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RIITTA KÄRKKÄINEN

ABSENCE MANAGEMENT AND RETURN-TO-WORK SUPPORT IN JOB BURNOUT

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ABSTRACT

The purpose of this thesis was to explore and describe absence management and return-to-work (RTW) support practices for workers with burnout within the Finnish occupational health care (OHC) and workplace context, as well as factors challenging the support. The topic is related to the research field of human resource (HR) management. This thesis consists of four separate studies. Study I was a systematic literature review of quantitative evidence on factors associated with RTW in burnout. Qualitative studies explored and described OHC RTW practices for workers with burnout and potential to develop the practices (Study II), RTW coordinators' activities in supporting workers with burnout and factors influencing the support (Study III), and supervisors' activities and need for support and guidance in absence management and RTW support for workers with burnout (Study IV).

The qualitative data were collected by 25 occupational health professionals (physicians, nurses, psychologists, physiotherapists) in private OHC centres, municipal OHC centres and employer-operated OHC centres, and 15 RTW coordinators (HR managers, HR development managers, HR specialists, HR designers, occupational safety managers, heads of occupational well-being, work coaches, work ability coordinators and senior nursing officers) in universities, university central hospitals and central hospitals, in different regions in Finland. Semi-structured interviews and open-ended essays were used, and the data were analyzed with qualitative content analysis (Studies II–III) and membership categorization analysis (Study IV).

The results show that OHC and workplace actors conduct both individual-, burnout-, and work-related activities to support workers with burnout, and several of the activities are concerted. The goals are to prevent severe burnout and associated work disability (before sick leave), to support recovery and readiness for RTW (during sick leave), and to support recovery at work (after sick leave). Absence management and RTW support is challenged by the complexity of the burnout problem, with a need for considering individual-, burnout-, and work-related factors, lack of evidence of factors associated with RTW in burnout, varied and unequal OHC RTW support practices, and supervisors needing support and guidance to better manage absence and RTW of workers with burnout. A preliminary biopsychosocial model for absence management and RTW support for workers with burnout is constructed based on the results of the four studies. Future research is needed to evaluate the feasibility, implementation, effects, and cost-effectiveness of the model.

National Library of Medicine Classification: WA 495
Medical Subject Headings: Absenteeism; Burnout, Professional; Finland; Guidelines as Topic; Occupational Health Services; Occupational Stress; Personnel Management; Qualitative Research; Rehabilitation; Return to Work; Sick Leave; Vocational; Workplace

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TIIVISTELMÄ

Tutkimuksen tarkoituksena oli tutkia ja kuvata sitä, miten työterveyshuolloissa ja työpaikoilla tuetaan työuupuneita työntekijöitä sairauspoissaolojen hallinnan ja työhön paluun tuen prosessissa. Tämän lisäksi tarkoituksena oli tuoda esiin työuupuneiden työntekijöiden tukeen mahdollisesti liittyviä haasteita. Tutkimuksen aihepiiri liittyy henkilöstövoimavarojen johtamisen tutkimuskenttään.

Väitöskirja koostuu neljästä osatutkimuksesta. Tutkimus I on systemaattinen kirjallisuuskatsaus, joka kuvaa määrällistä tutkimusta työuupuneiden työntekijöiden työhön paluuseen yhteydessä olevista tekijöistä. Tutkimukset II–IV kuvaavat laadullisesti työterveyshuollon ammattilaisten sekä työpaikan työhön paluuta koordinoivien ammattilaisten ja esimiesten käytäntöjä ja toimia työuupuneiden työntekijöiden tuessa. Tutkimukset kuvaavat myös työuupuneiden työntekijöiden tuen kehittämiskohteita, tukeen vaikuttavia tekijöitä sekä esimiesten tuen ja ohjauksen tarvetta.

Laadullinen aineisto kerättiin 25:ltä työterveyshuollon ammattilaiselta (työterveyslääkärit, työterveyshoitajat, työpsykologit, työfysioterapeutit) yksityisissä työterveyshuoltopalveluja tuottavissa yksiköissä, kunnallisissa työterveysyksiköissä ja työpaikkojen omissa työterveysyksiköissä. Aineistoa kerättiin myös 15:ltä työpaikan työhön paluuta koordinoivalta ammattilaiselta yliopistoissa, yliopistollisissa keskussairaaloissa ja keskussairaaloissa eri puolilla Suomea. Puolistrukturoidut haastattelut ja kirjoitelmat olivat aineiston keruumenetelminä. Aineisto analysoitiin laadullisella sisällönanalyysillä (tutkimukset II–III) ja jäsenkategoria-analyysillä (tutkimus IV).

Tulosten mukaan työterveyshuollon ammattilaiset, työpaikan työhön paluuta koordinoivat ammattilaiset ja esimiehet toteuttavat sekä yksilöön, työuupumukseen että työhön kohdennettuja tukitoimia työuupuneiden työntekijöiden tuessa. Monet tukitoimet ovat heidän yhdessä toteuttamiaan. Tukitoimien tavoitteena on ehkäistä vakava-asteista työuupumusta ja siihen liittyvää työkyvyttömyyttä (ennen sairauspoissaoloa), tukea työuupumuksesta toipumista ja valmiutta palata työhön (sairauspoissaolon aikana) sekä tukea työssä kuntoutumista (sairauspoissaolon jälkeen). Työuupuneiden työntekijöiden tukea haastavat sairauspoissaolojen hallinnan ja työhön paluun tuen monitahoisuus sekä tarve huomioida yksilöön, työuupumukseen ja työhön liittyvät tekijät. Lisäksi vähäinen näyttöön perustuva tutkimustieto työuupuneiden työntekijöiden työhön paluuseen yhteydessä olevista tekijöistä, työterveyshuollon työhön paluun tuen käytäntöjen vaihtelu ja tuen epätasalaatuisuus haastavat tukea. Myös esimiesten tuen ja ohjauksen tarve työuupuneiden työntekijöiden tuessa luo omat haasteensa.

Tutkimus tuotti osatutkimusten pohjalta työterveyshuoltojen ja työpaikkojen käyttöön alustavan biopsykososiaalisen mallin sekä sairauspoissaolojen hallintaan että työhön paluun tukeen työuupuneille työntekijöille. Jatkotutkimuksia tarvitaan mallin toteutettavuuden, täytäntöönpanon, vaikutuksen ja kustannustehokkuuden arvioimiseksi.

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Yleinen suomalainen asiasanasto: esimiehet; interventio; kvalitatiivinen tutkimus; sairauspoissaolot; stressi; Suomi; toimintamallit; työhönpaluu; työterveys; työterveyshuolto; uupumus

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Pori, May 2019

Riitta Kärkkäinen

List of original publications

This dissertation is based on the following original publications:

I Kärkkäinen, R., Saaranen, T., Hiltunen, S., Ryynänen, O.P., & Räsänen, K. (2017). Systematic review: Factors associated with return to work in burnout. *Occupational Medicine* (Lond), 67(6), 461–468.

II Kärkkäinen, R., Saaranen, T., & Räsänen, K. (2018). Occupational health care return-to-work practices for workers with job burnout. *Scandinavian Journal of Occupational Therapy*, [Published online: 23 Feb 2018], 10.1080/11038128.2018.1441322.

III Kärkkäinen, R., Saaranen, T., & Räsänen, K. (2018). Return-to-work coordinators' practices for workers with burnout. *Journal of Occupational Rehabilitation*, [Published online: 29 Aug 2018], 10.1007/s10926-018-9810-x.

IV Kärkkäinen, R., Kinni, R.L., Saaranen, T., & Räsänen, K. (2018). Supervisors managing sickness absence and supporting return to work of employees with burnout: A membership categorization analysis. *Cogent Psychology*, [Published online: 22 November 2018], 10.1080/23311908.2018.1551472.

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The summary of the study also includes unpublished material.

Contents

Abbreviations

BBI-15	Bergen Burnout Indicator 15
BDI	Beck Depression Index
BM	Burnout Measure
CBI	Copenhagen Burnout Inventory
CBR	Cognitive oriented Behavioural Rehabilitation
DSM-5	Diagnostic and Statistical Manual of Mental Disorders (5th revision)
EU	European Union
HR	Human Resources
ICD-10	International Classification of Diseases (10th revision)
MBI	Maslach Burnout Inventory
MCA	Membership Categorization Analysis
OHC	Occupational Health Care
OLBI	Oldenburg Burnout Inventory
RTW	Return to Work
RTW-C	Return-to-work coordinator
S	Supervisor
SMBQ	Shirom-Melamed Burnout Questionnaire
SMBM	Shirom-Melamed Burnout Measure

1 Introduction

The European Union Strategic Framework on Health and Safety at Work 2014–2020 determines rehabilitation and RTW of disabled workers as a primary challenge (European Commission, 2014). Burnout is associated with work disability in terms of sickness absenteeism (e.g. Duijts et al., 2007), presenteeism (Demerouti et al., 2009; Peterson et al., 2008), and need for work disability pension (Ahola et al., 2009a, 2009b). Burnout develops from chronic work-related stress (Maslach, Schaufeli, & Leiter, 2001). Estimates for the cost of burnout-specific are lacking, but the cost of work-related stress to society in Australia, Canada, Switzerland, and the EU-15 countries has reached US$187 billion, of which health care and medical costs constitute 10-30% (Hassard et al., 2018).

Burnout has been found to be prevalent among the working population worldwide (Creedy et al., 2017; Rezaei et al., 2018; Rothenberger, 2017), indicating that burnout is a global occupational hazard. In Finland, burnout has been documented among teachers (Gluschkoff et al., 2016), physicians (Olkinuora et al., 1990), dentists (Murtomaa, Haavio-Mannila, & Kandolin, 1990), nurses (Hyrkäs, 2005), municipal workers (Varhama & Björkqvist, 2004), forest industry workers (Ahola et al., 2013), veterinarians (Reijula et al., 2003), and dairy farmers (Kallioniemi et al., 2016). It is noteworthy that in some occupations burnout has been increasing (Kallioniemi et al., 2016). A survey in 2011 found that about 25% of a nationally representative sample of Finnish workers experienced mild burnout and that the symptoms were severe among 2% of males, and 3% of females (Suvisaari et al., 2012). As the number of employed people in Finland is around 2.5 million (Official Statistics of Finland, 2018), a remarkable number of the Finnish working population seem to experience burnout and be at risk for associated work disability.

Employers in Finland are obliged to arrange OHC services for their workers. The OHC, employer and the workers are intended to cooperate in preventing work-related illnesses and injuries and in promoting workers' work ability, as well as functioning of work communities (Occupational Health Care Act 1383/2001.) This cooperation is organized through joint negotiations (Selinheimo et al., 2018). The employer must provide preventive measures and, voluntarily, free medical treatment as well, as specified in the OHC action plan (Occupational Health Care Act 1383/2001). Kela (the Social Insurance Institution in Finland) reimburses a share of the costs of OHC to the employer (Health Insurance Act 1224/2004, edited 20.1.2012). Employers are to arrange for OHC services in alternative ways: through private OHC centres or municipal OHC centres, or they set up their own employer-operated OHC center (Occupational Health Care Act 1383/2001). Occupational health professionals receive qualification to work in the field of occupational health as specified in the legislation (Government Decree on the Principles of Good Occupational Health Practice, the Content of Occupational Health Care and the Educational Qualifications required of Professionals and Experts 708/2013). Legislation mandates early support in order to prevent long-term sick leave involving obligations to the employer to inform OHC within a month of absence (Occupational Health Care Act 1383/2001, edited 20.1.2012), and within three months, the employer, OHC and the worker together evaluate the possibilities of RTW (Health Insurance Act 1224/2004, edited 20.1.2012).

Within employer organizations, RTW coordinators (Durand et al., 2017; Shaw et al., 2008), and supervisors (Li, Ruan, & Yuan, 2015; Salminen et al., 2017; Tayfur & Arslan, 2013) are considered to be central actors in absence management and RTW support. Previous research has explored work-related stress management involving cooperation between OHC and workplace (Kinnunen-Amoroso & Liira, 2016) and OHC RTW policies (Kivistö et al., 2008) in Finland. However, to date there is a lack of published studies of absence management and RTW support in specifically relating to burnout. The existing literature calls for research into treatment strategies that would enable workers with burnout to RTW and to be successful in their work (Maslach & Leiter, 2016). Therefore, this study explores and describes absence management and RTW support for workers with burnout provided by OHC and workplace actors. Adding understanding of current policies and practices for supporting workers with burnout within OHC and the workplace context is of importance for further developing such support and for preventing and reducing associated work disability.

2 Literature review

2.1 JOB BURNOUT

2.1.1 Definition of job burnout

The phenomenon of burnout was first introduced in the 1970s in the psychological literature in the United States by Herbert Freudenberger (1974) and Christina Maslach (1976), who investigated burnout as a social problem among human service workers. Studies found an association between experienced burnout and chronic emotional and interpersonal stressors at work (Maslach & Jackson, 1981; Schaufeli & Enzmann, 1998), showing that social relations are relevant to stress experience (Maslach & Leiter, 2016). Burnout can be experienced in all kinds of occupations as shown for example, in a study among the general Finnish population (Ahola et al., 2006).

The widely used Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981; Schaufeli et al., 1996) is intended to measure and assess the three dimensional burnout model consisting of exhaustion, cynicism (or depersonalization), and inefficacy (or reduced professional efficacy). The exhaustion dimension refers to the experience of overwhelming exhaustion. Feelings of cynicism refer to the development of a negative, detached response towards work and its aspects. The sense of inefficacy refers to feelings of being professionally incompetent and unable to achieve personal accomplishment and productivity at work. (Maslach, Schaufeli, & Leiter, 2001.)

Different additional definitions of burnout exist, however, and there is no full consensus about the burnout construct. The ongoing scientific discussion questions whether burnout, indeed, is a work-related syndrome (Bianchi & Brisson, 2017; Rössler et al., 2015) and what the relationship is between burnout and work engagement (Cole et al., 2012; Goering et al., 2017; Maricuțoiu, Sulea, & Iancu, 2017; Taris, Ybema, & Van Beek, 2017), depression (Bianchi & Schonfeld, 2018; Chiu et al., 2015; Van Dam, 2016), and fatigue (Leone et al., 2008; Schaufeli & Taris, 2005). Alternative measures have been developed to measure and assess burnout including the Burnout Measure (BM) of physical, emotional and mental exhaustion (Pines & Aronsson, 1988; Pines, Aronson, & Kafry, 1981), the Shirom-Melamed Burnout Questionnaire (SMBQ) on physical fatigue, cognitive weariness, tension and listlessness, and its revised version (SMBM) (Shirom, 1989), the Copenhagen Burnout Inventory (CBI) of fatigue and exhaustion (Kristensen et al., 2005), as well as the Oldenburg Burnout Inventory (OLBI) of exhaustion and disengagement (Halbesleben & Demerouti, 2005).

Among Finnish workers, the Bergen Burnout Indicator 15 (BBI-15) has been shown to be a valid and reliable tool for measuring exhaustion, cynicism and sense of professional efficacy (Salmela-Aro et al., 2011). The BBI-15 consists of 15 items, with five items measuring each of the three burnout dimensions. A 6-point scale is used to rate the items from 1 (completely disagree) to 6 (strongly agree). Percentile 0–74 indicates no burnout, percentile 75–84 indicates mild burnout, percentile 85–94 indicates moderate burnout and percentile 95–100 indicates severe burnout (Näätänen et al., 2003).

2.1.2 Developmental models of job burnout

As presented in this chapter, both variable-oriented and person-oriented approaches have been used to find out how burnout progresses over time. The variable-oriented approaches take burnout dimensions as units of analysis and measure whether exhaustion, cynicism and reduced professional efficacy develop simultaneously or sequentially (Maslach, Schaufeli, & Leiter, 2001). The variable-oriented studies have proposed many alternative paths for the simultaneous and sequential development of burnout dimensions (Gil-Monte, Peiró, & Valcárcel, 1998; Golembiewski et al., 1996; Lee & Ashforth, 1993; Leiter, 1993; Leiter & Maslach, 1988; Taris et al., 2005; Van Dierendonck, Schaufeli, & Buunk., 2001). Some researchers support a model identifying exhaustion as the basic experience leading to cynicism and later to reduced professional efficacy (Leiter & Maslach, 1988). However, other researchers propose that cynicism is the first dimension to be experienced followed by reduced professional efficacy and, afterwards, exhaustion (Golembiewski et al., 1996). Alternatively, reduced professional efficacy have an influence in the development of cynicism, and cynicim in the development of exhaustion (Van Dierendonck, Schaufeli, & Buunk, 2001). A model has been suggested in which exhaustion leads to cynicism, but in which the reduced professional efficacy develops in parallel with exhaustion (Leiter, 1993), or following exhaustion (Lee & Asthford, 1993). Some researchers (Taris et al., 2005) suggest that high levels of exhaustion are associated with high levels of cynicism, and that higher levels of cynicism lead to higher levels of exhaustion and more reduced professional efficacy. Possibly, burnout dimensions develop simultaneously but independently and can be split into high and low scores with eight patterns of burnout as a result (Golembiewski et al., 1996). Lastly, burnout can also progress in parallel with experienced professional efficacy to cynicism and from exhaustion to cyncism (Gil-Monte, Peiró, & Valcárcel, 1998).

