from an imbalance between an individual's external demands and internal resources (Lazarus and Folkman, 1984). Stress is what happens when the body attempts to restore the balance (Perski, 2002). In this thesis, stress is considered a negative state, experienced as straining and resulting both from interactions of the individual with their environment and from the work hassles that occur on a daily basis. These hassles are viewed as 'stressors', i.e. factors that may lead to perceptions of stress, depending on the individual's management of them.

It should be noted that both perceptions of and responses to stressors can occur in everyday work without detrimental consequences for health and that time pressure and strain are not damaging per se. Rather, it is lack of recovery that can be harmful, as repeated mobilization of stress hormones during a longer period can cause physiological damage in the long term by wearing out the hormone-regulating mechanisms (Meijman and Mulder, 1998; Lundberg, 2003; McEwen, 2008). The interest in this thesis was therefore to investigate not only stressors but also recovery and balance. 'Stress' can be experienced by individuals without a stress-related disorder. The managers participating in this research were all healthy and 'well functioning' in their work. The intention of the studies was to study managers' commonplace responses to and perceptions of the daily hassles as they occur in everyday work. Thus, the managers' stress was approached from an everyday perspective of stress as something that occurs in the working day without having to lead to illness or disease, but that nevertheless must be managed.

It follows that balance is the state that is strived for from a stress-preventing perspective. 'Balance' means that the individual's resources are sufficient to handle stressors and strain that occur in the environment. In a work-life perspective, balance has been defined as 'satisfaction and good functioning at work and at home, with a minimum of role conflict' (Campbell Clark, 2000, p. 751) and as 'a situation in which workers feel that they are capable of balancing their work and non-work commitments, and, for the most part, do so' (Moore, 2007, p. 386). Factors that can contribute to balance in everyday activities are a successful occupational self-image, manageability, control and a harmonious occupational repertoire (Håkansson, Dahlin-Ivanoff and Sonn, 2006). Balance can also be approached from a quantitative, 'time-budget' perspective involving investigation of how much time is spent in different activities. Balance is supposedly achieved when corresponding time is spent on different areas in life (Christiansen, 1996). This has been questioned by researchers pointing out that rather than the actual time count it is individuals' perception of the time spent on different activities that contributes to balance and harmony: 'In order to cover the

complex question of occupational balance both the amount of time spent in different occupations and the affective experiences that result from an individual's engagement in occupations need to be included' (Sandqvist and Eklund, 2008, p. 28). The balance perspective sheds light on the fact that time commitment in different activities can have consequences for one's stress responses in everyday life activities and is therefore a relevant perspective in the present research.

### **Sources of managers' workplace stress**

The studies described in this section list a wide spectrum of daily hassles that lower-level health care managers need to handle in their everyday work. At an organizational level, the nursing shortage contributes to overwork and stress, which nurse managers cope with using strategies of emotion-focused rather than problem-focused coping; acceptance of stressors is seemingly used over proactive management of them (Shirey, 2006). A recent Danish study showed that managers experienced higher demands, higher levels of conflict and lower levels of social support from peers than did employees (Skakon, et al., 2011). In Sweden, sources of stress among human service organization managers include issues related to both the organization and the leadership assignment (Eklöf, et al., 2010). Lack of resources, perceptions of work overload, conflicting logics, and role demands are examples of stressors inbuilt in their work organization, while legitimacy and trust, having to act as a buffer, and handling expectations are stressors related to managers leading their subordinates (ibid.). A recent study of first-line managers' maintenance of their position and health showed that 26% of the managers in a large public health care organization had quit within 2 years of baseline, which may reflect the demanding working conditions these individuals are exposed to (Skagert, Dellve and Ahlberg Jr, 2012).

Other studies have described public health care management as split between disparate logics whose demands and execution come from different contexts: political directions, subordinate expectations, and demands related to specific professional milieus are all influences which first-line managers have to combine, prioritize and handle (Wikström and Dellve, 2009). This affects their time use and

can hinder their prioritizing of strategic work (ibid.). First-line managers' strategies for enhancing legitimacy include choosing between the roles of either a skilled clinician or a focused leader (Dellve and Wikstrom, 2009). However, legitimacy principles can interfere with each other and give rise to ethical stress, where managers' own values conflict with the organization's values (ibid.). Also, accessibility towards subordinates is central but problematic: managers can perceive it as difficult to limit their availability to subordinates and ignore their need for a supervisor, even though boundary setting can be necessary in order to work undisturbed on other assignments (Arman, Wikström, Tengelin and Dellve, 2012). Other dilemmas among lower-level managers are the many short activities during each workday, which have the risk of further fragmentizing their managerial work (Arman, Dellve, Wikström and Törnström, 2009), and unplanned interruptions during a workday, which have been related to increased heart rate reactions (Arman, Wikström, Tengelin and Dellve, 2012). Furthermore, the 'shock-absorbing' position of filling needs and expectations upwards and downwards in their organization has been identified as another source of stress among human service managers (Skagert, et al., 2008).

The last source of stress that will be addressed here is that of work-life imbalance. Health care workers' ideal of their nurse manager has been described as someone present and available in the daily work (Rosengren, 2008), which is one factor that probably contributes to the work-life imbalance of lower-level managers in health care. Because of expectations of constant availability and the often high workload of managers, a balance between work and the family may be particularly difficult to attain for them. In an ethnographic study of a British industrial company, the workers were found to have better opportunities to achieve work-life balance compared with the managers, even though the company's work-life initiatives focused more on managers than on workers (Moore, 2007). Balance difficulties are also mirrored in male managers' needs for flexible working arrangements so that they have the possibility to combine work and family (Allard, Haas and Hwang, 2007). A comparative study of occupational stress in managers showed that female managers generally experienced more strain from both work stressors

and stressors in the home, in both social and individual arenas, and that they reported higher levels of manifestations of stress than male managers did (Davidson and Cooper, 1984). Recent qualitative research on human service managers described their need to ensure that their daily life contained more than work, in order to handle their work stress (Skagert, et al., 2008). Middle managers' increased responsibilities add to their difficulty in balancing work and personal life, and their dilemma has been described as one of being caught between work and personal life (Parris, Vickers and Wilkes, 2008). Impediments to a satisfying balance include the use of new technologies, making the manager constantly available for work, as well as lack of control over the time demands in the manager role, and the actual use of existing flexibility initiatives, which can signal a weak commitment to the organization (ibid.). Managers' work-life balance has also been related to how well the societal context supports women's career developments and achievements, and whether strong beliefs exist regarding men's and women's roles in worklife (Lyness and Kropf, 2005).

### **The concept of boundaries**

To understand the ways managers deal or could better deal with the types of daily hassles just described, the concept of boundaries is used in this thesis. An individual's private domain affects that individual's perception of strain and stressors in the work domain. Work and non-work are not separate worlds, independent of each other (Kanter, 1977). Work-life balance research explores the impact that the boundaries surrounding people's life domains have on their health, stress, family situation, job satisfaction, absenteeism, sick leave and numerous other outcomes (see e.g. Allen, Herst, Bruck and Sutton, 2000, for a review). Borders can be defined as 'lines of demarcation between domains defining the point at which domain-relevant behavior begins or ends' (Campbell Clark, 2000, p. 756). The non-work domain affects people's perceptions and experiences of, e.g., stress and dilemmas during work time. In other words, from an occupational health perspective it is relevant to highlight life domain borders that affect balance, because this may affect how a person perceives daily hassles at work.



## Stress management interventions

### **Previous evaluations of interventions**

The worksite stress that seems to affect lower-level managers in health care can be dealt with through stress management interventions, which can be individually or organizationally based. Commonly used techniques in individual stress management are cognitive-behavioural therapy, meditation, relaxation, exercise, time use mapping, conflict handling, and biofeedback (see e.g. Bond and Bunce, 2000; Stein, 2001; de Vente, Kamphuis, Emmelkamp and Blonk, 2008; Richardson and Rothstein, 2008), while an organizational approach can contain modifications of work assignments and conditions (see e.g. Cox, 1993; Elo, Leppänen and Sillanpää, 1998; Randall, Cox and Griffiths, 2007; Richardson and Rothstein, 2008). A recent review highlighted successful systematic approaches to organizational-level occupational health interventions, which include alteration of the design, organization and management of work (Nielsen, Randall, Holten and Gonzáles, 2010). However, the focus in this thesis is individual stress management. An evaluative meta-analysis has shown that stress management can be effective, but that it is difficult to compare the different kinds of interventions (Richardson and Rothstein, 2008). Consequently it is not clear what kind of intervention (or combination of interventions) has the ‘best’ effect on people’s stress. Further, stress management interventions used among health care workers are difficult to review because of the variety and often poor quality of intervention designs (Marine, Routsalainen, Serra and Verbeek, 2006). It has been concluded that individual-level cognitive or behavioural interventions have shown effects on stress reduction among health care workers, even though it is unclear how long these effects last (ibid.).

### **Feedback as stress management**

Feedback is assumed to be a psychological change mechanism and an active component in learning and change (Ilgen, Fischer and Taylor, 1979; Butler and Winne, 1995; London and Smither, 1995). As is the case with several other

psychological/cognitive change mechanisms, no consensus exists on how feedback actually works.

In its most simple sense, feedback intends to inform people about their previous behaviour (Annett, 1969). In occupational settings, performance feedback can be effective as a tool to inform employees of their goal-performance discrepancies (London and Smither, 1995), which is the standard approach in feedback interventions. This discrepancy can be described as the gap between one's real performance and the goals that should be achieved. The intention with occupational feedback interventions is to diminish this gap between actual performance and performance goals set in advance (DeNisi and Kluger, 2000). Feedback on task characteristics in complex work situations can function as a stress-buffering resource for individuals because it provides information regarding their performance, and hence a sense of control in their work situation (Jimmieson and Terry, 1999).

The tendency to receive feedback and the willingness to accept and act upon it is linked to the individual's level of self-awareness (London and Smither, 1995). Changes in self-awareness and self-image are likely to happen when feedback generates perceptions of goal-performance discrepancies (ibid.). Performance feedback can therefore shed light on factors in one's work that are essential to one's self-concept (DeNisi and Kluger, 2000). Receiving performance feedback from colleagues can increase the awareness regarding one's work approaches and affect one's reflective processes regarding practice (Sargeant, Mann, van der Vleuten and Metsemakers, 2009). Also, increased self-awareness and decreased psychological distress can result from a feedback session in a safe therapeutic environment where subjects receive feedback on different psychological variables (Aldea, Rice, Gormley and Rojas, 2010).

In feedback intervention theory the locus of attention is the psychological mechanism that is encouraged by feedback (Kluger and DeNisi, 1996). Feedback information directs one's attention towards cognitive levels of either the self (that

can highlight self-discrepancies), the task in itself (that can generate motivation to perform the task) or basic task learning (ibid.). Most effective in terms of improved performance is directing the feedback at the task level. However, providing managers with feedback on their stress reactions, boundary approaches, and time use patterns could encourage them to use one's 'self' (one's own feelings and ideas about one's performance) as feedback source, which has been shown to be the source on which people rely the most (Greller and Herold, 1975). Using oneself as feedback source means being attentive to whether 'one's own actions do or do not "feel right". One becomes familiar with a pattern of actions and is able to discern departures from this pattern' (ibid., p. 245). Feedback could further help managers to identify goal-performance discrepancies that encourage changes in their behaviour (London and Smither, 1995).

### **Setting boundaries as a method of stress management**

Supporting managers in finding and implementing functional borders between their life domains can enhance their work-life balance, and help their stress management. Border theory suggests conditions that can aid people's work-life balance. For instance, organizations can ease the work-family balance (and hence reduce the risk of stress-related outcomes) among employees by facilitating their identification and influence in each life domain (Campbell Clark, 2000). Interpersonal relationships and meaning creating are essential variables in understanding and changing the relation between the domains of work and life in order for sustainable and stress-preventing approaches to be achieved (ibid.). Accordingly, contextual factors, such as one's own manager's approach to work, are essential in providing conditions for employees to find a functional balance. Supervisors play an important role for employees' ability to create their own borders in a way that suits them, since managers/supervisors play a major role in shaping the organizational culture, norms and values (Kane-Urrabazo, 2006). Managers themselves can have the power of 'boundary control' over employees, which means that they have the ability to create informal, controlling norms and values which in turn shape the way the people at their workplace act (Perlow, 1998). The supportive role of one's own supervisor is clearly relevant to

successful handling of time commitments stress. However, it was recently shown that lower-level health care managers only rarely communicate face to face with their own superiors (Arman, Dellve, Wikström and Törnström, 2009) and that several factors in health care organizations may hinder this communication (Tengelin, Kihlman, Eklöf and Dellve, 2011).

