



DET SAMFUNDSVIDENSKABELIGE FAKULTET
KØBENHAVNS UNIVERSITET



PSYCHOSOCIAL WORK CHARACTERISTICS, POSITIVE WORK-RELATED STATES, AND LABOUR MARKET OUTCOMES

A study of the antecedents and consequences
of affective organizational commitment and
experience of meaning at work

Ph.D. Thesis

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Copenhagen 2009

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Acknowledgements

This thesis is the result of a Ph.D. project conducted under the auspices of the Danish Research School of Psychology. The Ph.D. project was jointly funded by the Danish Research School of Psychology; Institute of Psychology, University of Copenhagen; and the National Research Centre for the Working Environment (NRCWE) in Denmark. The project was undertaken in the *SOSU* research group at the NRCWE, from June 2007 to the end of November 2009.

First, I wish to thank my two supervisors, Associate Professor, Ph.D. Morten Nissen from the Institute of Psychology, University of Copenhagen and Senior Researcher Vilhelm Borg from the NRCWE for the constructive advice they have given me and the interesting discussions we have had during the project period. I wish to direct a very special thank you to Vilhelm for getting me into this business in the first place and for inspiring and encouraging a political scientist like me to get started as a Ph.D. student within the field of work and organizational psychology.

I also wish to thank my colleagues at the NRCWE in general and in the *SOSU* group in particular for providing a positive context to the – sometimes – lonely task of doing a Ph.D. A special thanks goes to my co-authors Senior Researcher Vilhelm Borg from the NRCWE and Associate Professor, Ph.D. Karl Bang Christensen, Department of Biostatistics, Institute of Public Health, University of Copenhagen. A big thank you also goes to my good colleague, Senior Researcher, Ph.D. Bryan Cleal, for taking his time to read the thesis in the very last minute to get the language right.

Thank you to Senior Researcher, Ph.D. Jari Hakanen from the Finnish Institute of Occupational Health for his most constructive comments on my work during the mid-term evaluation of this thesis.

I also wish to thank my colleagues in the Nordic research group on positive work and organizational psychology for inspiring and productive collaboration over the past couple of years.

Also, thanks to Nanna, William and Gitte for inducing positive states on a daily basis.

Finally, I wish to thank all the employees in the Danish eldercare services who took their time to complete all the questionnaires that we kept sending them. Without their efforts this work would not have been possible.

Thomas Clausen, 30th of November, 2009

Summary

Over the past decade the study of positive states has gained increasing salience within the field of work and organizational psychology. Proponents of positive psychology claim that the study of positive psychological phenomena has largely been marginalised within a mainstream psychology that positive psychologists regard as negatively biased. According to positive psychologists, positive psychological states are associated with a series of valuable outcomes that would be beneficial in most personal and organizational contexts. However, in order to realise these positive outcomes, positive states need to be studied in their own right, and, accordingly, this is the main aim of positive psychology. In this thesis it will be investigated whether the insights of positive psychology can be applied to address important societal challenges.

The Nordic countries are currently faced with the prospects of shortages of labour over the coming decades – an issue that is traditionally approached from the vantage point of economics. However, in this thesis is investigated whether the propositions of positive psychology can deliver alternative answers to the issue of the future labour supply.

In this thesis the association between psychosocial work characteristics, positive work-related states, and salient labour market outcomes are investigated. The positive work-related states of *affective organizational commitment* and *experience of meaning at work* are regarded as important psychological resources of employees, and these resources are expected to have a bearing on the ability of employees to cope with the stresses and strains of their work-lives. Furthermore, it is expected that these positive work-related states are influenced by psychosocial work characteristics.

It will therefore be investigated whether psychosocial work characteristics predict the positive work-related states of affective organizational commitment and experience of meaning at work, and whether these positive work-related states, in turn, predict long-term sickness absence and turnover among staff in the eldercare sector in Denmark. Overall, the thesis was informed by two theoretical perspectives: The Job Demands and Resource (JD-R) model and the Conservation of Resources (COR) theory.

The thesis consists of four papers that – from different perspectives – each offer empirical support for the associations under investigation. The papers show that the positive work-related states of affective organizational commitment and experience of meaning at work are predicted by psychosocial work characteristics, and that long-term sickness absence and turnover is associated with affective organizational commitment and experience of meaning at work, even when adjusting for a series of psychosocial work characteristics in the analyses. The analyses provide mixed support for the JD-R model and the propositions of the COR theory provided a useful perspective on the results.

The thesis tells us that the promotion of positive work-related states constitutes a viable alternative to the economically oriented approaches towards increasing labour supply in a historical juncture that is expected to be characterised by a shortage of labour over the coming decades. This ability of positively oriented concepts to deliver alternative solutions to important societal problems should thus contribute to enhancing the legitimacy of positive psychology, which again must solidify the position of positive psychology within the field of mainstream psychology.

Sammenfatning

I løbet af det seneste årti har studiet af positive tilstande vundet indpas i den internationale arbejds- og organisationspsykologiske forskning. Ifølge den positive psykologi er studiet af positive psykologiske tilstande blevet marginaliseret inden for mainstream psykologien, der kritiseres for at have anlagt for ensidigt og problemorienteret et fokus. I stedet postulerer den positive psykologi, at positive psykologiske tilstande er forbundet med en række positive konsekvenser, der må anskues som værende gavnlige i de fleste personlige og arbejdsrelaterede sammenhænge. Realiseringen af disse positive konsekvenser forudsætter imidlertid, at den arbejds- og organisationspsykologiske forskning gør positive tilstande til genstand for en selvstændig forskningsindsats – og en sådan indsats er således også den overordnede målsætning for den positive psykologi. I denne afhandling vil det blive undersøgt, om studiet af positive tilstande kan appliceres i forhold til løsningen af væsentlige samfundsmæssige udfordringer.

I løbet af de kommende årtier vil den imødesete mangel på arbejdskraft udgøre en af de primære udfordringer for de nordiske lande. Problematikken vedrørende udbuddet af arbejdskraft er et område, der forbindes med de økonomiske videnskaber. I denne afhandling vil det imidlertid blive undersøgt, om den positive psykologi kan levere nogle interessante svar på denne udfordring vedrørende det fremtidige udbud af arbejdskraft.

Afhandlingen belyser sammenhængen mellem psykiske arbejdsmiljøfaktorer, positive arbejdsrelaterede tilstande og væsentlige outcomes på arbejdsmarkedet. De positive arbejdsrelaterede tilstande, der vil blive undersøgt er medarbejdernes *involvering i arbejdspladsen og oplevelse af mening i arbejdet*. Disse tilstande betragtes som væsentlige psykologiske ressourcer i arbejdslivet og forventes at have betydning for medarbejderens muligheder for at håndtere arbejdslivets krav. Herudover forventes det, at det psykiske arbejdsmiljø har betydning for positive arbejdsrelaterede tilstande.

På denne baggrund vil det undersøgt, om det psykiske arbejdsmiljø har betydning for de positive arbejdsrelaterede tilstande *involvering i arbejdspladsen og oplevelse af mening i arbejdet*, og om disse positive arbejdsrelaterede tilstande på den anden side har betydning for langvarigt sygefravær og arbejdsophør blandt medarbejdere i ældreplejen. Afhandlingen baserer sig på to overordnede teoretiske modeller: *Job Demands and Resource* (JD-R) modellen og teorien om *Conservation of Resources* (COR).

Afhandlingen baserer sig på fire artikler. Artiklerne viser, at positive arbejdsrelaterede tilstande, som *involvering i arbejdspladsen og oplevelse af mening i arbejdet* prædikteres af psykosociale arbejdsmiljøfaktorer. Herudover viser artiklerne, at de to positive arbejdsrelaterede tilstande har betydning for arbejdsophør og langvarigt sygefravær – også når der kontrolleres for psykosociale arbejdsmiljøfaktorer i de statistiske analyser. Resultaterne støttede delvist JD-R modellen og COR-teorien tilbød et interessant teoretisk perspektiv på resultaterne.

Afhandlingen viser, at en indsats for at fremme positive arbejdsrelaterede tilstande kan bidrage til at øge arbejdsudbuddet i en periode, der forventes at blive karakteriseret ved mangel på arbejdskraft. Den positive psykologi lader således til at kunne levere interessante svar på væsentlige samfundsmæssige udfordringer, hvilket må forventes at bidrage til at styrke den positive psykologis legitimitet i forhold til mainstream psykologien.

1 Introduction

The study of positive states is an issue that has gained an increasingly salient position on the research agenda within the field of work and organizational psychology. Over the past decade the school of positive psychology has emerged within the discourse of mainstream psychology with an ambition to create a body of knowledge that focuses on understanding the preconditions for human well-being and growth. According to Seligman positive psychology aims to “...*catalyse a change in psychology from a preoccupation with repairing the worst things in life to also building on the best qualities in life*” (Seligman, 2002). A central claim of positive psychologists is that positive psychological states are, in the long run, associated with a series of valuable outcomes at both individual and collective level (Fredrickson & Losada, 2005; Schaufeli, 2004).

According to positive psychologists, however, the study of positive states has been marginalised within mainstream psychology which, historically speaking, has ignored the study of positive states (Seligman & Csikszentmihalyi, 2000). Within mainstream psychology, positive phenomena have implicitly been perceived as the opposite of more negatively oriented phenomena, but in the optics of positive psychology it cannot be automatically assumed that positive states are polar opposites of negative states (Keyes, 2005; Schaufeli, 2004; Diener & Emmons, 1984). In order to be properly understood, therefore, positive states need to be studied in their own right as it makes little sense to attempt to understand the factors that create health, balance and meaningful lives by studying illness, distress and alienation (Snyder & Lopez, 2007).

In positive psychology continuous experiences of positive affect are viewed as the fuel in the processes that create human well-being and growth (Fredrickson & Losada, 2005). According to Meyer and his colleagues, experiences of positive affect in the work-place are positively associated with job performance and intention to stay in a given job (Meyer et al., 2002; Meyer & Allen, 1997). Experiences of positive affect are furthermore found to be associated with creativity (Isen et al., 1987), intuition (Bolte et al., 2003), and various positive health outcomes (Taylor et al., 2000; Fredrickson & Losada, 2005). Finally, frequent experiences of positive affect are shown to have an impact on the ability of the individual to handle adversity (Fredrickson et al., 2003), and cope with stress (Schmidt, 2007).