The person-oriented approaches investigate burnout symptoms holistically within an individual, as in a recent systematic review (Mäkikangas & Kinnunen, 2016). Multifaceted, individual burnout developmental paths were found with stable, linearly increasing or decreasing, and curvilinear trajectories (Mäkikangas & Kinnunen, 2016). Different burnout types (or profiles) have been found with different level of burnout symptoms (Bauernhofer et al., 2018; Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016). The most severe burnout profile is high on exhaustion, high on cynicism and low on professional efficacy (Bauernhofer et al., 2018; Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016). This profile has been labeled as a "burnout" type (Leiter & Maslach, 2016), and as a "burned-out" type (Bauernhofer et al., 2018). Furthermore, a type with low burnout scores on all burnout dimensions was found (Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016), which has been labeled as an "engagement" type (Leiter & Maslach, 2016). A type dominated by the symptom of exhaustion (Bauernhofer et al., 2018; Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016) has been labeled as an "overextended" type (Leiter & Maslach 2016), or "exhausted" (Bauernhofer et al., 2018). A "disengaged" type (Leiter & Maslach, 2016) is high on cynicism alone (Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016). An "exhausted/cynical" type is high on exhaustion, has elevated levels of cynicism, but is high on professional efficacy (Bauernhofer et al., 2018). An "ineffective" type (Leiter & Maslach, 2016) has also been identified with predominantly reduced professional efficacy (Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016). Depression has been found developed

conjointly with burnout (Bauernhofer et al., 2018; Mäkikangas & Kinnunen, 2016), mostly among the burned-out type of clinical burnout patients (Bauernhofer et al., 2018).

It has been argued that different subtypes of burnout can be explained by the different developmental stages of burnout (Bauernhofer et al., 2018). Several previous studies have indicated that the recovery process from burnout is long and that the symptoms can be experienced for years (Jonsdottir et al., 2017; Schaufeli et al., 2011; Toppinen-Tanner, Kalimo, & Mutanen, 2002). However, studies indicate that the recovery path from burnout is highly individual and heterogeneous (Salminen et al., 2017). It is noteworthy that burnout has been found to be contagious among the members of a work community (Bakker, Le Blanc, & Schaufeli, 2005; Hakanen, Perhoniemi, & Bakker, 2014) and can escalate to collective burnout (González-Morales et al., 2012).

2.1.3 Job burnout in relation to work disability

The relationship between burnout and work disability is complicated. A large body of research has been conducted during the last few decades on potential causes of burnout. However, the evidence for the causative factors is limited because most of the studies are based on cross-sectional data. (Maslach & Leiter, 2016.) Correlations have been found between individual and organizational factors and burnout. Individual factors determine one's vulnerability to experiencing burnout (Swider & Zimmerman, 2010), whereas organizational factors are the main contributors to burnout (Maslach, Schaufeli, & Leiter, 2001).

The individual factors predicting burnout include personality traits such as: neuroticism, extraversion, agreeableness, conscientiousness, openness (Swider & Zimmerman, 2010), Type A personality (the extent to which the person is hostile, aggressive, and impatient) (Alarcon, Eschleman, & Bowling, 2009), and perfectionist concerns (Hill & Curran, 2016). Individual coping strategies associate with burnout (Adriaenssens, De Gucht, & Maes, 2015; Lee et al., 2013), and personality traits have an influence on choice of a coping strategy to handle stressful situations (Nagy & Takács, 2017). Personality traits, including emotional stability, positive affectivity and self-efficacy, determine one's perceptions about the work environment and ability to cope. A person can choose either maladaptive or adaptive coping strategies, with either increased or decreased levels of burnout as a result. Depersonalization is an example of a maladaptative and avoidant coping strategy. (Nagy & Takács, 2017.) Moreover, work attitudes have been associated with burnout, including: job satisfaction, turnover intentions, organizational commitment (Alarcon, 2011; Lee et al., 2013), contributors to poor mental health (Lee et al., 2013), and secondary traumatic stress (Cieslak et al., 2014). Meta-analyses of demographic factors in burnout have not been consistent. A small negative correlation between age and emotional exhaustion has been found, with less burnout among older workers, as well as possibly a small negative correlation between years of experience and emotional exhaustion (Brewer & Shapard, 2004). In a study conducted in Latin American countries (Garcia-Arroyo & Osca, 2018), age and gender were not predictive of burnout. Interestingly, burnout might be gender-specific regarding its dimensions: as a previous study (Purvanova & Muros, 2010) found that females were slightly more emotionally exhausted than males, and that males were more depersonalized in comparison with females.

Regarding organizational factors, several job stress models for predicting burnout syndrome exist: the Conversation of resources theory (Hobfoll, 1989), the Job Strain Model

(Karasek & Theorell, 1990), the Effort/Reward Imbalance Model (Siegrist, 1996), the Job Demands-Resources Model (Demerouti et al., 2001), the Demand Induced Strain Compensation model (de Jonge & Dormann, 2003), and the Mediation Model of Job Burnout (Leiter & Maslach, 1999; Leiter & Maslach, 2005). The aforementioned models are supported by meta-analytical studies regarding association between burnout and workload (Alarcon, 2011; Aronsson et al., 2017; Lee et al., 2013), job demands (Alarcon, 2011; Aronsson et al., 2017; Crawford, LePine, & Rich, 2010; Goering et al. 2017), job resources (Alarcon, 2011; Crawford, LePine, & Rich, 2010; Goering et al., 2017), job control (Aronsson et al., 2017; Park et al., 2014), autonomy (Alarcon, 2011; Lee et al., 2013), job insecurity (Aronsson et al., 2017), role ambiguity and role conflict (Alarcon, 2011), work-life conflict (Lee et al., 2013), reward, workplace social support and workplace justice (Aronsson et al., 2017), quality and safety culture, constraining organizational structure, and career development opportunities (Lee et al., 2013). A prospective 35-year follow-up study on burnout among Finnish workers (Hakanen, Bakker, & Jokisaari, 2011) found that lack of skill variety (i.e., opportunity to use one's knowledge and skills in one's work, non-repetiveness of work tasks and variety of tasks) correlated with burnout. Additionally, a cross-sectional study in Iran concluded that a lack of career advancement and job transfer opportunities could be a risk factor for developing burnout (Amiri et al., 2016).

Burnout has been associated with significant work disability in terms of absenteeism (Ahola et al., 2008; Anagnostopoulos & Niakas, 2010; Borritz et al., 2010; Davey et al., 2009; Duijts et al., 2007; Hallsten et al., 2011; Lambert, Barton-Bellessa, & Hogan, 2015; Mather et al., 2014; Peterson et al., 2011; Roelen et al., 2015; Schaufeli, Bakker, & Van Rhenen, 2009; Schneider et al., 2017; Schouteten, 2017; Toppinen-Tanner et al., 2005), presenteeism (Demerouti et al., 2009; Peterson et al., 2008), and need for work disability pension (Ahola et al., 2009a, 2009b). In a population-based study of Finnish workers, an association between severe burnout and a substantial excess risk of medically certified sickness absence was found among males and females independently of prevalent co-occurring illnesses (Ahola et al., 2008). Another Finnish study (Toppinen-Tanner et al., 2005) found that burnout increased the risk of future absence due to mental and behavioral disorders, diseases of the circulatory system, diseases of the respiratory system, and diseases of the musculoskeletal system. Schneider et al., (2017) concluded that burnout dimensions seemed to play a role in absence due to sickness especially with co-occurring anxiety. In a study conducted in Greece (Anagnostopoulos & Niakas, 2010), the level of burnout was a significant predictor of short-term absence due to sickness, whereas long-term sickness absence was predicted by poor physical health. In a Swedish study (Mather et al., 2014), burnout was found to be a risk factor for sick leave due to stress-related and other mental disorders. Regarding presenteeism (i.e., going to work while sick), increased presenteeism was found among exhausted workers compared to nonburnout workers (Peterson et al., 2008). It has been shown that job demands cause more presenteeism, and presenteeism in turn leads to development of depersonalization (Demerouti et al., 2009). Moreover, burnout has predicted the granting of disability pension on the basis of mental and behavioural disorders, musculoskeletal diseases (Ahola et al., 2009a), and miscellaneous disorders (Ahola et al., 2009b).

In Finland, as in several other countries, burnout is not recognized as an occupational disease (Lastovkova et al., 2018) and does not justify sick leave compensation even in cases of severe burnout. Burnout does not appear in the Diagnostic and Statistical Manual of

Mental Disorders (DSM-5) (American Psychiatric Association, 2013). In the International Classification of Diseases (ICD-10CM) (World Health Organization, 2016), burnout is listed under the factors influencing health status and contact with health services (Z00–Z99) as a state of vital exhaustion (Z73.0), and a problem related to life-management difficulty. The diagnostic criteria for burnout vary among countries (Bianchi, Schonfeld, & Laurent, 2015; Korczak, Huber, & Kister, 2010). A recent study among 28 member states of the European Union and Norway identified varying practices for measuring and diagnosing burnout, and as such, different understandings and definitions of burnout (Eurofound, 2018). In Finland, occupational physicians utilize a substitute diagnosis such as depression or adjustment disorder, and an additional diagnosis code Z73.0 to announce burnout (Tuunainen, Akila, & Räisänen, 2011).

2.2 ABSENCE MANAGEMENT AND RTW SUPPORT

2.2.1 Definition of absence management and RTW support

Broadly viewed, absence management and RTW support can include primary, secondary and tertiary preventive activities. Primary preventive activities focus on the elimination or modification of the stressors at work in order to reduce the incidence of new cases of stress. Secondary preventive activities include interventions to support individuals in managing or coping with stressors at work in order to reduce the prevalence of stress. Tertiary preventive activities are targeted towards the individuals who are exposed to work stressors in order to reduce negative consequences following the stress experience. (Maslach & Goldberg, 1998.) RTW can be defined as an outcome and a process (Young et al., 2005). As an outcome, RTW refers to the degree of the actual RTW, possibly to the pre-injury workplace and/ or to the pre-injury work (Krause et al., 2001) or to new work (Ekberg et al., 2011). As a process, the RTW progresses through a series of events and phases (Young et al., 2005) in interaction with workers, employers, health-care providers, payers/insurers, society, and labor representatives (Franche et al., 2005; Young et al., 2005). Young et al., (2005) conceptualizes four different phases in the RTW process: the off-work phase (the worker is on sick leave), the work re-entry phase (the worker returns to work), the maintenance phase (the worker has achieved the goal of RTW status and attempts to maintain it), and the advancement phase (the worker moves on with his/her career). The qualitative determinants of an RTW are a timely, sustainable and safe RTW (Young et al., 2005). The present study is limited to focusing on the secondary and tertiary preventive activities in the absence management and RTW support processes; and it excludes primary preventive activites.

Earlier research on burnout has focused on preventing and reducing burnout (Awa, Plaumann, & Walter, 2010; Panagioti et al., 2017; Regehr et al., 2014; West et al., 2016; Westermann et al., 2014). Recently, research has increasingly focused on tertiary prevention (for review studies see Ahola, Toppinen-Tanner, & Seppänen, 2017; Perski et al., 2017). Such research has indicated that tertiary interventions may be effective in facilitating RTW in clinical burnout (Perski et al., 2017), alleviate burnout symptoms and support RTW, but that at the same time the content of the interventions varies considerably, and that the results are mixed (Ahola, Toppinen-Tanner, & Seppänen, 2017). Studies have reviewed employer best-practice guidelines for the RTW of workers on mental disorder-related sick leave (Dewa et

al., 2016) and for absence management and RTW of workers with musculoskeletal or common mental disorders (Durand et al., 2014). According to these studies, guidelines are needed for describing the roles and responsibilities of all actors (Dewa et al., 2016; Durand et al., 2014), and also include disability leave plan, work accommodations, supervisor training and mental health literacy training for all staff (Dewa et al., 2016). A 2017 meta-analysis assessed the effects of RTW coordination programmes for workers on long-term sick leave with musculoskeletal and mental health problems (Vogel et al., 2017). The results of this analysis did not reveal any effect of RTW coordination programmes on improving the RTW in comparison with usual practice (Vogel et al., 2017).

2.2.2 Conceptual models of RTW

Previous research (Knauf & Schultz, 2016; Schultz et al., 2007) has reported on the existing literature of RTW models including biomedical, forensic, psychosocial, ecological/case management, economic, ergonomic, and biopsychosocial models. Each of the RTW models differs from the other regarding its view on the determinants of RTW. The traditional biomedical model emphasizes medical impairment as a key determinant of RTW and ignores psychosocial and societal factors. In this model, the worker and the physician are the primary actors involved in RTW, and the RTW decision is based on the physicians's evaluation, treatment and recommendations regarding the disability. (Schultz et al., 2007.) A biomedical approach has been seen as problematic in burnout cases because burnout symptoms can not be medically explained. As a result, the individuals often receive a diagnosis of depression (Engebretsen, 2018; Korhonen & Komulainen, 2019) which may lead to ineffective treatment (Engebretsen, 2018). In a North American context, it has been argued that the absence of an official diagnosis of burnout limits access to treatment, disability coverage, and work modifications. Furthermore, use of an inaccurate diagnosis might reduce possibilities for successful recovery and RTW. (Maslach & Leiter, 2016.) A forensic model adds interaction between the worker and the disability system to the model. This model recognizes the gains and losses which may influence RTW. (Schultz et al., 2007.)

The psychosocial model sees beliefs, perceptions, expectations of recovery and disability, as well as self-efficacy and ways of coping as important in RTW. Occupational disability is understood as a complex set of conditions, activities and relationships in the social environment, not only a problem of the individual worker. (Schultz et al., 2007.) An ecological/case management RTW model approaches RTW with proactive, system-based RTW policies and practices, and interaction between microsystems (the worker), mesosystems (workplace, healthcare, insurance system), and macrosystems (economic, social, legislative factors) (Schultz et al., 2007). An economic RTW model considers the impact of poor health on labor force participation, economic incentives and shifts in labor demand, as well as the effects of discrimination on the labor force, and the long-term economic impact of disability (Schultz et al., 2007).

The ergonomic RTW model operates both at the macro-ergonomic (policies, attitudes, processes within the companies and governments) and micro-ergonomic (worker-specific interventions, the worker and the machine interface) levels and focuses on the adaptation and prevention of occupational disabilities through idenfification of workplace risk factors. The ergonomics approach is participatory; the individual worker and the system together are responsible for the RTW outcome. Adaptations in the workplace play an important role in

the ergonomic RTW model, and adaptations can be targeted for improved physical, cognitive and organizational ergonomics. (Knauf & Schultz, 2016.) The effectiveness of participatory ergonomics interventions on musculoskeletal health has been documented (Lim et al., 2018).

The biopsychosocial model adds the influence of social, psychological and behavioral dimensions to the RTW (Engel, 1977). It includes: biological dimensions (neurophysiology and physiological dysfunction), psychological dimensions (illness behaviour, beliefs, coping strategies, emotions and distress), and social dimensions (culture, social interactions and the sick role) (Waddell & Burton, 2004). The biopsychosocial approach is a dynamic, interdisciplinary approach engaging the whole person. It considers trajectories of the illness in order to find ways of preventing and reducing disability. (Engel, 1977.) A biopsychosocial approach considers medical/biological, psychosocial, environmental and ergonomic factors (Schultz et al., 2007), including reflective participation and warmth and caring care (Borrell-Carrió, Suchman, & Epstein, 2004). Disability and RTW are understood as time-based processes, in which treatment is approached with time-based interventions with flexible early interventions dependent on readiness for RTW. A biopsychosocial approach focuses on disabled workers' self-responsibility and self-management. In this model, treatment and RTW are considered more important than diagnosis. (Schultz et al., 2007.) A biopsychosocial RTW approach was adopted in a Dutch cohort study of workers with depressive or anxiety disoders in which biopsychosocial factors (age, the absence of a job and a low household income) complicated RTW, rather than disorder-related factors (Lammerts et al., 2016). Age was also relevant in a 2014 study by Karlson, Jönsson, & Österberg: sustainable RTW after workplace-oriented intervention for workers with burnout was achieved only among younger workers. In the Finnish context, work modifications are recommended in treatment of mental health problems in order to prevent loss of work capacity, sickness absence and need for work disability pension. Work modifications may be necessary when the worker RTW after sick leave in a part-time RTW situation, when the occupation has to be changed due to health reasons, or when the worker RTW through vocational rehabilitation. (Selinheimo et al., 2018.)

2.3 SUMMARY OF THE LITERATURE REVIEW

The widely used definition of burnout presents burnout as a prolonged response to chronic stressors at work with dimensions of experienced exhaustion, cynicism, (depersonalization) and inefficacy (reduced professional efficacy). Individual factors determine vulnerability to burnout, but most of the studies deem organizational factors to be the main contributors to burnout. Among occupation, age, gender, and working experience, none seems to protect against burnout. Demographic factors such as age can influence the RTW outcome. Burnout research has revealed multifaceted and individual burnout profiles and developmental paths.

Burnout is associated with work disability in terms of absenteeism, presenteeism, and need for work-disability pension. However, the relationship between burnout and work disability is complicated because, even after decades of research, there is no full scientific concensus regarding the burnout construct. Burnout is not classified as a disease in international classifications of diseases. In many countries, including Finland, burnout is not

recognized as an occupational disease. As a result, the diagnostic criteria of burnout vary among countries. It has been argued in the burnout research that lack of an official burnout diagnosis can lead to ineffective treatment and reduce possibilities for recovery and RTW of the workers with burnout.

RTW is defined as an outcome and a process. RTW support involves a range of activities of different actors, depending on the RTW model used. The present study focuses on absence management and RTW support for workers with burnout provided by the OHC and workplace actors. Absence management and RTW support for workers with burnout is an important topic to explore, because burnout is a prevalent occupational hazard around the world, including Finland. A significant number of the Finnish working population experience burnout, indicating that the problem is encountered in many OHC organizations and workplaces. There is a lack of studies of absence management and RTW support specifically for workers with burnout within the OHC and workplace contexts. Previous research on RTW coordination programmes for other health conditions indicates that this support is not effective. Better understanding of current absence management practices and RTW support practices for workers with burnout, as well as of factors challenging this support, is essential for developing practices and for preventing and reducing associated work disability. This thesis aims to contribute to filling this specific research gap.