## The study rationale

Managers in health care settings experience stress but find it difficult to communicate it. Managers are generally portrayed as, and expected to be, autonomous and lonely, which image affects managers' stress-related communication and actions (Tengelin, Kihlman, Eklöf and Dellve, 2011). This could prevent them from asking for and receiving the support they need in order to remain healthy and maintain their position. For matters of sustainability, it is important to acknowledge that managers' perceptions of stress affect not only themselves but also the quality of the health care carried out that they are responsible for (Nilsson, Hertting, Pettersson and Theorell, 2005) and the health of their employees (Theorell, Emdad, Arnetz and Weingarten, 2001; van Dierendonck, Borrill, Haynes and Stride, 2004; Dellve, Skagert and Vilhelmsson, 2007; Nyberg, et al., 2009; Skakon, Nielsen, Borg and Guzman, 2010).

# Aims

The overall aim of this thesis is to deepen the knowledge concerning health care managers' everyday work experiences and handling of stress and balance. The practical aim is to add to knowledge that can be used in strategic planning and intervention design. Specific aims are

- to explore managers' boundary setting in order to better understand their handling of time commitment to work activities, as well as their stress and recovery during everyday work and at home (Paper I); and
- to explore whether and how feedback on stress-indicating data was perceived and appraised as 'meaningful' by participating managers (Paper II).

# Methods

## The mixed methods approach

This research is grounded in a mixed methods approach, which can also be described as qualitative-quantitative methodological triangulation (Morse, 1991). Several methodologists suggest that epistemological beliefs should not prevent data collection associated with one specific research paradigm; rather, one should employ the methods best suited to answer one's research questions (e.g. Johnson and Onwuegbuzie, 2004). It is important to define which paradigm is driving the research and whether the purpose of the project is to confirm an a priori theory or to extend existing knowledge, since this affects the approach with which the methods are mixed (Morse, 1991). In this thesis, we use an exploring approach, which demands a largely qualitative epistemological approach, but does not exclude non-qualitative methods from being used. The pragmatic principle of mixing different appropriate methods was employed through the combination of observation studies and interviews with quantitative measures of time use (Study I) and physiological stress indicator measures as well as subjective, emotional stress ratings (Study II). A 'pragmatic' perspective here means that research approaches should fruitfully be mixed in ways that give the best possibilities for answering one's research questions (Johnson and Onwuegbuzie, 2004). Pragmatism focuses on the practical consequences of methodological approaches and therefore takes a value-oriented approach to research; important values and desired ends of the research are considered when methodological approaches are chosen and mixed rather than aiming for epistemological purity (ibid.).

Therefore, the studies were driven by an inductive, explorative process, but simultaneously complemented by quantitative perspectives (Morse, 1991). This approach could retain the complexity of the study aims and illuminate different perspectives of the managers' work situation and the responses to the daily hassles they encountered. The qualitative observations of work activities were given substance by the additional numerical time use data in Paper I. The multiple

feedback data sources added validity to the managers' subjective perceptions regarding the stressful situations that were visually illustrated in Paper II. The interpretation of data from mixed, multiple sources can thus increase trustworthiness and the legitimacy of the findings, but also give a deepened, innovative and nuanced perspective on the research problem.

## Creating knowledge from the specific to the general

Qualitative research results are derived from induction and provide insights rather than predictions or generalizations. It is a strength of qualitative data analysis to create concepts, descriptions, models and theories (Johnson and Onwuegbuzie, 2004). Concepts illustrate the generality of a specific situation, and conceptual models present how empirical material can be understood and linked to previous theories and concepts. With this approach, empirical material can be used to create theory, as opposed to verify existing theory. Qualitative research results can also contribute to the creation of analogies; it may be possible to extrapolate insights gained from one setting to other settings in which analogous situations may arise (Weick, 1996). However, the conventional criteria of validity, generalization and reliability may not be applied to the results of this thesis since it is based on relatively small samples and analysed qualitatively. 'Relevance' has been suggested to be a complementary criterion in qualitative research (Mays and Pope, 2000). Such relevant qualitative research adds to existing knowledge in the field and can be conceptually generalized beyond the setting in which a study was carried out.

## Physiological measures of stress perceptions

No quantitative measures of stress were analysed per se in these studies. However, we have used, and refer to, stress physiological approaches. In Paper I, the biomedical perspective was used as a theoretical explanation of when strain can be damaging. The description of the allostatic load process was intended to illustrate that lack of recovery can be detrimental for stress-related health. Also, it served as a background for the subsequent data analysis. This biomedical

perspective offered a platform for interpreting the managers' verbal statements and assessing the relevance of their statements for their experiences of stress and stressors.

In Study II, physiological measures were used to complement self-assessments of stress and energy. The main point in collecting physiological measures was to contribute to the feedback session and provide a more holistic understanding of the participants' stress perceptions. Also, it could give the measurements more legitimacy, from the participants' perspective. Collecting these measures was considered part of the intervention, as it was believed to increase the participants' awareness of themselves during the measuring period. The measures have not been used to normatively determine stress levels, whether detrimental or beneficial. The focus of the study was individual meaning and experience, that is, the managers' own perceptions and interpretations of their stress and balance.

## Data collection

### **Setting**

The participating managers were all from Västra Götaland region in western Sweden. In Study I, they were purposefully selected to represent different health care organizations in the region. In Study II, participants were randomly chosen from one specific hospital organization within the region, in order to gain a deeper understanding of managers' situation in a specific context.

### **Sampling**

In both studies, variation was aimed for regarding managerial experience in years, clinical area of responsibility, and age. The first study also aimed for variation in professional background, span of control, clinical activity and managerial level.

In Study I, seven first-line and three second-line managers in health care in Västra Götaland were purposefully selected for in-depth observation and interviewing with the aim to gain variation among participants. The managers were selected via



contacts with human resources departments, human resources managers and a general e-mail sent to managers. The final sample consisted of eight women and two men in full-time work. Four of them worked in outpatient settings, another four managed hospital wards and the remaining two managed both wards and outpatient units. Three were second-line managers. The participants' experience in their current managerial position ranged from 6 months to 18 years, with an average of nearly 10 years. They had various professional backgrounds as nurses, physicians, psychologists and social workers.

Also in Study I, further interviews with theoretically derived questions from the preliminary analysis of the ten observed managers were carried out in 13 focus groups containing altogether 71 individuals. The inclusion criterion was holding a first-line manager position in one geographic hospital area within a Swedish region. All first-line managers were invited via e-mail to participate in a seminar followed by focus group discussions about stress and sustainable time use. As with the ten managers included in the observations, focus group participants varied with regard to professional background, age, managerial experience and clinical activity.

In Study II we randomly selected twelve first-line managers from three divisions of a medium-sized hospital organization. The inclusion criteria were (1) managing a medical or surgical ward providing inpatient care; (2) not working clinically; and (3) having held the present position for at least 1 year. Lists of wards and managers were obtained from the human resources department, and a number was assigned to each eligible individual in the list. The numbers were written down on pieces of paper and an external person was asked to draw lots five at a time from one division at a time. In this way, 22 individuals were invited stepwise to participate in the study, twelve of whom agreed to participate and completed the study. The reasons cited by those who chose not to participate were fear of extra workload ( $n = 9$ ) and approaching retirement ( $n = 1$ ). Because of the explorative character of the study we included no further participants. The final group included ten women and two men aged 34–56. All were registered nurses who had

been working in their current managerial position for 1–20 years, with 25–50 subordinates. All lived with a partner, and some but not all had children living at home.

### **Observations**

The semi-structured observation methodology was developed from a recent study of health care managers (Arman, Dellve, Wikström and Törnström, 2009) and has previously been used to study company managers' time use (e.g. Carlson, 1951; Mintzberg, 1973; Tengblad, 2002). The method accounts for systematic observation of people's activities based on pre-formulated, scheduled categories. The researcher can make direct, external observations of a person's actions and doings, as opposed to, e.g., conducting interviews or asking survey questions. In the present studies, observations of the managers' activities were carried out by an observer using a structured, computerized observation protocol. In practice this meant that the observing researcher carried a portable computer during the observation period where each activity was noted in data file.

The observation protocol was inspired by previous managerial work studies using the software FileMaker Pro Advanced 11.0 v2 (Arman, Dellve, Wikström and Törnström, 2009) but was further developed in the researcher group to fit the research questions of Study II. It consists of a number of categories and provides space for additional notes as shown in Figure 1. The categories used in Arman et al.'s study and Study I were *medium* (e.g. planned/unplanned meetings, desk work, phone calls, etc), *participants* (e.g. alone, subordinate, own supervisor, patient), *initiative* (own, others', or planned), *location* (e.g. own office, others' office, ward corridor, coffee room, etc). In Study II, the protocol was extended to better include activities of significance for stress and recovery. A number of categories were added: *communication* (e.g. answering questions, posing questions, discussing, confirming), *availability* (yes, no, partly), *time demand* (relaxed, taxing, very taxing), and *work content* (e.g. planning of own work, scheduling work tasks, budgetary issues). The software also clocked every activity.

FileMaker Pro Advanced - [aktivitet]

Arkiv Redigera Visa Sätt in Utforma Poster Manus Verktyg Fönster Hjälp

### Kronologisk inmatning

	Start	Medium	Brev*	Deltagare	Initiativ	Plats	Kommentar	Avbrott	Antal	Slut	Tid
142	11:48:46	telefonsamtal	X	ensam	ännans	eget kontor	X			13:50:13	00:01:27
143	11:50:13	telefonsamtal	X	ensam	eget	eget kontor	X			13:51:39	00:01:26
144	11:51:39	skrivbordsarbete	X	ensam	eget	eget kontor	X			13:52:13	00:00:34
145	11:52:13	oplanerat möte	X	sektionsledare	ännans	eget kontor	X		1	13:52:50	00:00:37
146	11:52:50	skrivbordsarbete	X	ensam	eget	eget kontor	X	par		13:58:10	00:05:20
147	11:58:10	studien	X	ensam	eget	eget kontor	X			13:59:04	00:00:54
148	11:59:04	lunch		blandad grupp	planerat	konferensrum	X		10	12:33:57	00:34:53
149	12:33:57	planerat möte	X	blandad grupp	planerat	konferensrum	X		10	13:40:08	01:06:11
150	13:40:08	ställtid	X	medarbetare	eget	konferensrum	X			13:48:57	00:08:49
151	13:48:57	förflyttning		ensam	eget	flera platser	X			13:51:49	00:02:52
152	13:51:49	ställtid	X	observatör	eget	eget kontor	X			13:55:29	00:03:40
153	13:55:30	oplanerat möte	X	sektionsledare	ännans	eget kontor	X			13:58:13	00:02:43
154	13:58:13	ställtid	X	observatör	eget	eget kontor	X	ja	dire	13:59:05	00:00:52
155	13:59:05	telefonsamtal	X	ensam	ännans	eget kontor	X			14:00:19	00:01:14
156	14:00:19	oplanerat möte	X	sektionsledare	ännans	eget kontor	X			14:01:45	00:01:26
157	14:01:45	skrivbordsarbete	X	ensam	eget	eget kontor	X			14:04:38	00:02:53
158	14:04:38	rundtur	X	medarbetare	eget	annan avdelning	X			14:12:29	00:07:51
159	14:12:29	ställtid	X	ensam	eget	eget kontor	X	ja	dire	14:38:26	00:25:57
160	14:38:26	oplanerat möte	X	medarbetare	ännans	flera platser	X			14:42:18	00:03:52
161	14:42:18	oplanerat möte	X	medarbetare	eget	patientsal	X			14:42:53	00:00:35
162	14:42:53	förflyttning		ensam	eget	egen avdelning	X			14:43:59	00:01:06
163	14:43:59	epost	X	ensam	eget	eget kontor	X			14:44:45	00:00:46
164	14:44:45	telefonsamtal	X	ensam	ännans	eget kontor	X			14:48:50	00:04:05
165	14:48:50	skrivbordsarbete	X	ensam	eget	eget kontor	X			14:56:21	00:07:31
166	14:56:22	förflyttning	X	medarbetare	eget	flera platser	X		1	15:03:56	00:07:34

Figure 1. A screenshot of the software showing an excerpt of the observation protocol used in Study II (shown in Swedish).

In Study I, ten managers were observed during 4 workdays. In Study II, twelve managers were observed during 2 workdays. The observer did not interact with the manager but followed (‘shadowed’) them in every activity during the workday (unless asked not to, for reasons of a sensitive nature) to observe and record the activities that actually constitute the managerial work (Czarniawska, 2007). In this way each activity during the manager’s workday was categorized, timed and qualitatively described by the observer. Thus, the observations generated quantitative data on frequency and duration of activities and time use, and also the observer’s description and interpretation of the managerial activities.

In Study I, the observational data were used to exemplify time use and describe the range of frequency and duration of the managers’ activities. In Study II, the

observational data were not analysed per se, but were merely used as a memory aid during the feedback session.

