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HEALTHY WORKPLACES

Factors of importance for employee health and
organizational production

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ABSTRACT

The overall aim of the thesis was to investigate one aspect of healthy workplaces; namely, how psychosocial work factors affect employees' general health and organizational production.

The aim of Study I was to identify psychosocial factors at work that promote positive changes in employee health and factors that prevent negative changes in employee health. Specifically, we wanted to see if certain changes in the work environment would have a positive or negative impact on changes in the general health of the employee. The results showed that if employees' perception of leadership and social climate improved, their health would also improve. A decrease in employees' perception of leadership, organizational commitment and experiencing job strain were related to a decrease in their health.

The aim of Study II was to investigate whether there is a relationship between psychosocial work environment factors and production loss, and if a potential relationship is mediated by employee health. Organizational commitment, social climate, job demands, job control and role compatibility were directly or indirectly related to production loss through employee health.

The aim of Study III was to further develop a work capacity index including both qualitative and quantitative aspects of the ability to perform at work by including factors in the psychosocial work environment. A further aim was to evaluate the effects of a workplace intervention by estimating the change in the work capacity index. The results showed that the intervention had an effect in terms of more employees who were healthy and healthier employees, measured as improvement in the work capacity index, among the companies that worked actively with the intervention. The company that put less effort into the method did not have the same positive effect as the others did.

Improvements in employee health and decreased production loss are related to improvements in psychosocial work factors. A good work environment contributes to improved employee health, which in turn affects organizational production. Creating a healthy workplace is not achieved by a single intervention. Instead, it is a process that needs to be maintained and constantly preserved. This focus must be part of the organizational culture, structure and climate. The results of the research done here, as well as of previous research, suggest that a healthy workplace is not only of value to companies, but also to the people who work for those companies.

Keywords: healthy organizations, healthy workplaces, psychosocial work factors, health-related quality of life, employee health, production loss, workplace health promotion, intervention study, longitudinal design

SAMMANFATTNING

Det övergripande syftet med avhandlingen var att undersöka en aspekt av friska arbetsplatser; hur psykosociala arbetsmiljöfaktorer är relaterat till anställdas hälsa samt organisationers produktion.

Syftet med den första studien var att identifiera de faktorer i den psykosociala arbetsmiljön som bidrar till förbättrad hälsa hos de anställda samt de som förhindrar en försämrad hälsa hos de anställda. Framförallt var syftet att undersöka om förändringar i olika arbetsmiljöfaktorer var relaterade till positiva eller negativa förändringar i de anställdas hälsa. Resultatet visade att de anställda som upplevde en förbättring av ledarskapet på arbetsplatsen samt ett förbättrat socialt klimat hade en ökad chans för bättre hälsa. De som upplevde en försämring av ledarskapet, minskat engagemang i organisationen och hade skattat spännt arbete vid båda mättillfällena hade ökad risk för sämre hälsa.

I den andra delstudien var syftet att undersöka om det fanns ett samband mellan psykosociala arbetsmiljöfaktorer och produktionsbortfall, samt om detta samband medierades av anställdas hälsa. De anställdas engagemang i organisationen, samt upplevelser av det sociala klimatet, arbetets krav och kontroll samt rollförenlighet var direkt eller indirekt relaterade till produktionsbortfall via deras hälsa.

Syftet med den tredje delstudien var att vidareutvecklades ett befintligt arbetskraftindex, vilket inkluderar både kvalitativa och kvantitativa aspekter på förmågan att arbeta, till att även innefatta faktorer i den psykosociala arbetsmiljön. Denna modell användes sedan i syfte att utvärdera en arbetsplats intervention genom att mäta förändringarna i arbetskraftindexet. Resultatet visade att interventionen hade en positiv effekt på de anställda hos de företag som arbetade aktivt med metoden. Fler anställda blev friska, dvs ökade sin arbetsförmåga, samt de anställda som tidigare uppskattats som friska ökade sin arbetsförmåga ytterligare. Det företag som inte lika mycket tid på interventionen fick inte samma positiva effekt som de andra företagen.