3 Aims of the study

The purpose of this study was to explore and describe absence management and RTW support practices for workers with burnout within the Finnish OHC and workplace context and the factors challenging such support. The specific aims of this study were:

1. to identify factors associated with RTW in burnout (Study I)

2. to describe OHC RTW practices for workers with burnout and to identify potential for development of these practices (Study II)

3. to describe RTW coordinators' activities in supporting workers with burnout during the RTW process, and to describe their experiences with factors influencing such support (Study III)

4. to discern supervisors' category-bound activities during absence management and the RTW process of employees with burnout, and to discern activities in which the supervisors need support and guidance, from the perspective of occupational physicians and RTW coordinators (Study IV)

4 Materials and methods

The present research consists of four separate studies (Table 1). Study I was a systematic literature review of original quantitative studies, which reported on factors associated with RTW in burnout. Studies II and III generated qualitative data on RTW practices and activities for workers with burnout, as experienced by occupational health professionals (physicians, nurses, psychologists, physiotherapists) and RTW coordinators (HR managers, HR development managers, HR specialists, HR designers, occupational safety managers, heads of occupational well-being, work coaches, work ability coordinators and senior nursing officers), respectively. Study IV synthesized experiental data from occupational physicians and RTW coordinators who participated in Studies II and III, with their expectations of supervisors' gategory-bound activities in managing sickness absence and supporting the RTW of workers with burnout.

Table 1. Design, sample, participants, data collection methods and analysis methods of the studies.

Study	Design	Sample and participants	Data collection methods	Analysis methods
I	Systematic literature review	Original quantitative studies (n=10)	ARTO, CINAHL (EBSCO), Medic, PsycINFO (ProQuest), PubMed, Scopus, and Web of Science	Data extraction Inductive content analysis
II	Qualitative, descriptive study	Occupational physicians (n=7), nurses (n=7), psychologists (n=4), physiotherapists (n=7)	Semi-structured interviews, open-ended essays	Deductive and inductive content analysis
III	Qualitative, descriptive study	RTW coordinators (n=15)	Semi-structured interviews, open-ended essays	Inductive content analysis
IV	Qualitative, descriptive study	Occupational physicians (n=7), RTW coordinators (n=15)	Semi-structured interviews, open-ended essays (from studies II–III)	Membership categorization analysis (MCA)

RTW=return to work.

4.1 STUDY POPULATION

The participants in Study II were 25 occupational health professionals, including seven physicians, seven nurses, four psychologists and seven physiotherapists across nine OHC

centres in different regions in Finland. Five participants were employed at private OHC centres, six participants at municipal OHC centres and 14 participants at employer-operated OHC centres. Twenty-two of the 25 participants were female. The participants were aged 36 to 63 years. All participants were qualified occupational health professionals. They had 4 to 36 years of working experience in occupational health in the fields of health care and social services, commercial and financial businesses, education, agriculture and forestry, the service sector, transportation, construction and manufacturing industries. Nineteen of the 25 participants had taken additional training/education and used psychotherapy, mind–body methods, mental health and/or work counseling strategies in supporting workers with burnout. The participants by type of OHC organization and data collection method are presented in Table 1 in the original article (Study II).

In Study III, 15 RTW coordinators from universities, university central hospitals and central hospitals participated. Seven of the RTW coordinators were employed in universities and eight were employed in university central hospitals and central hospitals. Eleven of the 12 organizations evaluated were large, having approximately 2000 to 8000 workers. The participants in this study represented different institutional positions including: HR manager, HR development manager, HR specialist, HR designer, occupational safety manager, head of occupational well-being, work coach, work ability coordinator and senior nursing officer, but in line with international studies; the term "RTW coordinator" is used in this study to refer to the participants. International studies use the term "RTW coordinator" but in Finland we do not have exactly the same profession. The responsibility is shared between many professionals, therefore, I use the term "RTW coordinator" when referring to the international studies. The RTW coordinators were located in HR divisions, occupational safety and health teams, occupational well-being units and nursing management. One of the 15 participants was a male. The participants' age ranged from 35 to 62 years. Participants had from 3 to 33 years of work experience in absence management and RTW processes. The participants by type of work organization and institutional position are presented in Table 1 in the original article (Study III).

Study IV participants were the seven occupational physicians and 15 RTW coordinators who participated in Studies II and III. Six of the seven occupational physicians were employed in employer-operated OHC centres and one of them was employed in a municipal OHC center. A majority (n=6) of the occupational physicians was female. The occupational physicians were aged 46 to 59 years. They had work experience as an occupational physician for 8 to 29 years. The demographics of the RTW coordinators are described above in relation to the Study III. The summary of the demographics of the participants is presented in Table 1 in the original article (Study IV).

The criterion for inclusion in Studies II–IV was that the participants had to be professionals involved in the treatment of workers with burnout (occupational health professionals) or involved in the absence management and RTW processes of workers with burnout, at least in a part-time position (RTW coordinators).

4.2 DATA COLLECTION

A systematic literature review was conducted (Study I) following a rigorous process of searching the literature, assessing studies, combining results in the analysis, and placing the findings in context in discussion (Hemingway & Prereton, 2009) in order to summarise factors associated with RTW in burnout. The literature search was designed with the assistance of information experts who assisted in defining combinations of keywords, synonyms, thesaurus terms and the search terms (Appendix III) and in selecting the electronic databases: ARTO, CINAHL (EBSCO), Medic, PsycINFO (ProQuest), PubMed, Scopus, and Web of Science. The search criteria allowed inclusion of: i) original, peer-reviewed quantitative and mixed-method studies, ii) which used quantitative methods, iii) to measure factors associated with RTW outcome (full, partial, no work resumption of the previous, modified, or new work), iv) in individuals with burnout, v) and which identified burnout with a valid burnout measure, vi) published in English or Finnish. Studies including participants with multiple diagnoses were included if the subgroup analysis of RTW was conducted separately from burnout cases. A systematic electronic search was first conducted independently by two researchers (the first author and the third author of the original article) covering the time period from January 2005 to October 2015, but the search was later updated by the first author to include studies published up to July 2016. The updated search did not result in identification of any eligible studies. Reference lists of included papers and relevant review articles were screened. Furthermore, a search for related articles was conducted in PubMed and Google Scholar databases by name of the included article or names of authors using the snowball method.

In Study II, private OHC centres, municipal OHC centres and employer-operated OHC centres in geographically different regions in Finland were purposively contacted to obtain an adequate and appropriate sample (Morse, 2015). In addition, the Association of Work and Organisational Psychologists and the Association of Finnish Physiotherapists in Occupational Health were involved in informing their members about the study. Data were collected between June 2014 and January 2015 by means of semi-structured interviews (Kallio et al., 2016; Whiting, 2008) and open-ended essays. Before the data collection, four individual pre-interviews were conducted with the service managers of the occupational physicians, nurses, psychologists, and physiotherapists to develop the interview guide and to provide comments on the requested essay assignments (Kallio et al., 2016). Sixteen individual interviews, three dyadic interviews (two participants), and one group interview (three participants) (for the different types of interviews, see Morgan et al., 2013) were conducted. Dyadic and group interviews were conducted in case several participants with the same profession within the same OHC centre preferred to be interviewed together. Interviews with members of each profession were conducted separately to avoid any one profession dominating the interview.

A demographic questionnaire was completed prior to each interview. The questionnaire considered the type of OHC organization (private, municipal or employer-operated OHC center), the sector in which the client organizations operated, gender, age, qualification for OHC professional, any additional training related to burnout, the length of the working experience as an occupational health professional, and experience in treating workers with burnout. Two of the interviews were conducted in a silent area of a library, one was

conducted at the participant's home, one at the researcher's home, and the remaining interviews at the participants' workplace. In the interviews, the participants were asked to describe their experiences of the burnout of their clients, and their experiences with the RTW and RTW support of their clients. The researcher asked clarifying questions to gain more detailed descriptions. The interviews lasted 40–100 minutes and all were recorded. When conducting the interviews, the researcher approached each interview with an open mind and attempted to avoid manipulating or leading the participant or participants (Elo et al., 2014).

The open-ended essays were submitted to the participants via an encrypted e-form before the interviews. Twelve participants responded to the essay assignment, as presented in Table 1 in the original article (Study II). In the essays, the participants were asked to describe their subjective experiences, feelings and thoughts about the burnout of their clients, and their experiences of RTW support for their clients with burnout. The length of the essay was decided by the participants, and it varied from one-half to three A4-sized sheets.

In study III, the HR departments of 15 universities, five university central hospitals and 16 central hospitals in Finland were contacted and asked for permission to conduct the study in their organization. The responsible managers appointed the participants, who volunteered to participate. Data were collected between March 2017 and June 2017 by means of semi-structured interviews (Kallio et al., 2016; Whiting, 2008) and open-ended essays. The interview guide was sent to the participants beforehand so that they could become familiar with the topics. One pre-interview was conducted with an RTW coordinator to develop the interview guide and essay assignment (Kallio et al., 2016). With the permission of the participant, the data from the successful pre-interview were included in the analysis. Nine individual interviews and three dyadic interviews were conducted. The dyadic interviews were conducted in case the responsible manager appointed two RTW coordinators to participate together. The interviews were conducted face-to-face at participants' workplaces, except in the case in which two participants were interviewed over the internet using the software application Skype.

A demographic questionnaire was filled out by the participants including sector and size of the employer's organization, the RTW coordinator's institutional position, gender, age, and length of the working experience of the absence management and RTW processes. All interviews were recorded, and they lasted approximately one hour. RTW coordinators were asked to describe their role in RTW support for workers with burnout, as well as the potential factors that might obstruct/facilitate the RTW support for workers with burnout. In the essay assignments, the participants were asked to describe their subjective experiences, feelings and thoughts about the RTW support in their organization for workers with burnout. Four participants responded to the essay assignment before the interviews were conducted via an encrypted e-form. The length of the essay varied from one-half to four A4-sized sheets.

In Study IV, the data collected from the seven occupational physicians (who participated in Study II), and from the 15 RTW coordinators (who participated in Study III) were used. The data collection processes of the occupational physicians and RTW coordinators are described above in relation to studies II and III. The occupational physicians were interviewed face-to-face at their workplaces. The interviews lasted from 40 minutes to 1 hour. Six of the 22 participants included in Study IV responded to the essay assignment, and the essays produced six A4 sheets of data. The demographics of the participants and data collection methods are summarised in Table 1 in the original article (Study IV).

4.3 DATA ANALYSES

In the systematic literature review (Study I), two researchers assessed the methodological quality of the included studies using the critical appraisal checklists of the Joanna Briggs Institute (The Joanna Briggs Institute, 2014). If researchers disagreed, consensus was reached through reassessment and discussion of each specific criterion. The experimental studies were assessed by focusing on randomisation, blinding, allocation, management of potential drop-outs and confounding factors, and measurement of outcomes. The observational studies were assessed by focusing on representativeness of samples, selection of cases and controls, management of drop-outs and confounding factors, assessment of outcomes, and duration of follow-up. The methodological quality was scored as poor (<4), low (4–5), moderate (6–7), or high (≥ 8), with a maximum score of 10 in the experimental studies and 9 in the observational studies. The methodological quality was poor in two studies, low in four studies, and moderate in four studies, as presented in Table 1 in the original article (Study I).

The details of the included studies were identified and extracted (The Joanna Briggs Institute, 2014) in Table 2 in the original article regarding study, design, burnout measure, outcome measure, sample and results in relation to RTW. Because the data were not homogeneous, a meta-analysis was not conducted. Instead, a descriptive narrative summary combined the results in the analysis (Hemingway & Prereton, 2009). To ease readability of the results, the results were combined and labelled as individual-, burnout-, and work-related factors associated with RTW in burnout through application of an inductive content analysis method (Elo & Kyngäs, 2008). First, the results related to the RTW in burnout, which had been already extracted, were used as the units of the analysis. Next, the results were grouped into subcategories by collapsing the results which were related to the individual, or burnout, or work. Last, the generic categories were created by grouping subcategories for individual-, burnout-, and work-related factors associated with RTW in burnout (Table 2).

Table 2. Example of inductive content analysis process of work-related factors associated with return to work (RTW) in burnout applied in systematic literature review.

Units of the analysis	Subcategories	Generic category
Facilitating job–person match through employee–supervisor communication facilitated RTW (P< 0.0001) (Karlson et al., 2010)	Enhanced communication	Work-related factors
Low control at work: Unadjusted OR (95% CI) 2.62 (1.14–6.01), adjusted OR (95% CI) 2.76 (1.10–6.90) (Norlund et al., 2011)	Low control at work	

In Studies II and III, the data were analysed using qualitative content analysis (Elo & Kyngäs, 2008; Elo et al., 2014; Patton, 2015). The researcher transcribed the manifest content of the interviews verbatim. The transcribed interviews and essays generated 460 sheets (Study II) and 235 sheets (Study III) in total of written data. Data obtained from the essays supplemented the data from the interviews in both studies. The researcher reviewed the data repeatedly to become familiar with their content. Study II employed deductive and inductive approaches in its analyses (Elo & Kyngäs, 2008; Elo et al., 2014; Patton, 2015) in order to identify OHC RTW practices for workers with burnout and to identify potential for the development of such practices. First, the researcher coded the data for correspondence with the main categories: off-work, work re-entry, maintenance, and advancement phases utilized in Young et al., (2005). Next, the researcher derived the subcategories from the text inductively. Words, sentences and sentence portions of pages containing information about similarities and differences in the OHC RTW practices were used as the units of analysis (Elo & Kyngäs, 2008; Elo et al., 2014). The interpretive process of the analysis (Patton, 2015) proceeded through open coding, creating categories and abstraction (Elo & Kyngäs, 2008). The descriptions of the participants'activites were coded for subcategories. The subcategories with similar activities such as "recommending sick leave" and "close monitoring at the start of sick leave" were grouped together as a generic category "supporting disengagement from work" and these were grouped under the main category of "off-work phase" (Table 3). The generic categories established the OHC key activities.

Table 3. Examples of units of the analysis, subcategories, generic category and the main category obtained through the deductive and inductive content analysis.

Units of the analysis	Subcategories	Generic category	Main category
"I must, kind of, force the person to stay on sick leave…"	Recommending sick leave	Supporting disengagement from work	Off-work phase
"they carry their laptop and equipment home and work at home even if they are on sick leave…"	Close monitoring at the start of sick leave		
"I like to use different kind of relaxation techniques and mind fullness when needed"	Supporting stress management	Supporting recovery	
"we have referred people to burnout rehabilitation courses and of course psychotherapy…"	Providing psychological support		
"when burnout occurs with back pain then the occupational physiotherapist is involved…"	Treating co-occurring disorders		

Furthermore, an inductive content analysis was conducted in order to find ways in which OHC RTW practices should be developed. Moreover, an inductive content analysis of unpublished material was conducted in order to identify other potential phases in the RTW process. Data were reviewed, the subcategories were coded in the data, the generic categories were created from the subcategories, and finally the main category, early intervention phase, was created from the generic categories. Table 4 presents example of the inductive content analysis prosess.

Table 4. Examples of units of the analysis, subcategories, generic category and the main category obtained through the inductive content analysis.

Units of the analysis	Subcategories	Generic category	Main category
"*health surveys to survey high-risk groups*"	Conduct health surveys in the workplace	OHC activities to detect high-risk groups for burnout	Early intervention phase
"*heart rate variability analysis…which we have provided for example to the management and work units…*"	Provide targeted measures of the potential risk groups		
"*in mild burnout, consultations by the occupational psychologist…*"	Consultations by occupational psychologist	Implement early support	
"*joint negotiations with the employer may have been all what have been needed…*"	Joint negotiations on worker's work ability and possible work modifications		

OHC=occupational health care.

Study III employed an inductive content analysis method to describe RTW coordinators' activities in supporting workers with burnout during the RTW process, as well as their experiences with factors influencing the support, following the similar inductive content analysis process as in Study II and presented in Table 4 (Elo & Kyngäs, 2008; Elo et al., 2014). Descriptions of the RTW coordinators' activities were coded, and subcategories created. Subcategories containing similar activities were grouped for generic categories. The generic categories were grouped as main categories, including the early intervention phase, off work phase and the work resumption phase.

Study IV applied a membership categorization analysis (MCA, a form of ethnomethodology), in the analysis in order to discern supervisors' category-bound activities, especially the activities in which the supervisors needed support and guidance during the absence management and RTW process of workers with burnout based on the experiences of occupational physicians and RTW coordinators. In ethnomethodological studies, the interaction under investigation usually occurs naturally (Hester & Eglin, 1997; Lepper, 2000), but the method can be applied to data collected by means of semi-structured interviews and open-ended essays (see Lepper, 2000). In Study IV, membership categories refer to categories of people (Hester & Eglin, 1997; Housley & Fitzgerald, 2015): the supervisor, the worker with burnout, the occupational physician, and the RTW coordinator. Categories form collections of categories (Sacks, 1972a, 1972b), such as the supervisor, the worker with burnout, the occupational physician, and the RTW coordinator cooperating as a team in the absence management and RTW process. Furthermore, the team members form standardized relational pairs (see Hester & Eglin, 1997; Lepper, 2000; Sacks, 1972a; Stokoe & Attenborough, 2015): supervisor–worker with burnout, occupational physician–worker with burnout, and RTW coordinator–worker with burnout. Team members expect each other to conduct certain activities with respect to the norms and expectations governing their institutional position and those activities are termed category-bound activities (Sacks, 1972a;

Stokoe & Attenborough, 2015). Team members have knowledge of category-bound activities, predicates, rights, and obligations of the others (Lepper, 2000; Stokoe & Attenborough, 2015). Therefore, occupational physicians and RTW coordinators have knowledge about supervisors' category-bound activities: i.e., what supervisors do and how, in managing sickness absence and supporting RTW of workers with burnout.