### **Self-reported mood assessments**

To perceive stress without perceiving sufficient recovery is a negative state of mind that should be avoided. In situations of perceived stress, energy mobilization should occur so that the stressors can be coped with and handled (see Methods). In occupational research it is valuable to know when individuals perceive their mood as either 'stressful' (a negative state) or 'aroused' (a positive state). As the overall study aim included exploration of managers' handling of stress and balance, self-ratings were used as one way to gain knowledge of their stress. One method to describe and assess this state of mind is to construct checklists to capture the mood dimensions of stress and arousal (Kjellberg and Iwanowski, 1989) (in the Swedish version the term 'energy' is used instead of 'arousal'). Self-ratings of stress levels using the questionnaire have previously shown significant associations with, e.g., musculoskeletal complaints (Kjellberg and Wadman, 2002). The questionnaire contains six adjectives that describe stress and six that describe energy/arousal (filled out in the following order: relaxed, active, tense, dull, stressed, energetic, inefficient, rested, focused, pressured, passive, calm). The assessments were made four times daily on a six-step scale (ranging from Not at all to Very much). Each person's questionnaire was analysed using JMP statistical software, version 8.0.2 (SAS Institute, Cary, NC, USA), and presented as diagrams during the feedback session in Study II, as shown in Figure 2.

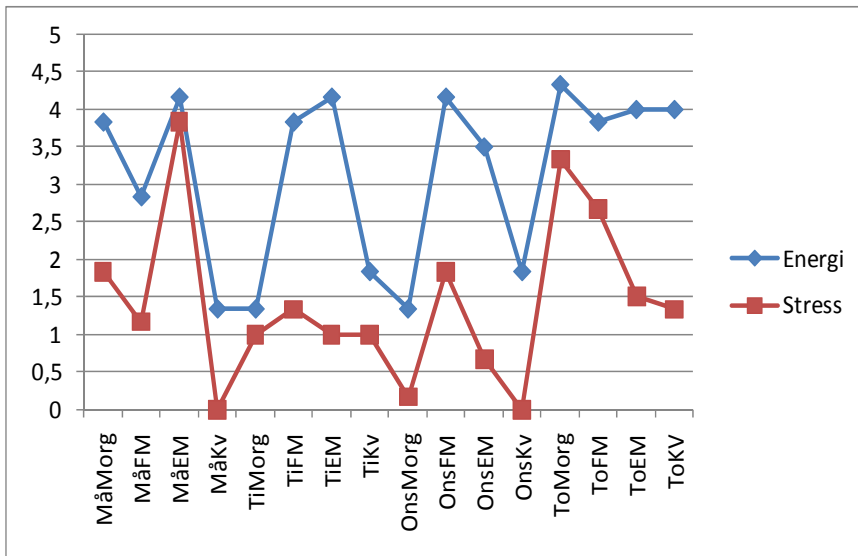


Figure 2. One manager's assessed stress/energy curve during the observation week (shown in Swedish).

### Stress indicators

*Emotional stress arousal* was in Study II measured via galvanic skin response (GSR) using the biosensor SenseWear Body Monitoring systems armband shown in Figure 3 (BodyMedia Inc., Pittsburgh, PA, USA). This measures stress arousal based on the skin's ability to lead electricity. The more the wearer of the device sweats, the higher the level of GSR recorded by the armband. The GSR measure has been related to cognitive activity and emotional reactions (Scheirer, Fernandez, Klein and Picard, 2002; Mandryk and Atkins, 2007) and in the present study was used to assess the managers' emotional stress arousal. The armband incorporates heat sensors for measurement of the GSR and is worn around the upper left arm. The armband further assesses activity level through a pedometer sensor measuring the number and frequency of steps the user takes. In the present study, activity was mainly used to establish whether GSR peaks discussed during the feedback session were due to emotional arousal or to physical activity.



Figure 3. The SenseWear biosensor armband, worn by the managers around their upper left arm (BodyMedia Inc., Pittsburgh, PA, USA).

Participants were asked to put the armband on first thing on the Monday morning of the data collection week, and to continue wearing it as much as possible, including in the evenings and at night, until they finished work on Friday evening. The armbands were sent back to the researchers and the arousal and activity data was transferred to the software Affective Diary by the observing researcher. Affective Diary is a working system transforming the armband data into figures on a timeline (Ståhl, et al., 2009). One hour at a time is shown on the screen and each hour is represented by five figures. For each hour that the SenseWear armband is carried, five figures in different colours and postures are displayed on the screen. A screenshot showing the figures is shown in Figure 4. Their colours signify GSR levels while the posture is related to the level of activity during that hour. The shapes of the figures are not changing with the armband measurements, but they are ambiguously designed to allow the user to freely interpret them (ibid.). Purple represents the highest arousal, followed by red, yellow, green and blue. Blue represents the lowest arousal or the calmest situation. The background colour on the screen changes according to the time of day. During the feedback session, a laptop computer was placed in front of the participants to allow them to watch the representations.

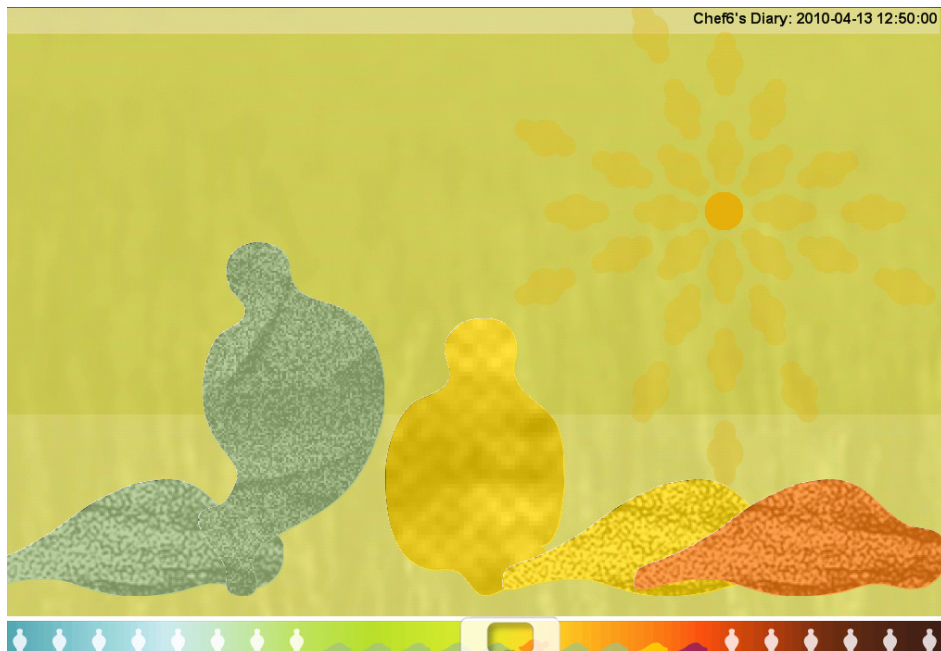


Figure 4. One manager's representations of galvanic skin response (GSR) and activity level during 1 hour, displayed in Affective Diary.

*Heart rate* was used as a measure of acute stress reactions, assessed using a PolarPro pulse watch (Polar Electro, Kempele, Finland) worn around the wrist and a belt around the chest. Increased heart rate is one of the basic physiological stress responses associated with work activities and self-reported stressful events (see e.g. Pieper, Warren and Pickering, 1993; Goldstein, Shapiro, Chicz-DeMet and Guthrie, 1999; Pieper, Brosschot, van der Leeden and Thayer, 2007). Participants were asked to start the watch when they began work on Monday morning and to stop it when they finished work on Friday evening. The watches were sent back to the researchers and the pulse data were transferred to PolarPro software (Polar Electro, Kempele, Finland) and presented as diagrams, one for each day during the work week as the example in Figure 5 shows.



Figure 5. A heart rate curve from one of the managers' workdays (shown in Swedish).

## Interviews

The aim of the research in this thesis is to increase and deepen the understanding of individuals' experiences. Such subjective experience cannot be objectively measured; it must be described by the participants themselves. For this reason, we combined the observations and stress measurements with interview sessions. To a large extent the data this thesis is based on are interview texts. These are handled as participants' statements of their reality, not as direct representations of some 'objective' reality. The interpretation and analysis of such statements, by researchers, is an individual process because interpretation is subjective. The results of qualitative interviews are furthermore influenced by the interaction between the researcher and the participant (Charmaz, 2006). Interviews do not generate facts about reality; they are statements made by individuals and may be constructed due to the interviewee's intentions (Prasad, 2005). Still, qualitative interviewing can provide open nuanced descriptions of the subject's life world, and the opportunity to interpret the meaning of the central themes expressed (Kvale, 1996).

In Study I, ten managers were interviewed three times each during an observation period of 4 working days. (1) At the beginning of each observation, a background interview clarified the structure of the organization and the managers' background



variables. (2) A longer qualitative interview focusing experiences of sustainable time use and stress in the managers' everyday practice was carried out after the observation period, with questions concerning time distribution regarding work and private time and balance between leadership logics and professional roles, as well as influence in decision-making processes and perception of leadership support. (3) 10–14 days after the observation, an interview regarding the activities of a week, according to the managers' diary, was carried out.

The focus group interview questions in Study I concerned strategies for delimitations at work, the participants' perception of fragmentation of their everyday work, and the support they desired in time distribution.

In Study II, the interviews were combined with the feedback sessions. Interviews started with the researchers highlighting between three and five episodes during the observed week. These were selected in advance according to the following criteria: (1) a recurring pattern during the week; (2) a sudden rise in stress; or (c) a stable period without stress arousal. These patterns could be exemplified with data from any of the three sources (self-reported mood assessments, GSR or heart rate). Each episode and its corresponding stress measurements were then described briefly by one of the researchers and the participant was asked if they remembered the event (if not, time use data from the observations were used to facilitate recall), how they had acted, how they had felt, how they viewed the situation, and whether they thought they would act differently the next time a similar situation occurred. Finally, the participant was asked to reflect on the feedback situation itself and whether it had had any value to them. The aim of these interview questions was to facilitate the participants' efforts to make sense of their past actions (Gertsen and Söderberg, 2010). During the interview, the researchers strove to let the participants elaborate on what seemed to be central, important concerns for them in relation to the selected episodes.

## **Interview data analyses**

The analysis of data in Study I was inspired by the constructivist version of grounded theory (Charmaz, 2006). The exploratory nature of the study aims fitted the grounded theory rationale; this method is suitable when the aim is to describe a field with little knowledge. The initial coding of the interview data was carried out by the first author of Paper II (E.T.). The emerging codes and categories, and the relations between them, were frequently discussed among the group of authors. Initial coding was carried out by reading interview transcripts and observational notes line by line. Statements of relevance to the study aim were given intuitive labels (i.e. codes). As a next step, categories were created through focused coding. Codes were compared and similarities between them observed, and a number of preliminary categories were formed for each transcript or observation. By merging similar codes into categories and constantly comparing the initial codes with focused codes and categories, the data were abstracted and conceptualized (ibid.). The focus group interviews in Study I were coded, categorized and thereafter compared with the previous analysis in the same manner. To establish the emerging categories, they were constantly compared with raw, uncoded data. Thereafter, statistics regarding the managers' use of time that could be related to the qualitative findings were added to complement the interview categories. The descriptive statistics were (1) examples of individual duration of time in observed activities; and (2) range of frequency and duration of all managers' use of time in observed activities. These were obtained from the FileMaker data file and analyzed in Microsoft Excel 2010. All interviews were recorded and thereafter transcribed verbatim by external personnel.

In Study II, we used conventional qualitative content analysis. One of the researchers (E.T.) read all twelve feedback transcripts word for word several times to find statements that expressed the managers' perception of the feedback. This reading began as soon as the first interview had been transcribed. The aim was to find expressions related to the managers' perceptions and explanations of (1) the selected episodes focused on during the feedback; and (2) the experience of the feedback session as a whole. To derive analytical categories, the researcher

highlighted the exact words and passages from the transcripts that appeared to capture the managers' key thoughts (Hsieh and Shannon, 2005), and discussed these statements with the other researcher (L.D.). Labels for the identified themes were suggested by both researchers during these discussions, and used to create a preliminary coding scheme aimed at organizing the text into fewer content categories (Weber, 1990). Examples of the initial codes include, e.g., *bad conscience over one's work approach* and *showing hesitation about the technique used*. When using content analysis, it is essential to develop a coding scheme in order to ensure trustworthiness (Hsieh and Shannon, 2005). As each transcript was analysed, the preliminary categories in the coding scheme were either confirmed or supplemented by the creation of a new one in order to refine and describe the data. As codes were added, they were grouped in clusters according to their theme, and given preliminary labels. In order to describe the data as well as possible, it was essential that the categories were exhaustive so that each analysed statement fitted only one category. After analysing the twelve transcripts, the two researchers reached consensus on two categories containing four sub-categories each. These were labelled, and quotations were selected to illustrate the analysis.

## Ethical considerations

The studies were approved by the regional ethical committee in Gothenburg (Study I dnr 588-07; Study II dnr 574-09). All participation was voluntary and data were handled confidentially. Interview transcripts were transcribed by external personnel.

# Results

An overview of the studies is given in the following table:

Table 1. Overview of aims, findings and conclusions of Studies I and II.