Förbättringar i anställdas hälsa och ett minskat produktionsbortfall har ett samband med förbättringar i den psykosociala arbetsmiljön. En bra arbetsmiljö och ett högt engagemang i organisationen bidrar till förbättrad hälsa, vilket i sin tur leder till ett minskat produktionsbortfall. För att skapa en frisk arbetsplats behövs upprepade interventioner och kontinuitet. Detta bör vara en del av den kultur, struktur och det klimat som finns på arbetsplatsen. Resultaten i denna avhandling visar på att en frisk arbetsplats inte bara är av värde för företagen, utan även för de som arbetar där.

Nyckelord: Friska organisationer, friska arbetsplatser, psykosociala arbetsmiljöfaktorer, hälsorelaterad livskvalitet, anställdas hälsa, produktionsbortfall, hälsopromotion på arbetsplatsen, interventions studie, longitudinell design

Det är visserligen berömvärt att hjälpa de sjuka att bli friska, men lika berömvärt är att hjälpa de friska att bevara sin hälsa.

Hippokrates (400 f Kr)

LIST OF PUBLICATIONS

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- III. Lohela Karlsson M. Evaluation of a change in employees' work ability. *Submitted 2009*.

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LIST OF ABBREVIATIONS

AHA	Swedish abbreviation for Work and Health in Process and Engineering Industries (<i>Arbete och Hälsa</i>)
DEA	Data Envelopment Analysis
EQ-5D	EuroQol questionnaire for measuring HRQL
EU	European Union
HRM	Human resource management
HRQL	Health-related quality of life
OHS	Occupational health services
PATH	Practices for the Achievement of Total Health
QPS	Questionnaire for Psychological and Social factors at work
SF-12	Short Form 12; Questionnaire for measuring HRQL
TTO	Time trade-off
WHO	World Health Organization
WHP	Workplace health promotion

1 INTRODUCTION

The changing nature of work, with reorganization, increased work load, technical development and insecure employment, is suggested to cause deteriorating health among employees. People fall ill, decrease their work performance and motivation, become more dissatisfied, or change jobs. These are not only consequences that affect the employees; they also affect the companies as well as society. Today, we know that people are both affected by their work environment ¹⁻⁴ and affect the work environment themselves ⁵. Earlier focus was on the physical work environment, but since 1978 the concept of work environment has changed to also include psychosocial work factors. According to the Swedish law of work environment, companies should develop the work environment to fit people's physical and psychological conditions ⁶. The purpose of work environment improvements is not only to reduce risks, but to create an environment that contributes to employees' well-being, job satisfaction and development, as well as organizational productivity.

For decades, productivity and efficiency improvements have been the goal when changes have been made in organizations and to working conditions. Already in the late 1890s Scientific Management was introduced, a task-oriented optimization of work that implied less control for workers and a standard method for performing a job. Wages were used as motivational incentives to increase performance ⁷. Then in the 1920s Human Relations arose, based on the Hawthorne studies. In contrast to Scientific Management, Human Relations took into consideration the social part of work in an attempt to improve company effectiveness ⁸. More recently developed theories discuss healthy workplaces, workplaces that contribute to employee health as well as organizational effectiveness. The framework of healthy organizations (organizational health) involves evaluating how individuals and organizational factors interact to determine individual well-being and organizational performance ⁹.

The problem of poor working conditions and how to improve employee health is not only a topic related to Swedish conditions. Research within this field is done around the world and large international organizations, such as WHO, have pointed out the importance of improving the work environment for workers' health. The European Union (EU) has taken action for a common strategy on health and safety at work to prevent ill-health and promote health at workplaces ¹⁰, and has also established the European Network for Workplace Health Promotion ¹¹. The aim of the network is to identify examples of good practice of workplace health promotion. In doing this, the EU highlights the importance for member countries to work with these issues. If companies can support their employees in staying healthy and motivated, it is possible that they will increase company productivity through an increase in individual performance. In a study, O'Donnell ¹² suggested that this could be done by investing in health-promotion programs on both organizational and individual levels. But do we know that companies can actually increase their production by investing in their employees? Which psychosocial work factors contribute to an improvement in employee health? Are psychosocial work factors and employee health related to organizational production? An attempt to answer these questions is made in this thesis.

