

Gender stratification in the workplace environment: implications for mental health

Revisiting the Job Demand-Control model and the Stress of Higher Status hypothesis

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Abstract

The psychosocial workplace environment affects the mental health of employees. As the workplace is gender stratified, so is the distribution of the psychosocial risk factors. This places women in more precarious situations at work. The literature has developed two theoretical frameworks to analyze these effects. The Job Demand-Control model (Karasek, 1979) posits that the workplace environment is characterized by job demands and elements of job control, which can either alleviate or aggravate the mental health effects of job stressors. Accordingly, it assumes that active jobs with high demands and high control are most beneficial to mental health. The Stress of Higher Status hypothesis contradicts this framework, as it states that active jobs often bear authority over others, which carries certain stressors. Consequently, this hypothesis states that these high-status jobs bring their own adversities concerning mental health. This study evaluates both hypotheses in relation to the gender stratified nature of the workplace environment. As such, possible gendered effects of both risks and benefits relating to high-status jobs are investigated as to test whether the effects of high-status jobs on mental health differ for men and women. A cross-sectional pooled dataset with data from the 2010 5th European Working Conditions Survey and the 2015 6th European Working Conditions Survey is used. The sample comprised 40 422 men and 38 621 women from 36 countries. The results showed a stronger negative effect of high job demands on the mental health of women and no significant gender differences in the positive effects of high job control and job authority. This implies that job control and job authority are mental health resources for both men and women. The study highlights the importance of mechanisms of gender stratification in the experiences of job demands and the underrepresentation of women in high-status jobs with job authority.

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1. Introduction

The occupational literature shows an extensive interest in the association between job characteristics and mental health. The post-industrial era has led to changes in the functioning of the labor market due to turbulence, rapid technological innovations and the economy becoming service-based (D'Souza et al., 2005; Rössler, 2012; Cottini & Lucifora, 2013). Additionally, the post-industrial era is marked by its rapid increase of women participating in the labor market (Campos-Serna et al., 2013). For example, while the overall employment rate is still higher for men in all EU member states, the gender gap in labor market participation has been steadily narrowing over the past 15 years (Eurostat, 2021). Thus, the workplace environment has become increasingly relevant in shaping women's lives (Campos-Serna et al., 2013). These aggregate changes have effects on employees. The nature of jobs has changed. Overall, job tasks have become much more digitalized and computerized (Cottini & Lucifora, 2013). Accordingly with the changed conditions, organizations expect more flexibility of their employees (Grönlund, 2007). The pressure for organizational flexibility has led to various implications, but most importantly, the distinction between work and the private sphere has faded. Flexible employment is crucial concerning contemporary labor market inequalities, especially in relation to gender (Campos-Serna et al., 2013), since organizational flexibility is associated with certain psychosocial risks at the workplace (Cottini & Lucifora, 2013; Hassard et al., 2018). Psychosocial risks are defined as "those aspects of work design and the organization and management of work within their social and environmental contexts, which have the potential for causing psychological, social or physical harm" (Hassard et al., 2018, p.3). Active jobs (jobs with high demands, a high level of job control and development opportunities), are characterizing for this contemporary way of organizing work (Grönlund, 2007; Vanroelen et al., 2009).

In this regard, job demands are a key concept. Job demands can relate to higher workloads or more time pressure for example (Mensah, 2021). When the individual is not able to successfully cope with high job demands, a feeling of job stress occurs which is detrimental to mental health. Thus, as work experiences are tied to individual well-being (Cotton & Hart, 2003), the psychosocial workplace environment is becoming increasingly relevant in relation to mental health. While the impact on individual well-being is substantial (Cottini & Lucifora, 2013), it has organizational-level and aggregate implications as well. As Rössler (2012, p.66) states: "Workplace stressors can trigger mental disorders. As such, mental illness poses one of the

largest challenges to social and labor-market policies in industrialized countries.” Mental ill health is related to productivity and absenteeism in organizations (Bubonya & Cobb-Clark & Wooden, 2017). It carries an economic and public health burden, as it leads to higher costs in health and social spending (OECD/European Union, 2018). Hence, the impact of the psychosocial workplace environment on workers’ mental health is of interest to organizations and to policy-makers.