	Study I	Study II
Aim	To explore managers' boundary setting in order to better understand their handling of time commitments.	To explore whether and how feedback on stress-indicating data was perceived and whether it was appraised as 'meaningful' by participating managers.
Findings	A first step in managers' boundary setting was to recognize areas with conflicting expectations and inexhaustible needs. Strategies were then formed through proactive, continuous negotiating of the managers' time commitments.	The feedback sessions encouraged understanding of previous stress experiences through a two-step appraisal process. The sessions could trigger understanding of the participants' perceived and observed stress, but there were also obstacles to learning from the feedback.
Conclusion	Awareness and continuous negotiation regarding boundary dilemmas can be an effective proactive coping strategy for managers.	A non-normative, interactive feedback session may initiate key processes of sensemaking, which can aid managers' stress management by increasing their awareness and supporting their learning about their stress.

## Proactively approaching boundary dilemmas (Study I)

The findings reported in Paper I showed that the managers' everyday leadership practice occurred in a context of time fragmentation and uncertainty regarding the balancing of their personal and professional time commitments. A first step in boundary setting that was necessary for them was to *recognize work areas with conflicting expectations and inexhaustible needs*. Secondly, strategies regarding boundaries in these areas were formed through *negotiating the handling of managerial time commitments*, resulting in boundary-setting, but also boundary-

dissolving, approaches. The need for boundaries existed within work as well as around work.

Three boundary approaches were identified among the managers and labelled *Establishing time frames*, *Relying on relational resources* and *Making use of organizational structures and norms*. Using these approaches, managers established borders within and between the central areas in their work. Limits to the workday could be set in different manners: by leaving at 5 o'clock every day, no matter how much work was left on the desk; by considering whether one's partner was at home or not; or by the informal culture that sometimes expected limitless work commitment. The following quotes exemplify managers' awareness of boundary dilemmas in their work.

I don't have time; I'm never left alone. I never get the time I counted on having. Questions always pop up, someone's ill, someone comes with an urgent question, someone wants to talk about something that takes time [. . .] suddenly you are so divided that you can't concentrate on whatever you had decided to do.

As a manager, you are so available. We are so service-minded, sort of, making sure to always be available. We work with people. I like people, and I like to meet them. And that in itself can make it difficult sometimes, to draw a line.

In the end it's no-one but yourself who can make you stop working after you have left the office, or decide how much you take home with you. I mean, it takes some [. . .] we have to show some guts too, and not take too much on ourselves.

I believe that you have to find your own structure, and that no-one else can help you, really, in this job.

The boundary approaches were used both proactively and reactively by the managers. The continuous process of individual recognition and negotiation of boundary dilemmas appeared to be an effective form of proactive coping for them,

provided that the dilemmas were acknowledged and questioned. This process is conceptualized in Figure 6.

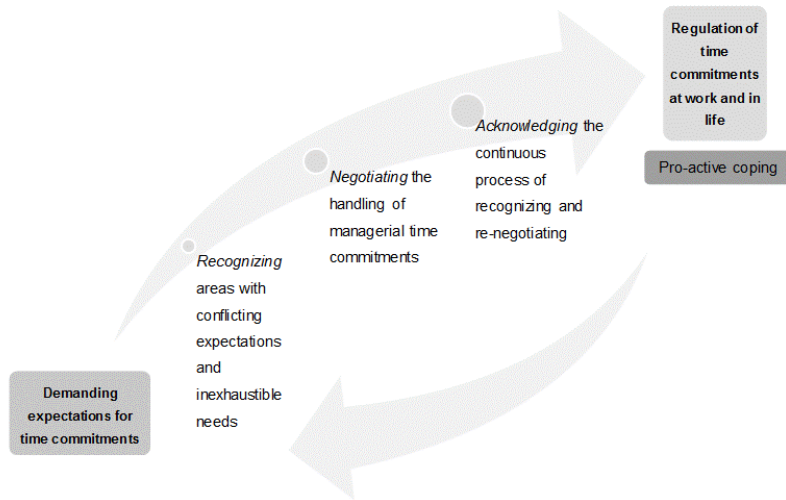


Figure 6. The proactive potential of acknowledging boundary work.

Quantitative data regarding duration of managers' time use were collected and are presented in Table 2.

Table 2. Proportion (%) of time and activity spent by managers in areas of conflicting expectations and inexhaustible needs.

	All observed	First-line	Second-line
Observation	managers	managers	managers
	(n = 10)	(n = 7)	(n = 3)
<b>Type of activity<sup>1</sup></b>			
Participating in clinical work	0–35	0–35	0–2
Administrative desk work	9–38	18–38	9–23
Planned meetings	5–63	5–35	39–63
Unplanned meetings	5–27	7–27	5–16
<b>Initiative to activity<sup>1</sup></b>			
Others' initiative	9–30	9–30	20–25
Own initiative	58–83	66–83	58–67
<b>Participants in activity<sup>2</sup></b>			
Employee interaction	11–44	29–44	11–27

<sup>1</sup> Range in % of total observed time

<sup>2</sup> Range in % of all observed activities

Note! Due to printing error the activity *Participating in clinical work* is lacking in the table in paper I. The table above present correct proportions and activities.

The data are related to four central areas of the managers' work that were described as the responsibility of each individual manager to define and delimit and were viewed as integral parts of managerial practice. They were (1) participating in clinical practice; (2) interacting with employees; (3) fulfilling administrative duties; and (4) taking active part in strategic networking. These areas could all contain conflicting goals, described as conflicting expectations and inexhaustible needs that often emerged in time-fragmented situations.

## Assessing and understanding patterns in one's stress and recovery (Study II)

The findings in Paper II show that a dialogue-based, multi-source feedback session could encourage sensemaking of managers' stress indicators through a

two-step appraisal process. The session had potential to trigger meaning making of one's perceived and observed stress. It became evident, however, how obstacles to learning from the feedback could be perceived.

The feedback session was perceived in two phases by the managers. The initial phase described the participants' immediate reactions to the feedback data and their assessment of the feedback session. This *initial appraisal* contained surprise, questioning, confirmation and displeasure. Four categories described various initial appraisals, listed below.

*Allowing oneself to show surprise.* When the managers reflected on their actions during the observation week, they expressed expectations relating to their stress patterns that were not always visible in the feedback data. Some perceived this with curiosity, and interpreted it as new knowledge about their physiological stress reactions.

*Questioning of strategies.* The feedback session triggered long-term outlooks among the managers and sometimes pessimistic reflections about their future resources. The participants could then question their strategies and reflect more on their stress-related behaviours and strategies more than they had done previously.

*Verifying the fundamentals of being a manager.* Some of the participants' initial reactions appeared to verify their core conceptions of their work values as managers. Patterns and episodes in the feedback data were immediately interpreted as confirmation of 'manager reactions'.

*Finding the feedback data inadequate for learning.* Some of the managers expressed displeasure with the feedback data, saying that they were difficult to understand. Some were more eager to receive a subjective evaluation from the observer than to be given a demonstration of their stress indicators. These participants made less effort to understand the data.



The second phase, which was conceptualized as further appraisal of the feedback, followed the initial reactions; however, this phase did not take place among managers who found their feedback data inadequate. The further appraisal expressed a deepened understanding and a willingness to learn. In this phase, the participants viewed the feedback as more sensible, interesting and personally relevant. Again four categories described the managers' various kinds of further appraisals. The further appraisal was expressed through narrative explanatory statements, while the initial appraisal consisted of less descriptive accounts.

*Reinforcing manager confidence.* During the second phase of reflections, the managers pointed out the resources available to them in handling stress in their work. Getting a good night's sleep was one example of a recovery strategy. Helping out clinically was another act that helped to buffer stressful situations. Their ability to identify such resources exemplified their successful approach to their managerial work.

*Observing dual obligations related to work and private life.* Managerial work was described as a challenging obligation in their lives, but for many, it was not the most challenging. The managers blamed themselves for not having better ways of balancing the demands of work and private life, and they viewed the feedback as guidance for alternative strategies.

*Revealing specific difficulties.* The managers used the feedback to identify specific personal difficulties which had an impact on stress in their work. The session increased their understanding of their stress patterns since it gave them opportunity to describe sensitive issues in their work.

*Standing out as 'lonely strugglers'.* Stress-related patterns in the feedback were understood as showing how managers stand out from their surroundings as 'lonely strugglers'. Managers used the feedback session to describe the frustrating external conditions in their work, and how the feedback data could be understood as a consequence of struggling alone with these conditions.

In sum, the feedback session served to make participants aware of and speak about their stress-related patterns, and further sensemaking of these patterns enabled reflections about alternative behaviours and intentions where needed. For example, this was indicated by a manager who questioned her strategies and reflected over her daily patterns of increased stress during the day:

You can really ask yourself that. Is this the way it should be? Should it be that I arrive at work every day and am stressed by the afternoon? It strikes me now, as we sit here and talk, that you can ask yourself if you get used to [these ways of working]. This feedback looks 'good' to me, because it shows what I expected to see. But does it really show something good?

The findings of this study suggest that sensemaking is an important part of understanding and processing feedback data, mainly due to the learning potential of this process. Supporting sensemaking of daily and weekly stress patterns in the form of a feedback session can be a means to enhance awareness and encourage learning about one's own stress. When the feedback session is non-normative, supportive of the participants' own reflections and derived through multiple data sources, it can trigger sensemaking and increase managers' understanding of their own patterns of stress and recovery. However, the findings of this study also identify obstacles to making sense of this kind of feedback material.

# Discussion

The papers presented in this thesis contribute to the understanding of managers' handling of stress from different perspectives. The findings reported in Paper I pointed out managers' time use dilemmas and how they could be handled reactively and proactively. Paper II shows how dilemmas and patterns of stress and recovery could be made sensible of by the managers themselves when they reflected on them with non-normative dialogue partners. This discussion will focus on the relation between these findings and how they may be implemented in practice.

## Managers' management of stressors

Stress management can be understood as learning to balance the demands one is exposed to with one's available resources (Cox, 1993). Research tells that no standard procedure exists for carrying out successful stress management interventions in occupational settings. Interventions can take on different forms and be carried out at different organizational levels (Richardson and Rothstein, 2008; Nielsen, Randall, Holten and Gonzáles, 2010). Individual approaches to stress management can include enhancing individuals' ability to cope emotionally with their occupational strain, or the help to identify and change the causes of the strain (Bond and Bunce, 2000). There is empirical evidence that individual stress management interventions have potential to reduce stress in employees (Marine, Routsalainen, Serra and Verbeek, 2006; Richardson and Rothstein, 2008). The lack of consensus regarding methods and techniques allows for new approaches to be tested.

For this reason, individual feedback on stress indicators was tested as a consciousness-raising intervention. Paper II shows that managers' sensemaking could clarify their approaches to work situations. Sensemaking through narrations can be a tool to understand and handle the meaning of one's work, as suggested in previous studies from various contexts (see e.g. Gertsen and Söderberg, 2010;

Patriotta and Brown, 2011). What was unique in the present study was the managers' sensemaking regarding their stress management, since sensemaking may clarify the need to better manage stressors in work. The findings suggest the significance of cognitive self-regulation of stressors in the work context. Possibly the mechanism between sensemaking and stress management was the intention for change that could arise from the participants' appraisal of the patterns in their stress and recovery. Therapy theories describe the different stages of the individual change process, starting with consciousness raising and contemplation on the subject, for example, a harmful behaviour like smoking (Prochaska and DiClemente, 1982). In the pre-contemplation phase the behaviour is not even recognized as a problem. The process proceeds with the individual's determination to change the behaviour, thereafter actions may be taken, and the changed behaviour is either maintained or relapsed (ibid.). The feedback session could trigger managers' contemplation of the patterns of their stress and recovery. This could, in turn, enhance their ability to balance the demands and challenges they perceived themselves as being exposed to. The sessions could increase the information available to them regarding their behaviour, and this consciousness raising gives them the possibility to form intentions (ibid.). It could thus lead to alternative strategies for managing stress and stressors to be formulated by them and, possibly, put into action.

The intentions for change suggested by some participants resemble problem-focused stress management, a coping strategy where one identifies and modifies the causes of one's stress (Lazarus and Folkman, 1984; Bond and Bunce, 2000). Such a problem-focused approach was seen in the category *Standing out as 'lonely strugglers'* in Study II where the managers blamed their stress reactions on external factors, such as colleagues' sluggishness during meetings, which caused them frustration and a raised heart rate. Another, very different strategy is to accept the situation as unalterable, and learn to cope with the emotions that the stressors give rise to (Lazarus and Folkman, 1984; Bond and Bunce, 2000). Sensemaking in terms of acceptance was, e.g., described in the category of *Revealing specific difficulties*, where feedback was made sensible by referring to

personal, sensitive issues considered unchangeable ‘facts’. Thus, feedback and subsequent sense making can help in understanding one’s core issues associated with stress and seem to allow both problem-focused (e.g. identifying and blaming one’s colleagues as causing stress) and emotion-focused (e.g. accepting the stress associated with hurrying home to prepare dinner) stress management. As both emotion- and problem-related sensemaking can occur within the same person (e.g. by referring the mood assessments to subjective emotions, and linking heart rate responses to problems in the working environment), sensemaking can provide a nuanced understanding of how one is handling daily hassles. In this way the feedback session could encourage alternative appraisal and perspectives on the managers’ weekly and daily patterns of recovery and stress.