The semi-structured interviews and open-ended essays which were conducted with the occupational physicians and RTW coordinators in Study II and III generated a total of 340 sheets of text. The process of analysis proceeded through reading the text several times and recognizing occupational physicians' and RTW coordinators' descriptions of supervisors' category-bound activities, predicates, rights, and obligations (see Baker, 1997; Sacks, 1972b). Occupational physicians' and RTW coordinators' descriptions of the supervisors' category-bound activities were reflexively descriptions of their own category-bound activities (Baker, 1997) in providing support and guidance to the supervisors. Those descriptions were also included in the analysis.

As an example, in the following statement RTW coordinators' description of support and guidance they provided to the supervisor and the worker with burnout in a joint negotiation can be recognized.

> RTW coordinator 1: "*we are there to support the supervisor and the worker in the joint negotiation where we talk about practical issues how the situation is in the workplace and what to do*
>
> RTW coordinator 2: *HR* [human resources] *help the supervisor, and the worker also, in the discussion. Sometimes the supervisor is not familiar to the worker then it can be a bit difficult to discuss it with the supervisor and the HR is a neutral, third party helping the common discussion further…*" (RTW coordinator 2a and b).

4.4 ETHICAL CONSIDERATIONS

The study plan for this dissertation was approved by the Research Ethics Committee of the Northern Savo Hospital District (70//2013). The committee found that it took into account essential ethical aspects. The study was designed in accordance with the principles of good clinical practice and Finnish legislation. Following the ethical guidelines of the World Medical Association Declaration of Helsinki (World Medical Association, 2013) the responsible managers of the OHC organizations, universities, university central hospitals and central hospitals were asked to give permission for their staff's participation in this study with a signed consent form. A letter was sent to the participants which included information about the purpose of the study, confidentiality, voluntary participation and the right to withdraw from the study. Detailed information about the study was provided by telephone. The participants gave personal written consent to participate in this study (see World Medical Association, 2013).

The privacy of research subjects and the confidentiality of their personal information were protected (World Medical Association, 2013). In the interviews, the focus was on absence management and RTW support for workers with burnout, and not on any individual worker, so as not to violate the obligation of professional secrecy as regulated in the Act on the Status and Rights of Patients (785/1992). The participants were asked their permission for the

interviewer to use a recorder. Confidentiality was confirmed thorough the data analysis and reporting. Codes were used in the transcripted interview material instead of participants' names. The essays were submitted via encrypted e-form. The anonymity of the participants and their work organizations was preserved; it is not possible to identify either participants or their organizations in the articles or in this thesis (see World Medical Association, 2013). Following the Personal Data Act (523/1999), the interview data were deleted from recorders after publication of the studies. The anonymized data will be stored in a locker by the researcher for 10 years (Personal Data Act 523/1999). Sources of funding and conflicts of interest were declared in the articles (World Medical Association, 2013). The authors of the articles had no conflicts of interest in terms of involvements that might raise the question of bias in the published studies.

5 Results

5.1 FACTORS ASSOCIATED WITH RTW IN JOB BURNOUT (STUDY I)

A systematic literature review was conducted to identify quantitative evidence of factors associated with RTW in burnout (Study I). The search strategy generated 1345 records, of which 510 were further identified through title searching and 191 through abstract searching. After removing 137 duplicates prior to full-text retrieval, 54 records remained. Three additional records were identified through a manual search. After retrieving these 57 full-text articles, ten studies were included (for flowchart of search results see Figure 1 in the original article, Study I). Three of the included studies were experimental studies and seven were observational studies. All the studies which met the inclusion criteria were included in the review regardless of their methodological quality. None of the reviewed mixed-method studies were deemed eligible.

The studies reported 1. ***individual-related factors***: male gender (positive association in two studies), covert coping (negative association in one study), high over-commitment to work (positive association in one study), burnout rehabilitation (inconclusive results in two studies); 2. ***burnout-related factors***: unimpaired sleep (positive association in two studies), duration of sick leave over six months (negative association in two studies based on the same population), part-time sick leave as a predictor of full-time RTW (positive association in one study), level of symptoms (somewhat inconsistent results in four studies), level of cognitive impairment (inconsistent results in two studies); and 3. ***work-related factors***: enhanced communication (positive association in one study) and low control at work (negative association in one study). See details by included study in Table 2 in the original article (Study I).

5.2 OHC ACTIVITIES FOR WORKERS WITH JOB BURNOUT AND POTENTIAL FOR DEVELOPING SUPPORT (STUDY II)

A qualitative study was conducted to describe OHC RTW practices for workers with burnout and to identify potential for the development of these practices (Study II). The findings of the study corresponded to the conceptual RTW approach of Young et al., (2005) with respect to the off-work, work re-entry and maintenance phases, but the advancement phase was not identified. An additional analysis of the data revealed occupational health professionals' descriptions of their activities for detecting high-risk groups for burnout and for implementing early support. As a result, ***an early intervention phase*** was identified (unpublished material; i.e., the material collected in this dissertation which was not published in any article).

Detecting high-risk groups for burnout. OHC conducted health surveys in the workplace. In those surveys, the staff's physical and psychological well-being at work were surveyed. OHC also provided targeted measures for potential risk groups for burnout, including heart rate variability measures and burnout measures using BBI-15. Supervisors and workers in work

units where there ongoing cooperation negotiations regarding reduction of workforce were taking place, or individuals with signs of burnout, were identified as the potential risk groups. A nurse reported that targeted measures had shown high stress levels among supervisors, but when sick leave statistics were monitored, high stress levels did not indicate increased absence among the supervisors.

> "*the heart rate variability measure… that we have provided for example to the management and also to the work communities so in a large organization, it was noticed that the supervisors had hard times in organizational changes, but they did not have much sickness absences though…*" (Nurse 5).

Furthermore, OHC visited the work units and assessed them. In those workplace visits the stress factors in the unit were discussed. In addition, periodic health examinations were provided for workers in certain age groups.

Implementing early support. In the occupational health professionals' experience, in cases of mild burnout it was possible to support the workers in coping with work by means of support from the occupational psychologist and from the OHC representative (usually a physician), supervisor, and potentially also the employer representative (RTW coordinator) in joint negotiation. Joint negotiations discussed a worker's work ability and possible work modifications. Furthermore, work communities were provided with conflict resolution and education about recovery from stress by means of relaxation and mindfullness methods. The clarity of the roles and responsibilities between OHC and work community actors was seen as important, and the focus was on supporting the supervisor in supporting workers.

> "g*iven that burnout is a work community level problem, the focus is to support the supervisor…work community-level interventions are planned and conducted in cooperation with the supervisor in a way that ensures that the supervisor remains a key person in the work community and the work community is dedicated to make changes and not like the OHC comes and gives an oral presentation and then leaves…*" (Psychologist 2).

Moreover, occupational health professionals informed the management and the occupational safety actors of the organizational stressors. Occupational health professionals' descriptions expressed attempts to influence the organizational culture.

> "*in a work unit, there were several workers absent from work with burnout-related condition then we talked about the situation with the management group and after that they made significant changes in…how much it is necessary to bring the pressure of the production goals to the staff…they understood that these things really have significance…*" (Physician 3a).

During ***the off-work phase*** the OHC key activities included: defining burnout, supporting disengagement from work, supporting recovery, determining the RTW goal, and supporting re-engagement with work. During ***the work re-entry phase*** the OHC key activities were monitoring the job-person match and re-evaluating the RTW goal. In ***the maintenance phase***,

the OHC key activities were supporting the maintenance of the achieved RTW goal or supporting an alternative RTW goal. OHC activities during the absence management and RTW support process of workers with burnout are summarised in Table 5. For a detailed description of the results, see the original article (Study II).

Table 5. Occupational health care (OHC) activities during the absence management and return-to-work (RTW) support process of workers with burnout.

Phase of the absence management and RTW process	**OHC key activities**	**OHC activities**
Early intervention phase	Detect high-risk groups for burnout	Conduct health surveys in the workplace; provide targeted measures for potential risk groups; monitor sick leave statistics; conduct workplace assessments; conduct periodic health examinations
	Implement early support	Consultations by occupational psychologist; joint negotiations on worker's work ability and possible work modifications; provide work community level interventions; inform management and occupational safety actors about organizational stressors
Off-work phase	Define burnout	Recognise burnout; state burnout in the additional diagnosis
	Support disengagement from work	Recommend sick leave; close monitoring at the start of sick leave
	Support recovery	Support stress management; provide psychological support; treat co-occurring disorders
	Determine the RTW goal	Evaluate timely RTW; determine suitable RTW option
	Support re-engagement with work	Close monitoring before actual resumption of work; enhance RTW self-efficacy; facilitate communication between the worker and the supervisor
Work re-entry phase	Monitor the job-person match	Close monitoring after the actual resumption of work; individual consultations with occupational health professionals; joint negotiations; measure symptom levels with validated measures
	Re-evaluate the RTW goal	Re-evaluate timely RTW; re-evaluate suitability of the RTW option
Maintenance phase	Support the maintenance of the achieved RTW goal	Monitoring continues after the RTW goal is achieved; support to help the worker cope in his/her current work
	Support an alternative RTW goal	Support the worker in changing workplace; support withdrawal from the labour force

Moreover, Study II revealed potential for developing OHC RTW practices including varied practices for: defining burnout, recommending sick leave, supporting recovery, supporting the supervisor and monitoring the sustainability of the achieved RTW goal. Potential for developing OHC RTW practices for workers with burnout is presented in Table 6.

Table 6. Potential to develop the occupational health care (OHC) return-to-work (RTW) practices for workers with burnout.

Potential to develop the OHC RTW practices	**Varied OHC practices**	**OHC activities**
Varied OHC RTW practices	Varied practices for defining burnout	Burnout is not always measured with a validated measure; burnout is not always stated as the additional diagnosis
	Varied practices for recommending sick leave	The worker does not always stay on sick leave; timely RTW is not always achieved
	Varied practices for supporting recovery	The treatment focuses on co-occurring disorders; no structured multidisciplinary cooperation within the OHC team; treatment depends on each professional's interest and competence
	Varied practices for supporting the supervisor	Lack of tools for supporting the supervisor and co-workers; lack of joint negotiations involving the supervisor
	Varied practices for monitoring sustainability of the achieved RTW goal	Lack of joint negotiations involving the supervisor; lack of individual consultations with occupational health professionals

5.3 RTW COORDINATORS' ACTIVITIES FOR WORKERS WITH JOB BURNOUT AND FACTORS INFLUENCING SUPPORT (STUDY III)

A qualitative study was conducted in order to describe RTW coordinators' activities in supporting workers with burnout during the RTW process, and RTW coordinators' experiences of factors influencing that support (Study III). The RTW coordinators conducted their activities during three periods: before the worker with burnout stayed on prolonged sick leave, while the worker was on sick leave and when the worker returned to work. ***An early intervention phase***, ***an off-work phase*** and ***a work resumption phase*** were identified. The activities of the RTW coordinators depended on their institutional positions. RTW coordinators monitored staff well-being and initiated an RTW process during the early intervention phase. During the off-work phase, the RTW coordinators were involved in planning RTW, providing tools for supporting recovery, monitoring progress of the RTW process, and supporting re-engagement with work. During the work resumption phase, the

RTW coordinators monitored workers' coping with work. The RTW coordinators' activities during the absence management and RTW support processes of workers with burnout are presented in Table 7. For a more detailed description of RTW coordinators' activities for workers with burnout during the absence management and RTW support processes and the factors influencing that support, see the original article (Study III).

Table 7. Return-to-work (RTW) coordinators' activities during the absence management and RTW support process of workers with burnout.

Phase of the absence management and RTW process	**RTW coordinators' key activities**	**RTW coordinators' activities**
Early intervention phase	Monitor staff well-being	Monitor staff well-being surveys; monitor sick leave statistics; discuss occupational health risks with OHC and occupational safety actors; contact supervisors in the work communities from whom they have no recent communication
	Initiate RTW process	Provide work community-level interventions; support the supervisors in supporting workers with burnout in compliance with organizational absence management and RTW policies and practices; suggest joint negotiation
Off-work phase	Plan RTW	Inform other actors about organizational absence management and RTW policies and practices; discuss RTW options; inform about payment terms; build up the worker's trust in the employer; adjust own communication with the worker
	Provide tools to support recovery	Permit use of additional OHC services; guide the worker on strategies for managing stress; offer individual work counseling
	Monitor progress of the RTW process	Keep in contact with the worker during his/her sick leave; monitor progress of the RTW process in insurance companies and in OHC
	Support re-engagement with work	Facilitate communication between the worker and the supervisor; enhance RTW self-efficacy of the worker; guide the supervisors on how to inform co-workers about worker's RTW and modified work
Work resumption phase	Monitor coping at work	Call the worker and ask how he/she is doing; discuss additional work modifications in joint negotiation

OHC=occupational health care.

As presented in Table 8, in the experience of RTW coordinators, individual-, burnout-, and work-related factors influenced support for the workers with burnout.

Table 8. Factors influencing support for the workers with burnout according to the 15 RTW coordinators.

Groups of the factors	Factors influencing the support
Individual-related factors	Personality characteristics; private life psychosocial factors
Burnout-related factors	Common understanding about burnout syndrome; co-occurring disorders; dimensions of burnout; unpredictability of the recovery
Work-related factors	Conflicts within the work community; openness about burnout and its causes

5.4 SUPERVISORS' CATEGORY-BOUND ACTIVITIES FOR WORKERS WITH JOB BURNOUT AND NEED FOR SUPPORT AND GUIDANCE (STUDY IV)

An ethnomethodological, qualitative and descriptive study was conducted to discern supervisors' category-bound activities during the absence management and RTW support processes of workers with burnout, and activities where the supervisors need support and guidance, from the perspective of occupational physicians and RTW coordinators (Study IV). Occupational physicians and RTW coordinators saw supervisors as key actors in managing sickness absence and supporting RTW of workers with burnout.

Supervisors were expected to be involved in support during four phases of the absence management and RTW processes; ***before the prolonged sickness absence, during the sickness absence, at work resumption***, and ***after recovery from burnout*** (Table 9). The results are described in detail in the original article (Study IV).

Table 9. Supervisors' category-bound activities during the absence management and return-to-work (RTW) support process of workers with burnout.

Phase of the absence management and RTW process	**Supervisors' category-bound activites**
Before the prolonged sickness absence	Control workers' work capacity through development discussions; monitor sickness absence; observe work performance; broach a concern of a worker's ability to work; provide support to manage stressors at work; guide the worker to seek occupational health services for work ability assessment; initiate joint negotiation on the worker's work ability and work modifications
During the sickness absence	Delegate the work/arrange a substitute; maintain contact with the worker; provide emotional support; plan RTW
At work resumption	Inform co-workers on RTW; implement work modifications; re-orientate the worker; monitor coping at work; remind the worker of deadlines
After recovery from burnout	Focus on preventing the recurrence of burnout

Furthermore, occupational physicians and RTW coordinators saw supervisors as recipients of support in managing sickness absence and supporting RTW of workers with burnout. Supervisors' category-bound activities in which they need support and guidance during the absence management and RTW process of workers with burnout (by occupational physicians and RTW coordinators), is presented in Table 10.

Table 10. Supervisors' category-bound activities in which they need support and guidance during the absence management and return-to-work (RTW) support processes of workers with burnout.

Phase of the absence management and RTW process	**Supervisors' category-bound activites**
Before the prolonged sickness absence	Conduct development discussions; monitor and react to increased sickness absence; recognize burnout; broach concern about a worker's ability to work without hesitation; provide the worker support for managing stressors at work without causing additional role conflict
During the sickness absence	Communicate with the worker on sick leave; communicate with the worker about burnout and stressors at work to plan RTW; manage administrative tasks in RTW
At work resumption	Inform co-workers about RTW without fear of breaking privacy rules; welcome the worker; implement work modifications within economical bounds
After recovery from burnout	Resolve conflicts to maintain a good working atmosphere; improve one's management practices

5.5 SUMMARY OF THE RESULTS

The present study explored the absence management and RTW support practices for workers with burnout within the Finnish OHC and workplace contexts, as well as factors challenging that support, in four separate studies.

First, the quantitative evidence of factors associated with RTW in burnout was identified, including individual-, burnout-, and work-related factors. Second, OHC RTW practices for workers on sick leave with burnout during the off-work, work re-entry, and maintenance phases were described and the potential for further development of such practices identified. Additionally, an early intervention phase was identified and described (unpublished material). Third, RTW coordinators' activities in supporting workers with burnout during the RTW process, and their experience of factors influencing the support, were described. Fourth, supervisors' category-bound activities during the absence management and RTW processes of workers with burnout, and activities in which supervisors need support and guidance, were discerned from the perspective of occupational physicians and RTW coordinators. Figure 1 summarises the main results of studies I–IV regarding absence management and RTW support for workers with burnout within the OHC and workplace.