2 THEORETICAL BACKGROUND

2.1 HEALTHY WORKPLACES

The ideas behind healthy organizations, also called healthy workplaces or occupational health, go back to the beginning of the twentieth century. Early researchers such as Argyris, McGregor, Schein, Mayo and Maslow have used different perspectives to look into how organizations can contribute to healthy, motivated and effective employees. A summary can be read in Jaffe ¹³, for example. Scientific management ⁷ is based on the assumption that people are driven by extrinsic rewards such as salary, promotion and status. Recent theories suggest that organizations that target people's needs can benefit from increased commitment and productivity ¹⁴. A company that is economically successful will be able to attract people into its organization, organize and direct their efforts toward production, as well as create profit. If employees' full ability and potential are tapped into and nurtured, organizational effectiveness will improve ^{14, 15}.

2.1.1 Definition of a healthy workplace

A general definition of a healthy organization is one that contributes to a healthy workforce and has financial success ^{9, 15}. Most research has focused on organizational effectiveness, measured as reaching profit, production, service and continuity goals. However, Jaffe ¹³ extended organizational effectiveness with another dimension: how organizations treat their employees and how effectiveness, health and well-being are connected. These aspects are included in his definition of healthy organizations. Thus, a healthy organization is not only economically successful but also contributes to healthy, motivated and satisfied employees ¹³. It gives the employees well-designed and meaningful jobs, as well as opportunities for career and work-life enhancement ¹⁶. It includes the structure of the organization and how reorganization can contribute to health and effectiveness ⁹. Further, it also includes the work environment, leadership, culture and climate. The adherers to the theory of healthy organizations believe that it is possible to combine employee health with profits, whereas others believe that if resources are devoted to improving employee health then fewer resources will be available to contribute to company profit ¹⁷. A healthy workplace is one with resources that can help employees handle job and life stressors ¹⁸. Kelloway and Day ¹⁸ suggest that such a workplace has potential positive consequences not only on the individual level, but also on organizational and societal levels. It could affect the individual through psychological, physiological and behavioral indicators of health. The organization would be affected through increased performance, reduced turnover and customer satisfaction, as well as an improved reputation. On a societal level the healthy workplace could have an impact on health-care costs or government programs.

Kelloway and Day ¹⁹ also suggest that many organizations are struggling to define a healthy workplace, to assess the healthy and unhealthy aspects of their environment, and find out how to improve the quality of their workplace. In the assessment of a workplace a holistic approach to health must be held, which means that both physical

and psychological aspects of an individual's health should be considered. Also, several indicators of individual and organizational health must be considered, as well as those of society¹⁹. Questions raised are 1) whether the same characteristics affect employee well-being and organizational outcomes, 2) what the relationships are between employee health and organizational productivity, and 3) whether the factors that affect health and performance in one industry are the same in others¹⁵.

As the concepts of healthy organization and healthy workplace are used interchangeably in the literature, the concept of healthy workplace will be used throughout this thesis.

2.1.2 Models of a healthy workplace

Even though healthy workplaces have been discussed in research, few attempts have been made to develop and empirically test models¹⁶. One attempt was made by Wilson et al.¹⁶ (Figure 1), who used previous literature to identify the key domains of a healthy workplace.