Study I was not designed as an intervention but can none the less have implications for stress management. The findings reported in Paper I illuminate managers’ handling of daily hassles, here too focusing on active individuals, their cognitive self-regulation, and their self-awareness. The paper shows that the managers’ time commitment had to be regulated proactively to balance demands that they were exposed to. A proactive approach to their time commitments allowed a greater sense of control of the boundaries in their work. But not only boundary setting could increase their perception of control, also, dissolved boundaries could be stress-reducing (exemplified by the manager who stayed late at the office one Friday night because her husband was away travelling). To achieve a balanced time commitment, physical boundary markers such as the physical office space were used, as well as emotional, relation-driven boundary markers such as family members’ wishes. Again, the combination of acknowledging external factors (problem-focused coping) and emotional experiences (emotion-focused coping) outlined a stress management that helped the managers manage their time commitments. Their handling of boundary dilemmas highlighted the fact that physical space, personal relations and organizational norms and values were various dimensions of the environment that contributed to managers’ stress, recovery and balance. When the boundaries that needed to be set between and within these areas were dissolved, the time

commitments were perceived as overwhelming due to lack of time to complete all managerial assignments. This continuous process of recognizing dilemmas was an effective way to proactively set boundaries, enabling managers to cope with boundary dilemmas before they turned into stressors.

### Possible behavioural change: achieving balance through boundary awareness

The process of recognition and sensemaking of stress-related dilemmas can be viewed as *boundary awareness*. As discussed above, managers' acknowledgement and recognition of patterns of stress and recovery was a condition for practically handling their boundary dilemmas. This was discussed in Paper II which describes how a feedback session can enhance awareness of one's stress and recovery patterns. As the feedback sessions in Study II retrospectively visualized managers' stress, recovery and balance in work and non-work domains, they enabled both awareness regarding setting of boundaries and formulation of recovery patterns. This awareness can possibly guide managers' priorities in the way they desire, enhancing their work balance as well as their work-life balance, and thus be an effective proactive stress management strategy.

Learning to proactively cope with stressors is a form of self-regulation, involving the control and directing of one's actions and behaviours (Aspinwall and Taylor, 1997). What defines proactive coping strategies is that they prevent a potential stressor from actually giving rise to perceptions of stress. In the context of lower-level managers, one proactive coping strategy might be to discuss one's workload with the closest manager before handling of the workload has turned into a stressor; another might be to prepare one's family for the fact that some weekends must be spent at the office. The proactive coping process starts with identifying potential stressors and, thereafter, the resources for preventing the stressors to cause stress (ibid.). A process of continuous recognition and acknowledgement could involve scanning the environment for potential stressors, thus enabling managers to reflect over, handle and diminish them. Boundary awareness could be

the starting point of the self-regulation that is the precondition for proactive management of stress.

Balance is one desired outcome of learning to manage stressors. The understanding of managers' balance in work and life can be deepened by using aspects of border theory (Campbell Clark, 2000). One important contribution of Campbell Clark's framework is its highlighting of contextual factors of importance for the work-life balance, which accordingly has implications for how support for balance is viewed. For instance, the factors of identification and influence in each life sphere greatly affect people's abilities to find a functioning work-life balance: the borders people set up around life domains are affected by whether they identify with the given roles and responsibilities in both domains, and whether they can be in control of their own decisions (*ibid.*). Identification and influence can therefore increase people's sense of meaningfulness and motivation to manage borders and domains (*ibid.*). Importantly, the two variables are targets of contextual influences and likely to be enhanced or diminished by factors related to family culture as well as workplace culture. Obviously, the approach of one's supervisor can affect the influence one has in the work domain, just as one's partner can contribute to the sense of identification with one's role in the family domain. In Paper I, examples are given of managers' own supervisors who had reactive approaches to borders (e.g. by expecting constant availability from their first-line managers) as well as proactive ones (e.g. by telling the first-line managers to be careful with their free time and not spending it on work-related issues). This is an example of a contextual factor (the managers' own managers) that affects the choice of boundary approach towards work vs. non-work.

In Paper I, the central areas in managers' work were related to activities of a clinical nature, employee interaction, administration and networking. The different assignments in health care management have previously been described as guided by dissimilar logics, values, and areas of knowledge (Llewellyn, 2001; Wikström and Dellve, 2009). According to border theory, a balance between

domains that are characterized by different values and culture is enhanced by strong boundaries between them (Campbell Clark, 2000). However, quite the opposite situation is described in Paper I, where flexible, permeable boundaries *within* work seemed to be managers' standard way of approaching the different areas, due to contextual expectations of constant availability and high flexibility. Increased boundary awareness may improve managers' achievement of balance, e.g. through recognition of one's desired boundary approaches and the areas in which strong boundary approaches rather than weak ones would favour them, or vice versa. Boundary awareness could thus establish in which situations stronger boundaries could be helpful, and in which situations boundaries can be dissolved.

## External evaluations of managerial work

This thesis builds on the notion that work should be brought back into organizational research through non-normative, descriptive observational approaches of what actually constitutes work (Barley and Kunda, 2001). The focus is on managers' practices – on what they actually do, rather than on what they should do, and how they should do it. Such external evaluations and observations can open new perspectives to people compared with self-assessments of their working conditions (Waldenström, 2007). The main conclusions of the present studies are not concerned with the managers' concrete work activities; rather, they investigate their interview narratives as responses of observations of their everyday work. The interviews in Study I were conducted shortly after observation of their workdays. The feedback data in Paper II build on the actual patterns emerging during the participants' workday. During the feedback session a non-normative approach was used. Such an 'objective' approach can open up for reflection and verbalizing. Talking about what work conditions should be like can induce feelings of guilt, while talking about the situation *de facto* can be confidence-inspiring and reflection-triggering (Waldenström, 2007). Also, the descriptive approach represented in this thesis may contribute to a grounded approach in theorizing about managers' stress, balance and recovery.



## Caring work and its boundlessness

It is not possible to make a comparative analysis of men and women from the small samples in these studies, as differences between participants may be due to individual, rather than gendered, factors. To better understand the findings, however, it could be appropriate to point out the traditional, inherent 'boundlessness' in women's caring work, which may affect nursing management. Nursing is still viewed as a 'female' work culture, characterized by caring and serving, and thus linked to motherhood (Greiff, 2006). Nursing leadership has been described as 'caritative', which implies a leadership that focuses on values of human love and mercy, as opposed to, e.g., harsh economic values (Bondas, 2003). The occupational culture that the participants were part of (and had been part of in their work as clinical nurses) promotes dissolving boundary approaches in favour of setting boundaries, as nursing is supposed to be driven by care for patients, more than concern for oneself. This may give rise to a manager dilemma between fulfilling subordinates' and patients' needs on the one hand, and maintaining one's own wellbeing on the other. Nurse managers may stretch their boundaries all too much, and implications of nursing as a vocation carry the risk of a detrimental work culture. The 'caring' ideal is an aspect of the health care context that highlights the need for being aware of one's own boundaries.

## Changeability of managers' work situation

After managers have identified patterns of stress and recovery in themselves they may form intentions to change them. Naturally, people feel well, healthy and satisfied when they have opportunities to follow their preferences regarding borders and balance in work and life (see e.g. Edwards and Rothbard, 1999; Rothbard, Phillips and Dumas, 2005; Kreiner, 2006; Chen, Powell and Greenhaus, 2009). Accordingly, conflicts arise when people are forced to work under circumstances where their preference does not fit with the environmental conditions. For instance, a first-line manager may want to switch off their phone at weekends, but 'has to' leave it on due to norms and values concerning the manager's role in the organization. Boundaries are then likely to be defined not by

their own preferences, but by external norms, which are difficult to change for the individual.

This is of relevance for individuals' wellbeing. Forced work-related approaches that are governed by external norms can have real impact on employee health, which was shown in a Norwegian study of industrial workers (Hammer et al., 2004). In this study, employees' perceptions of strong organizational norms regarding work requirements and social relations had a significant effect on their job stress. Forced norms may hinder employees from following personal boundary preferences and consequently cause stress. The assumption from the present studies is that increased boundary awareness among managers may help them to identify their own boundary preferences, norms and regulations that govern their working conditions, and the fit between them. If there is a gap between preferences and conditions, the question of change may be addressed. This would be the second stage in the stages of change model (Prochaska and DiClemente, 1982). As already pointed out, identifying sources of stress and accordingly trying to change them is known as problem-focused coping (Lazarus and Folkman, 1984) and can successfully be used in stress management interventions (Bond and Bunce, 2000).

In identifying factors that can actually promote a beneficial change in one's boundary approaches, it is crucial to acknowledge the wider context in which they occur, in order to question the preconditions for one's approaches. One of the managers receiving feedback pointed out that her rise in pulse at the end of certain workdays occurred because she had to hurry home and cook for her husband. For her, this was a non-changeable situation outside of her own control, which she had to adapt to. The example shows the impact of the home sphere for the shaping of one's boundary approach. It also shows that stressful contextual conditions can at least be questioned, even though they may be difficult to change.

However, some conditions are not within reach for an individual, which is important to keep in mind to avoid blaming the individual for not carrying out

preferred changes. People's management of the demands they are exposed to (e.g. by using flexible working arrangements) is fostered and governed by the culture, values and norms in both occupational and private domains (see e.g. Hochschild, 1997; Perlow, 1998; Campbell Clark, 2000). Acknowledging the context and analysing which factors are unalterable and which are possible to change is important in the perspective of stress management and prevention, since there is a risk of 'blaming the victim' when focus is exclusively on individual approaches and responsibility (McKinlay, 1993). As the model of boundary awareness suggests (see Figure 7), individual recognition and sensemaking can be combined with contextual factors in order to work out sustainable, proactive approaches to stress. This could help acknowledge which conditions are not controlled by the managers themselves and thus outline the changeability of their situation.

## A tentative model of boundary awareness

A tentative model of boundary awareness is outlined below. In the model, the term *contextual support* includes the different conditions for boundaries in managers' work: (1) conditions that force boundary setting (e.g. the overtime alarm on one's time card); (2) conditions that support boundary setting if desired (e.g. if one's supervising manager is accurate in stating one's workload and recovery); and (3) the freedom to set or dissolve boundaries oneself (e.g. the possibility to check emails at home during the weekend). The *continuous process* of recognition of dilemmas includes self-reflection of one's boundary approaches at work. A *feedback session* that is non-normative and includes interaction can trigger reflections and aid sensemaking of work behaviour and patterns of stress and recovery. These three components may result in a proactive boundary awareness and manageability of critical situations so that stressors are reflected and proactively avoided.

Proactivity can therefore be a useful way to understand managers' awareness and handling of their stress and dilemmas. However, mere awareness of challenges and dilemmas is no guarantee that they will be handled proactively. It is possible to make sense of one's stress patterns and still be unable to cope with them in

practice. One way to understand this is through the theory of planned behaviour, which states that people's intentions as well as their actual abilities direct and predict their behaviour, but also that one's perceived control is essential for behavioural achievement (Ajzen, 1991). Thus, it is necessary that managers perceive that they actually have control to change their behaviour in critical situations. If they perceive that their preferred boundary approach is out of reach for them, their intentions and abilities will not be enough to achieve a changed boundary approach, despite their boundary awareness. The empirical data in this thesis do not provide information about the managers' possible changed stress management strategies. They do show, however, that boundary awareness *can* be proactive (Paper I) and suggest a situation where proactive boundary awareness can be created (Paper II).

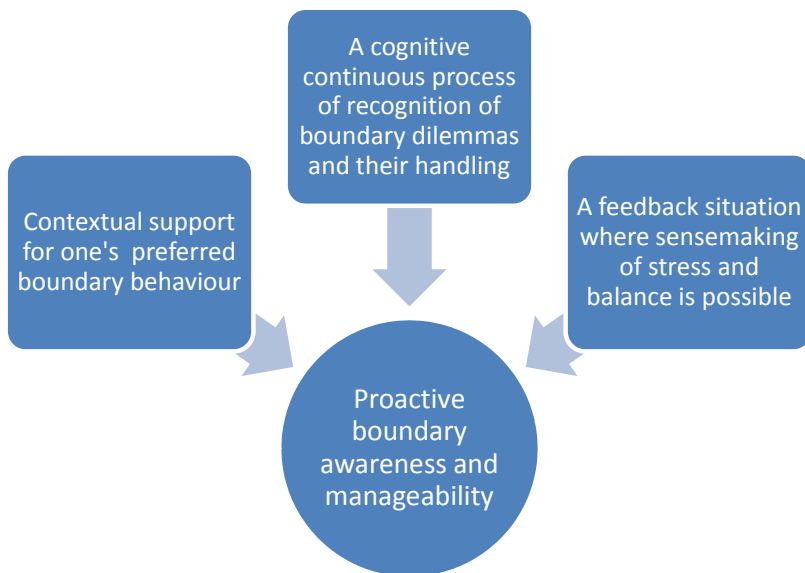


Figure 7. Tentative model of how proactive boundary awareness may be achieved among managers.