Taken together these findings indicate that experiences of positive affect are associated with a series of outcomes that would be beneficial in most personal and organizational contexts. Experiences of positive affect are, however, not only to be regarded as instances of spontaneous and immediate pleasure, since experiences of positive affect are also deemed beneficial in the longer term. According to the Broaden-and-Build Theory (Fredrickson, 2001), experiences of positive affect contribute towards building lasting personal resources like, resilience, optimism and self-esteem. Experiences of positive affect can thus be viewed as a constitutive element in upward spiralling processes, where experiences of positive affect produces personal resources which enhances the ability of individuals to cope with the stresses and strains of work-life, thereby enhancing the future potential of experiencing positive affect (Fredrickson, 2003).

The Nordic welfare states are currently challenged by changes in their demographic composition, and these changes will increasingly become apparent in the labour market over the coming decades (Nordic Council of Ministers, 2006). Popularly referred to as 'ageing populations', these demographic changes are, in conjunction with widespread early retirement from the labour market (Nordic Council of Ministers, 2006), expected to result in a shortage of labour in the Nordic countries over the coming decades. The field of positive work and organizational psychology appears, however, to offer some interesting insights in response to this challenge, as the knowledge generated within this field may contribute to increasing labour supply through its emphasis on factors related to intrinsic motivation in e.g. work-place settings (Turner et al., 2002; Deci & Ryan, 1985). The issue of labour supply is traditionally approached in terms of establishing economic incentives, but through its emphasis on positive experiences and positive states, the field of positive psychology appears to offer alternative strategies towards increasing labour supply.

The aim of this thesis is, therefore, twofold; 1) to investigate whether experiences of positive work-related states can be enhanced by factors in the psychosocial work environment and 2) to investigate whether positive work-related states have an impact on important labour market outcomes, such as long-term sickness absence and turnover. These questions will be addressed using survey data collected among eldercare staff in Denmark.

1.1 Recruitment problems in eldercare

In Denmark, eldercare services are almost exclusively provided by the municipalities, and eldercare services are provided in nursing homes as well as in the private residences of elderly citizens in need of health care and/or practical assistance to perform their daily activities (Colmorten et al., 2004; Clausen & Borg, 2007). Danish eldercare services are primarily provided by health care professionals with varying professional backgrounds, such as nurses, social- and health care assistants, social- and health care helpers, physio-therapists, and occupational therapists. These health care professionals are complemented with unskilled care-staff, administrators, kitchen staff, and janitors (Borg et al., 2005).

In Denmark, recent studies have shown that the eldercare services are experiencing difficulties in recruiting the necessary staff, and these difficulties are expected to intensify over the coming decades. The municipal providers of eldercare services report increasing problems in recruiting the necessary staff (The National Labour Market Board, 2009), and this predicament appears to be intensifying in the crossfire of an ageing work-force within the eldercare services (Borg et al., 2005) and an ageing population (Nordic Council of Ministers, 2008) with potentially increasing care needs.

Furthermore, according to Borg and his colleagues (Borg et al., 2005), more than 25 per cent of the employees in 35 Danish municipalities do not expect to be working in their present work-place beyond the next five years. These results also show that employers will experience pronounced difficulties in retaining younger and older employees (Borg et al., 2005; Tufte & Borg, 2007). As with most other countries in the European Union (Simoens et al., 2005; The National Labour Market Board, 2009), therefore, Denmark appears to experience problems in recruiting and retaining the health care staff required to meet current and future demands of health care services. Studies from Denmark and other European countries show, furthermore, that intentions to leave the work-place are associated with employee perceptions of psychosocial work characteristics (Hasselhorn et al., 2008; Siegrist et al., 2006; Tufte & Borg, 2007; Borg et al., 2005; Friis et al., 2007).

Finally, when compared to employees in other sectors, employees in the Danish eldercare sector have a higher risk of sickness absence (Hasle & Langaa Jensen, 2006) and early retirement due to disability (FOA, 2006), which again contributes towards depleting the eldercare sector of staff resources.

These problems in recruiting the required staff have caused considerable debate over the long-term sustainability of the public provision of welfare services in general and eldercare services in particular. Given that the legitimacy of the institutions of the welfare state depend, to a large extent, on the accessibility and the quality of the services being provided, this uncertainty regarding the future accessibility of eldercare services, may have an impact on citizens' trust in the municipally organized eldercare services and, in a larger perspective, the more generalized support for the institutions of the welfare state (Esping-Andersen, 1990; Trydegård, 2003).

1.2 Positive psychology as a solution to recruitment problems in eldercare

The insights generated in positive psychology may, however, contribute to solving these problems in recruiting the necessary staff to provide the eldercare services required to meet future demands (Schaufeli & Bakker, 2004; Bakker et al., 2008; Luthans, 2002; Fredrickson, 2003). By exploring the consequences of positive states and experiences, positive work and organizational psychology appears to offer an alternative approach towards increasing the supply of labour within the eldercare services in two ways. Firstly, it must be expected that a work environment that offers continuous experiences of positive affect will contribute to reducing turnover among staff and increase the recruitment potential of the work-place (Halbesleben & Wheeler, 2008; Leiter et al., 1998). In addition, it is also reasonable to propose that a work-place where employees are frequently experiencing positive affect, will have less absence than other work-places (Steers & Rhodes, 1978; Taylor et al., 2000).

According to Keyes (2007) the satisfaction of basic psychological needs, such as experience of purpose in life and positive relations with others, must be considered central constituents of a state of positive mental health. In the optics of positive psychology, a

work environment that satisfies basic psychological needs will therefore contribute to the well-being of the individual. Therefore, insofar as working activities contribute to the satisfaction of basic psychological needs, work may come to be perceived as a valuable activity for the individual in terms of identity and well-being, and work may therefore come to be perceived as an end in itself.

In the traditional optics of the economic sciences, employees are offered a monetary compensation to attend work through their wages. Using the conceptual framework of Deci & Ryan (1985), wages can be considered an extrinsic factor that motivates employees to attend work. However, when work contributes to the satisfaction of basic psychological needs, attendance at work increasingly becomes an end in itself, as work attendance becomes an important constituent of individual well-being. Thus, when work contributes to the satisfaction of basic psychological needs, employee attendance is increasingly driven by intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2001).

In terms of recruiting and retaining the necessary staff to satisfy current and future needs for eldercare services in Denmark, it appears that one potential solution is to seek to cultivate and sustain a psychosocial work environment in the eldercare services that promotes the intrinsic work motivation of employees. This is the case, since it must be expected that intrinsically motivated employees are less likely to look for other jobs, to retire early and to be absent from work. In this thesis it is, therefore, proposed that a work environment which contributes towards satisfying basic psychological needs will entail the establishment of psychological attachments between the employee and the work organization and this, in turn, is expected to have a positive impact on the ability of the municipal eldercare providers to recruit and retain staff.

1.3 Positive work-related states

Meyer and his colleagues describe positive work-related states as psychological attachments of employees towards various work-related foci (Meyer et al., 2006). The common denominator for these positive work-related states is that they are characterised by positive arousal and that they are driven by organizational (i.e. work-related) phenomena. It is, furthermore, important to stress the state-like character of the concepts under investigation, as it is state-like psychological phenomena that are open to development

and change in modern work organizations (Luthans, 2002), which are relevant to the aims of this thesis. In this thesis the focus will, therefore, be on the psychological attachment between the employee and the work organization and the psychological attachment between the employee and actual work tasks (cf. Meyer & Allen, 1997).

According to O'Reilly and Chatman (O'Reilly & Chatman, 1986) "*attachment to an [...] organization results from identification with the attitudes, values, or goals of the [organization or the actual work tasks]; that is, some of the attributes, motives, or characteristics of the [organization or the actual work tasks] are accepted by the individual and become incorporated into the cognitive response set of the individual*". The development of psychological attachments between an individual employee and his or her work organization and/or his or her work tasks thus entails individual identification with, and appropriation of, central aspects of the organization in which the individual works, or the tasks the individual works with. According to the reasoning of positive psychology, it should thus be expected that concurrent experiences of positive affect in the work-place will lead to the evolution of positive psychological attachments towards work-related foci (Fredrickson, 2001). In the following these positive psychological attachments will be referred to as positive work-related states.

The positive work-related states that will be dealt with in this thesis are *affective organizational commitment* and *experience of meaning at work*. These two states describe positive psychological attachments between employees and their work organizations (affective organizational commitment) and their work tasks (experience of meaning at work). At the same time, these two states can also be described as positive work-related states insofar as they contribute to the satisfaction of basic psychological needs in the work-place. Drawing on Keyes (2007), it can be argued that employees with a high level of affective organizational commitment experience e.g. positive relations with others and social actualization, thereby satisfying basic psychological needs. Furthermore, employees who experience meaning at work may be experiencing e.g. meaningfulness and purpose in life, and this may contribute to the work-related satisfaction of other basic psychological needs (cf. Keyes, 2007). Below, the concepts of affective organizational commitment and experience of meaning at work will be addressed in more detail.

1.3.1 Affective organizational commitment

Organizational commitment can be construed as a force that binds an individual to an organization and elicits behaviour relevant to the organization (Meyer et al., 2006). Meyer & Allen (1997) identify three forms of organizational commitment: affective commitment, continuance commitment, and normative commitment. In this thesis, however, we will only be dealing with the concept of affective organizational commitment. Affective organizational commitment refers to... *the employee's emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so* (Meyer & Allen, 1997: 11). Another conceptualisation of organizational commitment points towards ... *a strong belief in and acceptance of the organization's goals and values, [...] a willingness to exert considerable effort on behalf of the organization, [...] and a definite desire to maintain organizational membership* (Porter et al., 1974: 604). This understanding of affective organizational commitment points towards the employee's psychological attachment to the work organization. A further implication of this is that as the feelings of affective organizational commitment intensify (Meyer & Herscovitch, 2001), participation in organizational life becomes an end in itself and is increasingly characterised by intrinsic motivation (Deci & Ryan, 1985).

Affective organizational commitment has been found to be positively associated with a series of positive outcomes, such as well-being (Harris & Cameron, 2005; Meyer et al., 2002), job performance (Meyer et al., 2002; Mathieu & Zajac, 1990; Mathieu & Kohler, 1990; Freund & Drach-Zahavy, 2007), and ability to cope with occupational stressors (Schmidt, 2007; Glazer & Kruse, 2008). Furthermore, affective organizational commitment has been found to be negatively associated with turnover intentions (Cole & Bruch, 2006; Harris & Cameron, 2005; Stinglhamber & Vandenberghe, 2003; Begley & Czajka, 1993; Meyer et al., 2002). Affective organizational commitment thus appears to constitute an important factor in the functioning of contemporary work-organizations.