The assessment of certain workplace risk factors for mental health has led sociologists to believe that the distribution of these risk factors is stratified. A central stratification mechanism in employment is gender. Gender stratification refers to the systematic reproduction of unequal access to and distribution of political, economic, and ideological resources between men and women (Collins et al., 1993). Processes of gender stratification entail a variety of implications for sectoral composition, the occupational hierarchy, and the distribution of coveted job resources (Baron & Bielby, 1980; Roos, 1981; Reskin, 1993; Wright et al., 1995; Campos-Serna et al., 2013; Tan et al., 2021). This affects the psychosocial nature of the workplace environment. For instance, it is related to the unequal distribution of unpaid work, occupational gender segregation, the glass ceiling, or the gender-specific distribution of tasks when performing similar jobs (Campos-Serna et al., 2013). As such, women are faced with more precarious situations in dealing with the subject of occupational health (Campos-Serna et al., 2013) and women in high-status jobs especially encounter barriers tied to their gender (Tan et al., 2021). Based on stratification theories, some research has investigated how these processes affect gender differences in workplace characteristics related to mental health. A meta-analysis of 30 studies on the gender differences in occupational health concluded that women had a higher prevalence of poor mental health status, mental health disorders and self-reported occupational stress (Campos-Serna et al., 2013).

Two theories in particular are used in explaining the relevance of the workplace environment in relation to mental health. The first paradigm is the Job Demand-Control model (JDC-model) by Karasek (1979). This model distinguishes between job demands and job control and their relation to health outcomes. It assesses the quality of work (Grönlund, 2007). Job control refers to “the extent to which a person may have control over his work activities” (Mensah, 2021, p.2). Thus, job control entails some favorable job characteristics which promote the employee’s decision latitude and skill discretion (Mark & Smith, 2012). Four ideal types result from this model, which can be classified either as deleterious or beneficial to the employee’s mental

health. The JDC-model theorizes that active jobs are the most favorable jobs in relation to low psychosocial risks (Karasek, 1979). This paradigm is the most influential one, as it forms the baseline for considerable further research examining mental health and job characteristics (such as Sanne et al., 2005; Virtanen et al., 2007; Campos-Serna et al., 2013; Cottini & Lucifora, 2013; Mensah, 2021). The JDC-model has been criticized for being a “male model” in physical health outcomes (Mensah, 2021, p.2). The literature suggests that gender-based analyses are necessary to unravel differences concerning job characteristics (Johnson & Hall, 1988). Consequently, the effects on mental health outcomes should be examined separately for men and women.

The second paradigm is the Stress of Higher Status hypothesis (Schieman et al., 2006). This model focuses on high-status jobs exclusively, which are characterized as “professional, nonroutine, autonomous jobs with greater authority and pay” (Schieman et al., 2006, p.242). In essence, these are active jobs entailing high levels of demands and control, however, this paradigm adds the dimension of workplace power. In other words, the Stress of Higher Status paradigm includes job authority in its scope. It criticizes the simplistic nature of the JDC-model by nuancing that higher resources do not necessarily alleviate stress. Hence, both occupational theories are central in the debate between the psychosocial work environment and mental health, yet they imply different effects. The former hypothesizes that occupations situated at the higher end of the organizational authority structure entail better mental health, while the latter opposes this conventional view by stating that these positions prompt particular stressors which may lead to worse mental health.

Substantial research has been conducted on the relation between gender, psychosocial work characteristics and mental health. Associations have been found for the psychosocial work environment and anxiety or depressive disorders (Sanne et al., 2005), job demands and depression and anxiety (Mark & Smith, 2012) or mental health problems (Cottini & Lucifora, 2013), elements of job control and mental health (Bentley et al., 2015; Zaniboni et al., 2016) and lastly, for high-status work characteristics and depression (D’Souza et al., 2005; Pudrovska & Karraker, 2014) and anxiety (D’Souza et al., 2005).