## Practical implications

The factors here discussed as implications in lower-level managers' work are feedback-assisted reflection, boundary-setting supervisor support, and increased organizational communication of boundary dilemmas.

### **Feedback-assisted reflection**

These studies highlight the advantages of letting individuals reflect over their work dilemmas and patterns in their stress and recovery, with increased boundary awareness as an outcome. The concept of boundaries can be helpful to understanding managers' dilemmas and reactions associated with stress patterns and time use. In practice, boundary awareness can allow for retrospective reflection, comparison and distancing from one's situation in both work and non-work domains. However, feedback data per se may not generate such awareness. Previous research has pointed out the process of reflection as essential for further implementation and learning of feedback (Anseel, Lievens and Schollaert, 2009) and states that reflective processes after assessment feedback can be useful for practice improvement (Sargeant, Mann, van der Vleuten and Metsemakers, 2009). The possibility to reflect upon feedback is positive for the assimilation and use of it, as it can provide an opportunity to evaluate oneself. In line with these findings, the present studies suggest that reflective processes, started by a stress data feedback session, can encourage an awareness of one's boundaries, strategies and patterns of stress and recovery. Feedback-assisted reflection is potentially a useful way to stimulate boundary awareness, and one implication of this suggestion would be to offer managers feedback on their stress and recovery patterns in a context where reflections on their situations are allowed and encouraged. The situation can, in turn, encourage working for change.

Behind this implication lie assumptions of symbolic interactionism. An interview can be viewed as an observation of an interaction between individuals (Czarniawska, 2004) and the feedback session can be viewed as such an interaction. Symbolic interactionists state that people's responses in social situations are not just reactions to someone else's action, but result from their

interpretations of the situation (Blumer, 1986). Similarly, the managers' appraisals during the session were not automatic responses to feedback data, but their interpretation of the interaction and verbalizing that the feedback session constituted. People interpret situations only if they carry any meaning for themselves and if interaction is a significant bearer of meaning (ibid.). It can therefore be assumed that the managers' interpretation of the feedback situation included the entire situation: the interaction, the presented data, the time that was set aside for the session, etc. It is not possible to state the minimum of feedback data necessary to trigger sensemaking. Possibly only the verbalizing and interaction is enough. Considering the specific equipment used in this study, it is worth noting that sensemaking, or at least reflection, could very likely be achieved with fewer data to discuss (in fact, one of the categories in Paper II showed that the presentation of data could hinder managers from learning about their stress). For some managers, the sources complemented each other. Some of them related strongly to one of the sources. For others, the conversation was the main aid. In any case, feedback-assisted reflection can be a tool in stress management, worth trying even with a simpler session design than presented here.

### **Boundary-setting supervisor support**

It is well known that managers influence satisfaction, physical health, psychological health, stress and other outcomes among their staff, not only in health care settings (see e.g. Moyle, 1998; Tepper, 2000; van Dierendonck, Borrill, Haynes and Stride, 2004; Cummings, et al., 2008; Nielsen, Randall, Yarker and Brenner, 2008; Nyberg, et al., 2009; Skakon, Nielsen, Borg and Guzman, 2010). In hospital ward settings, the first-line manager can reduce and prevent stress among their employees through the use of various boundary approaches. An English study describes essential manager behaviours such as limiting, prioritizing, and managing the team's workload and resources; familiarizing oneself with each employee's situation in order to delegate the 'proper' amount of work; and involving employees in decisions regarding work (Lewis, et al., 2010). The most important stress-reducing competency was the nurse managers' managing of their team's workload and resources. Setting

boundaries for the team's workload, refusing additional work, seeing each employee's resources and capabilities, committing to each employee, and using a participative approach were particularly important (ibid.). Interestingly, this sheds light on what first-line managers in health care lack themselves – something that has previously been pointed out as a dilemma: support from own supervisor and guidance in time use (Dellve and Wikström, 2006; Tengelin, Kihlman, Eklöf and Dellve, 2011). As Lewis et al. conclude in their study, 'managers are vital in the reduction and management of stress at work' (Lewis, et al., 2010, p. 307). If their manager was accessible, leaving the door open, ready to talk to employees at any time, this was stress-reducing among employees (ibid.). But if first-line managers lack a similar support themselves, they may find it difficult to provide the appropriate kind of support to their own subordinates. One implication for practice could therefore be to provide lower-level managers with boundary-setting supervisor support so that, e.g., it could be legitimate to 'close the door' and limit accessibility towards their employees if needed.

### **Organizational communication of boundary dilemmas**

The insights that boundary awareness can bring to managers' daily work can acknowledge conditions that deserve to be communicated in a wider organizational context. The lower-level managers' own managers could be informed about situations that are not easily recognized from higher organizational levels, such as the boundary dilemmas described in Paper I. Since supervisor support is recognized as having heavy impact on employees' balance and work satisfaction, strategies to ensure that managers' own managers support them are welcome. By structured communication with the own supervisor and plans for action on how to handle information regarding dilemmas of lower-level managers, time commitment dilemmas could be made more legitimate, and easier to approach.

## Summary of discussion

This thesis suggests that contextual support, continuous self-reflection, and an interactive and non-normative feedback session could be useful in managers' management of stress-related dilemmas in their work and life. The usefulness can be conceptualized as *proactive boundary awareness*. In order to attain balance in lower-level managerial work, it appears to be crucial to acknowledge that there are boundaries to set within work's sometimes conflicting expectations and inexhaustible needs. A feedback session regarding daily and weekly patterns of stress and recovery is an opportunity for sensemaking of one's experiences; it could make boundaries visible and also, point out contextual factors of importance for individual stress and recovery. Together, this may create an awareness leading to proactive boundary approaches to health care first-line managerial work. This could help the managers manage their daily hassles before these turn into stressors, and possibly stress.



# Methodological considerations

The explorative aims of this thesis assumed small samples of participants. According to Mays and Pope (2000), qualitative research should be conducted through a sampling procedure of probability sampling, where the final sample includes the full range of settings relevant to the conceptualization of the subject. Variation and diversity in both samples was therefore aimed for regarding managerial experience, age and clinical area of responsibility of work. A number of seminars were held with researchers with varying methodological expertise to discuss the appropriate sampling procedures. In Study I, strategic sampling was used to gain variation. In Study II, random sampling was used because the sample was initially intended for both qualitative and quantitative analyses. However, because the desired variation in managerial experience was reached in the small sample of twelve participants, the planned statistical analyses of associations were replaced by an explorative, deepened qualitative analysis. If this sample would have been too homogenous a second randomization would have been carried out.

The total number of eligible managers in Study II was 47, out of whom 22 individuals were invited and twelve agreed to participate. It is not unlikely that the participants felt particularly confident in handling their stress and exposing their everyday work to an external observer. This may have affected the findings in Study II so that the described appraisals account only for managers skilled at handling stressors and stress at work. However, the feedback intervention was not meant to be used in a sample of stressed-out managers. Rather, the intention was to explore the reactions in a diverse sample including some managers who were good at handling stressors, and others with less effective strategies. But there is a risk is that an all too simple picture of stress management in health care is described, based on a sample that is not representative of the population.

The trustworthiness of explorative research methods is achieved through the researchers' providing clear descriptions of the context, the methods used for data

collection, and the analytic processes. Rigour is crucial for trustworthiness of qualitative research; the researchers' interpretations need to be well documented and the descriptions must provide thoroughness and comprehensiveness so as to allow the readers themselves to judge the trustworthiness (Mays and Pope, 2000). Generalizability must also be approached from a qualitative perspective. Qualitatively focused research aims to investigate and explore subjective meanings and understandings, which are phenomena not possible to generalize. Relevance ensures the general applicability of qualitative, explorative results (ibid.), since research that contributes with valuable knowledge in its field will be generalized to those settings where this knowledge is relevant. In the present studies the intention is that descriptions of the preconceptions, analytic process and context are accurate enough for the reader to decide whether the findings may be relevant in other settings. The description of previous knowledge shows the researchers' initial understanding and should guide the reader to the viewpoints from which the findings have been analysed. Quotations are used to describe the data and illustrate the basis for the analyses. The analysis processes have been frequently discussed with researchers outside of the author groups to test the emerging ideas. The purpose of describing the analysis processes was not to prove that the only answer to the research questions was found, but to show how the empirical data of each paper were interpreted, and how the conclusions were reached.

The conclusions of Paper I are likely to include lower-level managers at places other than the ones studied, as there are no reasons to believe that the diverse sample of managers differ in substantial ways from other first-line manager contexts. The managers' appraisals of the feedback session in Study II may be context-specific, but the intervention can be carried out in other settings where managers are asked to retrospectively reflect on their stress-related behaviour.

The fact that three of the ten shadowed managers in Study I were second-line managers may have implications for the generalizability of the results to the first-line manager context. Working conditions and stressors are somewhat different in

first and second-line management; for instance, planned meetings take a larger proportion of second-line managers' time (Arman, Dellve, Wikström and Törnström, 2009). The fact that second-line managers participated in the study was because a variation in lower-level managers was strived for. However, in analysing their boundary approaches, they did not differ in any systematic way from the seven first-line managers. The resulting model describes dilemmas that were experienced by all participants. It is likely, however, that a more detailed case study would show important nuances between the boundary approaches used in the first and second line of management.

The observations that formed the basis of the time use data (Paper I) and memory aid for the feedback (Paper II) were possibly 'observer-biased'. The shadowed managers could have made an effort to show a work situation that they wished to show, not their 'actual' everyday situation. However, the nature of first-line manager work does not allow much planning and manipulation. Situations that arise during the day must be dealt with as they occur and there is little possibility to control the workday in a way that would give an observer a misleading picture. Further, since the managers had agreed to participate in the study, they were probably keen to show what their actual situation was like.

No causal effects of the intervention in Study II could be measured, owing to the cross-sectional design, but the analysis of the participants' reflections suggested that change mechanisms in individual stress management could be encouraged by the feedback session. Follow-up evaluations are needed to confirm this in terms of effects. Others have concluded that participants' cognitive appraisals are the most important factor for understanding the outcome of stress management interventions in organizations (Randall, Cox and Griffith, 2007). When evaluating such effects, the participant's perspective is central, not least because of the importance of people's sensemaking in determining individual behaviour in organizations (Weick, 1995).

The material for the papers in this thesis includes both quantitative and qualitative data but only qualitative data analyses that are presented here. Problems that may arise in such a mixed methods approach include contradictory results from the different data sets, which signals that one set could be inadequate or inaccurate (Morse, 1991). In the present studies, this was avoided through striving for accuracy in each method used. Interview guides were discussed, tested and rewritten if problems in the interpretation of questions became evident. The observation protocol and its categories were discussed with researchers who had previously used the method. The chosen biomeasures were discussed with a stress physiologist. In Paper I, quantitative data were used to enlighten the qualitative findings from an alternative perspective. The multiple data sources deepened the understanding of conflicting areas in managers' work and the associated approaches. The phenomena were described in different data sources (interviews, focus groups, and observing of activities), thus not grounding the analysis on merely subjective statements. In Study II, quantitative data were the prerequisite for the session that generated qualitative interview material, justifying the claim for a mixed methods approach. The quantitative observational data will be analysed and reported in forthcoming articles.

# Conclusions

*Paper I.* Lower-level managers in the health care sector can handle ever-present boundary dilemmas by regulating their time commitments in various ways. In regulating their time commitments, work-related stress and recovery, it seems important to (1) acknowledge boundary work as an ever-present dilemma requiring continuous negotiation; and (2) encourage individuals and organizations to recognize conflicting perspectives inherent in the leadership assignment, in order to decrease harmful negotiations between them. Such awareness and continuous negotiating regarding boundary dilemmas can contribute to proactive coping of stressors among managers.

*Paper II.* Sensemaking can be an important part of understanding and processing feedback data, mainly due to its learning potential. A feedback session involving multiple data sources can aid remembrance of past behaviour and stimulate reflection. The non-normative dialogue approach seems important in this process, because it allows intentions to be formed by the participants themselves. Providing non-normative feedback on stress indicators may initiate key processes of sensemaking among the participants, which can aid their stress management by increasing their awareness and supporting their learning about their stress.

*General conclusion.* This thesis proposes that *proactive boundary awareness* is a concept for better understanding lower-level managers' time commitments and stress. It can be supportive to managers to encourage boundary awareness among them, because this makes them consider the reasons for conflicts and dilemmas, address the need to reflect upon alternative strategies and recognize the importance of viewing their life situation as a whole, not only work, when it comes to understanding patterns of stress and recovery. Proactive boundary awareness can be enhanced by managers' continuous reflection on their own boundary dilemmas, feedback situations that allow retrospective, sensemaking reflection on their patterns of stress and recovery, and a supportive context.