Affective organizational commitment has, moreover, been found to be associated with a series of psychosocial work characteristics (Meyer et al., 2002; Mathieu & Zajac, 1990).

1.3.2 Experience of meaning at work

Experience of meaning at work refers to the sense that employees subjectively make of their work tasks (Wrzeniewski, 2003). A central feature relating to experiences of meaning at work are experiences of congruence between personal values and work activities that may contribute to affirming self-understandings and enhance individual identification with the work tasks (Wrzeniewski, 2003; Sagiv et al., 2004). Furthermore, the experience of possibilities for expressing oneself through working activities (Chalofsky, 2003) must be considered a central element in experiences of meaning at work.

Individuals experience meaning at work when work roles and work contexts are considered to be purposeful and significant (Pratt & Ashforth, 2003), thereby affirming central aspects of individual identity and satisfying basic psychological needs, such as meaningfulness and purpose in life (Keyes, 2007; Van den Broeck et al., 2008). Furthermore, meaningfulness can be described as an ... *on-going, day-by-day, constantly unfolding phenomenon, not an end-state that is once-and-for-all-resolved* (Pratt & Ashforth, 2003: 313), and experiences of work-related meaningfulness must thus be construed as something that is continuously reproduced in the individual's daily work-related experiences of positive or negative affect. The concept of meaning at work thus appears to tap into the employees' psychological attachment to their actual work tasks.

Previous studies have shown that experience of meaning at work has been found to be positively associated with a series of outcomes, such as well-being (Arnold et al., 2007), organizational commitment (Milliman et al., 2003), feelings of professional efficacy (Leiter et al., 1998), and job performance (Brown, 1996). Furthermore, experience of meaning at work has been found to be negatively associated with cynicism and exhaustion among nurses (Leiter et al., 1998), and turnover intentions (Milliman et al., 2003; Leiter et al., 1998).

Finally, previous studies have shown that experiences of meaning at work have been found to be associated with a series of psychosocial work characteristics (Arnold et al., 2007; Brown, 1996; Milliman et al., 2003; Tufte et al., 2008).

1.3.3 A theoretical perspective on the association between psychosocial work characteristics and positive work-related states

Previous studies have, as stated above, shown that the positive work-related states of affective organizational commitment and experience of meaning at work are associated with psychosocial work characteristics. The Job Demands and Resource (JD-R) model (Schaufeli & Bakker, 2004; Demerouti et al., 2001) provides an interesting theoretical framework for understanding the association between psychosocial work characteristics and positive work-related states.

The main proposition of the JD-R model is that work related emotions and experiences are associated with the demands and resources in the work environment. According to the JD-R model, the psychosocial work environment is made up of a configuration of job demands and job resources, and the JD-R model states that employee perceptions of job demands and job resources has an impact on the well-being of the individual. Job demands are described as those aspects of the job that require sustained physical or psychological effort and which are associated with certain physiological or psychological costs. Job resources are described as the aspects of the job that are functional in achieving work goals, and stimulate personal growth, learning and development (Schaufeli & Bakker, 2004).

The JD-R model identifies two distinct processes that are tied to the presence of job demands and job resources respectively. The first process is an energetic process, and associates excessive job demands with the depletion of mental and physical resources of employees, which again may lead to burnout and ill-health. The second process described in the JD-R model is a motivational process, where job resources are expected to influence positive work-related states which are, in turn, thought to have an impact on the employee's intentions to stay in the job (Schaufeli & Bakker, 2004).

Thus, the JD-R model informs us that positive work-related states are primarily associated with job resources in the psychosocial work environment and that the association between job resources and positive work-related states should be expected to be positive.

1.3.4 A discussion of predictors of positive work-related states

As stated above, previous studies have demonstrated an association between psychosocial work characteristics, affective organizational commitment and experience of meaning at work. However, the bulk of this research is based on cross-sectional evidence from survey studies, which precludes the possibility of positing causal inferences on the direction of the observed associations (cf. Paper I and II for a further discussion). Using cross-sectional data, it is impossible to ascertain whether psychosocial work characteristics condition positive work-related states, or whether positive work-related states have an impact on the individual's perception of his or her psychosocial work environment. As the data that we have at our disposal in this thesis are of a longitudinal nature, it is possible to identify temporally separated associations between exposures and outcomes, which increases the possibility of identifying causal associations between empirical phenomena, such as psychosocial work characteristics and positive work-related states.

A second point of criticism that can be directed towards research within work and organizational psychology is that, given its reliance on survey data, the field has primarily focused on the individual level whilst seeking to understand organizational phenomena. However, in attempting to understand individual-level outcomes, such as positive work-related states, it may be of interest to draw upon explanatory factors at both the individual level and at the work-group level, as individual-level appraisals of organizational phenomena may be formed and constrained by social and contextual factors in organizations and work-groups (Diez Roux, 2004; Bliese & Jex, 1999). This is the case because members of organizations and work-groups are exposed to similar stimuli that contribute to the formation of individual appraisals and evaluations of the work environment – as for instance affective organizational commitment and experience of meaning at work – and these appraisals and evaluations are furthermore constrained and shared in and through the communicative processes, shared norms, traditions, values, and interests that occur in social environments like work organizations (Macintyre et al., 2002; Chen & Bliese, 2002). In the data that are available for this thesis, which was based on a prospective cohort study of employees in the eldercare sector in 35 Danish municipalities, it was possible to divide the respondents into a series of work-groups. This implies that it was possible to investigate associations between positive work-related states and psy-

psychosocial work characteristics measured at both the individual level and the work-group level. The structure of the data thus allows us to assess the association between contextual factors (psychosocial work characteristics measured at work-group level) and positive work-related states measured at the individual level. The structure of the data thereby allows us to depart from the individualistic focus that has traditionally characterised research within work and organizational psychology.

Finally, the two positive work-related states of affective organizational commitment and experience of meaning at work appear to be easily distinguishable at the theoretical level. A study on the factorial validity of the positive work-related states of work engagement, job involvement, and organizational commitment, showed that these three theoretical concepts were also empirically distinguishable (Hallberg & Schaufeli, 2006). The results of the analyses conducted in this thesis will also inform us whether the theoretical distinguishability of the concepts of affective organizational commitment and experience of meaning at work can also be replicated at the empirical level. This question will, firstly, be addressed by looking at how the two positive work-related states are associated with their antecedents and their consequences, and, secondly, the results of a confirmatory factor analysis on the two scales measuring affective organizational commitment and experience of meaning at work (Clausen & Borg, 2009) are also reported.

1.4 Labour market outcomes: sickness absence and turnover

The two final outcome variables in this study are long-term sickness absence and turnover.

In the literature turnover is defined as the voluntary or involuntary departure of employees from their work organizations (Campion, 1991). However, most research on turnover has focussed on the turnover *intentions* of employees (Hasselhorn et al., 2008; Halbesleben & Wheeler, 2008) and not on actual turnover behaviour. As this thesis is based on a prospective cohort study, it is possible to study antecedents of actual turnover behaviour, and due to the structure of the data it is possible to investigate whether positive work-related states mediate the association between psychosocial work characteristics and actual turnover behaviour among staff in the Danish eldercare services. In the literature, this issue has only been addressed in one cross-sectional study (Bycio et

al., 1995), and the data allows us, therefore, to investigate this association between psychosocial work characteristics, positive work-related states, and turnover using longitudinal data.

Looking at the association between positive work-related states and sickness absence, previous studies have already demonstrated negative associations between organizational commitment and sickness absence (Meyer et al., 2002; Burton et al., 2002; Mathieu & Zajac, 1990; Mathieu & Kohler, 1990), and between experience of meaning at work and sickness absence (Nielsen et al., 2004). With the notable exception of the latter study, the cited studies on the association between positive work-related states and sickness absence are based on self-reported measures of sickness absence. In this thesis, it was possible to merge our cohort study with information on long-term sickness absence from a national Danish register on payment of sickness absence compensation (Lund et al., 2005). In this thesis it is, therefore, possible to investigate whether affective organizational commitment and experience of meaning at work are associated with risk of long-term sickness absence as registered in a national register when adjusting for a series of psychosocial work characteristics.

By studying the association between positive work-related states and long-term sickness absence, and the association between positive work-related states and actual turnover, this thesis therefore adds considerably to our knowledge on the consequences of positive work-related states.

1.4.1 A theoretical perspective on the association between positive work-related states and labour market outcomes

The JD-R model leads to the expectation that psychosocial work characteristics are associated with the positive work-related states of affective organizational commitment and experience of meaning at work. In extension, the Conservation of Resources (COR) theory (Hobfoll, 2001; Hobfoll, 2002) leads us to expect that these two positive work-related states can be considered important resources that can contribute the capacities of employees in the eldercare sector to deal with the stresses and strain of their daily work-life while still maintaining their health and well-being.

Hobfoll (2001; 2002) defines resources as entities that are either centrally valued in their own right (e.g. self-esteem, close attachments, health and inner peace), or as entities that act as a means to obtain centrally valued ends (e.g. money, social support, credit). Hobfoll (2001) provides a list of resources ‘that appear to have validity in many Western contexts’ (2001: 341). Of these, feelings of being valuable to others, sense of pride in oneself, feelings of accomplishment, and feelings that life has meaning and purpose can be considered relevant examples in this context, as they bear conceptual resemblance to the two positive work-related states that are at the centre of attention in the present thesis.

According to the COR theory, resources are seen as playing a key role in the association between human agency and environmental stimuli. In the work context for instance, resources affect employee health and well-being through the ability of the employee to adapt to and cope with the stresses and strains experienced in the work-situation (Hobfoll, 2002). A central claim of the COR theory is, therefore, that a fit between personal, social, economic, and/or environmental resources with external demands will lead to a state of well-being or eustress, whereas a misfit will lead to a state of depression or distress (Hobfoll, 2002).