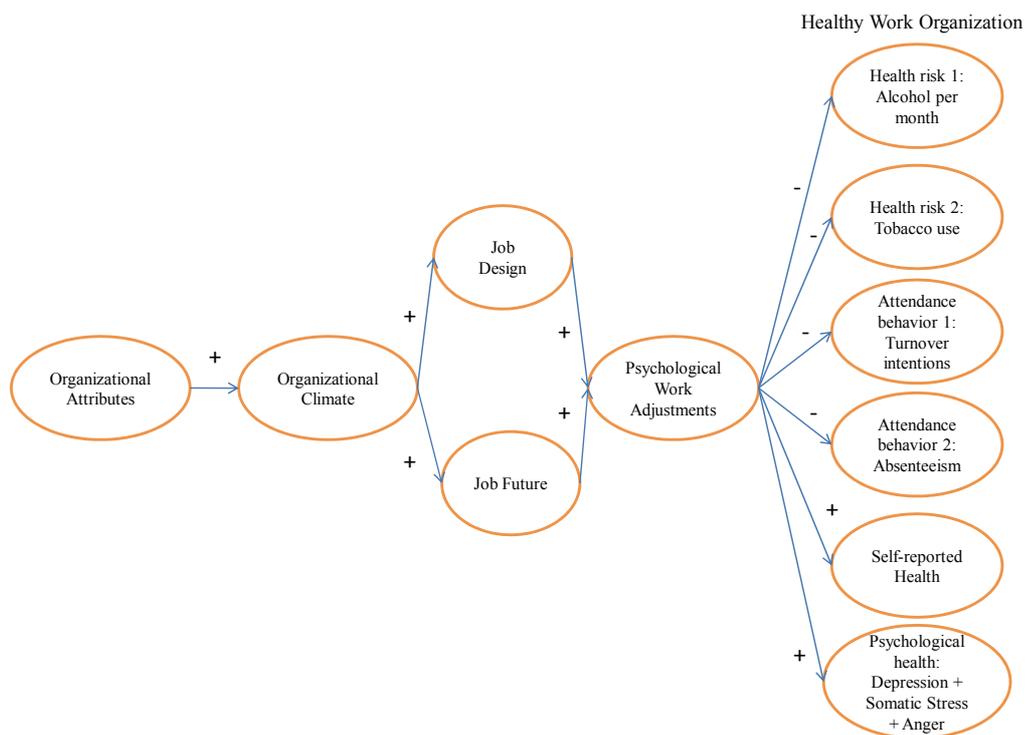


Figure 1. Model of healthy workplace as presented by Wilson et al.¹⁶

Three domains of work life highlighted in previous research were found: job design, organizational climate and job future. These domains included employees' perception of their work tasks, the social aspects of the work organization, job security and career development. The model also included leadership and organizational culture, employees' attitudes, perceived stress and several health and well-being measures. The

results of the study showed that work characteristics influenced worker attitudes and stress, which in turn affected health and well-being. Attitudes such as job satisfaction and commitment are important for employee performance^{20,21}. However, the model by Wilson et al.¹⁶ only included turnover intentions and absenteeism as dimensions of organizational effectiveness. Neither performance, efficiency nor reduced performance was included.

The PATH (Practices for the Achievement of Total Health) Model was developed based on earlier research, and describes the link between organizational practice, employee well-being and organizational improvements²². It suggests that organizational improvements can be a result of a direct effect from workplace practices, or an indirect effect from workplace practices on organizational improvements through employee well-being.