<table>
<tr><td rowspan="2">MAIN RESULTS</td><td colspan="3">STUDY I
Systematic literature review of factors associated with RTW in burnout
Individual-, burnout-, and work-related factors can be associated with RTW in burnout.</td></tr>
<tr><td>STUDY II
Occupational health professionals' activities during the absence management and RTW support process of workers with burnout

Early intervention phase:
Detect high-risk groups for burnout; implement early support

Off-work phase:
Define burnout; support disengagement from work, support recovery; determine the RTW goal; support re-engagement with work

Work re-entry phase:
Monitor the job-person match; re-evaluate the RTW goal

Maintenance phase:
Support the maintenance of the achieved RTW goal; support an alternative RTW goal</td><td>STUDY III
RTW coordinators' activities during the absence management and RTW support process of workers with burnout

Early intervention phase:
Monitor staff well-being; initiate RTW process

Off-work phase:
Plan RTW; provide tools to support recovery; monitor progress of the RTW process; support re-engagement with work

Work resumption phase:
Monitor coping at work</td><td>STUDY IV
Supervisors' category-bound activities during the absence management and RTW support process of workers with burnout

Before the prolonged sickness absence:
Control workers' work capacity through development discussions; monitor sickness absence; observe work performance; broach a concern of a worker's ability to work; provide support to manage stressors at work; guide the worker to seek occupational health services for work ability assessment; initiate joint negotiation on the worker's work ability and work modifications

During the sickness absence:
Delegate the work/arrange a substitute; maintain contact with the worker; provide emotional support; plan RTW

At work resumption:
Inform co-workers on RTW; implement work modifications; re-orientate the worker; monitor coping at work; remind the worker of deadlines

After recovery from burnout:
Focus on preventing the recurrence of burnout</td></tr>
<tr><td>SUMMARY</td><td colspan="3">SYNTHESIS OF THE RESULTS
Absence management and RTW support for workers with burnout within the OHC and workplace context
• Occupational health professionals, RTW coordinators and supervisors conduct both individual-, burnout-, and work-related activities to support workers with burnout.
• Several of the activities conducted by occupational health professionals, RTW coordinators and supervisors are performed in concert.
• The goal of occupational health professionals', RTW coordinators' and supervisors' support is prevention of severe burnout and associated work disability (before sick leave), support of recovery and readiness to RTW (during sick leave) and support of recovery at work (after sick leave).</td></tr>
</table>

Figure 1. Absence management and return-to-work (RTW) support for workers with burnout within occupational health care (OHC) and workplace.

Furthermore, the OHC and workplace actors faced challenges in managing absence and supporting RTW of workers with burnout. Figure 2 summarises the main result of the studies I–IV regarding factors challenging absence management and RTW support for workers with burnout within the OHC and workplace.

<table>
<tr><td rowspan="2">MAIN RESULTS</td><td colspan="3">STUDY I
Systematic literature review of factors associated with RTW in burnout
• Few studies explore factors associated with RTW in burnout.
• Association between burnout rehabilitation and RTW in burnout is unclear.
• Association between the level of symptoms and RTW in burnout is unclear.
• Association between the level of cognitive impairment and RTW in burnout is unclear.</td></tr>
<tr><td>STUDY II
Potential to develop the OHC RTW practices for workers with burnout

Varied practices for defining burnout

Varied practices for recommending sick leave

Varied practices for supporting recovery

Varied practices for supporting the supervisor

Varied practices for monitoring sustainability of the achieved RTW goal</td><td>STUDY III
Factors influencing support for workers with burnout according to RTW coordinators

Individual-related factors:
Personality characteristics; private life psychosocial factors

Burnout-related factors:
Common understanding about burnout syndrome; co-occurring disorders; dimensions of burnout; unpredictability of the recovery

Work-related factors:
Conflicts within the work community; openness about burnout and its causes</td><td>STUDY IV
Supervisors' category-bound activities in which they need support and guidance during the absence management and RTW support process of workers with burnout

Before the prolonged sickness absence:
Conduct development discussions; monitor and react to increased sickness absence; recognize burnout; broach concern about a worker's ability to work without hesitation, provide the worker support in managing stressors at work without causing additional role conflict

During the sickness absence:
Communicate with the worker on sick leave; communicate with the worker about burnout and stressors at work in order to plan RTW; manage administrative tasks in RTW

At work resumption:
Inform co-workers about RTW without fear of breaking privacy rules; welcome the worker; implement work modifications within the economical boundaries

After recovery from burnout:
Resolve conflicts to maintain a good working atmosphere; improve one's management practices</td></tr>
<tr><td>SUMMARY</td><td colspan="3">SYNTHESIS OF THE RESULTS
Factors challenging the absence management and RTW support for workers with burnout within OHC and workplace context
• Complexity of the burnout problem with requirements to consider both individual-, burnout-, and work-related factors, challenge absence management and RTW support.
• There is lack of evidence of factors associated with RTW in burnout, especially regarding association between burnout rehabilitation, level of symptoms, level of cognitive impairment, and RTW.
• OHC RTW practices for workers with burnout are varied and unequal.
• Supervisors needing support and guidance during the absence management and RTW support process.</td></tr>
</table>

Figure 2. Factors challenging the absence management and return-to-work (RTW) support for workers with burnout within occupational health care (OHC) and workplace.

A preliminary biopsychosocial model for absence management and RTW support for workers with burnout is constructed based on the results of the four studies as illustrated in Figure 3. In the model, the activities of OHC and workplace actors are integrated and

organized chronologically into three phases of the absence management and RTW support process: before sick leave, during sick leave and after sick leave. The specific goals for each phase of the absence management and RTW support process include preventing severe burnout and associated work disability (before sick leave), supporting recovery and readiness for RTW (during sick leave), and supporting recovery at work (after sick leave). The curved shape of the arrows demonstrates the continuum of the absence management and RTW support process, from prevention of severe burnout and associated work disability to supporting recovery at work: i.e., prevention of recurrence of severe burnout.

Biological, psychological and social dimensions of the biopsychosocial RTW model formulated by Waddell and Burton (2004) were identified in the absence management and RTW support process for workers with burnout. Supplementary table 1 (Appendix I) illustrates absence management and RTW support for workers with burnout based on the results of Studies I–IV utilizing dimensions of the biopsychosocial approach by Waddell and Burton (2004). Supplementary table 2 (Appendix II) presents the factors challenging absence management and RTW support for workers with burnout utilizing the biopsychosocial dimensions by Waddell and Burton (2004).

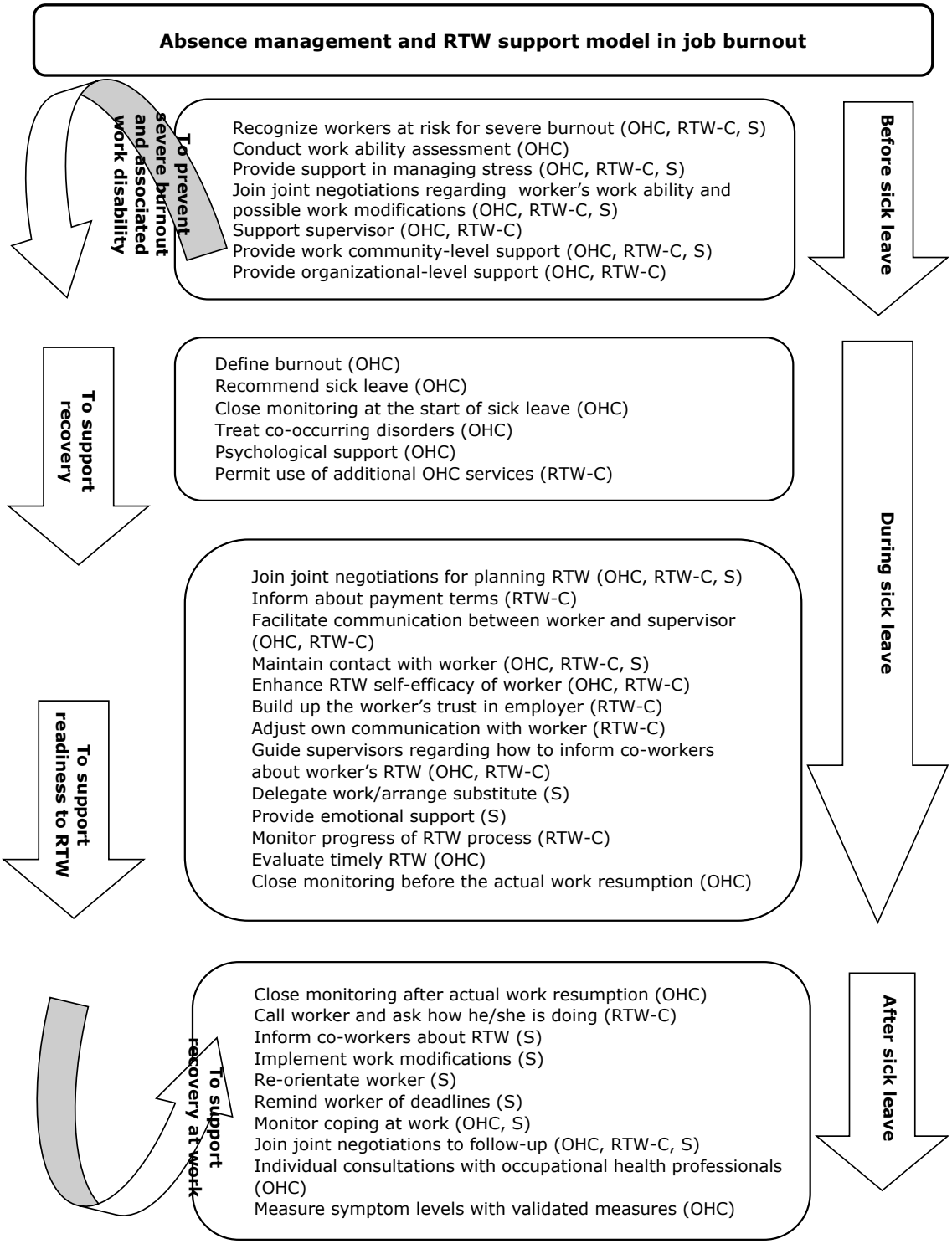

Figure 3. Preliminary biopsychosocial absence management and return-to-work (RTW) support model for workers with burnout within the occupational health care (OHC) and workplace. RTW-C=return-to-work coordinator, S=supervisor.

6 Discussion

The results of this study contribute new knowledge and understanding about the absence management and RTW support practices for workers with burnout within the Finnish OHC and workplace context, as well as the factors challenging that support. Knowledge of and understanding about current absence management and RTW support practices is essential for developing practices within the OHC and workplace context and in order to prevent severe burnout and associated work disability among staff.

A preliminary biopsychosocial model for absence management and RTW support was constructed based on the results of the four studies included in this dissertation. This model can be applied to absence management and RTW support for the workers with burnout in OHC organizations and workplaces, but the feasibility, implementation, effects, and cost-effectiveness of the model need to be evaluated.

6.1 DISCUSSION OF RESULTS

6.1.1 Absence management and RTW support in job burnout

The results of the qualitative studies in this thesis show that OHC and workplace actors focus on individual-, burnout-, and work-related factors in supporting workers with burnout. This practice is supported by the findings of the systematic literature review study, which found an association between individual-, burnout-, and work-related factors and RTW. The absence management and RTW support in the OHC organizations and workplaces evaluated in this study was individually tailored. Among demographic factors, age was considered; if the job-person match was not achieved in the current workplace, young workers were supported in changing their workplace and older workers were instead supported in their coping in their current workplace until retirement age (see original article Study II). The results of the previous meta-analytical studies regarding the association between age and burnout have not been consistent (Brewer & Shapard 2004; Garcia-Arroyo & Osca, 2018). Therefore, we can not be sure if age significantly increases vulnerability to experience burnout. However, it has been shown that age is associated with RTW outcome in burnout (Karlson, Jönsson, & Österberg, 2014) and in depression and anxiety (Lammerts et al., 2016). Older workers generally have more years of experience; years of experience in turn possibly decrease vulnerability to burnout (Brewer & Shapard 2004). Gender was not a focus of the absence management and RTW support within the OHC and workplace context in this study, although according to the systematic literature review study, male gender can be associated with RTW in burnout. Results of previous research regarding gender as a predictor of burnout have been mixed (Garcia-Arroyo & Osca, 2018; Purvanova & Muros, 2010), but this does not mean that gender should not be considered in absence management and RTW support. OHC and workplace actors' practice of providing workers with burnout support for coping at work and managing stress is supported by previous research reporting about the significance of coping strategies in burnout (Adriaenssens, De Gucht, & Maes, 2015; Lee et

al., 2013; Nagy & Takács, 2017) as well as by the systematic literature review study reporting on a negative association between covert coping and RTW.

Furthermore, regarding burnout-related factors, OHC treated co-occurring disorders including sleep problems, a practice supported by the systematic literature review reporting that unimpaired sleep was associated positively with RTW. Awareness of the association between part-time sick leave, the duration of sick leave, and RTW is worth considering by OHC and workplace actors, given that burnout is associated with long-term sick leave (Borritz et al., 2010; Hallsten et al., 2011; Peterson et al., 2011, Roelen et al., 2015), and with the possibility of no RTW at all because of need for work disability pension (Ahola et al., 2009a, 2009b). Regarding work-related factors, occupational health professionals and RTW coordinators facilitated communication between the worker and the supervisor, which is in accordance with the findings of the systematic literature review study of the positive association between enhanced communication and RTW. Furthermore, supervisors (with support and guidance from occupational physicians and RTW coordinators) planned and put in practice work modifications which may have resulted in higher control at work.

The individual-, burnout-, and work-related factors in this study have similarities to the dimensions of the biopsychosocial approach (Waddell & Burton, 2004) as the individual- and burnout-related factors include biological and psychological dimensions, and the work-related factors include social dimensions. Cooperation between the occupational physicians, supervisors, RTW coordinators and the workers with burnout in a joint negotiation is in compliance with the interdisciplinary nature of a biopsychosocial RTW approach (Engel, 1977). A biopsychosocial approach allows for flexible adoption of activities in accordance with the burnout developmental phase (for developmental phases see: Bauernhofer et al., 2018; Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016): i.e., trajectories of the illness (Engel, 1977). The practice of the OHC and workplace actors of providing both individual-, and organizational-level support during the absence management and RTW process of the workers with burnout is supported by the previous research showing that individual factors (Swider & Zimmerman, 2010), and organizational factors (Maslach, Schaufeli, & Leiter, 2001) both predict burnout; focusing only on individual factors might not be sufficient to alleviate burnout symptoms (Ahola, Toppinen-Tanner, & Seppänen, 2017). Focusing on the functioning of the work community by providing conflict resolution and education about stress management is adequate because burnout develops in the work environment (Maslach, Schaufeli, & Leiter, 2001; Maslach & Leiter, 2016). Activities for detecting high-risk groups for burnout are needed in order to prevent burnout contagion (Bakker, Le Blanc, & Schaufeli, 2005; Hakanen, Perhoniemi, & Bakker, 2014) and collective burnout (González-Morales et al., 2012). Occupational health professionals' activities to influence organizational culture in absence management and RTW support is of relevance as the culture of an organization is associated with burnout (Lee et al., 2013). RTW coordinators' practice of informing other actors about organizational absence management and RTW policies and practices and supporting supervisors in implementing policies and practices strengthens the culture that prevails in the workplace.

According to the results of this study, absence management and RTW support for workers with burnout can be understood as an outcome and a process similar to general definitions of RTW (Young et al., 2005). As an outcome, absence management and RTW support refers to the goals for the activities of the occupational health professionals, RTW coordinators and

supervisors for preventing severe burnout and associated work disability, supporting recovery and readiness for RTW, and supporting recovery at work. As a process, absence management and RTW support simply proceeds through three phases: before sick leave, during sick leave and after sick leave. As such, they include both secondary and tertiary preventive activities (for the different types of prevention, see Maslach & Goldberg, 1998). Absence management and RTW support can be understood as a continuum in which support from the OHC and workplace actors does not end at the resumption of work, but one in which the prevention of recurrence of severe burnout continues.

6.1.2 Factors challenging absence management and RTW support in job burnout

Absence management and RTW support in burnout appeared to be a complex phenomenon requiring consideration of both individual-, burnout-, and work-related factors. The basic challenge of the support relates to lack of strong evidence for the effective practices to alleviate burnout and support RTW (see Ahola, Toppinen-Tanner, & Seppänen, 2017; Perski et al., 2017). Evidence for effective burnout rehabilitation for improving RTW outcomes would be needed in order to provide adequate rehabilitation for workers with burnout. In addition, knowledge of the association between the symptom level, the level of cognitive impairment and RTW would be of importance for support of disengagement and re-engagement with work in a timely manner. The results of this study indicate that workers with burnout may have a high threshold for staying on sick leave, as it was reported that supervisors with high stress levels did not have increased absence (see unpublished material in this summary). Furthermore, timely RTW was not always achieved. It can be discussed whether or not the subtle difference between presenteeism (Demerouti et al., 2009; Peterson et al, 2008) and readiness for RTW while still having symptoms of burnout challenges the evaluation of timely RTW. The positive association between high over-commitment to work and RTW reported in the systematic literature review study may refer to presenteeism (Demerouti et al., 2009; Peterson et al, 2008), which can be understood as a form of work disability in burnout.

The individual burnout profiles (Bauernhofer et al., 2018; Leiter & Maslach, 2016; Mäkikangas & Kinnunen, 2016), developmental paths (Gil-Monte, Peiró, & Valcárcel, 1998; Golembiewski et al., 1996; Lee & Ashforth, 1993; Leiter, 1993; Leiter & Maslach, 1988; Taris et al., 2005; Van Dierendonck, Schaufeli, & Buunk, 2001), and recovery paths (Salminen et al., 2017) further challenge the support. Support for workers with severe burnout requires resources for the treatment of co-occurring psychological and physical disorders (Ahola et al., 2009a, 2009b; Mather et al., 2014; Schneider et al., 2017; Toppinen-Tanner et al., 2005) and for long-term follow-up due to long recovery time (Jonsdottir et al., 2017; Schaufeli et al., 2011; Toppinen-Tanner, Kalimo, & Mutanen, 2002).