# Attachment: Feedback guide

## Individuell återkoppling av observationsdata

SPEGLA upplevelser och händelser utan att värdera dem.

### A. Sätt scenen.

Visa på övergripande stress-energi för veckan. Uppvarvning och aktivitet. Förändring och process.

Spela upp filmen i sin helhet för att ge en känsla för hur den fungerar. Visa varje dag och förklara färgerna. Blått = natt/morgon. Grönt = morgon/fm. Gult = mitt på dagen.

Visa veckans puls övergripande.

### B. Reflektera kring stressdata och kontext. Visa en i taget 3-5 intressanta iakttagelser (av ansträngande stress, uppvarvning eller balans) utgående från (a) SE-kurvan, (b) pulskurvan (c) AD.

1. Fråga personen: Minns du vad som hände här? De kan titta i sin kalender som stöd. Påminn om vilka dagar jag observerade.
2. Vi beskriver den valda tidsperioden (lite i taget) avseende: (a) plats (b) deltagare (c) typ av aktivitet (d) bredare kring händelse (förhållningssätt, stämning, tidskrav, arbetsuppgift, konflikt, annat)
3. Fråga personen: Minns du vad som hände nu? Berätta hur du tänkte? Hur du kände? Hur du handlade?
4. Be personen tolka: hur ser du på händelsen? Vad berodde det på? Vad hände innan och efter? KONSEKVENSER?
5. (Hur skulle du kunna göra nästa gång något sådant inträffa?)
6. Kan du se ngt mönster hos dig själv i dessa data? Var det en vanlig vecka? Är iakttagelserna representativa?

### C. Reflektera kring återkopplingen.

1. Hur upplever du att få återkoppling på: (a) GSR/affective diary, (b) Stress-energi, (c) pulskurva?
2. Beskriv hur det var att komma ihåg situationerna vi identifierade?
3. Vilken information var nödvändig för att du skulle minnas händelsen?
4. Vilken information var viktigast? Minst viktig?
5. Hur upplever du hela processen med observation, mätningar och återkoppling, återkopplingssituation?
6. Tror du att denna form av återkoppling kan vara till nytta för dig? Hur?

# Acknowledgements

Thanks go to:

my supervisor Lotta Dellve, for thinking outside the box;  
my co-supervisor Annika Härenstam, for valuable reflections;  
my co-authors, for their intelligent contribution and writing skill;  
the Miljö och hälsa research school, for financially supporting this work;  
the Swedish Institute of Computer Science, for introducing the Affective Diary.

Also:

Rebecka Arman, for very essential support;  
Jesper Löve, for understanding it all and giving good advice;  
Åsa Lindgren, for doing the drawing on the title page and for contributing in important ways in general;  
Katrín Skagert and colleagues at the Institute of Stress Medicine, for their pragmatism and feedback;  
Mats Eklöf, for inspiring scepticism;  
Karin Allard, for committed viewpoints;  
everyone else who know their names should be here.

# References

- AJZEN, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50 (2), pp. 179-211.
- ALDEA, M. A., RICE, K. G., GORMLEY, B. & ROJAS, A. 2010. Telling perfectionists about their perfectionism: effects of providing feedback on emotional reactivity and psychological symptoms. *Behaviour Research and Therapy*, 48 (12), pp. 1194-1203.
- ALLARD, K., HAAS, L. & HWANG, C. 2007. Exploring the Paradox. Experiences of flexible working arrangements and work-family conflict among managerial fathers in Sweden. *Community, Work & Family*, 10 (4), pp. 475-493.
- ALLEN, T.D., HERST, D.E.L., BRUCK, C.S. & SUTTON, M. 2000. Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of Occupational Health Psychology*, 5 (2), pp. 278-308.
- ANNETT, J. 1969. *Feedback and human behaviour: the effects of knowledge of results, incentives and reinforcement on learning and performance*. Oxford: Penguin Books.
- ANSEEL, F., LIEVENS, F. & SCHOLLAERT, E. 2009. Reflection as a strategy to enhance task performance after feedback. *Organizational Behavior and Human Decision Processes*, 110 (1), 23-35.
- ARMAN, R. 2010. *Fragmentation and power in managerial work in health care. A study of first- and second-line managers*. Doctoral dissertation, University of Gothenburg.
- ARMAN, R., DELLVE, L., WIKSTRÖM, E. & TÖRNSTRÖM, L. 2009. What health care managers do: applying Mintzberg's structured observation method. *Journal of Nursing Management*, 17 (6), pp. 718-729.
- ARMAN, R., WIKSTRÖM, E., TENGELIN, E. & DELLVE, L. 2012. Work activities and stress among managers in health care. In: TENGBLAD, S. (ed.) 2012. *The work of managers. Towards a practice theory of management*. Oxford: Oxford University Press (accepted for publication).
- ASPINWALL, L. & TAYLOR, S. 1997. A stitch in time: self-regulation and proactive coping. *Psychological Bulletin*, 121(3), pp. 417-436.
- BLUMER, H. 1986. *Symbolic interactionism: perspective and method*. Berkely: University of California Press.
- BARLEY, A. & KUNDA, G. 2001. Bringing work back in. *Organization Science*, 12 (1), pp. 76-95.
- BOND, F.W. & BUNCE, D. 2000. Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology*, 5 (1), pp. 156-163.
- BONDAS, T.E. 2003. Caritative leadership: Ministering to the patients. *Nursing Administration Quarterly*, 27 (3), pp. 249-253.
- BUTLER, D.L. & WINNE, P.H. 1995. Feedback and self-regulated learning: a theoretical synthesis. *Review of Educational Research*, 65 (3), pp. 245-281.
- CAMPBELL CLARK, S. 2000. Work/family border theory: a new theory of work/family balance. *Human Relations*, 53 (6), pp. 747-770.
- CARLSON, S. 1951. *Executive behavior*. Stockholm: Strömbergs.
- CHARMAZ, K. 2006. *Constructing grounded theory: a practical guide through qualitative analysis*. London: Sage Publications Ltd.
- CHEN, Z., POWELL, G.N. & GREENHAUS, J.H. 2009. Work-to-family conflict, positive spillover, and boundary management: a person-environment fit approach. *Journal of Vocational Behavior*, 74 (1), pp. 82-93.



- CHRISTIANSEN, C. H. 1996. Three perspectives on balance in occupation. In: ZEMKE, R. & CLARK, F. (eds.) 1996. *Occupational science: the evolving discipline*. Philadelphia: F.A. Davis.
- COX, T. 1993. *Stress research and stress management: putting theory to work*. Sudbury: HSE Books.
- CUMMINGS, G.G., OLSON, K., HAYDUK, L., BAKKER, D., FITCH, M., GREEN, E., BUTLER, L. & CONLON, M. 2008. The relationship between nursing leadership and nurses' job satisfaction in Canadian oncology work environments. *Journal of Nursing Management*, 16 (5), pp. 508-518.
- CZARNIAWSKA, B. 2004. *Narratives in social science research*. London: Sage Publications Ltd.
- CZARNIAWSKA, B. 2007. Shadowing: and other techniques for doing fieldwork in modern societies. Malmö: Liber.
- DAVIDSON, M. J. & COOPER, C.L. 1984. Occupational stress in female managers: a comparative study. *Journal of Management Studies*, 21(2), pp. 185-205.
- DE VENTE, W., KAMPHUIS, J.H., EMMELKAMP, P.M.G. & BLONK, R.W.B. 2008. Individual and group cognitive-behavioral treatment for work-related stress complaints and sickness absence: a randomized controlled trial. *Journal of Occupational Health Psychology*, 13 (3), pp. 214-231.
- DELLVE, L. & WIKSTRÖM, E. 2006. *Hållbart ledarskap i sjukvården. Utveckling av ledarskap och stödstrukturer ur individ- och organisationsperspektiv*. Gothenburg: Västra Götalandsregionen, Sahlgrenska Akademin, Handelshögskolan vid Göteborgs universitet.
- DELLVE, L., SKAGERT, K. & VILHELMSSON, R. 2007. Leadership in workplace-health promotion projects: 1 and 2-year effects on long-term work attendance. *European Journal of Public Health*, 17 (5), pp. 471-476.
- DELLVE, L. & WIKSTROM, E. 2009. Managing complex workplace stress in health care organizations: Leaders' perceived legitimacy conflicts. *Journal of Nursing Management*, 17 (8), pp. 931-941.
- DENISI, A. S. & KLUGER, A. N. 2000. Feedback effectiveness: can 360-degree appraisals be improved? *The Academy of Management Executive*, 14 (1), pp. 129-139.
- EDWARDS, J. R. & ROTHBARD, N. P. 1999. Work and family stress and well-being: an examination of person-environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes*, 77 (2), pp. 85-129.
- EKLÖF, M., POUSETTE, A., DELLVE, L., SKAGERT, K. & AHLBORG JR, G. 2010. *Gothenburg Manager Stress Inventory (GMSI)*. Gothenburg: Institutet för stressmedicin, ISM-rapport 7.
- ELO, A.L., LEPPÄNEN, A. & SILLANPÄÄ, P. 1998. Applicability of survey feedback for an occupational health method in stress management. *Occupational Medicine*, 48 (3), pp. 181-188.
- GERTSEN, M. & SØDERBERG, A. 2010. Expatriate stories about cultural encounters – a narrative approach to cultural learning processes in multinational companies. *Scandinavian Journal of Management*, 26 (3), pp. 248-257.
- GILLINGSJÖ, E. & LINDQUIST, S.-M. 2005. Landstingsanställd personal 2005 – personalstatistisk undersökning. Borås: Sveriges kommuner och landsting.
- GOLDSTEIN, I., SHAPIRO, D., CHICZ-DEMET, A. & GUTHRIE, D. 1999. Ambulatory blood pressure, heart rate, and neuroendocrine responses in women nurses during work and off work days. *Psychosomatic Medicine*, 61 (3), pp. 387-396.
- GREIFF, M. 2006. Kall eller profession? Yrkeskulturer och skapandet av manligt och kvinnligt mellan klient och arbetsköpare. In: PETERSSON, H., LEPPÄNEN, V., JÖNSSON, S. & TRANQUIST, J. (eds.) *Villkor i arbete med människor – en antologi om human servicearbete*. Stockholm: Arbetslivsinstitutet.

- GRELLER, M. M. & HEROLD, D. M. 1975. Sources of feedback: a preliminary investigation. *Organizational Behavior and Human Performance*, 13 (2), pp. 244-256.
- HAMMER, T.H., SAKSVIK, P.O., NYTRØ, K., TORVATN, H. & BAYAZIT, M. 2004. Expanding the psychosocial work environment: workplace norms and work-family conflict as correlates of stress and health. *Journal of Occupational Health Psychology*, 9 (1), pp. 83-97.
- HOCHSCHILD, A. 1997. *The time bind. When work becomes home and home becomes work*. New York: Henry Holt and Company.
- HSIEH, H. F. & SHANNON, S. E. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research*, 15 (9), pp. 1277-1288.
- HÅKANSSON, C., DAHLIN-IVANOFF, S. & SONN, U. 2006. Achieving balance in everyday life. *Journal of occupational Science*, 13 (1), pp. 74-82.
- ILGEN, D., FISHER, C. & TAYLOR, M. 1979. Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology*, 64 (4), pp. 349-371.
- JIMMIESON, N. & TERRY, D. 1999. The moderating role of task characteristics in determining responses to a stressful work simulation. *Journal of Organizational Behavior*, 20 (5), pp. 709-736.
- JOHANSSON, G. 2010. *Viljan att göra skillnad - en utmaning i vårdenhetscheferas ledarskap*. Doctoral dissertation, Karolinska institutet.
- JOHNSON, R. B. & ONWUEGBUZIE, A. J. 2004. Mixed methods research: a research paradigm whose time has come. *Educational Researcher*, 33 (14), pp. 14-26.
- KANE-URRABAZO, C. 2006. Management's role in shaping organizational culture. *Journal of Nursing Management*, 14 (3), pp. 188-194.
- KANTER, R. M. 1977. *Work and family in the United States. A critical review agenda for research policy*. New York: Russell Sage Foundation.
- KEISU, B.-I. 2009. *Att peka med hela handen: om arbetsvillkor och kön bland första linjens chefer*. Doctoral dissertation, Umeå universitet.
- KIHLGREN, M. & JOHANSSON, G. 2000. *Sjuksköterskan, ledande och ledare inom omvårdnad*. Lund: Studentlitteratur.
- KJELLBERG, A. & IWANOWSKI, S. 1989. *Stress/energi-formuläret: utveckling av en metod för skattnig av sinnesstämning i arbetet*. Stockholm: Arbetsmiljöinstitutet.
- KJELLBERG, A. & WADMAN, C. 2002. *Subjektiv stress och dess samband med psykosociala förhållanden och besvär. En prövning av stress-energimodellen*. Stockholm: Arbetslivsinstitutet, Arbete och Hälsa 2002:12.
- KLUGER, A. N. & DENISI, A. S. 1996. Effects of feedback intervention on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119 (2), pp. 254-284.
- KREINER, G. E. 2006. Consequences of work-home segmentation or integration: A person-environment fit perspective. *Journal of Organizational Behaviour*, 27 (4), pp. 485-507.
- KVALE, S. 1996. *Interviews: An introduction to qualitative research interviewing*. Thousand Oakes: Sage Publications, Inc.
- LASCHINGER, H.K.S., SHAMIAN, J. & THOMSON, D. 2001. Impact of magnet hospital characteristics on nurses' perceptions of trust, burnout quality of care, and work satisfaction. *Nursing Economics*, 19 (5), pp. 209-219.
- LAZARUS, R.S. & FOLKMAN, S. 1984. *Stress, appraisal, and coping*. New York: Springer.
- LEWIS, R., YARKER, J., DONALDSON-FEILDER, E., FLAXMAN, P. & MUNIR, F. 2010. Using a competency-based approach to identify the management behaviours required to manage workplace stress in nursing: a critical incident study. *International Journal of Nursing Studies*, 47 (3), pp. 307-313.