In a work context, the COR theory thus posits that employees who experience a fit between personal resources, work-related resources and demands at work will feel at ease in their jobs, whereas employees who experience a mismatch between personal resources, work-related resources and the demands at work must be expected to fare less well in their job. Accordingly, this latter group should also be expected to be confronted with a higher risk of turnover – i.e. leaving their jobs – and long-term sickness absence.

Thus, it must be stated that the positive work-related states of affective organizational commitment and experience of meaning at work are construed as central resources that contribute to the ability of employees in the eldercare sector to cope with work-related demands, while still maintaining their health and well-being. Against this background, it is therefore contended that affective organizational commitment and experience of meaning at work are negatively associated with risk of turnover and long-term sickness absence.

1.5 Aims of the thesis

The overall aim of the present thesis, then, is to investigate whether the theoretical propositions of positive psychology are applicable in a labour market setting, thereby contributing towards increasing labour supply in a historical juncture characterised by a relative shortage of labour over the coming decades.

Above we have presented two positive work-related states – affective organizational commitment and experience of meaning at work – that each describe the psychological attachment of employees towards various work-related foci – the work organization and the actual work tasks. More specifically, the aims of this thesis can be formulated by two general research questions that were formulated on the background of the JD-R model and the COR theory:

- 1) Are positive work-related states predicted by factors in the psychosocial work environment?
- 2) Do positive work-related states predict salient labour market outcomes, such as long-term sickness absence and staff turnover?

Research question number 1 tells us whether positive work-related states – affective organizational commitment and experience of meaning at work – will be enhanced by the promotion of a favourable psychosocial work environment in the work-place. Research question number 2 informs us whether the promotion of positive work-related states in modern work-places will contribute towards solving the problems regarding the supply of labour that are expected over the coming decades. Figure 1 provides an overview of the expected relationships between the central concepts of this thesis.

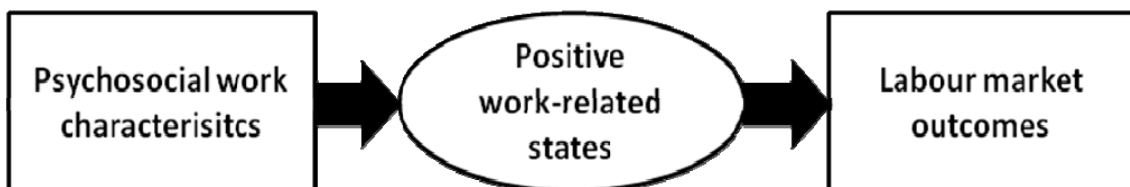


Figure 1: Overview of the expected associations between central concepts

The two research questions have been dealt with in four separate papers:

Paper I: Psychosocial work characteristics as predictors of affective organizational commitment: A longitudinal multi-level analysis of occupational well-being. The aim of this paper is to investigate whether the positive work-related state of affective organizational commitment is associated with factors in the psychosocial work environment. In this paper we therefore investigate whether affective organizational commitment at the individual level can be longitudinally predicted by psychosocial work characteristics measured at both work-group level and individual level. This analysis thereby allows us to assess the predictive value of group-level vis-à-vis individual-level predictors in predicting individual-level outcomes in organizations.

Paper II: Psychosocial work characteristics as predictors of experience of meaning at work: A longitudinal multi-level analysis of group-level and individual-level predictors. The aim of this paper is to investigate whether experience of meaning at work is predicted by psychosocial work characteristics in longitudinal analyses. In this paper the authors also include both individual- and group-level measures of psychosocial work characteristics in order to investigate how group-level and individual-level predictors are associated with the positive work-related state of experience of meaning at work.

Paper III: Positive work-related states and long-term sickness absence: A study of register based outcomes. In this paper we explore the association between positive work-related states – affective organizational commitment and experience of meaning at work – and long-term sickness absence as measured in a national Danish register. In the analysis, which is purely based on individual-level measures, we also adjust for potential confounders, such as psychosocial work characteristics, physical work-load, and self-rated health.

Paper IV: Do positive work-related states mediate the association between psychosocial work characteristics and turnover? A longitudinal analysis. In this paper we investigate whether positive work-related states mediate the association between psychosocial work characteristics and actual turnover behaviour among staff in the Danish eldercare sector. In this paper it is, furthermore, investigated how the positive work-related states of af-

fective organizational commitment and experience of meaning at work are associated with actual turnover in the study population.

By looking at the associations between positive work-related states and psychosocial work characteristics, paper I and II contribute to answering research question number 1. Paper III and paper IV contribute, in turn, to answering research question number 2, through their respective focus on the association between positive work-related states and long-term sickness absence and turnover.

Finally, although the two positive work-related states that are at the centre of attention in the present thesis appear to be theoretically distinguishable, the results of the analyses in the four papers will also inform us about the empirical distinguishability of affective organizational commitment and experience of meaning at work. This is done by investigating the factorial validity of the items that make up the scales measuring affective organizational commitment and experience of meaning at work, and by investigating whether the two scales are differentially associated with relevant psychosocial work characteristics and labour market outcomes.

2 Materials and methods

As the aim of this thesis was to explore associations between psychosocial work characteristics, positive work-related states, and central labour market outcomes, the thesis is based on survey data from a cohort study on employees in the Danish eldercare services. In Denmark, the municipalities are the main providers of eldercare services and eldercare services are provided in nursing homes as well as in the private homes of elderly citizens (Colmorten et al., 2004; Clausen & Borg, 2007).

In the cohort study, three rounds of questionnaire interviewing were conducted in 2004-5, 2006, and 2008. The aim of the study was to investigate associations between work environment characteristics, health, and well-being among staff in the Danish eldercare sector. The participants were interviewed using mailed questionnaires containing roughly 200 questions concerning psychosocial and physical work characteristics, health, and well-being. This thesis is based on the baseline study that was conducted

during the winter of 2004 and the spring of 2005 and the first follow-up that was conducted in the autumn of 2006.

The first round of the cohort study that forms the basis of all four papers that are presented in this thesis was conducted among all staff in 35 Danish municipalities.¹ The baseline questionnaire was sent to 12,746 employees in the eldercare sector, and 9,949 employees responded, which yields a response rate of 78 percent. Furthermore, as we conducted the survey among all employees in the participating municipalities, it was possible to subdivide the respondents into 301 work-groups with 10 or more employees.

In the follow-up study from 2006, an additional five municipalities joined the study. In these 40 municipalities, 15,697 employees received a questionnaire and 10,065 completed and returned the questionnaire. This gives a response rate of 64 percent.

In preparing for the follow-up study, we received records of all staff in the eldercare services in the municipalities that participated in the study. Participants from the first round of the study that did not feature on the staff records for the second round were sent a questionnaire inquiring into their reasons for leaving their jobs. 1,578 respondents were sent a questionnaire and the response rate was 75 percent.

The baseline study, in particular, but also the follow-up study yielded very satisfactory response rates – 78 and 64 percent respectively. These high response rates can largely be attributed to the fact that we recruited a corps of contact persons at all the participating work-places. The contact persons operated as a kind of ambassadors of the study at the work-places by handing out questionnaires, by informing their colleagues about the study, and by encouraging their colleagues to participate in the study. Secondly, non-respondents received two reminders by mail, and these reminders are also believed to have stimulated the high degree of participation in the study.

Paper I and paper II are prospective analyses that are based on the baseline study and the first follow-up study. Paper III is based on the baseline study that is merged with data from a national register, and, finally, paper IV is a prospective study that is based

¹ The municipalities were recruited for the study prior to the reform of the local level of government that was implemented on the first of January 2007. In this reform a number of small municipalities were merged, and the total number of municipalities was reduced from 271 to 98.

on the baseline study and the follow-up study on the employment status of respondents who left the eldercare services between the baseline study and the first follow-up.

2.1 Study populations

Due to the nature of the research questions posed in the four papers, the study populations that formed the basis of the four papers differed.

Paper I and paper II: In these two papers the authors attempted to identify predictors of the positive work-related states of affective organizational commitment and experience of meaning at work. In these two studies, we therefore used both the baseline study and the first follow-up study, as we predicted outcomes measured at follow-up – affective organizational commitment and experience of meaning at work – from a series of psychosocial work characteristics measured in the baseline study. Of the respondents in the first round, 7,864 were eligible for interviewing in the second round. Of these, 6,299 responded which gives a response rate of 80 percent in the follow-up population. The participants were subdivided into 301 work-groups that counted 10 or more employees at baseline.

Paper III: In this paper the authors investigated whether positive work-related states predicted long-term sickness absence as measured in a national Danish register on social transfer payments (the DREAM-register), including sickness absence compensation. In this study we followed the 9,560 respondents who had no missing values on the scales measuring affective organizational commitment and experience of meaning at work in the DREAM-register for one year after completion of the survey.

Paper IV: In this paper the authors investigated whether positive work-related states mediated the association between psychosocial work characteristics and turnover. As stated above, we sent questionnaires to the baseline-respondents who did not appear on the staff records for the first follow-up study. Respondents who confirmed their turnover to another job or unemployment were coded as cases of turnover, and these respondents were compared to respondents who had stayed in the jobs they held during the baseline study. In this study the sample was limited to individuals in the age of 18-55 years, and the sample thus consisted of 5,992 respondents who either were still

working in the job they held in the baseline study or had confirmed their turnover to another job or unemployment.

2.2 Measures

Below, the measures that were used in this thesis will briefly be introduced. For further details on these measures, please refer to the individual studies.

2.2.1 Positive work-related states

Affective organizational commitment was measured using the four-item *Commitment to the work-place* scale from the Copenhagen Psychosocial Questionnaire (COPSOQ) (Kristensen et al., 2005; Pejtersen et al., 2010). Items are 1) *Do you enjoy telling others about your place of work?*, 2) *Would you recommend your workplace to a good friend?*, 3) *Is your workplace very important to you as a person?*, and 4) *Do you think about looking for another job?* The *commitment to the work-place* scale is referred to as *affective organizational commitment* for two reasons: firstly, the items in the *commitment to the work-place* scale have a clear affinity with Meyer, Allen & Smith's scale on *affective organizational commitment* (Meyer et al., 1993) and orient themselves towards the relationship between the employee and the work organization. And secondly, due to this affinity between the items in the *commitment to the work-place* scale and the items in Meyer et al.'s scale on *affective organizational commitment*, it was decided to use the term 'affective organizational commitment' in order to align this study with the international literature in the field. However, in paper III, which has been accepted for publication in a special issue of the Scandinavian Journal of Public Health dedicated to the Copenhagen Psychosocial Questionnaire, the authors decided to use the original COPSOQ-scale name *Commitment to the work-place*, when referring to this scale.