Work disability is generally determined by defining the work-relatedness of the disability, assessing work disability, assessing the onset of the disability, the severity of the disability, and the expected duration of the disability (Krause et al., 2001), all of which are challenging in the case of burnout. A lack of common understanding of burnout in the European region, which was reported by Eurofound (2018) and supported by this study, reflects the ongoing scientific discussion questioning the identity of burnout as a work-related syndrome (Bianchi & Brisson, 2017; Rössler et al., 2015) and questioning burnout as a syndrome distinct from depression (Bianchi & Schonfeld, 2018; Chiu et al., 2015; Van Dam, 2016). The varied practices

for defining burnout within OHC may arise from the complicated relation between burnout and work disability. Because burnout is not defined as a disease in international classifications of diseases (American Psychiatric Association, 2013; World Health Organization, 2016), nor acknowledged as an occupational disease in Finland (Lastovkova et al., 2018), burnout does not justify granting of sick leave compensation. Burnout was not always assessed with a validated measure in OHC (for the BBI-15 measure see Salmela-Aro et al., 2011), or stated in the additional diagnosis. As supported by previous research (Tuunainen, Akila, & Räisänen, 2011), a substitute diagnosis such as depression was utilized. The practice of diagnosing burnout as depression is similar to the biomedical approach in the study of Engebretsen (2018) and Korhonen and Komulainen (2019). It can be discussed whether or not the practice of not stating burnout in the additional diagnosis is based on the biopsychosocial approach, in which treatment and the RTW outcome is considered as more important than the actual diagnosis (Schultz et al., 2007). The different diagnostic criteria in the OHC organizations in this study reflects a similar situation in other countries (see Bianchi, Schonfeld, & Laurent, 2015; Eurofound, 2018; Korczak, Huber, & Kister, 2010). Lack of measurement and diagnosis of burnout may create room for the varied and unequal support practices focusing on co-occurring disorders and reducing possibilities for successful recovery and RTW (see Engebretsen, 2018; Maslach & Leiter, 2016).

An interesting finding is that career advancement in terms of promotion (Young et al., 2005), was not identified in any of the four studies included in this study. In light of the previous studies (Amiri et al., 2016; Hakanen, Bakker, & Jokisaari, 2011; Lee et al., 2013), of prevention of severe burnout and associated work disability, career development could be relevant to consider. Whether career development was not perceived as belonging to absence management and the RTW process by the OHC and workplace actors, or if it was simply ignored by the supervisors who did not always conduct career development discussions with the workers remains unclear.

OHC and workplace actors' absence management and RTW support practices were in line with the best absence management and RTW practices of Dewa et al. (2014) regarding designing an RTW plan, implementing work modifications, providing support for the supervisor, and educating staff. Providing supervisors with support and guidance for better managing absence and support RTW of workers with burnout is supported by previous research which considers supervisors as key actors in the support of workers with burnout (Li, Ruan, & Yuan, 2015; Salminen et al., 2017; Tayfur & Arslan, 2013). Clearer description of the roles and responsibilities of OHC and workplace actors might be needed, because although concerted activities are included in the best absence management and RTW practices (Durand et al., 2014), all the concerted activities between the OHC and workplace actors might not always be supported. For example, it can be questioned whether the practice of occupational health professionals, RTW coordinators and supervisors all monitoring sickness absence is cost-effective or simply an overlapping practice. All the OHC organizations and workplaces in this study had implemented early support as regulated by legislation (Occupational Health Care Act 1383/2001, edited 20.1.2012). However, despite it severe burnout cases still occurred, indicating that early support needs to be more focused.

6.2 DISCUSSION OF THE STRENGTHS AND THE LIMITATIONS OF THE STUDY

A strength of this study is that it includes both OHC and workplace actors' perspectives on absence management and RTW support for workers with burnout across organizations (private OHC centres, municipal OHC centres, employer-operated OHC centres, hospitals, universities) in different regions in Finland. The participants represented occupational physicians, nurses, psychologists, physiotherapists and RTW coordinators. In addition, the occupational physicians and RTW coordinators involved in the study provided second-hand information about supervisors' involvement in absence management and RTW support. Furthermore, a systematic literature review was conducted to find out what is known about factors associated with RTW in burnout. The results of the systematic review study were discussed in relation to the results of the qualitative studies.

To reduce the risk of bias and to enhance the validity of the systematic literature review study, a rigorous process was followed (Hemingway & Prereton, 2009). Information experts assisted in designing the search strategy and the search was conducted in multiple topic-relevant electronic databases by two independent researchers. In order to facilitate the comprehensiveness of the literature search, a hand search of reference lists of included papers and relevant review articles was conducted, and related articles were researched in databases using the snowball method. The methodological quality of the studies was assessed using critical appraisal tools (The Joanna Briggs Institute, 2014) by two independent researchers.

The participants in the qualitative studies consisted of an appropriate sample (Elo et al., 2014; Morse, 2015) as the occupational health professionals were qualified (for qualifications see Ministry of Social Affairs and Health, 2013) and experienced in treatment of workers with burnout and the RTW coordinators were experienced in absence management and RTW support of workers with burnout. Despite the heterogeneity of their institutional positions, the RTW coordinators formed a homogenous group regarding their involvement in absence management and RTW support. As the responsible managers appointed the RTW coordinators to participate in the study, they were considered by the responsible managers as the best informants regarding the absence management and RTW support in those organizations (see Elo et al., 2014). The number of participants is assumed to be adequate, as detailed information about absence management and RTW support was obtained in all three qualitative studies, and replication of data occurred (Morse, 2015).

To provide more quality in data collection, individual pre-interviews were conducted amog occupational health professionals and RTW coordinators in order to develop the interview guide and to provide comments on the essay assignments (Elo et al., 2014; Kallio et al., 2016). The participants received the essay assignment before the interviews and thus became familiar with the topics beforehand. The RTW coordinators also received the interview guide, which may have contributed to pertinent data being obtained. It is worth noting that receiving the interview guide beforehand may have hindered the RTW coordinators from describing other relevant topics outside the interview guide. The researcher encouraged the participants to talk about their work specifically with workers with burnout and summarised the descriptions verbally during the interview to ensure that the focus of the interview was consistently on workers with burnout. All the interviews were

recorded, which allowed an accurate and verbatim transcription of the interviews (Whiting, 2008).

Both individual, dyadic and group interviews were conducted. In individual interviews participants had a longer time to contribute compared with the dyadic and group interviews. Therefore, they may have produced more detailed, in-depth data (Morgan et al., 2013). Moreover, the participants may have given information that they would not have shared with other participants in dyadic or group interviews (Morgan et al., 2013). On the other hand, the dyadic and group interviews involving several participants may have produced more complete descriptions of the topics under discussion (Morgan et al., 2013). Probably the dominance of any one profession may have been avoided. This is because interviews with each profession were conducted separately and both the individual, dyadic and group interviews produced detailed and in-depth data. The qualitative data answered the research questions; therefore, the semi-structured interviews and open-ended essays can be considered appropriate data collection methods (Elo et al., 2014). The trustworthiness of the results is strenghtened by having had multiple co-researchers review the analysis process and by accurate and transparent reporting of the data collection and creation of the results (Elo et al., 2014), which allows reproducibility.

The present study has its limitations. The major challenge in conducting the systematic literature review was that burnout is understood differently among countries (Eurofound, 2018), with different diagnostic criteria involved (see Bianchi, Schonfeld, & Laurent, 2015; Eurofound, 2018; Korczak, Huber, & Kister, 2010). Therefore, a large body of quantitative and mixed-method studies of work-related psychological problems was reviewed, and studies were included if subgroup analysis of RTW was conducted separately on burnout. Despite the comprehensive search, relevant studies published in languages other than English and Finnish may have been overlooked, as well as studies published before 2005. None of the included studies achieved high methodological quality. Lack of precision in reporting was a common weakness. In experimental studies, blinding and managing confounding factors weakened methodological quality. In observational studies, RTW data were often self-reported. Only ten eligible studies were identified and because of the heterogeneity of the studies it was not possible to conduct a meta-analysis. The positive associations between RTW in burnout and enhaced communication, high over-commitment to work and part-time sick leave as a predictor of full-time RTW were found only in single original studies. The negative associations between RTW in burnout and low control at work or covert coping were also based on single studies. Slightly stronger evidence was found for a positive association between RTW and male gender and between RTW and unimpaired sleep, as they were indicated in two original studies. A negative association between RTW in burnout and duration of sick leave over six months was based on the same study population in two studies. The evidence regarding burnout rehabilitation was inconclusive in two studies. The four studies investigating the association between symptom level and RTW in burnout had somewhat inconsistent results. Inconsistent results were also found in two studies regarding an association between level of cognitive impairment and RTW in burnout. Generalising the results of the systematic literature review study requires caution, especially beyond Swedish and Dutch populations.

The major limitation weakening the trustworthiness of the qualitative studies is that burnout was not always measured and diagnosed in contrast to depression, which often

occurs with severe burnout (Bauernhofer et al., 2018). Therefore, it is possible that the descriptions were of absence management and RTW support for workers with pure depression, and not of workers with burnout. Recall bias (Althubaiti, 2016) is possible as the participants may have remembered burnout cases in cases of depression, or some other psychological condition. Social desirability bias (Paulhus, 1991) may have occurred in the case of occupational health professionals and RTW coordinators providing responses that they thought were expected from them by the researcher. Most of the occupational health professionals were employed in employer-operated OHC centres; therefore, the results may not be completely transferable to private and municipal OHC centres. In addition, results regarding the RTW coordinators' activities may not be transferable to work sectors other than universities and central hospitals. It can be discussed whether the OHC organizations and workplaces evaluated in this study were representative; it can be possible that only organizations which had more developed absence management and RTW support policies and practices at the time of the data collection were motivated to participate. Moreover, only the perspectives of occupational health professionals and RTW coordinators were explored, although other actors, such as senior managers, supervisors, workers with burnout, and their co-workers would also be important to consider. Replication of the results of the qualitative studies outside Finland is doubtful due to different ways of organizing OHC, different legislation, and absence management and RTW policies and practices in other countries.

6.3 CONCLUSIONS

Based on the findings of this study, the following conclusions are drawn:

1. Occupational health professionals, RTW coordinators and supervisors conduct individual-, burnout-, and work-related activities in order to support workers with burnout.

2. Several of the activities conducted by occupational health professionals, RTW coordinators and supervisors are done in concert.

3. The goals of the activities of the occupational health professionals, RTW coordinators and supervisors are: prevention of severe burnout and associated work disability (before sick leave), support of recovery and readiness or RTW (during sick leave) and support of recovery at work (after sick leave).

4. The complexity of the burnout problem, with the requirement to consider individual-, burnout-, and work-related factors, challenges absence management and RTW support.

5. There is lack of evidence of factors associated with RTW in burnout, especially regarding association between burnout rehabilitation, level of symptoms, level of cognitive impairment, and RTW.

6. OHC RTW practices for workers with burnout are varied and unequal.

7. Supervisors need support and guidance to be able to support workers with burnout during the absence management and RTW support process.

8. A preliminary biopsychosocial model for absence management and RTW support for workers with burnout was constructed based on the the results of the four studies.

6.4 PRACTICAL IMPLICATIONS

Practical impications for OHC and workplace actors can be presented as follows:

1. There is room for clarifying the roles and responsibilities of occupational health professionals, RTW coordinators and supervisors in the absence management and RTW support process, in order to avoid overlapping activities.

2. OHC and workplace actors need to continue providing supervisor support and to develop education for supervisors to better manage absence and support RTW of workers with burnout.

3. It can be recommended to focus more on early support within OHC organizations and workplaces in order to prevent severe burnout and associated work disability among staff.

4. The preliminary biopsychosocial model for absence management and RTW support constructed in this study can be applied by OHC and workplace actors when supporting workers with burnout and in further developing organizational absence management and RTW policies and practices.

6.5 FUTURE RESEARCH

Future research is needed

1. to further explore OHC and workplace actors' involvement in absence management and RTW support of workers with burnout, also including senior managers, supervisors, workers with burnout and their co-workers.

2. to confirm and explain the association between individual-, burnout-, and work-related factors and RTW in burnout.

3. to reach a common understanding about the burnout construct in scientific discussion and in practice, in OHC organizations and workplaces.

4. to explore the association between career advancement and work disability associated with burnout.

5. to evaluate the feasibility, implementation, effects, and cost-effectiveness of the proposed preliminary biopsychosocial absence management and RTW support model for workers with burnout.

References

Act on the Status and Rights of Patients 785/1992 [Laki potilaan asemasta ja oikeuksista]. Retrieved from: http://finlex.fi/fi/laki/alkup/1992/19920785?search%5Btype%5D=pika&search%5Bpika%5D=785%2F1992

Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Determinants and prevalence of burnout in emergency nurses: A systematic review of 25 years of research. *International Journal of Nursing Studies*, 52(2), 649–661.

Ahola, K., Gould, R., Virtanen, M., Honkonen, T., Aromaa, A., & Lönnqvist, J. (2009a). Occupational burnout as a predictor of disability pension: A population-based cohort study. *Occupational and Environmental Medicine*, 66(5), 284–290.

Ahola, K., Honkonen, T., Isometsä, E., Kalimo, R., Nykyri, E., Koskinen, S., … Lönnqvist, J. (2006). Burnout in the general population. Results from the Finnish Health 2000 Study. *Social Psychiatry and Psychiatric Epidemiology*, 41(1), 11–17.

Ahola, K., Kivimäki, M., Honkonen, T., Virtanen, M., Koskinen, S., Vahtera, J., & Lönnqvist, J. (2008). Occupational burnout and medically certified sickness absence: A population-based study of Finnish employees. *Journal of Psychosomatic Research*, 64(2), 185–193.

Ahola, K., Salminen, S., Toppinen-Tanner, S., Koskinen, A., & Väänänen, A. (2013). Occupational burnout and severe injuries: An eight-year prospective cohort study among Finnish forest industry workers. *Journal of Occupational Health*, 55(6), 450–457.

Ahola, K., Toppinen-Tanner, S., Huuhtanen, P., Koskinen, A., & Väänänen, A. (2009b). Occupational burnout and chronic work disability: An eight-year cohort study on pensioning among Finnish forest industry workers. *Journal of Affective Disorders*, 115(1–2), 150–159.

Ahola, K., Toppinen-Tanner, S., & Seppänen, J. (2017). Interventions to alleviate burnout symptoms and to support return to work among employees with burnout: Systematic review and meta-analysis. *Burnout Research*, 4, 1–11.

Alarcon, G.M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549–562.

Alarcon, G., Eschleman, K.J., & Bowling, N.A. (2009). Relationships between personality variables and burnout: A meta-analysis. *Work & Stress*, 23(3), 244–263.

Althubaiti, A. (2016). Information bias in health research: Definition, pitfalls, and adjustment methods. *Journal of Multidisciplinary Healthcare,* 9, 211–217.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders.* (5th ed.) Arlington, VA: American Psychiatric Publishing.

Amiri, M., Khosravi, A., Eghtesadi, A. R., Sadeghi, Z., Abedi, G., Ranjbar, M., & Mehrabian, F. (2016). Burnout and its influencing factors among primary health care providers in the North East of Iran. *PloS one*, 11(12), e0167648.

Anagnostopoulos, F., & Niakas, D. (2010). Job burnout, health-related quality of life, and sickness absence in Greek health professionals. *European Psychologist,* 15 (2), 132–41.

Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., … Hall, C. (2017). A systematic review including meta-analysis of work environment and burnout symptoms. *BMC Public Health*, 17(1), 264.

Awa, W.L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient Education and Counseling*, 78(2), 184–190.

Baker, C. (1997). Membership categorization and interview accounts. In: Silverman, D. (ed.) *Qualitative research: Theory, method and practice*. New Delhi: Sage. pp. 130–143.

Bakker, A.B., Le Blanc, P.M., & Schaufeli, W.B. (2005). Burnout contagion among critical care nurses. *Journal of Advanced Nursing*, 51(3), 276–287.

Bauernhofer, K., Bassa, D., Canazei, M., Jiménez, P., Paechter, M., Papousek, I., … Weiss, E.M. (2018). Subtypes in clinical burnout patients enrolled in an employee rehabilitation program: Differences in burnout profiles, depression, and recovery/resources-stress balance. *BMC Psychiatry*, 18(1), 10.

Bianchi, R., & Brisson, R. (2017). Burnout and depression: Causal attributions and construct overlap. *Journal of Health Psychology*, 1359105317740415.

Bianchi, R., & Schonfeld, I.S. (2018). Burnout-depression overlap: Nomological network examination and factor-analytic approach. *Scandinavian Journal of Psychology*, 59(5), 532–539.

Bianchi, R., Schonfeld, I.S., & Laurent, E. (2015). Burnout-depression overlap: A review. *Clinical Psychology Review*, 36, 28–41.

Borrell-Carrió, F., Suchman, A.L., & Epstein, R.M. (2004). The biopsychosocial model 25 years later: Principles, practice, and scientific inquiry. *The Annals of Family Medicine*, 2(6), 576–582.

Borritz, M., Christensen, K.B., Bültmann, U., Rugulies, R., Lund, T., Andersen, I., … Kristensen T.S. (2010). Impact of burnout and psychosocial work characteristics on future

long-term sickness absence. Prospective results of the Danish PUMA Study among human service workers. *Journal of Occupational and Environmental Medicine*, 52(10), 964–970.

Brewer, E.W., & Shapard, L. (2004). Employee burnout: A meta-analysis of the relationship between age or years of experience. *Human Resource Development Review*, 3(2), 102–123.

Chiu, L.Y., Stewart, K., Woo, C., Yatham, L.N., & Lam, R.W. (2015). The relationship between burnout and depressive symptoms in patients with depressive disorders. *Journal of Affective Disorders*, 1(172), 361–366.

Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C.C. (2014). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services*, 11(1), 75–86.

Cole, M.S., Walter, F., Bedeian, A.G., & O'Boyle, E.H. (2012). Job burnout and employee engagement: A meta-analytic examination of construct proliferation. *Journal of Management*, 38(5), 1550–1581.

Crawford, E.R., LePine, J.A., & Rich, B.L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834–848.

Creedy, D.K., Sidebotham, M., Gamble, J., Pallant, J., & Fenwick, J. (2017). Prevalence of burnout, depression, anxiety and stress in Australian midwives: A cross-sectional survey. *BMC Pregnancy and Childbirth*, 17(1), 13.

Davey, M.M., Cummings, G., Newburn-Cook, C.V., & Lo, E.A. (2009). Predictors of nurse absenteeism in hospitals: A systematic review. *Journal of Nursing Management*, 17(3), 312–330.

Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512.