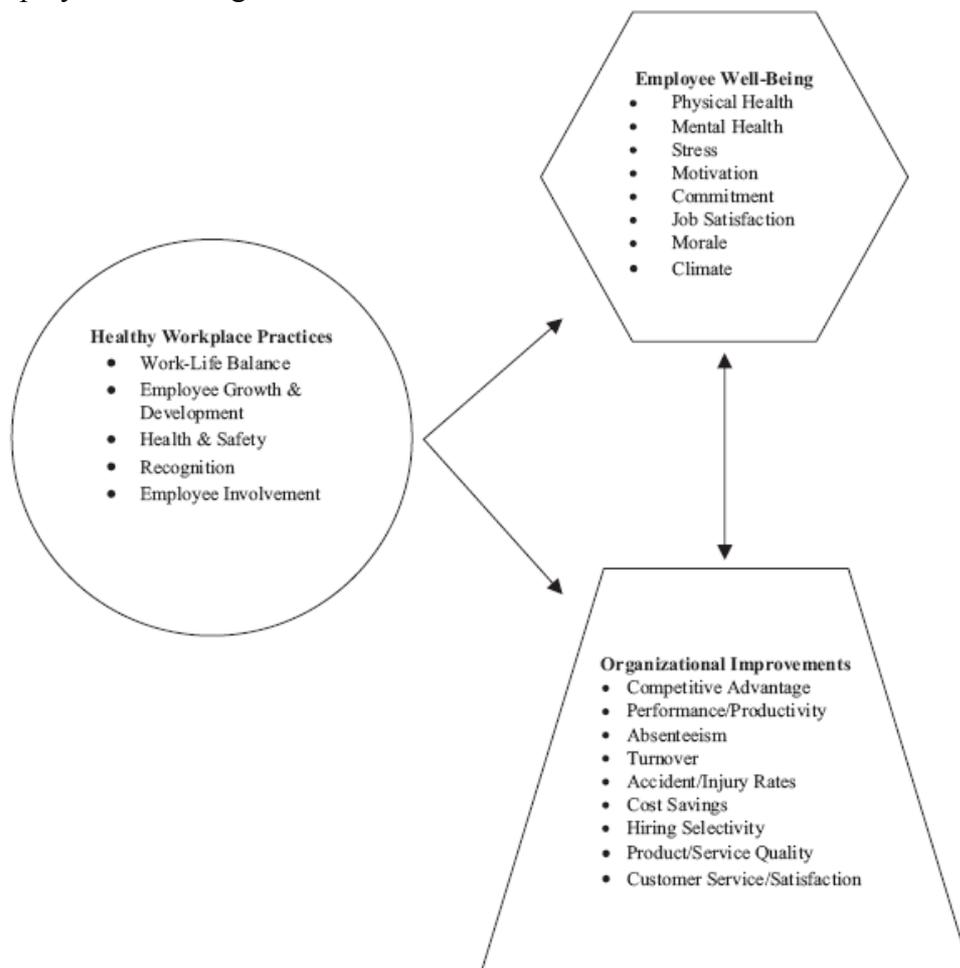


Figure 2. The PATH Model²²

Creating a healthy workplace is an ongoing process and is achieved through interactions between the work environment and its individuals. The PATH model (Figure 2) is based on healthy workplaces and the assumption that organizations that contribute to employee health will be profitable and competitive on the market. The ability to create a healthy workforce requires an understanding of how health is affected

by the work environment, and how employee health contributes to organizational success²². However, this interrelationship has rarely been considered in the literature²². Sainford¹⁵ found three studies that examined employee health and organizational health in the same study. In a study by Parker et al.²¹, one aim was to perform a meta-analysis of studies investigating the relationship between psychosocial work environment, psychological well-being, motivation and performance. However, no studies were found that investigated the relationship. Lately, more studies have been performed that take into consideration both employee and organizational outcomes. However, more needs to be done to increase the knowledge of how workplace and employee health are related to organizational effectiveness.

To summarize, most research in the area of healthy organizations is done on the relationship between psychosocial work environment, employee attitudes and performance. Other aspects of healthy workplaces, such as the relationship between psychosocial work factors, health and production, need to be further developed. There is especially a need to investigate whether the same factors affect employee health and organizational production, and how psychosocial work factors and employee health are related to production. Criticism has been voiced about the lack of comprehensive and validated measures in the assessment of workplace factors and health outcomes¹⁹. If more comprehensive and validated questionnaires were used, with a longitudinal design, this could help organizations identify the factors that might be effective in their workplace¹⁹. These results could then be used in workplace health-promotion strategies to improve employee health as well as organizational effectiveness.

2.2 PSYCHOSOCIAL WORK ENVIRONMENT AND EMPLOYEE HEALTH

Previous research has shown that work environment can affect companies in terms of both decreased employee health and financial measures, and several factors that cause stress and ill health have been identified. These pertain to both an organizational as well as a task level. Stress can cause negative effects both for individuals working in an organization and for the organization itself. Its effect on health can lead to restricted work ability²³, which in turn has an important impact on the productivity of organizations as well as society. In the late 1990s sickness absence rates increased tremendously in Sweden, which to some part can be explained by a worsening of the psychosocial work environment²⁴. For example, the Swedish Work Environment Authority reported that organizational and social factors were the second largest reason for work-related illness²⁵.

Psychosocial work conditions and their effect on employee well-being have received a great deal of attention over the years. The focus has been on different aspects of well-being, such as general health perceptions, physical and mental health, stress, worker attitudes, employee morale and motivation, suggesting that all are important in the understanding of employee well-being²². Different measures of well-being are related differently to job and organizational characteristics^{26,27}. A combination of job demand, social support, decision latitude^{3,28-30}, and of high effort and low reward³ have been

seen as risk factors for worker health and are probably the most investigated aspects. However, others aspects such as leadership, social climate and commitment have also been found to be of importance for the well-being of the employee³¹⁻³⁴. The structures, culture and values in an organization can also contribute to health problems among the employees, and should therefore be taken into consideration¹⁵. In Sweden with its aging population, there is a need to maintain as well as increase the well-being of workers to enable work ability.

2.3 HEALTH AND PRODUCTION LOSS

Health research focusing on productivity was not common in the 1990s³⁵, but now several studies have investigated the impact of health on health-care expenditures, productivity loss or both. Most studies have been conducted in the US, which has a different culture and welfare system than Sweden does. From an organizational perspective, health-care costs might be irrelevant for Swedish companies in comparison to companies in the US. On the other hand, much of the research done on health and productivity is of importance for Swedish companies. Health status is suggested as one of the underlying factors in enhancing or maintaining productivity at workplaces^{36, 37}, as health is a factor that determines how many hours a person can work but also how productive a person can be. Productivity loss is commonly used in studies that evaluate the association between health risks, illnesses and productivity, and is normally measured as absenteeism and/or presenteeism, so-called reduced productivity on the job.