Meaning at work was measured using a three-item scale from the Copenhagen Psychosocial Questionnaire (COPSOQ) (Kristensen et al., 2005; Pejtersen et al., 2010). Items are: 1) *Are your work tasks meaningful?*, 2) *Do you feel that the work you do is important?*, and 3) *Are you motivated and engaged in your work?*

2.2.2 Labour market outcomes

Long-term sickness absence was measured using the national Danish DREAM-register that contains weekly information on granted sickness absence compensation for all citizens and residents in Denmark. In paper III we operated with two absence periods for long-term sickness absence: 1) two or more consecutive weeks of absence in the one year follow-up period, and 2) eight or more consecutive weeks of sickness absence in the one year follow-up period.

Turnover was measured comparing staff records from the first follow-up study of the survey with the list of participants from the baseline study. Participants from the baseline study who did not appear on the staff records for the follow-up study were sent a questionnaire inquiring into their job status at the time of the follow-up study. Respondents who confirmed their departure from the work-place they held at the time of the baseline study were coded as confirmed cases of turnover. Additionally, through their participation respondents in the follow-up study on the work environment in the eldercare services confirmed their continued status as employees in the eldercare services.

2.2.3 Covariates: Psychosocial work characteristics

Paper I and paper II: In these papers the following baseline measures of psychosocial work characteristics were deployed to predict positive work-related states at follow-up: emotional demands, work pace, role ambiguity (measured as the inversed role clarity scale from the COPSQ), influence at work, quality of leadership and team climate (measured using a 5 item scale adapted from the 7 item participation-scale in the Team Performance Inventory (West et al., 2004)). Unless otherwise stated, the scales originate from COPSQ (Kristensen et al., 2005; Pejtersen et al., 2010).

Paper III: In this paper the following baseline measures of psychosocial and physical work characteristics were deployed to adjust for the association between positive work-related states and long-term sickness absence: work pace, quantitative demands, emotional demands, role clarity, influence, possibilities for development, predictability, and quality of leadership, physical work-load, and work-time arrangements. All scales on

psychosocial work characteristics originate from COPSOQ (Kristensen et al., 2005; Pejtersen et al., 2010).

Paper IV: In this paper we investigated whether positive work-related states mediated the association between the following psychosocial work-characteristics and turnover: work pace, role conflicts, emotional demands, work-family conflict, influence at work, and quality of leadership. All scales originate from COPSOQ (Kristensen et al., 2005; Pejtersen et al., 2010).

2.2.4 Potential confounders

Paper I and paper II: In these papers all analyses were adjusted for the following potential confounders: age, gender, living with spouse/partner, children living at home (yes/no), tenure, job function (care work/other work).

Paper III: In this paper analyses were adjusted for the following potential confounders: age, gender, cohabitation, children living at home, job function (care work/other work), tenure, BMI, and smoking status.

Paper IV: In this paper analyses were adjusted for the following potential confounders: age, gender, self-rated health, and job function (care work/other work).

2.3 Analyses

In the four papers that are included in this thesis the authors deployed three different analytical strategies that will shortly be described below.

Paper I and paper II: In these two papers the authors used longitudinal data to predict positive work-related states – affective organizational commitment and experience of meaning at work – from predictors located at the individual level and predictors aggregated to the work-group level. Furthermore, our respondents were clustered within work groups, which meant that we could not assume statistical independence between our observations. This led us to analyse the data using multi-level analysis, as this mode of analysis allows us to simultaneously assess the effects of group-level and individual-level variables on individual level outcomes, while also taking the lack of statistical

independence between observations into account (Diez Roux, 2004; Hox, 2002), by taking the random effects at the group-level into account in the analyses.

Paper III: In this paper the authors sought to estimate risk of onset of long-term sickness absence during a one-year follow-up period for groups with high, medium or low levels of affective organizational commitment and experience of meaning at work, respectively. Using Poisson regression analysis, we examined the sickness absence rates in the population, i.e. the total number of sickness absence episodes in the study population divided by the total risk time in the population. The risk time was calculated as time from answering the questionnaire until first onset of sickness absence or end of the study period. Poisson regression analysis was used to calculate the rate ratios and 95% confidence intervals for risk of onset of long-term sickness absence.

Paper IV: The aim of this paper was to investigate whether positive work-related states mediated the association between psychosocial work characteristics and turnover. As turnover is a binary outcome, the authors decided to use logistic regression analysis. Furthermore, according to Taris & Kompier (2006) analyses of mediation must be undertaken on longitudinal data, as it needs to be established that the mediator precedes the outcome variable in time, and that the predictor variables precedes both the mediator and the outcome variable in time. Ideally, mediation should be investigated in a longitudinal three-wave study. A less ideal but still viable solution would be to use longitudinal data to investigate these relationships in partial analyses where temporally separated associations between predictors, mediators, and outcome variables could be established (Taris & Kompier, 2006). In paper IV, the authors had a two-wave follow-up study at their disposal. The analyses were therefore conducted in two steps. In the first step, we used logistic regression analysis to investigate whether positive work-related states mediated the association between psychosocial work characteristics and turnover. In this step both positive work-related states and psychosocial work characteristics were measured at baseline. In the second step, we used the follow-up data that also formed the basis of paper I and II to predict the two positive work-related states from the psychosocial work characteristics in order to ascertain that the designated predictors did indeed predict the designated mediators over time.

3 Results

In this section, the results of the four papers that make up this thesis will briefly be presented. As stated in the introduction, the positive work-related states of affective organizational commitment and experience of meaning at work are easily distinguishable at the theoretical level. By investigating how the two scales measuring affective organizational commitment and experience of meaning at work are associated with other empirical phenomena, paper I-IV will inform us about the empirical distinguishability of the two scales. If the two scales are differentially associated with other empirical phenomena, this will support our expectations of the two concepts being empirically distinguishable. Another method for assessing the empirical distinguishability of the scales measuring affective organizational commitment and experience of meaning at work will be to conduct a confirmatory factor analysis (Hinkin, 1998). Therefore, prior to the presentation of the results of paper I-IV, the results of a confirmatory factor analysis on the scales measuring affective organizational commitment and experience of meaning at work will briefly be presented.

3.1 Results of confirmatory factor analysis

In order to assess the factorial validity of the two scales measuring affective organizational commitment and experience of meaning at work, a confirmatory factor analysis was conducted on the seven items that make up these two scales (Clausen & Borg, 2009). The results of this confirmatory factor analysis will show whether these seven items crystallize into a one- or a two-dimensional model, and whether the items that theoretically are expected to make up the two scales do indeed group into the two scales originally proposed in the Copenhagen Psychosocial Questionnaire.

The results of the confirmatory factor analyses conducted by Clausen & Borg (2009) on the scales measuring affective organizational commitment and experience of meaning at work, shows that a factor solution with two scales comprising the four and three items that make up the scales measuring affective organizational commitment and experience of meaning at work provide a better fit to the data than a one-factor solution, where all seven items are grouped into one scale.

The results of the confirmatory factor analysis indicate that the two scales are empirically distinguishable and that it therefore makes sense to operate with two separate scales measuring affective organizational commitment and experience of meaning at work.

3.2 Paper I and II: On the association between psychosocial work characteristics and positive work-related states

Paper I and II address the first research question of this thesis that was posed in the introduction: Are positive work-related states predicted by factors in the psychosocial work environment?

Paper I and II were primarily informed by the Job Demands and Resource (JD-R) model (Demerouti et al., 2001; Schaufeli & Bakker, 2004) that views the psychosocial work environment as a configuration of job demands and job resources that have an impact on the well-being of individual employees (Schaufeli & Bakker, 2004; Demerouti et al., 2001). As stated in the introduction, the JD-R model identifies two processes that are associated with job demands and job resources respectively: an energetic process where excessive job demands lead to burnout and ill-health, and a motivational process, where job resources are expected to influence positive work-related states (Schaufeli & Bakker, 2004). The JD-R model thus posits that positive work-related states are primarily associated with job resources in the psychosocial work environment and that the association between job resources and positive work-related states must be expected to be positive.

3.2.1 Findings in Paper I and II

The findings in paper I and II by and large confirm the theoretical expectations put forward in the JD-R model, as the papers show that the positive work-related states of affective organizational commitment and experience of meaning at work are predicted by psychosocial work characteristics in longitudinal multi-level analyses. There are, however, differences in the observed associations in the two papers that support our expectations of the two scales as being empirically distinctive. Firstly, these differences regard the associations that were observed between predictors and outcomes in the two papers,

and secondly, they regard the extent to which the group-level predictors were associated with affective organizational commitment and experience of meaning at work, respectively.

In paper I and II we deployed four explanatory models to predict the two positive work-related states from a series of psychosocial work characteristics. In model 1 we assessed the impact of psychosocial work characteristics measured at work-group-level. In model 2 we assessed the impact of psychosocial work characteristics measured at individual level. In model 3 we assessed the combined impact of psychosocial work characteristics measured at work-group level and individual level, and in model 4 we added the outcome variable measured at baseline.

Model 4 in paper I showed that affective organizational commitment was jointly predicted by group-level and individual-level measures of psychosocial work characteristics. At the group level, quality of leadership predicted affective organizational commitment in a positive association. At the individual level, influence at work, quality of leadership, and affective organizational commitment, measured at baseline, predicted affective organizational commitment measured at follow-up. These associations were also positive. As was expected on the basis of the JD-R model, model 4 thus showed that affective organizational commitment was exclusively predicted by job resources. Finally, model 4 was able to account for more than 38 per cent of the variation in affective organizational commitment at follow-up.

Model 4 in paper II showed that experience of meaning at work was somewhat differently associated with the psychosocial work characteristics than was the case in the analysis of predictors of affective organizational commitment. As was the case in paper I, experience of meaning at work was jointly predicted by both group-level and individual-level measures of psychosocial work characteristics. At the group-level, we observed a weak, but still significant, positive association between emotional demands and experience of meaning at work. At the individual level, model 4 showed that experience of meaning at work measured at follow-up was negatively associated with role ambiguity, and positively associated with quality of leadership, influence at work, and experience of meaning at work at baseline. Against the expectations posited by the JD-R model, model 4 showed that the positive work-related state of experience of meaning at

work was predicted both by job demands (emotional demands and role ambiguity) and by job resources (quality of leadership, and influence at work). Finally, model 4 was able to account for more than 30 per cent of the variation in experience of meaning at work at follow-up.