Demerouti, E., Le Blanc, P.M., Bakker, A.B., Schaufeli, W.B., & Hox. J. (2009). Present but sick: A three-wave study on job demands, presenteeism and burnout. *Career Development International*, 14(1), 50–68.

Dewa, C.S., Trojanowski, L., Joosen, M.C., & Bonato, S. (2016). Employer best practice guidelines for the return to work of workers on mental disorder–related disability leave: A systematic review. *The Canadian Journal of Psychiatry*, 61(3), 176–185.

Duijts, S.F., Kant, I., Swaen, G.M., Van den Brandt, P.A., & Zeegers, M.P. (2007). A meta-analysis of observational studies identifies predictors of sickness absence. *Journal of Clinical Epidemiology*, 60(11), 1105–1115.

Durand, M.J., Corbière, M., Coutu, M.F., Reinharz, D., & Albert, V. (2014). A review of best work-absence management and return-to-work practices for workers with musculoskeletal or common mental disorders. *Work*, 48(4), 579–589.

Durand, M.J., Nastasia, I., Coutu, M.F., & Bernier, M. (2017). Practices of return-to-work coordinators working in large organizations. *Journal of Occupational Rehabilitation*, 27(1), 137–147.

Ekberg, K., Wåhlin, C., Persson, J., Bernfort, L., & Öberg, B. (2011). Is mobility in the labor market a solution to sustainable return to work for some sick listed persons? *Journal of Occupational Rehabilitation*, 21(3), 355–365.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, 4 (1), 1–10.

Engebretsen, K.M. (2018). Suffering without a medical diagnosis. A critical view on the biomedical attitudes towards persons suffering from burnout and the implications for medical care. *Journal of Evaluation in Clinical Practice*, 24 (5), 1150–1157.

Engel, G.L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136.

Eurofound. (2018). *Burnout in the workplace: A review of data and policy responses in the EU*. Publications Office of the European Union, Luxembourg.

European Commission. (2014). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on an EU strategic framework on health and safety at work 2014–2020*. Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2014%3A332%3AFIN

Franche, R.L., Baril, R., Shaw, W., Nicholas, M., & Loisel, P. (2005). Workplace-based return-to-work interventions: Optimizing the role of stakeholders in implementation and research. *Journal of Occupational Rehabilitation*, 15(4), 525–542.

Freudenberger, H.J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159–165.

Garcia-Arroyo, J., & Osca, S.A. (2018). Effect sizes and cut-off points: A meta-analytical review of burnout in latin American countries. *Psychology, Health & Medicine*, *23*(9), 1079–1093.

Gil-Monte, P.R., Peiró, J.M., & Valcárcel, P. (1998). A model of burnout process development: An alternative from appraisal models of stress. *Comportamento Organizacional e Gestâo*, 4 (1), 165–179.

Gluschkoff, K., Elovainio, M., Kinnunen, U., Mullola, S., Hintsanen, M., Keltikangas-Järvinen, L., & Hintsa, T. (2016). Work stress, poor recovery and burnout in teachers. *Occupational Medicine* (Lond), 66(7), 564–570.

Goering, D.D., Shimazu, A., Zhou, F., Wada, T., & Sakai, R. (2017). Not if, but how they differ: A meta-analytic test of the nomological networks of burnout and engagement. *Burnout Research*, 5, 21–34.

Golembiewski, R.T., Boudreau, R.A., Munzenrider, R.F., & Luo, H. (1996). *Global burnout: A worldwide pandemic explored by the phase model*. Greenwich: JAI.

González-Morales, M.G., Peiró, J.M., Rodríguez, I., & Bliese, P.D. (2012). Perceived collective burnout: A multilevel explanation of burnout. *Anxiety Stress & Coping*, 25(1), 43–61.

Government Decree on the Principles of Good Occupational Health Practice, the Content of Occupational Health Care and the educational Qualifications required of Professionals and Experts 708/2013 [Valtioneuvoston asetus hyvän työterveyshuoltokäytännön periaatteista, työterveyshuollon sisällöstä sekä ammattihenkilöiden ja asiantuntijoiden koulutuksesta]. Retrieved from: http://www.finlex.fi/en/laki/kaannokset/2013/en20130708.pdf

Hakanen, J.J., Bakker, A.B., & Jokisaari, M. (2011). A 35-year follow-up study on burnout among Finnish employees. *Journal of Occupational Health Psychology*, 16(3), 345–360.

Hakanen, J.J., Perhoniemi, R., & Bakker, A.B. (2014). Crossover of exhaustion between dentists and dental nurses. *Stress and Health*, 30(2), 110–121.

Halbesleben, J.R., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, 19(3), 208–220.

Hallsten, L., Voss, M., Stark, S., & Josephson, M. (2011). Job burnout and job wornout as risk factors for long-term sickness absence. *Work,* 38(2), 181–192.

Hassard, J., Teoh, K.R., Visockaite, G., Dewe, P., & Cox, T. (2018). The cost of work-related stress to society: A systematic review. *Journal of Occupational Health Psychology*, 23(1), 1–17.

Health Insurance Act 1224/2004 [Sairausvakuutuslaki]. Retrieved from: https://www.finlex.fi/fi/laki/kaannokset/2004/en20041224_20110911.pdf

Hemingway, P., & Prereton, N. (2009). What is a systematic review? Retrieved from: http://www.bandolier.org.uk/painres/download/whatis/Syst-review.pdf

Hester S., & Eglin P. (1997). Membership categorization analysis: An introduction. In: Hester, S., Eglin, P. (eds.) *Culture in action: Studies in membership categorization analysis*. Washington, D.C.: University Press of America. pp. 1–23.

Hill, A.P., & Curran, T. (2016) Multidimensional perfectionism and burnout: A meta-analysis. *Personality and Social Psychology Review*, 20(3), 269–288.

Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44 (3), 513–524.

Housley, W., & Fitzgerald, R. (2015). Introduction to membership categorisation analysis. In: Fitzgerald, R., Housley, W. (eds.) *Advances in membership categorisation analysis*. New Delhi: Sage. pp. 1–21.

Hyrkäs, K. (2005). Clinical supervision, burnout, and job satisfaction among mental health and psychiatric nurses in Finland. *Issues in Mental Health Nursing*, 26(5), 531–556.

de Jonge, J., & Dormann, C. (2003). The DISC Model. Demand-induced strain compensation mechanisms in job stress. In: Dollard, M., Winefield, H., Winefield, A. (eds.) *Occupational stress in the service professions*. London: Taylor & Francis. pp. 43–74

Jonsdottir, I.H., Nordlund A., Ellbin S., Ljung T., Glise K., Währborg P., … Wallin, A. (2017). Working memory and attention are still impaired after three years in patients with stress-related exhaustion. *Scandinavian Journal of Psycholy*, 58(6), 504–509.

Kallio. H., Pietilä, A.M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954–2965.

Kallioniemi, M.K., Simola, A., Kaseva, J., & Kymäläinen, H.R. (2016). Stress and burnout among Finnish dairy farmers. *Journal of Agromedicine*, 21(3), 259–268.

Karasek, R., & Theorell, T. (1990). *Healthy work: Productivity and the reconstruction of working life.* New York (NY) USA: Basic Books.

Karlson, B., Jönsson, P., & Österberg, K. (2014). Long-term stability of return to work after a workplace-oriented intervention for patients on sick leave for burnout. *BMC Public Health*, 14(1), 821.

Kinnunen-Amoroso, M., & Liira J. (2016). Work-related stress management between workplace and occupational health care. *Work*, 54(3), 507–515.

Kivistö, S., Verbeek, J.H., Hirvonen, M., & Varonen, H. (2008). Return-to-work policies in Finnish occupational health services. *Occupational Medicine* (Lond), 58(2), 88–93.

Knauf, M.T., & Schultz, I. Z. (2016). Current conceptual models of return to work. In: Knauf, M.T., Schultz, I.Z. (eds.) *Handbook of return to work.* Springer, Boston, MA. pp. 27–51.

Korczak, D., Huber, B., & Kister, C. (2010). Differential diagnostic of the burnout syndrome. *GMS Health Technology Assessment*, 6, Doc09.

Korhonen, M., & Komulainen, K. (2019). The moral orders of work and health: a case of sick leave due to burnout. *Sociology of Health & Illness*, 41(2), 219–233.

Krause, N., Frank, J.W., Dasinger, L.K., Sullivan, T.J., & Sinclair, S.J. (2001). Determinants of duration of disability and return-to-work after work-related injury and illness: Challenges for future research. *American Journal of Industrial Medicine*, 40(4), 464–484.

Kristensen, T.S., Borritz, M., Villadsen, E., & Christensen, K.B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, 19(3), 192–207.

Lambert, E.G., Barton-Bellessa, S.M., & Hogan, N.L. (2015). The consequences of emotional burnout among correctional staff. *SAGE Open*, 5(2), 2158244015590444.

Lammerts, L., Schaafsma, F.G., Eikelenboom, M., Vermeulen, S.J., Van Mechelen, W., Anema, J.R., & Penninx, B.W. (2016). Longitudinal associations between biopsychosocial factors and sustainable return to work of sick-listed workers with a depressive or anxiety disorder. *Journal of Occupational Rehabilitation*, 26(1), 70–79.

Lastovkova, A., Carder, M., Rasmussen, H.M., Sjoberg, L., de Groene, G.J., Sauni, R., … Pelclova, D. (2018). Burnout syndrome as an occupational disease in the European Union: An exploratory study. *Industrial Health*, 56(2), 160–165.

Lee, R.T., & Ashforth, B.E. (1993). A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. *Organizational Behavior and Human Decision Processes*, 54(3), 369–398.

Lee, R.T., Seo, B., Hladkyj, S., Lovell, B.L., & Schwartzmann, L. (2013). Correlates of physician burnout across regions and specialties: A meta-analysis. *Human Resources for Health*, 11(1), 48.

Leiter, M.P. (1993). Burnout as a developmental process: Consideration of models. In: Schaufeli, W.B., Maslach, C., Marek, T. (eds.) *Professional burnout: Recent developments in theory and research*. Washington: Taylor & Francis. pp. 237–250.

Leiter, M.P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9(4), 297–308.

Leiter, M.P., & Maslach, C. (1999). Six areas of worklife: A model of the organizational context of burnout. *Journal of Health and Human Services Administration*, 21, 472–489.

Leiter, M.P., & Maslach, C. (2005). A mediation model of job burnout. In: Antoniou, A.S.G., Cooper, C.L. (eds.) *Research companion to organizational health psychology*. Cheltenham, UK: Edward Elgar. pp. 544–564.

Leiter, M.P., & Maslach, C. (2016). Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research,* 3(4), 89–100.

Leone, S.S., Huibers, M.J., Knottnerus, J.A., & Kant, I. (2008). A comparison of the course of burnout and prolonged fatigue: A 4-year prospective cohort study. *Journal of Psychosomatic Research*, 65(1), 31–38.

Lepper G. (2000). *Categories in text and talk: Introducing qualitative methods*. London: Sage.

Li, L., Ruan, H., & Yuan, W.J. (2015). The relationship between social support and burnout among ICU nurses in Shanghai: A cross-sectional study. *Chinese Nursing Research*, 2 (2–3), 45–50.

Lim, C.S., Rafee, B.M., Anita, A.R., Shamsul, A.S., & Noor, S.M. (2018). Effectiveness of a participatory ergonomics intervention to improve musculoskeletal health: A Solomon four-group study among manufacturing industry workers in Selangor, Malaysia. In: Ray, G.G., et al. (eds.) *Ergonomics in caring for people*. Singapore: Springer. pp. 169–179.

Maricuțoiu, L.P., Sulea, C., & Iancu, A. (2017). Work engagement or burnout: Which comes first? A meta-analysis of longitudinal evidence. *Burnout Research*, 5, 35–43.

Maslach, C. (1976). Burned-out. *Human Behavior*, 5(9), 16–22.

Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied and Preventive Psychology*, 7(1), 63–74.

Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2(2), 99–113.

Maslach, C., & Leiter, M.P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111.

Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397–422.

Mather, L., Bergström, G., Blom, V., & Svedberg, P. (2014). The covariation between burnout and sick leave due to mental disorders is explained by a shared genetic liability: A prospective Swedish twin study with a five-year follow-up. *Twin Research and Human Genetics*, 17(6), 535–544.

Morgan, D.L., Ataie, J., Carder, P., & Hoffman, K. (2013). Introducing dyadic interviews as a method for collecting qualitative data. *Qualitative Health Research*, 23 (9), 1276–1284.

Morse, J.M. (2015). Data were saturated… *Qualitative Health Research*, 25(5), 587–588.

Murtomaa, H., Haavio-Mannila, E., & Kandolin, I. (1990). Burnout and its causes in Finnish dentists. *Community Dentistry and Oral Epidemiology*, 18(4), 208–212.

Mäkikangas, A., & Kinnunen, U. (2016). The person-oriented approach to burnout: A systematic review. *Burnout Research*, 3(1), 11–23.

Nagy, E., & Takács, I. (2017). The road to teacher burnout and its possible protecting factors – A narrative review. *Review of Social Sciences*, 2(8), 9–22.

Näätänen, P., Aro, A., Matthiesen, S.B., & Salmela-Aro, K. (2003). *Bergen Burnout Indicator 15.* Helsinki: Edita Publishing.

Occupational Health Care Act 1383/2001 [Työterveyshuoltolaki]. Retrieved from: https://www.finlex.fi/fi/laki/ajantasa/2001/20011383#L2P10a

Official Statistics of Finland (OSF). Labour force survey ISSN=1798-7857. 2018. Retrieved from: http://www.stat.fi/til/tyti/2018/03/tyti_2018_03_2018-04-24_tie_001_en.html

Olkinuora, M., Asp, S., Juntunen, J., Kauttu, K., Strid, L., & Äärimaa, M. (1990). Stress symptoms, burnout and suicidal thoughts in Finnish physicians. *Social Psychiatry and Psychiatric Epidemiology*, 25(2), 81–86.

Panagioti, M., Panagopoulou, E., Bower, P., Lewith, G., Kontopantelis, E., Chew-Graham, C., … Esmail, A. (2017). Controlled interventions to reduce burnout in physicians: A systematic review and meta-analysis. *JAMA Internal Medicine*, 177(2), 195–205.

Park, H.I., Jacob, A.C., Wagner, S.H., & Baiden, M. (2014). Job control and burnout: A meta-analytic test of the conservation of resources model. *Applied Psychology*, 63(4), 607–642.

Patton, M.Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice.* (4th ed.) Thousand Oaks (CA): Sage Publications, Inc.

Paulhus, D. L. (1991). Measurement and control of response bias. In Robinson, J.P., Shaver, P.R., Wrightsman, L.S. (eds.) *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press. pp. 17–59.

Perski, O., Grossi, G., Perski, A., & Niemi, M. (2017) A systematic review and meta-analysis of tertiary interventions in clinical burnout. *Scandinavian Journal of Psychology*, *58*(6), 551–561.

Personal Data Act 523/1999 [Henkilötietolaki]. Retrieved from: http://www.finlex.fi/fi/laki/ajantasa/1999/19990523?search%5Btype%5D=pika&search%5Bpik a%5D=henkil%C3%B6tietolaki

Peterson, U., Bergström, G., Demerouti, E., Gustavsson, P., Åsberg, M., & Nygren, Å. (2011). Burnout levels and self-rated health prospectively predict future long-term sickness absence: A study among female health professionals. *Journal of Occupational and Environmental Medicine*, 53(7), 788–793.

Peterson, U., Demerouti, E., Bergström, G., Åsberg, M., & Nygren, Å. (2008). Work characteristics and sickness absence in burnout and nonburnout groups: A study of Swedish health care workers. *International Journal of Stress Management*, 15(2), 153–172.

Pines, A., & Aronson, E. (1988). *Career burnout: Causes and cures*. New York, NY, US: Free Press.

Pines, A., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth.* New York: Free Press.

Purvanova, R.K., & Muros, J.P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, 77(2), 168–185.

Regehr, C., Glancy, D., Pitts, A., & LeBlanc, V.R. (2014). Interventions to reduce the consequences of stress in physicians: A review and meta-analysis. *The Journal of Nervous and Mental Disease*, 202(5), 353–359.

Reijula, K., Räsänen, K., Hämäläinen, M., Juntunen, K., Lindbohm, M.L., Taskinen, H., … Rinta-Jouppi, M. (2003). Work environment and occupational health of Finnish veterinarians. *American Journal of Industrial Medicine*, 44(1), 46–57.

Rezaei, S., Karami Matin, B., Hajizadeh, M., Soroush, A., & Nouri, B. (2018). Prevalence of burnout among nurses in Iran: A systematic review and meta-analysis. *International Nursing Review*, 65(3), 361–369.

Roelen, C.A., Van Hoffen, M.F., Groothoff, J.W., De Bruin, J., Schaufeli, W.B., & Van Rhenen, W. (2015). Can the Maslach Burnout Inventory and Utrecht Work Engagement Scale be used to screen for risk of long-term sickness absence? *International Archives of Occupational and Environmental Health*, 88(4), 467–475.

Rothenberger, D.A. (2017). Physician burnout and well-being: A systematic review and framework for action. *Diseases of the Colon & Rectum*, 60(6), 567–576.

Rössler, W., Hengartner, M.P., Ajdacic-Gross, V., & Angst, J. (2015). Predictors of burnout: Results from a prospective community study. *European Archives of Psychiatry and Clinical Neuroscience*, 265(1), 19–25.

Sacks H. (1972a). An initial investigation of the usability of conversational data for doing sociology. In: Sudnow, D. (ed.) *Studies in social interaction*. New York: Free Press. pp. 31–74.

Sacks H. (1972b). On the analysability of stories by children. In: Turner R, editor. *Ethnomethodology: Selected readings*. Harmondsforth: Penguin Education. pp. 216–232.