- LLEWELLYN, S. 2001. Two-way windows: clinicians as medical managers. *Organization Studies*, 22 (4), pp. 593-623.
- LONDON, M. & SMITHER, J. 1995. Can multi-source feedback change perceptions of goal accomplishment, self-evaluations, and performance-related outcomes? Theory-based applications and directions for research. *Personnel Psychology*, 48 (4), pp. 803-839.
- LUNDBERG RODIN, M. 2010. *Chefer i korstryck: att hantera krav i politiskt styrda organisationer*. Doctoral dissertation, University of Gothenburg.
- LUNDBERG, U. 2003. Brist på vila och återhämtning större problem än arbetsbelastning. *Läkartidningen*, 100 (21), pp. 1892-1895.
- LYNESS, K. S. & KROPF, M. B. 2005. The relationships of national gender equality and organizational support with work-family balance: a study of European managers. *Human Relations*, 58 (1), pp. 33-60.
- MACPHEE, M., SKELTON-GREEN, J., BOUTHILLETTE, F. & SURYAPRAKASH, N. 2011. An empowerment framework for nursing leadership development: supporting evidence. *Journal of Advanced Nursing* (accepted for publication).
- MANDRYK, R. & ATKINS, M. 2007. A fuzzy physiological approach for continuously modeling emotion during interaction with play technologies. *International journal of human-computer studies*, 65 (4), pp. 329-347.
- MARINE, A., RUOTSALAINEN, J. H., SERRA, C. & VERBEEK, J. H. 2006. Preventing occupational stress in healthcare workers. *Cochrane Database of Systematic Reviews*.
- MAYS, N. & POPE, C. 2000. Assessing quality in qualitative research. *British Medical Journal*, 320 (7226), pp. 50-52.
- MCEWEN, B. 2008. Central effects of stress hormones in health and disease: understanding the protective and damaging effects of stress and stress mediators. *European Journal of Pharmacology*, 583 (2-3), pp. 174-185.
- MCKINLAY, J.B. 1993. The promotion of health through planned sociopolitical change: challenges for research and policy. *Social Science & Medicine*, 36 (2), pp. 109-117.
- MEIJMAN, T. F. & MULDER, G. 1998. Psychological aspects of workload. In: DRENTH, P., THIERRY, H. & WOLFF, C. (eds). 1998. *Handbook of work and organizational psychology: Work psychology*. Hove: Psychology Press.
- MINTZBERG, H. 1973. *The nature of Managerial Work*. New York: Harper & Row.
- MOORE, F. 2007. Work-life balance: contrasting managers and workers in an MNC. *Employee Relations*, 29 (4), pp. 385-399.
- MORSE, J. M. 1991. Approaches to qualitative-quantitative methodological triangulation. *Nursing research*, 40 (2), pp. 120-123.
- MOYLE, P. 1998. Longitudinal influences of managerial support on employee well-being. *Work & Stress*, 12 (1), pp. 29-49.
- NIELSEN, K., RANDALL, R., YARKER, J. & BRENNER, S.O. 2008. The effects of transformational leadership on followers' perceived work characteristics and psychological well-being: a longitudinal study. *Work & Stress*, 22 (1), pp. 16-32.
- NIELSEN, K., RANDALL, R., HOLTEN, A.-L. & GONZÁLEZ, E.R. 2010. Conducting organizational-level occupational health interventions: what works? *Work & Stress*, 24 (3), pp. 234 - 259.
- NILSSON, K. 2003. *Mandat-Makt-Management. En studie av hur vårdenhetschefers ledarskap konstrueras*. Doctoral dissertation, University of Gothenburg.
- NILSSON, K., HERTTING, A., PETTERSSON, I-L. & THEORELL, T. 2005. Pride and confidence at work: potential predictors of occupational health in a hospital setting. *BMC Public Health*, 5 (92).
- NYBERG, A., ALFREDSSON, L., THEORELL, T., WESTERLUND, H., VAHTERA, J. & KIVIMÄKI, M. 2009. Managerial leadership and ischaemic heart disease among

- employees: the Swedish WOLF study. *Occupational and Environmental Medicine*, 66, pp. 51-55.
- OLSSON, C. & LUTZ, Ö. 2011. *Chefer i kommuner och landsting*. Stockholm: Sveriges kommuner och landsting.
- PARRIS, M.A., VICKERS, M.H. & WILKES, L. 2008. Caught in the middle: organizational impediments to middle managers' work-life balance. *Employee Responsibilities and Rights Journal*, 20 (2), pp. 101-117.
- PATRIOTTA, G. & BROWN, A.D. 2011. Sensemaking, metaphors and performance evaluation. *Scandinavian Journal of Management*, 27 (1), pp. 34-43.
- PERLOW, L.A. 1998. Boundary control: The social ordering of work and family time in a high-tech corporation. *Administrative Science Quarterly*, 43 (2), pp. 328-357.
- PERSKI, A. 2002. *Ur balans*. Stockholm: Bonnier Fakta.
- PETTERSON, I.-L. & ARNETZ, B. B. 1998. Psychosocial stressors and well-being in health care workers. The impact of an intervention program. *Social Science & Medicine*, 47 (11), pp. 1763-1772.
- PIEPER, C., WARREN, K. & PICKERING, T.G. 1993. A comparison of ambulatory blood pressure and heart rate at home and work on work and non-work days. *Journal of Hypertension*, 11 (2), pp. 177-183.
- PIEPER, S., BROSSCHOT, J., VAN DER LEEDEN, R. & THAYER, J. F. 2007. Cardiac effects of momentary assessed worry episodes and stressful events, *Psychosomatic Medicine*, 69 (9), pp. 901-909.
- PRASAD, P. 2005. Symbolic interactionism. Searching for self and meaning. In: PRASAD, P. 2005. *Crafting qualitative research: Working in the postpositivist traditions*. New York: ME Sharpe Inc.
- PROCHASKA, J.O. & DICLEMENTE, C.C. 1982. Transtheoretical therapy: toward a more integrative model of change. *Psychotherapy: Theory, Research & Practice*, 19 (3), pp. 276-288.
- RANDALL, R., COX, T. & GRIFFITHS, A. 2007. Participants' accounts of a stress management intervention. *Human Relations*, 60 (8), pp. 1181-1209.
- RICHARD, E. 1997. *I första linjen: arbetsledares mellanställning, kluvenhet och handlingsstrategier i tre organisationer*. Doctoral dissertation, Lund University.
- RICHARDSON, K.M. & ROTHSTEIN, H.R. 2008. Effects of occupational stress management intervention programs: a meta-analysis. *Journal of Occupational Health Psychology*, 13 (1), pp. 69-93.
- ROSENGREN, K. 2008. *En hälso- och sjukvårdsorganisation i förändring: från distanserat till delat ledarskap*. Doctoral dissertation, Högskolan i Jönköping.
- ROTHBARD, N.P., PHILLIPS, K.W. & DUMAS, T.L. 2005. Managing multiple roles: work-family policies and individuals' desires for segmentation. *Organization Science*, 16 (3), pp. 243-258.
- SANDQVIST, G. & EKLUND, M. 2008. Daily occupations-performance, satisfaction and time use, and relations with well-being in women with limited systemic sclerosis. *Disability & Rehabilitation*, 30 (1), pp. 27-35.
- SARGEANT, J., MANN, K., VAN DER VLEUTEN, C. & METSEMAKERS, J. 2009. Reflection: a link between receiving and using assessment feedback. *Advances in Health Sciences Education*, 14 (3), pp. 399-410.
- SCHEIRER, J., FERNANDEZ, R., KLEIN, J. & PICARD, R. 2002. Frustrating the user on purpose: a step toward building an affective computer. *Interacting with computers*, 14 (2), pp. 93-118.
- SHIREY, M.R. 2006. Stress and coping in nurse managers: two decades of research. *Nursing Economics*, 24 (4), pp. 193-211.

- SKAGERT, K., DELLVE, L., EKLÖF, M., LJUNG, T., POUSETTE, A. & AHLBORG JR, G. 2008. Leaders' strategies for dealing with own and their subordinates' stress in public human service organisations. *Applied Ergonomics*, 39 (6), pp. 803-811.
- SKAGERT, K. 2010. *Leadership in human service organisations: conceptions, strategies and preconditions to promote and maintain health at work*. Doctoral dissertation, University of Gothenburg.
- SKAGERT, K., DELLVE, L. & AHLBORG JR, G. 2012. A prospective study of managers' turnover and health in a healthcare organization. *Journal of Nursing Management* (accepted for publication).
- SKAKON, J., NIELSEN, K., BORG, V. & GUZMAN, J. 2010. Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work and Stress*, 24 (2), pp. 107-139.
- SKAKON, J., KRISTENSEN, T.S., CHRISTENSEN, K.B., LUND, T. & LABRIOLA, M. 2011. Do managers experience more stress than employees? Results from the intervention project on absence and well-being (IPAW) study among Danish managers and their employees. *Work*, 38 (2), pp. 103-109.
- STEIN, F. 2001. Occupational stress, relaxation therapies, exercise and biofeedback. *Work*, 17 (3), pp. 235-245.
- STÅHL, A., HÖÖK, K., SVENSSON, M., TAYLOR, A. & COMBETTO, M. 2009. Experiencing the affective diary. *Personal and Ubiquitous Computing*, 13 (5), pp. 365-378.
- TENGBLAD, S. 2002. Time and space in managerial work. *Scandinavian Journal of Management*, 18 (4), pp. 543-656.
- TENGBLAD, S. 2012. Overcoming the rationalist fallacy in management research. In: TENGBLAD, S. (ed.) 2012. *The work of managers. Towards a practice theory of management* (accepted for publication).
- TENGELIN, E., KIHLMAN, A., EKLÖF, M. & DELLVE, L. 2011. *Chefskap i sjukvårdsmiljö: Avgränsning och kommunikation av egen stress*. Gothenburg: Arbete och Hälsa 2011;45(1).
- TEPPER, B. J. 2000. Consequences of abusive supervision. *Academy of Management Journal*, 43 (2), pp. 178-190.
- THEORELL, T., EMDAD, R., ARNETZ, B. & WEINGARTEN, A-M. 2001. Employee effects of an educational program for managers at an insurance company. *Psychosomatic Medicine*, 63 (5), pp. 724-733.
- VAN DIERENDONCK, D., HAYNES, C., BORRILL, C. & STRIDE, C. 2004. Leadership behavior and subordinate well-being. *Journal of Occupational Health Psychology*, 9 (2), pp. 165-175.
- WALDENSTRÖM, K. 2007. *Externally assessed psychosocial work characteristics. A methodological approach to explore how work characteristics are created, related to self-reports and to mental illness*. Doctoral dissertation, Karolinska Institutet.
- WEBER, R. P. 1990. *Basic content analysis*. Newbury Park: Sage Publications Inc.
- WEICK, K. 1995. *Sensemaking in organizations*. Thousand Oaks: Sage Publications Inc.
- WEICK, K.E. 1996. Drop your tools: An allegory for organizational studies. *Administrative Science Quarterly*, 41 (2), pp. 301-313.
- WIKSTRÖM, E. & DELLVE, L. 2009. Contemporary leadership in healthcare organizations: fragmented or concurrent leadership and desired support. *Journal of Health Organization and Management*, 23 (4), pp. 411-428.
- WOLMESJÖ, M. 2005. *Ledningsfunktion i omvandling – Om förändringar av yrkesrollen för första linjens chefer inom den kommunala äldre-och handikappomsorgen*. Doctoral dissertation, Lund University.
- YUKL, G. A. 2002. *Leadership in organizations*, Prentice Hall Upper Saddle River, NJ.

ÖBERG, H. & DAHLENBORG, Å. 2003. *Dilemman och glädjeämnen – om vårdenhetschefens villkor*. Stockholm: Landstingsförbundet.