Furthermore, model 1 in paper I and II showed that there were some differences in the associations observed between the two positive work-related states and the psychosocial work characteristics measured at group-level. In model 1 in paper I, the results showed that affective organizational commitment was negatively associated with work pace, and positively associated with emotional demands, influence at work, and quality of leadership measured at work-group-level. Model 1 in paper II showed that experience of meaning at work was predicted by emotional demands, influence at work, and quality of leadership measured at work-group-level and all these associations were positive. However, a closer look at the results showed that model 1 in paper I was able to account for 7.4 percent of the variation in affective organizational commitment at follow-up, whereas model 1 in paper II only accounted for a mere 1.2 percent of the variation in experience of meaning at work at follow-up. The results thus show that affective organizational commitment is, to a much larger extent than experience of meaning at work, conditioned by group-level processes.

Finally, mention must be made of the positive associations that were found between job demands and positive work-related states in paper I and II. Paper I showed a positive association between emotional demands and affective organizational commitment (model 1), and paper II showed positive associations between emotional demands and experience of meaning at work (model 1, 2, 3, and 4), and between work pace and experience of meaning at work (model 2, and 3). These findings thus indicate that job demands can be associated with experiences of positive affect, and that job demands therefore cannot be construed as being inherently negative in a work context, as otherwise posited in the JD-R model. Instead, these findings of paper I and II lend credence to the propositions of the Demand/Control Model, that posits that a work environment characterized by high job demands and matching level of job control are likely to entail states of positive arousal in employees (Karasek, 1979; De Witte et al., 2007). A similar proposition is also put forward in Csikszentmihalyi's flow theory (Nakamura & Csik-

szenzmihalyi, 2005), that proposes that a perceived balance between an individuals' action opportunities (challenges/job demands) and action capabilities (skills/job resources) will lead to a state of flow – a psychological state that is characterised by a high level of absorption and positive arousal. Accordingly, the findings of paper I and II thus challenge the negative conceptualization of job demands that is put forward in the JD-R model, as the results of the two papers indicate that job demands also can be positively associated with positive work-related states.

Against the background of paper I and II it can be concluded that positive work-related states are predicted by factors in the psychosocial work environment, and against this background it is possible to affirm research question number 1. The results also show that the positive work-related states are differentially related to factors in the psychosocial work environment to such an extent that the results corroborate the impression from the confirmatory factor analyses reported in section 3.1 that demonstrated that affective organizational commitment and experience of meaning at work were empirically distinguishable.

3.3 Paper III and IV: On the association between positive work-related states and labour market outcomes

Paper III and IV address the second research question of this thesis: Do positive work-related states predict salient labour market outcomes, such as long-term sickness absence and staff turnover? These two papers are informed by the Conservation of resources (COR) theory (Hobfoll, 2001; Hobfoll, 2002).

In paper I and II the positive work-related states of affective organizational commitment and experience of meaning at work were found to be predicted by psychosocial work characteristics. Paper III and IV are based on the expectation that these two positive work-related states can be considered important resources that can contribute the capacities of employees in the eldercare sector to deal with the stresses and strains of their daily work-life.

In the COR theory, resources are seen as playing an important role in the association between human agency and environmental stimuli through their impact on employee-

ability to adapt to and cope with the stresses and strains experienced in the work-situation (Hobfoll, 2002). Thus, the COR theory tells us that the positive work-related states of affective organizational commitment and experience of meaning at work must be considered important resources that contribute to the ability of employees in the eldercare sector to cope with work-related demands. Against this background it is expected that affective organizational commitment and experience of meaning at work are negatively associated with risk of turnover and long-term sickness absence.

3.3.1 Findings in Paper III and IV

To a large extent, the findings in paper III and IV support the theoretical expectations put forward by the COR theory, as the papers show that the positive work-related states of affective organizational commitment and experience of meaning at work are negatively associated with risk of long-term sickness absence and turnover, even when taking psychosocial work characteristics into account. At first glance, therefore, affective organizational commitment and experience of meaning at work appear to constitute important resources in work settings, as they contribute to the ability of employees to cope with the stresses and strains of work-life in the eldercare sector, while still maintaining their health and well-being. Below, the results of paper III and IV will be presented and discussed in more detail.

The aim of paper III was to investigate whether the positive work-related states of affective organizational commitment² and experience of meaning at work were associated with risk of long-term sickness absence, as measured in the national Danish DREAM-register. In the study, we divided the respondents into groups with high, medium, and low levels of affective organizational commitment and experience of meaning at work, respectively, in order to assess these groups' risk of long-term sickness absence for more than two and eight weeks, respectively. We hypothesized that employees with high levels of affective organizational commitment and experience of meaning at work would have a lower risk of long-term sickness absence than groups with medium or low levels of affective organizational commitment and experience of meaning at work.

² In paper III we refer to the concept of "affective organizational commitment" as "commitment to the work-place". Cf. section 2.2.1.

However, the results showed that employees with high levels of affective organizational commitment and experience of meaning at work did not have a lower risk of sickness absence than the 'medium' groups. Instead, the analyses showed that employees who exhibited low levels of experience of meaning at work had an increased risk of long-term sickness absence for more than two and more than eight consecutive weeks, when they were compared to the two other groups – even when adjusting for psychosocial work characteristics, physical work-load and work-time arrangements. Furthermore, comparing employees with low, medium and high affective organizational commitment, employees with low affective organizational commitment had an increased risk of sickness absence for more than two weeks, when adjusting for psychosocial work characteristics. However, this association became borderline insignificant, when we additionally adjusted for physical work-load and work-time arrangements. The results also showed that employees with medium affective organizational commitment had a decreased risk of sickness absence for more than eight weeks, when compared to the groups with high and low affective organizational commitment, respectively. This analysis was adjusted for psychosocial work characteristics, physical work-load and work-time arrangements. Finally, it must also be mentioned that the results also revealed an interaction effect between affective organizational commitment and experience of meaning at work in predicting long-term sickness absence.

The results of the analyses conducted in paper III therefore ran counter to the hypothesis of the study, as the results showed that it was, in particular, low levels of affective organizational commitment and experience of meaning at work that proved decisive in predicting long-term sickness absence. However, the results did show that affective organizational commitment and experience of meaning at work were significantly associated with risk of sickness absence for more than two and eight consecutive weeks, even when adjusting for a series of psychosocial work characteristics. Although it – as seen from the perspective of positive psychology – was surprising that a low level of positive work-related states proved decisive in predicting long-term sickness absence, the results from paper III support the view of affective organizational commitment and experience of meaning at work as important resources in working life. The results show that employees who reach a 'minimum level' of positive work-related states have a lower risk of long-term sickness absence. However, the results demonstrate that high levels of af-

fective organizational commitment and experience of meaning at work are not in themselves protective against long-term sickness absence.

Finally, in paper IV we investigated whether the positive work-related states of affective organizational commitment and experience of meaning at work mediated the association between psychosocial work characteristics and actual turnover among staff in the eldercare sector. The first step of the analysis showed that risk of actual turnover increased when employee's experienced role conflicts and work-family conflict, whereas the risk of turnover decreased when employees experienced influence at work, quality of leadership, and emotional demands. However, the second step in the analysis showed that these associations were considerably weakened, when the positive work-related states of affective organizational commitment and experience of meaning at work were entered into the analysis. Furthermore, the results of the second step of the analysis showed that affective organizational commitment and experience of meaning at work were negatively associated with risk of turnover. As the predictors and mediators from the second step of the analysis originated from the baseline study, we conducted an additional analysis, on the longitudinal data that were used in papers I and II, to ascertain that the mediators were indeed predicted by the predictors. The analysis showed that the predictors (psychosocial work characteristics) did predict the mediators (affective organizational commitment and experience of meaning at work) in a longitudinal design, which corroborates the conclusion that affective organizational commitment and experience of meaning at work mediates the association between psychosocial work characteristics and actual turnover among staff in the Danish eldercare services.

The results of paper IV show that the positive work-related states of affective organizational commitment and experience of meaning at work mediates the association between psychosocial work characteristics and actual turnover. This finding thus implies that positive work-related states must be considered important employee-resources in terms of reducing turnover among staff in the eldercare sector.

Against the background of paper III and IV it can be concluded that the positive work-related states of affective organizational commitment and experience of meaning at work must be considered important work-related resources in relation to salient labour market outcomes, such as staff turnover and long-term sickness absence. Taking all of

this into consideration, it is possible to answer research question number 2 affirmatively.

4 Discussion

Due to changes in the demographic composition in the Nordic countries over the coming decades, shortages of labour are expected in the Nordic societies. In the traditional optics of the economic sciences, the issue of labour supply is typically approached in terms of establishing economic incentives. However, by insisting that positive states are important phenomena in their own right and that positive states are associated with a series of valuable outcomes at the personal, organizational and societal levels, the field of positive psychology appears to offer alternative strategies towards increasing labour supply.

In order to assess the viability of the propositions of positive psychology, the aim of this thesis was, therefore, to investigate the following two research questions:

- 1) Are positive work-related states predicted by factors in the psychosocial work environment?
- 2) Do positive work-related states predict salient labour market outcomes, such as long-term sickness absence and staff turnover?

The results of paper I and II showed that the positive work-related states of affective organizational commitment and experience of meaning at work were predicted by factors in the psychosocial work environment among staff in the eldercare sector in Denmark. Furthermore, the results of paper III and IV showed that the positive work-related states of affective organizational commitment and experience of meaning at work were associated with salient labour market outcomes – i.e. long-term sickness absence and staff turnover – among Danish eldercare staff.