Salmela-Aro, K., Rantanen, J., Hyvönen, K., Tilleman, K., & Feldt T. (2011). Bergen Burnout Inventory: Reliability and validity among Finnish and Estonian managers. *International Archives of Occupational and Environmental Health*, 84(6), 635–645.

Salminen, S., Andreou, E., Holma, J., Pekkonen, M., & Mäkikangas, A. (2017). Narratives of burnout and recovery from an agency perspective: A two-year longitudinal study. *Burnout Research*, 7, 1–9.

Schaufeli, W.B., Bakker, A.B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organisational Behaviour*, 30(7), 893–917.

Schaufeli, W., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis.* Philadelphia: Taylor & Francis.

Schaufeli, W.B., Leiter, M.P., Maslach, C., & Jackson S.E. (1996). The Maslach Burnout Inventory – General Survey. In: Maslach, C., Jackson, S.E. & Leiter, M.P. (eds.) *Maslach Burnout Inventory manual.* (3rd ed.) Palo Alto, CA: Consulting Psychologists Press. pp. 22–26.

Schaufeli, W.B., Maassen, G.H., Bakker, A.B., & Sixma, H.J. (2011). Stability and change in burnout: A 10-year follow-up study among primary care physicians. *Journal of Occupational and Organizational Psychology*, 84(2), 248–267.

Schaufeli, W.B., & Taris, T.W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress*, 19(3), 256–262.

Schneider, A., Hilbert, S., Hamann, J., Skadsem, S., Glaser, J., Löwe, B., & Bühner, M. (2017). The implications of psychological symptoms for length of sick leave: burnout, depression, and anxiety as predictors in a primary care setting. *Deutsches Ärzteblatt International*, 114(17), 291–297.

Schouteten, R. (2017). Predicting absenteeism: Screening for work ability or burnout. *Occupational Medicine* (Lond), 67 (1),52–57.

Schultz, I.Z., Stowell, A.W., Feuerstein, M., & Gatchel, R.J. (2007). Models of return to work for musculoskeletal disorders. *Journal of Occupational Rehabilitation*, 17(2), 327–352.

Selinheimo, S., Mattila-Holappa, P., Valtanen, E., Vilén, J., Sauni, R., & Vastamäki, J. (2018). *Työn muokkaus mielenterveyden häiriöissä. Työterveyshuollon hyvät käytännöt: Työhön paluun tuki*

[Work modifications in mental health problems. Occupational health care best practices. Return-to-work support]. Kustannus Oy Duodecim. Retrieved from: https://www.terveysportti.fi/dtk/tyt/ttk00124

Shaw, W., Hong, Q.N., Pransky, G., & Loisel, P. (2008). A literature review describing the role of return-to-work coordinators in trial programs and interventions designed to prevent workplace disability. *Journal of Occupational Rehabilitation*, 18(1), 2–15.

Shirom, A. (1989). Burnout in work organizations. In: Cooper, C.L., Robertson, I. (eds.) *International Review of Industrial and Organizational Psychology*. New York: Wiley. pp. 25–48.

Siegrist J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27–41.

Suvisaari, J., Ahola, K., Kiviruusu, O., Korkeila, J., Lindfors, O., Mattila, A., …Viertiö S. (2012). Psyykkiset oireet ja mielenterveyden häiriöt. In*:* Koskinen, S., Lundqvist, A., Ristiluoma, N. (eds.) *Terveys, toimintakyky ja hyvinvointi Suomessa 2011* [Health, functional capacity and welfare in Finland in 2011]. Tampere: Terveyden ja hyvinvoinnin laitos (THL). pp. 96–101.

Stokoe, E., & Attenborough, F. Prospective and retrospective categorisation: Category proffers and inferences in social interaction and rolling news media. In: Fitzgerald, R., Housley, W., (eds.) *Advances in membership categorisation analysis*. New Delhi: Sage; 2015. pp. 51–70.

Swider, B.W., & Zimmerman, R.D. (2010). Born to burnout: A meta-analytic path model of personality, job burnout, and work outcomes. *Journal of Vocational Behavior*, 76(3), 487–506.

Taris, T.W., Le Blanc, P.M., Schaufeli, W.B., & Schreurs, P.J. (2005). Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress*, 19(3), 238–255.

Taris, T.W., Ybema, J.F., & Van Beek, I. (2017). Burnout and engagement: Identical twins or just close relatives? *Burnout Research*, 5, 3–11.

Tayfur, O., & Arslan, M. (2013). The role of lack of reciprocity, supervisory support, workload, and work-family conflict on exhaustion: Evidence from physicians. *Psychology, Health & Medicine*, 18(5), 564–575.

The Joanna Briggs Institute. (2014). *Joanna Briggs Institute reviewers' manual*. (2014 ed.) Australia: The Joanna Briggs Institute.

Toppinen-Tanner, S., Kalimo, R., & Mutanen, P. (2002). The process of burnout in white-collar and blue-collar jobs: Eight-year prospective study of exhaustion. *Journal of Organizational Behavior*, 23(5), 555–570.

Toppinen-Tanner, S., Ojajärvi, A., Väänänen, A., Kalimo, R., & Jäppinen, P. (2005). Burnout as a predictor of medically certified sick-leave absences and their diagnosed causes. *Behavioral Medicine*, 31(1), 18–32.

Tuunainen, A., Akila, R., & Räisänen, K. (2011). How to recognize burnout and treat it? [Osaatko tunnistaa työuupumuksen ja hoitaa sitä?]. *Duodecim*, 127(11),1139–1146.

Van Dam, A. (2016). Subgroup analysis in burnout: Relations between fatigue, anxiety, and depression. *Frontiers in Psychology*, 7,90.

Van Dierendonck, D., Schaufeli, W.B., & Buunk, B.P. (2001). Toward a process model of burnout: Results from a secondary analysis. *European Journal of Work and Organizational Psychology*, 10(1), 41–52.

Varhama, L.M., & Björkqvist, K. (2004). Conflicts, workplace bullying and burnout problems among municipal employees. *Psychological Reports*, 94(3 Pt 2), 1116–1124.

Vogel, N., Schandelmaier, S., Zumbrunn, T., Ebrahim, S., de Boer, W. E., Busse, J. W., & Kunz, R. (2017). Return-to-work coordination programmes for improving return to work in workers on sick leave. *Cochrane Database of Systematic Reviews*, 3, CD011618.

Waddell, G., & Burton, A.K. (2004). *Concepts of rehabilitation for the management of common health problems*. London: The Stationery Office.

West, C.P., Dyrbye, L.N., Erwin, P.J., & Shanafelt, T.D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *The Lancet*, 388(10057), 2272–2281.

Westermann, C., Kozak, A., Harling, M., & Nienhaus, A. (2014). Burnout intervention studies for inpatient elderly care nursing staff: Systematic literature review. *International Journal of Nursing Studies*, 51(1), 63–71.

Whiting, L.S. (2008). Semi-structured interviews: Guidance for novice researchers. *Nursing Standard*, 22(23), 35–40.

World Health Organization (WHO). (2016). *International statistical classification of diseases and related health problems*. (10th revision, 5 th ed.) Geneva: WHO.

World Medical Association. (2018). *WMA Declaration of Helsinki – ethical principles for medical research involving human subjects*. Retrieved from: https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/.

Young, A.E., Roessler, R.T., Wasiak, R., McPherson, K.M., Van Poppel, M.N., & Anema, J.R. (2005). A developmental conceptualization of return to work. *Journal of Occupational Rehabilitation*, 15(4), 557–568.

APPENDICES (I-VII)

Appendices I–VII

Appendix I

Supplementary table 1. Absence management and return-to-work (RTW) support based on the results of the studies I–IV by dimensions of the biopsychosocial approach by Waddell and Burton (2004).

Studies	Biological dimension	Psychological dimension	Social dimension
Study I	Male gender; unimpaired sleep	Low control at work; covert coping; high over-commitment to work	Enhanced communication; duration of sick leave over 6 months; part-time sick leave as a predictor of full-time RTW
Study II	Detect high-risk groups for burnout; implement early support; define burnout; support recovery	Support disengagement from work; support re-engagement with work; monitor the job–person match	Determine the RTW goal; re-evaluate the RTW goal; support the maintenance of the achieved RTW goal; support an alternative RTW goal
Study III	Monitor staff well-being; initiate RTW process; provide tools to support recovery	Support re-engagement with work; monitor coping at work	Plan RTW; monitor progress of the RTW process
Study IV	Monitor sickness absence; broach the concern about worker's ability to work; provide support for managing stressors at work; guide the worker to seek occupational health services for work ability assessment; initiate joint negotiation on the worker's work ability and work modifications	Control workers' work capacity through development discussions; observe work performance; maintain contact with the worker; provide emotional support; re-orientate the worker; monitor coping at work; remind the worker of deadlines; delegate work/arrange substitute	Plan RTW; inform co-workers about RTW; implement work modifications; focus on preventing the recurrence of burnout

Appendix II

Supplementary table 2. Factors challenging absence management and return-to-work (RTW) support based on the results of the studies I–IV by dimensions of the biopsychosocial approach by Waddell and Burton (2004). OHC=occupational health care.

Studies	**Biological dimension**	**Psychological dimension**	**Social dimension**
Study I	Association between the level of symptoms and RTW is unclear; association between the level of cognitive impairment and RTW is unclear	Association between burnout rehabilitation and RTW is unclear	-
Study II	OHC has varied practices for defining burnout; varied practices for supporting recovery	OHC has varied practices for recommending sick leave	OHC has varied practices for supporting supervisor; varied practices for monitoring sustainability of the achieved RTW goal
Study III	Common understanding about burnout syndrome; co-occurring disorders; dimensions of burnout; unpredictability of recovery	Personality characteristics	Private life psychosocial factors; conflicts within the work community; openness about burnout and its causes
Study IV	*Supervisors need support and guidance to be able to:* monitor and react to the increased sickness absence; recognize burnout; broach concern about worker's ability to work without hesitation; provide the worker support in managing stressors at work without causing additional role conflict	*Supervisors need support and guidance to be able to:* conduct development discussions; communicate with the worker on sick leave; manage administrative tasks in RTW; welcome the worker	*Supervisors need support and guidance to be able to:* communicate with the worker about burnout and stressors at work to plan RTW; inform co-workers about RTW without fear of breaking privacy rules; implement work modifications within economical boundaries; resolve conflicts in order to maintain a good working atmosphere; improve one's management practices

Appendix III

SEARCH TERMS:

ARTO
(burnout? työuupum?) AND (intervent? paluu? työhönpaluu? sairausloma?)

CINAHL (EBSCO)
(MH "Burnout, Professional" OR MH "Stress, Occupational") AND (MH "Job Re-Entry" OR MH “Nursing Intervention" OR MH “Early Intervention”)
((burnout OR "burn*out" OR "work-related stress*" OR "work stress*") AND ("sick-leave*" OR "sick*absen*" OR "return to work*"))
(burnout OR "burn*out" OR "exhaustion* disorder*" OR "work-related stress*" OR "work stress*" OR "job stress*" OR "stress-related" OR stress* OR "occupational stress*" OR "psychological workload*") AND (work* OR workplace* OR job* OR worksite*) AND ("sick-leave*" OR "sick* absen*" OR absen*) AND ("return to work*" OR "job re-entry" OR reemployment* OR return* OR “work* resumption*”) AND (intervention* OR program* OR model* OR support*)

MEDIC
burnout* työuupum* AND intervent* paluu* työhönpaluu* sairausloma* absen* sick-absen* return*

PsycINFO (ProQuest)
SU.EXACT("Occupational Stress") AND (SU.EXACT("Reemployment") OR SU.EXACT("Intervention"))

(burnout OR "burn*out" OR "work-related stress*" OR "work stress*") AND ("sick-leave*" OR "sick*absen*" OR "return to work*")

(burnout OR "burn*out" OR "exhaustion* disorder*" OR "work-related stress*" OR "work stress*" OR "job stress*" OR "stress-related" OR stress* OR "occupational stress*" OR "psychological workload*") AND (work* OR workplace* OR job* OR worksite*) AND ("sick-leave*" OR "sick* absen*" OR absen*) AND ("return to work*" OR "job re-entry" OR reemployment* OR return* OR “work* resumption*”) AND (intervention* OR program* OR model* OR support*)

PubMed
"Burnout, Professional"[Mesh] AND ("Sick Leave"[Mesh] OR "Return to Work"[Mesh])

(burnout OR "burn out" OR "work-related stress" OR "work stress") AND ("sick-leave" OR "sickness absence" OR "return to work")

(((((burnout OR "exhaustion disorder" OR "work-related stress" OR "work stress" OR "job stress" OR "stress-related" OR stress OR "occupational stress" OR "psychological workload"))

AND (work OR workplace OR job OR worksite)) AND ("sick-leave" OR "sickness absence" OR absence)) AND ("return to work" OR "job re-entry" OR reemployment OR return OR “work resumption”)) AND (intervention OR program OR model OR support)))))

Scopus
((burnout OR "burn* out" OR "work-related stress*" OR "work stress*") AND ("sick-leave*" OR "sick* absen*" OR "return to work*"))

(burnout OR "burn*out" OR "exhaustion* disorder*" OR "work-related stress*" OR "work stress*" OR "job stress*" OR "stress-related" OR stress* OR "occupational stress*" OR "psychological workload*") AND (work* OR workplace* OR job* OR worksite*) AND ("sick-leave*" OR "sick* absen*" OR absen*) AND ("return to work*" OR "job re-entry" OR reemployment* OR return* OR “work* resumption*”) AND (intervention* OR program* OR model* OR support*)

Web of Science
(((burnout OR "burn* out" OR "work-related stress*" OR "work stress*") AND ("sick-leave*" OR "sick absen*" OR "return to work*")))

(burnout OR "burn*out" OR "exhaustion* disorder*" OR "work-related stress*" OR "work stress*" OR "job stress*" OR "stress-related" OR stress* OR "occupational stress*" OR "psychological workload*") AND (work* OR workplace* OR job* OR worksite*) AND ("sick-leave*" OR "sick* absen*" OR absen*) AND ("return to work*" OR "job re-entry" OR reemployment* OR return* OR “work* resumption*”) AND (intervention* OR program* OR model* OR support*)

Appendix IV

DEMOGRAPHIC QUESTIONNAIRE

OHC PROFESSIONALS:

- type of OHC organization (private/municipal/employer-operated OHC center)
- sector in which the client organizations operate
- gender
- age
- qualification for OHC professional/year when taken qualification
- additional training related to burnout
- the length of the working experience as an occupational health professional
- experience in treating workers with burnout

RTW COORDINATORS:

- sector of the employer's organization
- size of the employer's organization/number of workers
- institutional position of the RTW coordinator
- gender
- age
- the length of the working experience of the absence management and RTW processes

Appendix V

INTERVIEW GUIDE

OHC PROFESSIONALS:
Experiences about the burnout of the clients
- recognition of burnout

Experiences with the RTW of the clients with burnout
- experiences of RTW support for the clients with burnout
- experiences of potential factors that may obstruct or facilitate RTW/RTW support of clients with burnout

Experiences of cooperation in RTW support of clients with burnout
- within OHC team
- with workplace actors

Experiences of own role in supporting clients with burnout
How did you experience this interview?

RTW COORDINATORS:
Experiences with the RTW of the workers with burnout
- experiences with the RTW support for the workers with burnout
- experiences of potential factors that may obstruct or facilitate RTW/RTW support for workers with burnout

Experiences of cooperation in RTW support of workers with burnout
- with OHC
- with other workplace actors

Experiences of own role in supporting workers with burnout
How did you experience this interview?

Appendix VI

ESSAY ASSIGNMENT

OHC PROFESSIONALS:

Thank you for your participation in this study. This study aims to explore experiences of OHC professionals on burnout and on RTW support of the clients with severe burnout.

This essay assignment is part of the data collection. Describe you experiences, feelings and thoughts related to burnout of your clients. What kind of experiences do you have on burnout and RTW support in burnout? As a researcher, I am interested in your subjective experiences, feelings and thoughts, and not on general intepretations. The length and the extent of the essay you can self decide.

I will handle the essays confidentially. The identity of the participants and their work organizations will not be revealed in any phase of the research process.
The data will be stored in a locked cabinet where no outsiders have access. The data will be destroyed after 10 years.

Write the essay in word document in your own computer and copy the text to the e-form. Save the essay document. The saved essay will be received by me automatically. Submit the essay assignment by xx.xx.xxxx. If you have any questions, do not hesitate to ask me. I will be pleased to answer to your questions.

Kind regards,

Riitta Kärkkäinen

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Appendix VII

ESSAY ASSIGNMENT

RTW COORDINATORS:

Thank you for your participation in this study. This study aims to explore experiences of HR professionals on RTW support of the workers with burnout in their work organization.

This essay assignment is part of the data collection. Describe you experiences, feelings and thoughts related to RTW support of the workers with burnout. What kind of experiences do you have on RTW and RTW support of workers with burnout? As a researcher, I am interested in your subjective experiences, feelings and thoughts, and not on general intepretations. The length and the extent of the essay you can self decide.

I will handle the essays confidentially. The identity of the participants and their work organizations will not be revealed in any phase of the research process. The data will be stored in a locked cabinet where no outsiders have access. The data will be destroyed after 10 years.

Write the essay in word document in your own computer and copy the text to the e-form. Save the essay document. The saved essay will be received by me automatically. Submit the essay assignment by xx.xx.xxxx. If you have any questions, do not hesitate to ask me. I will be pleased to answer to your questions.

Kind regards,

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RIITTA KÄRKKÄINEN

Job burnout is associated with work disability. This study reveals that actions to prevent severe burnout and associated work disability are taken by employers and occupational health care. However, there is room for developing this support as varied and unequal occupational health care support practices emerged as did supervisors' need for support and guidance. A preliminary biopsychosocial model for absence management and return-to-work support for workers with burnout is recommended.

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