Several studies have shown a relationship between number of health risks and total productivity³⁸⁻⁴⁰. The more health risks there are, the more production will be reduced^{38, 41-43}. Diagnoses³⁹ and employee well-being^{42, 44, 45} are other important components related to production loss.

Sickness absence is often used as an indicator of productivity³⁷. Increased productivity means that companies can produce the same amount of goods with fewer labor hours of input and therefore increase profit. A reduction in absenteeism reflects only one part of the gains in workplace productivity. Reduced performance due to health problems while at work has been found to be the largest component of production loss^{38, 46, 47}. The cost of presenteeism is not always known to the employees; neither is the impact of presenteeism on employee health. In the long run, working while ill is related to an increased risk of coronary events⁴⁸, future ill health⁴⁹ and future sickness absence^{50, 51}.

2.4 PSYCHOSOCIAL WORK ENVIRONMENT AND PRODUCTION

Some of the factors in the work environment that affect employee well-being have also been shown to affect organizational outcomes such as performance and profit^{15, 52, 53}. Nevertheless, the existence of a relationship between work factors and performance is undetermined⁵⁴. Some studies have found a relationship^{52, 53, 55-59} while others have not⁵⁹⁻⁶¹. In a review from the year 2000⁵⁴ it is suggested that work environment does

influence performance, but this only holds for people with certain characteristics, or jobs with specific characteristics or with combinations of certain characteristics. In another study, an attempt has been made to explain a nonlinear relationship between stressors and performance. However, no optimal level between stressors and performance was found⁶². Since the results are inconclusive, there might not be a direct relationship between these variables. There could instead be an indirect relationship, through employees' well-being, attitudes or motivation. Individuals' psychological climate and relationship to work attitudes, psychological well-being, motivation and performance were investigated in a meta-analysis²¹. The results show that work climate had a stronger relationship with worker attitudes than with performance, and the relationship between climate perceptions and performance was found to be mediated by employee attitudes²¹.

Investigations of work conditions and performance are more common than those of the relationship between work conditions and production loss, which is measured as sickness absence and/or presenteeism. To date, most studies have concentrated on how health affects employee performance levels, and health has been suggested as the most important factor in explaining production loss⁴⁵. However, few studies have been done within the field. Several psychosocial work factors have been found to be related to sickness absence⁶³⁻⁶⁶ and to presenteeism⁶⁷⁻⁶⁹. Company characteristics, stress, job and employee characteristics are all significantly related to productivity loss⁴⁵. However, the pattern of factors associated with sickness absence and presenteeism differs⁶⁹. Absence is commonly seen as a result of poor health. Nevertheless, it can also be a coping strategy when dealing with demands at the workplace⁷⁰. Just as some individual factors can lower productivity and increase organizational costs, unhealthy organizations can produce similar negative effects⁷¹. Therefore, it is important to take into account organizational factors when investigating factors that could affect presenteeism and absenteeism.

2.5 DOES THE PSYCHOSOCIAL WORK ENVIRONMENT AND EMPLOYEE HEALTH AFFECT ORGANIZATIONAL PRODUCTION?

A systematic literature review was performed to establish the research evidence of the relationship between the psychosocial work environment and employee health and its impact on organizational production⁷². Searches were conducted in Medline, PsycINFO, Web of Science and Econlit to identify original studies in a working population. By production, in this particular study, we were referring to productivity, performance and production loss. Production loss is often measured in terms of impaired performance at work due to health problems. The search included studies in English that have been published in scientific journals. Each database was searched up to 1 September 2009, without using a specific start date and using a combination of search terms (MeSH and keywords) from psychosocial factors at work, factors related to employee health and organizational outcomes. A total of 2,264 studies were identified in the search.

In the second phase, two of the authors scrutinized all the titles and abstracts to identify all relevant studies that fulfilled the inclusion criteria. The inclusion criteria were that the studies had to (a) include an investigation of the relationship of all three factors: psychosocial work factors, employee health, and production; (b) measure production directly or indirectly using production loss, performance or productivity regardless of how they had defined the concepts; (c) use production as the dependent variable; (d) include empirical studies involving working employees; (e) be published in peer-reviewed international scientific journals and (f) be written in English. Exclusion criteria were (a) studies measuring sick leave or presenteeism without analyzing this within the concept of production loss; (b) reviews; (c) editorials and (d) other types of published papers that only included theoretical development.