At this juncture, though, it is useful to highlight certain of the results obtained from the four papers. By investigating predictors of affective organizational commitment and experience of meaning at work in paper I and II, we also tested the propositions of the

Job Demands and Resource (JD-R) model. The JD-R model distinguished between job demands and job resources and the model proposed that positive work-related states were primarily associated with job resources. In paper I the analyses showed that affective organizational commitment was predicted by job resources only, whereas paper II showed that experience of meaning at work was jointly predicted by job demands and job resources. Furthermore, paper I and II reported associations between job demands and positive work-related states that to a higher extent were in accordance with Karasek's Demand/Control Model (1979) and Csikszentmihalyi's flow theory (Nakamura & Csikszentmihalyi, 2005) than with the JD-R model. Thus, paper I and II provide mixed support for the JD-R model. Another interesting finding from paper I and II concerns the associations observed between the two positive work-related states and the group-level measures of psychosocial work characteristics. Paper I and II showed that the group-level measures of psychosocial work characteristics accounted for a much larger part of the variance in affective organizational commitment (7.4 per cent) than in experience of meaning at work (1.2 per cent). This finding implies that affective organizational commitment appears to be a product of shared experiences in the workplace to a greater extent than is the case for experience of meaning at work. In sum, the findings of paper I and II thus supports the findings from the confirmatory factor analysis reported in section 3.1 that affective organizational commitment and experience of meaning at work are empirically distinguishable concepts.

In paper III and IV we investigated whether the positive work-related states of affective organizational commitment and experience of meaning at work could be regarded as resources that could enhance the ability of employees to cope with the stresses and strains experienced in the work-situation. These papers were informed by the Conservation of Resources (COR) theory. Paper III and IV showed that affective organizational commitment and experience of meaning at work must be considered important resources in the work situation, as these two positive work-related states were negatively associated with risk of turnover and long-term sickness absence, even when adjusting for psychosocial work characteristics. Our findings therefore lend support for the propositions of the COR theory. Paper III, however, yielded a surprising finding. In paper III the two positive work-related states were divided into three levels – high, medium, and low. Based on the propositions of positive psychology, we expected that employees

with high levels of affective organizational commitment and experience of meaning at work would have a lower risk of long-term sickness absence than employees with medium or low levels – i.e. the high levels were expected to have a protective effect. Overall, the results of paper III showed that it was employees with low levels of affective organizational commitment and experience of meaning at work that were at risk of long-term sickness absence, and this finding runs counter to the basic propositions of positive psychology (cf. Keyes, 2007). The results of paper III therefore suggests that low levels of positive work-related states can be considered a risk factor for long-term sickness absence, whereas a high level appears to not have an independent protective effect. With regard to the COR theory, this finding implies that a lack of resources appears to be more salient than an abundance of resources, which appears to be in line with the COR theory's proposition that resource loss is more important for well-being than resource gain (Hobfoll, 2001). In addition to the COR theory, it must be mentioned that the positive work-related states of affective organizational commitment and experience of meaning at work may be contributing to the mental health status of employees by virtue of the fact that they contribute to the satisfaction of basic psychological needs (cf. Keyes, 2007), which again may have an impact on the risk of long-term sickness absence and turnover faced by individual employees.

Overall, however, the results of the four papers in this thesis lend credence to the propositions of positive psychology, as the thesis shows that experiences of positive affect in the psychosocial work environment contribute towards evolving and sustaining positive work related states (paper I and II). These positive work-related states can furthermore be regarded as important resources in the work situation that are important in their own right as they contribute to the satisfaction of basic psychological needs, while simultaneously constituting important resources in the work-situation that underpin the ability of employees to cope with the stresses and strains of the everyday work-life, thereby decreasing risk of long-term sickness absence and turnover (paper III and IV).

The empirical evidence presented in this thesis thus shows that the field of positive work and organizational psychology suggests particular strategies for solving the expected problems related to the future supply of labour in the Nordic countries, and that

these strategies can be construed as interesting alternatives to the mainly economically oriented approach towards this issue.

4.1 The future of positive psychology

As stated above, positive psychology appears to propose some promising solutions to important issues regarding the social and economic reproduction of modern societies. The field of positive psychology thus appears to have come a long way and has matured as a discipline since the field was instigated by Seligman and Csikszentmihalyi around the turn of the millennium (Seligman & Csikszentmihalyi, 2000).

Linley and his colleagues have formulated three scenarios for the future development of positive psychology (Linley et al., 2006). In the first scenario, the field of positive psychology would be integrated within mainstream psychology. In this meta-psychological integration, that according to Linley et al. (2006) was the original aim of positive psychologists, positive psychology would disappear because mainstream psychology would encompass the full range of human functioning – both the positive and the negative aspects. In the first scenario, then, the vision of positive psychology as a corrective to an overly negatively biased mainstream psychology (Seligman & Csikszentmihalyi, 2000; Linley et al., 2006) would then be realised.

In the second scenario, positive psychology is increasingly recognised by mainstream as a relevant corrective of mainstream. However, even though positive psychologists may influence mainstream psychology some way towards integration some divisions will remain between positive and mainstream psychology (Linley et al., 2006).

The third scenario is the most pessimistic. In this scenario, positive psychology is an increasingly marginalised area of inquiry that will have little impact on or relation to the research agenda of mainstream psychology (Linley et al., 2006).

At the current juncture, the role of positive psychology in relation to mainstream psychology seems to be best described by the second scenario. Research within work and organizational psychology increasingly appears to pay attention to positive organizational phenomena, and as mentioned above, the study of positive phenomena appear to be of high practical value in organizational settings. However, research within work and

organizational psychology still appears to be highly compartmentalized into ‘positive’ positions and positions that focus on the more difficult aspects in life. There is, therefore, potential for further integration between positive and mainstream psychology for the meta-psychological integration, described in the first scenario, to occur.

However, in order to enhance the legitimacy of positive psychology, it is pertinent for positive psychologists to conduct empirical research that contributes towards answering salient psychological and social questions, as for instance providing credible alternative strategies towards increasing labour supply. In this thesis, it has been shown that positive states have an impact on ‘hard’ outcomes in the labour market, such as long-term sickness absence and staff turnover. Providing such evidence on the associations between positive states and ‘hard’ labour market outcomes, contributes to strengthening the legitimacy of positive psychology, which again should enhance the prospects for a genuine meta-psychological integration of positive psychology with mainstream psychology to occur.

Finally, on a more cautionary note, it is important that proponents of a positive ‘approach’ in organizational settings retain an open stance towards the discussions and deliberations of employees in organizational settings. The danger in this respect is that the promotion of positive outcomes and positive actions in organizational settings ends up inhibiting free, critical, and constructive debates on salient issues in organizations. This risk is imminent, as the promotion of positive norms and procedures in organizational contexts may gather momentum and come to be elevated into quasi-totalitarian norms of the ‘good’ life in the organization (Nissen, 1998). It is therefore important to note, that the stressing of the importance of positive outcomes should not lead to a ‘cult of the positive’ in organizations, as a genuinely ‘positive’ organizational culture should also include the possibilities of employees to take a critical stance without running the risk of being ostracized.

4.2 Limitations, strengths and future research

The aim of this study was to investigate associations between psychosocial work characteristics, positive work-related states, and labour market outcomes in the shape of

staff turnover and long-term sickness absence. These associations were investigated using a quantitative methodology, drawing on both survey data and register data.

Although such a design must be considered the most feasible option in terms of identifying associations between empirical phenomena, such an approach towards analysing antecedents and consequences of the positive work-related states of affective organizational commitment and experience of meaning at work tells us little about the processual aspects of the observed associations. Thus, the statistical associations only inform us of the statistical probability of a given outcome occurring (e.g. experience of meaning at work) upon the occurrence of a given exposure (e.g. role ambiguity). The results of the statistical analyses tells us little about the processes through which given exposures affect given outcomes, under which circumstances exposures are most likely to result in given outcomes, or which types of human agency that are likely to bring about given outcomes in the light of a given exposure.

The results of the statistical analyses contribute with important insights, regarding the associations between psychosocial work characteristics, positive work-related states, and labour market outcomes – thereby also contributing with important information regarding interventions aimed at enhancing positive work-related states and reducing turnover and long-term sickness absence. The analyses do not, however, paint the full picture of the associations and processes at play in this field. A salient area of future research could therefore be to conduct research of a more qualitative nature on the associations between psychosocial work characteristics, positive work-related states, and labour market outcomes, in order to collect evidence on the actual processes that occur among employees in actual work-settings.

It must also be stated that this study was constrained by the fact that it was based on survey data that had already been collected among staff in the Danish eldercare services. This meant that the selection of variables in the analyses was not purely guided by relevant theories, as these choices were also bounded by the data that were available for this research. In our study of positive work-related states we analysed affective organizational commitment and experience of meaning at work. In this regard, it could also have been relevant to study other constructs measuring positive work-related states, such as work engagement (Schaufeli et al., 2002; Bakker et al., 2008) or job involvement

(Brown, 1996; Kanungo, 1979), but no data were available on these constructs. Furthermore, the selection of predictors was also bounded by the available data. In this context it could also have been relevant to study the impact of e.g. social support, trust, organizational justice, possibilities for development, and/or indicators of organizational characteristics on positive work-related states, but such analyses were not possible to execute due to the nature of the available data. Therefore, more research appears to be needed in order to investigate the associations between the aforementioned predictors and positive work-related states.

Another limitation stems from the fact that this thesis is based on responses from employees in the eldercare sector in Denmark. The results of the four papers must, therefore, be characterised as sector-specific, and caution must be urged with respect to generalizing the results to other sectors. For instance, in eldercare the vast majority of employees are women, and in the interpretation of the results of the present thesis, it must be held in mind that women tend to have a higher score on the scale measuring experience of meaning at work, whereas there are no tangible differences between men and women with regard to affective organizational commitment (Cf. Borg et al., 2005). In the interpretation of the results of this thesis, it must furthermore be stated that employees in the Danish eldercare services tend to have a higher score on the scale measuring experience of meaning at work³ and a lower score on the scale measuring affective organizational commitment.⁴ Yet, while the conclusions based on the specific results that make up this thesis cannot be applied directly to the general working population, there appears to be no reason to expect that the general conclusions drawn in this study – that psychosocial work characteristics affect positive work-related states that again affect long-term sickness absence and turnover – would not have validity in a general labour market setting.

Studying the associations between psychosocial work characteristics, positive work-related states, and labour market outcomes is, therefore, an important area of future re-

³ These results have been found at the homepage of the National Research Centre for the Working Environment: http://www.arbejdsmiljoforskning.dk/Nationale%20Data/3dII/TreDk2_DISCO.aspx?dimension=9&sort=RMean

⁴ These results have been found at the homepage of the National Research Centre for the Working Environment: http://www.arbejdsmiljoforskning.dk/Nationale%20Data/3dII/TreDk2_DISCO.aspx?dimension=10&sort=RMean

search, as it appears pertinent to investigate whether the associations observed in this thesis are replicable in a general working population.