One hundred fifty-eight published studies of relevance were identified. These studies were then assessed independently by two reviewers. After the full-text reading of the remaining studies, 15 articles met the inclusion criteria and were included. In the final stage, published studies known to the authors were included. This resulted in two additional studies. A total of 17 studies were included in the review. Of these, nine articles examined the outcome of productivity loss or reduced production at work^{46, 66, 68, 73-78}, seven examined different aspects of performance^{59, 61, 79-83}, and one investigated organizational productivity⁸⁴. One of the studies⁷⁹ investigating performance contained three different populations with separate analyses; these were evaluated separately. Three of the studies had a prospective design^{46, 59, 74}, and all the others were cross-sectional.

The studies included between 73 and 16,001 employees and contained data from hospital employees, home-care workers, computer users, workers from the construction, manufacturing and service industries, or included several trades in their study. Job demands and job control were the most common estimate of psychosocial work factors and were used in seven of the studies. Six studies were rated as having moderate quality and ten were rated as having weak quality. Two of the studies in Byrne and Hochwarter⁷⁹ were rated as moderate and one as weak. Few of the articles investigated the same psychosocial work factors and health outcomes with the different organizational outcomes.

The results revealed that there is limited evidence that psychosocial work factors and health are associated with production loss independent of the study population, and that the ways the different factors relate to production loss differ. There is limited evidence that both the psychosocial work environment and musculoskeletal pain syndromes affect production losses independently among a population with musculoskeletal disorders. The evidence is clearest in relation to the demand/control factors at work (job strain). For a population with non-specific health problems, there was no evidence of how work factors and health affect production loss due to the low number of studies. There is not enough evidence to show the mediating effect of health or other health problems.

Performance was measured in terms of self-rated or supervisor-rated performance. Evidence that both psychosocial work factors and health affect self-rated performance is limited. However, there are too few studies that have investigated this relationship to be able to draw any conclusions on the existing evidence of specific relationships, although there are a few studies with moderate and weak quality that point in the same direction. These studies indicate that there is limited evidence that emotional exhaustion does not mediate the relationship between social support and supervisor-rated performance; limited evidence that mental health does mediate the relationship between social support and self-rated performance; and limited evidence of mental health as a mediating factor between social support and objective performance. There is also limited evidence to indicate that support moderates the relationship between pain and self-rated performance.

It was not possible to draw any conclusions regarding evidence of a relationship between psychosocial work factors, health and productivity due to the limited number of studies.

Overall, this review was not able to demonstrate more than limited evidence of the impact of psychosocial work factors and employee health on organizational production, mainly due to the low number of published longitudinal studies. The current evidence points to demand/control at work and musculoskeletal pain as independent predictors of production loss. More high-quality, longitudinal studies are therefore needed. Only then will it be possible to draw strong evidence-based conclusions concerning a relationship between specific factors in the psychosocial work environment, employee health and organizational outcomes.

2.6 DEFINITION OF PSYCHOSOCIAL WORK FACTORS

The psychosocial work environment is the result of an interaction between the work organization and the individual. It is “those factors that are determined by work content, its organization and the social relationships at the workplace”⁸⁵. It is also mentioned as the non-physical aspects of a workplace and includes, besides the organization and social relationships, management⁸⁶. It has also been expressed as “the sociostructural range of opportunities that is available to an individual person to meet his or her needs of well-being, productivity, and positive self-experience”⁸⁷. This concept incorporates how the individual is affected by the direct environment, but also how the individual affects the working environment him or herself. Several different concepts are used to describe factors related to the psychosocial work environment. In this thesis, psychosocial work factors are used as a concept. This concept is related to psychosocial work environment, but differs by also including organizational commitment.