Beyond this, more specific limitations regarding the designs of the individual studies are discussed in the individual papers.

A major strength of this thesis is the robust data-material on which this thesis is based. All four papers are based on longitudinal designs, which must be considered a major strength on two counts. Firstly, a longitudinal design allows for the temporal separation of predictors and outcomes, which increases the possibilities of drawing causal inferences on the basis of the observed associations. Secondly, the application of longitudinal designs also reduces the risk of finding associations that can be ascribed to common methods variance (Podsakoff et al., 2003). The follow-up time in paper I, II and IV varied between 18 and 22 months which appears to be a good time-lag in order to identify associations between psychosocial exposures and outcomes at the work-place (Dormann & Zapf, 2002; De Lange et al., 2004).

A further strength of this thesis is that all four papers include a broad variety of psychosocial work environment factors in their explanatory models. This means that a thorough investigation of the associations between psychosocial work characteristics, positive work-related states, and labour market outcomes has been conducted. Furthermore, in all four papers we have adjusted for potential demographic and occupational confounders. However, even though all analyses have been adjusted for potential confounders, residual confounding cannot be ruled out.

Finally, it must also be considered a strength of this thesis that although the cohort study on the work environment among staff in the Danish eldercare services was not designed to measure the impact of positive work-related states, the analyses nevertheless provided evidence in support of associations between positive work-related states and central labour market outcomes, such as long-term sickness absence and turnover.

5 Overall conclusion

The aim of this thesis was to investigate whether psychosocial work characteristics predicted the positive work-related states of affective organizational commitment and experience of meaning at work, and whether these positive work-related states, in turn, predicted long-term sickness absence and turnover among staff in the eldercare sector in Denmark.

The thesis consisted of four papers that – from different perspectives – each offered empirical support for the associations under investigation. Thus, the papers showed that the positive work-related states of affective organizational commitment and experience of meaning at work were predicted by psychosocial work characteristics, and that long-term sickness absence and turnover was associated with affective organizational commitment and experience of meaning at work, even when including a series of psychosocial work characteristics in the analyses.

The thesis thus informs us that the promotion of positive work-related states constitutes a viable supplement or alternative to the economically oriented approaches towards increasing labour supply in a historical juncture that is expected to be characterised by a shortage of labour. This ability of positively oriented concepts, to deliver alternative solutions to societal problems, should thus contribute to enhancing the legitimacy of positive psychology and this, in turn, can help to secure the position of positive psychology within the field of mainstream psychology.

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Declarations of authorship

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Manuscript title: *Psychosocial work characteristics as predictors of affective organizational commitment: A longitudinal multi-level analysis of occupational well-being.*

Authors: Thomas Clausen¹ and Vilhelm Borg¹.

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List of authors' contributions:

- Thomas Clausen: Contributed to study design, data analysis, and wrote the first draft and the final version of the study.
- Vilhelm Borg: Contributed to study design, and to the revision of the manuscript.

The authors are also in agreement that this manuscript will be used in the Ph.D. thesis of Thomas Clausen.

Copenhagen, November 27th, 2009



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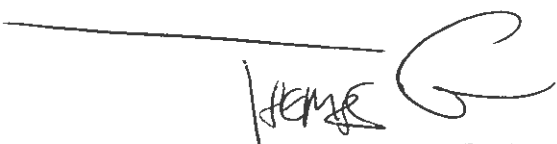
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Copenhagen, November 27th, 2009



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Declaration of authorship:

Manuscript title: *Positive work-related states and long-term sickness absence: A study of register based outcomes.*

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- Vilhelm Borg: Contributed to study design, and to the revision of the manuscript.

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Copenhagen, November 27th, 2009



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Declaration of authorship:

Manuscript title: *Do positive work-related states mediate the association between psychosocial work characteristics and turnover? A longitudinal analysis.*

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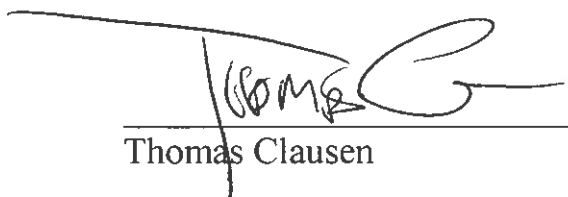
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Thomas Clausen



Vilhelm Borg

Paper I

Psychosocial work characteristics as predictors of affective organizational commitment: A longitudinal multi-level analysis of occupational well-being

Thomas Clausen* & Vilhelm Borg*

Running head: Multi-level predictors of affective commitment

Accepted for publication in: Applied Psychology: Health and Well-Being

Keywords: Positive psychology, Eldercare services, Job Demands and Resource Model (JD-R), Work environment, Multi-level analysis, Organizational commitment

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Psychosocial work characteristics as predictors of affective organizational commitment: A longitudinal multi-level analysis of occupational well-being

Abstract

The purpose of this study was to identify longitudinal associations between psychosocial work characteristics and affective organizational commitment among 6,299 employees in the Danish eldercare services. Individual-level measures and group-level measures of psychosocial work characteristics were included in multi-level analyses.

At the workgroup level, quality of leadership, influence at work, emotional demands, and work pace predicted affective organizational commitment at follow-up. At the individual level, quality of leadership, influence at work, team climate, role ambiguity, and work pace predicted affective organizational commitment at follow-up. Finally, a multi-level model including both individual- and group-level measures showed that quality of leadership measured at the group level and influence at work and quality of leadership measured at the individual level contributed to predicting affective organizational commitment at follow-up, while adjusting for baseline levels of affective organizational commitment.

The results thus imply that affective organizational commitment is conditioned by individual and contextual factors in the psychosocial work environment and that multi-level models add to our understanding of complex organizational phenomena. As affective organizational commitment can be considered an important constituent of occupational well-being, implications for interventions in the psychosocial work environment to increase affective organizational commitment are also discussed.

Paper II

Psychosocial work characteristics as predictors of experience of meaning at work: a longitudinal multi-level analysis of group-level and individual-level predictors

Running head: Multi-level predictors of meaning at work

Thomas Clausen* & Vilhelm Borg*

Submitted to: Group & Organization Management

Keywords: Meaning at work, Psychosocial work characteristics, Job demands and resource model, Longitudinal analysis, Multi-level analysis

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Psychosocial work characteristics as predictors of experience of meaning at work: a longitudinal multi-level analysis of group-level and individual-level predictors

Abstract

The purpose of this study was to identify longitudinal associations between psychosocial work characteristics and experience of meaning at work among 6,299 employees in Danish eldercare. Four models predicting meaning at work were analysed using multi-level analysis. In the final model, a combination of individual-level and group-level measures of psychosocial work characteristics contributed to predicting meaning at work. Meaning at work at follow-up was predicted by meaning at work at baseline, role ambiguity, quality of leadership, and influence at work at individual level and emotional demands at group level. However, individual-level measures of psychosocial work characteristics proved stronger predictors of meaning at work than group-level measures. Finally, implications for interventions to increase experience of meaning at work are also discussed.

Paper III

Positive work-related states and long-term sickness absence: A study of register based outcomes

Running head: Positive work-related states and long-term sickness absence

Thomas Clausen*, Karl Bang Christensen[^], & Vilhelm Borg*

Accepted for publication in:

Scandinavian Journal of Public Health, 2010; 38(suppl 3): 51-58

Keywords: Sickness absence, Meaning at work, Organizational commitment, Copenhagen Psychosocial Questionnaire (COPSOQ), Work environment, Register data, Elder-care.

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Abstract

Aims: To investigate the association between positive work-related states and long-term sickness absence (LTSA). The positive states that were investigated were *commitment to the workplace* (CW) and experience of *meaning of work* (MW).

Methods: This association was investigated using Poisson regression analysis. Data consisted of a merge between Danish register data on sickness absence compensation and survey data collected among 9,560 employees in the Danish eldercare sector.

Results: CW and MW was significantly associated with LTSA. Employees experiencing low MW had a significantly increased risk of LTSA for more two and eight weeks, when adjusted for psychosocial work characteristics, work-time arrangements and physical work-load. Compared to employees with low and high CW, employees with medium CW had a significantly decreased risk of LTSA for more than eight weeks, when adjusted for psychosocial work characteristics, work-time arrangements and physical work-load. Furthermore, employees with low CW had an increased risk of LTSA for more than two weeks, but this association became borderline insignificant when adjusted for psychosocial work characteristics, work-time arrangements and physical work-load. The analyses also revealed an interaction effect between CW and MW in predicting LTSA for more than eight weeks.

Conclusions: CW and MW are associated with LTSA. Against our expectations, however, we found that high levels of CW and MW were not protective against LTSA. Instead, low levels of MW proved decisive in predicting LTSA and medium levels of CW had a protective effect on LTSA for more than eight weeks.

Paper IV

Do positive work-related states mediate the association between psychosocial work characteristics and turnover? A longitudinal analysis

Running head: Positive work-related states and turnover

Thomas Clausen* & Vilhelm Borg*

Submitted to: International Journal of Stress Management

Keywords: Affective organizational commitment, Meaning at work, Mediation, Work environment, Eldercare

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Abstract

This study aimed to investigate whether positive work-related states – affective organizational commitment and experience of meaning at work – mediated the association between psychosocial work characteristics and turnover. A prospective cohort study was conducted among employees in the eldercare services in Denmark. Employees no longer working in eldercare at follow-up were interviewed with questionnaires, and respondents to this questionnaire were coded as cases of turnover (N=730) and were compared to employees who had not changed jobs during the follow-up period (N=5,262). Data on positive work-related states and psychosocial work characteristics were measured at baseline in the cohort study. We used logistic regression analyses to investigate whether positive work-related states mediated the association between psychosocial work-characteristics and turnover. Initial analyses showed that psychosocial work characteristics significantly predicted turnover. Subsequently, the positive work-related states were entered into the analysis. Affective organizational commitment and experience of meaning at work were significantly and negatively associated with turnover, and the mediators attenuated the associations between psychosocial work characteristics and turnover. Additional analysis showed that psychosocial work characteristics were longitudinally associated with the mediators, which indicates the presence of a genuine mediating effect. This study added to the literature by showing that positive work-related states are mediators in the association between psychosocial work-characteristics and turnover. The results imply that turnover can be reduced among staff in eldercare by enhancing psychosocial work characteristics and positive work-related states.