2.7 DEFINITION OF HEALTH

Health is a concept with several dimensions that has been measured and defined in different ways. One of the most commonly used definitions of health is the one by

WHO: “a state of complete physical, mental and societal well-being, and not merely the absence of disease or infirmity”⁸⁸. However, this definition has received a great deal of criticism as it is regarded as difficult to achieve. In a review of health and health promotion, Medin and Alexandersson⁸⁹ identified three main concepts of health: i) health as the absence of illness, ii) health as a resource and a strength, and iii) health as the state of being in balance. According to Nordenfelt, health is associated with the concept of ability and unhealthy/or disease with the concept of disability. A healthy person is considered to be someone who is able (to perform), while an unhealthy person is unable (to perform). However, the ability must be judged in relation to the different goals⁹⁰. Thus, health exists in various degrees and therefore one cannot be described as being healthy or not healthy⁹¹.

From a work perspective, Nordenfelt’s view of health as something that can exist in various degrees might be relevant. A person in good psychological health but with decreased physical function might be able to perform in the same manner as a person with good physical function, depending on the goals. This describes health from two different dimensions^{92,93}. First, there is the clinical judgment of health: ill or healthy. Second, there is the self-assessed health: good or bad health perception. This is described in Figure 3 below.

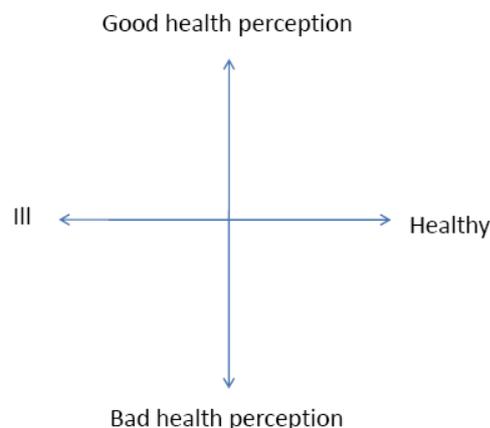


Figure 3. Health can have different dimensions. Health and illness describe the physical part of health, while health perception is the self-rated health^{92,93}.

A combination of these dimensions expresses four different states of health in which the individual could, for example, be healthy and have a good health perception, or be healthy from a physical perspective but have a bad health perception. People often change between these health states over years, as health is not static. Workplace health promotion is one strategy that could be used in order to improve people’s health.

2.7.1 Health-related quality of life

Health-related quality of life (HRQL) is one of the most common measures of health used in studies, and has been found to be an independent predictor of mortality⁹⁴ and morbidity⁹⁵. It is considered an inexpensive and convenient way to identify risk groups and risk factors⁹⁵, and is often used in workplace surveys. General health has been suggested to be the core of health⁹⁵ and captures several dimensions of health.

2.7.2 Work ability

Work ability has three main dimensions described in the literature: physical, psychological and social. The physical dimension describes work ability from a physical perspective; that people have the physical ability to work. The psychological dimension includes mental health, while the social dimension takes into consideration both social factors at the workplace and the home environment. An individual's ability to work is not only a result of his or her capacity, but also of the work itself. Work ability can therefore be seen as a result of the interaction between individual capabilities and the demands at the workplace⁹⁶. In this aspect work ability is a measure of workers' ability to perform, which is a result of their work environment, attitude and health. This concept is closely related to Nordenfelt's definition of health.

2.8 DEFINITION OF ORGANIZATIONAL PRODUCTION

2.8.1 Production loss

Production loss, or productivity loss, is a measure of the reduction in employees' performance due to illness. Work productivity can be reduced due to health problems, causing a decrease in employees' performance, so-called presenteeism. Presenteeism refers to people who go to work despite illness^{97,98}. The existence of presenteeism is often due to individual reasons, but could also be the result of the culture of the organization or the organization of work⁹⁹. A decrease in production could also be a result of people being unable to attend work due to health problems; this phenomenon is known as sick leave.

2.9 WORKPLACE HEALTH PROMOTION

Workplace health promotion (WHP) is a process that enables people to increase their control over factors that affect health¹⁰⁰, and could conduce decreases in sickness absence and increase productivity¹⁰¹. This demands participation from employees to succeed, but also demands that employees are allowed to participate and take control. The focus is on the promotion of health, but could in some cases also incorporate the prevention of risk factors for health. As WHP is a process, it is not done in a fast and easy manner¹⁰¹. There are several changes that can be performed within WHP such as organizational, leadership and work environment changes. This process must be part of the organization on all levels to be able to affect the health of the employees. In this type of measure, both the employers and the employees are responsible for the project's success. Health is affected by the surroundings and by people's conditions and their