Yet some gaps in the literature remain to be fulfilled. Both for the JDC-model and the Stress of Higher Status hypothesis, there is some ambiguity in the effects of gender. Firstly, while some studies which are based on the JDC-model indicate that the psychosocial workplace

environment affects especially women's mental health (Mausner-Dorsch & Eaton, 2000; Campos-Serna, 2013; Mensah, 2021), Sanne and colleagues (2005) found contrasting results, namely that men suffered more from depressive disorders in relation to the work environment. Alternatively, another study concluded that work stress influences mental disorders for both genders (Virtanen et al., 2007). Likewise, for the Stress of Higher Status hypothesis, some research discovered negative effects among both genders (Schieman et al., 2006), while other research marks a gender gap in the effect of job authority, where especially women suffer from worse mental health conditions (Pudrovska & Karraker, 2014). This paper aims to contribute to the knowledge about the gendered effects of active jobs and job authority, and therefore gender stratification is the focal point of this paper.

Secondly, research that exists on this topic has studied samples from geographic areas such as Canada (Schieman et al., 2006), the US (Lerner et al., 1994; Amick et al., 1998; Mausner-Dorsch & Eaton, 2000; Pudrovska & Karraker, 2014), Australia (D'Souza et al., 2005; Burns et al., 2016) and Norway (Sanne et al., 2005). Some studies have focused on European samples in relation to mental health and job characteristics (such as Niedhammer et al., 2012; Muckenhuber et al., 2014; Nappo, 2018; Rigó et al., 2020), although gender was not the focal point. A recent publication by Mensah (2021) included a gendered perspective, but did not include workplace authority in its analysis. Therefore, to the best of my knowledge, no cross-sectional analyses have been performed on gender stratification in mental health outcomes concerning the association with job characteristics and workplace authority using contemporary data involving employees from all EU Member States.

Furthermore, a great deal of studies have focused their attention on status-disadvantaged groups (e.g. Amick et al., 1998; Stansfeld & Candy, 2006; Niedhammer et al., 2006; Strandh et al., 2013). Some examples of status-disadvantaged groups in this sense are employees working under conditions of a combination of high demands and low decision authority, job insecurity, workers putting in high efforts in return for little rewards or people who are unemployed. Empirical knowledge on the mental health of status-disadvantaged groups remains rather limited (Stansfeld & Candy, 2006; Badawy & Schieman, 2020). Thus, further research on the higher occupational social classes in relation to their psychosocial work environment is advised (Campos-Serna et al., 2013).

Additionally, only some studies expand on the classical JDC-model by including job authority. The association between mental health and experiences in authority positions adds a critical

dimension to the workplace environment, but is often overlooked. In other words, few studies incorporate the Stress of Higher Status hypothesis (for example D'Souza et al., 2005; Schieman et al., 2006; Pudrovska & Karraker, 2014; Badawy & Schieman, 2020).

Therefore, this paper aims to answer a central research question:

How do the effects of high-status job characteristics on mental health differ between men and women, given the gender stratified nature of the workplace environment?

This paper will start by reviewing why mental health takes up such a prominent position in the occupational health literature. Both the theorizations of the JDC-model and the Stress of Higher Status model are analyzed from a gendered perspective. This is done by relating the occupational health literature to mechanisms of gender stratification, for example, by examining gender segregation in the organizational authority structure. Both the benefits and the drawbacks of high-status jobs on mental health are discussed. The literature has established that due to gender stereotypes and the work-life balance, women in high-status jobs face a multitude of challenges (Tan et al., 2021). Additionally, women are restrained from access to high-status jobs and workplace resources. These challenges and their relation to mental health form the basis for three hypotheses. The hypotheses are tested on a European population sample, which consists of data from the European Working Conditions Survey's 5th (2010) and 6th (2015) wave (European Foundation for the Improvement of Living and Working Conditions, 2020).

2. Literature review and hypotheses

2.1 The increasing importance of the psychosocial work environment on mental health

The relevance of mental health in post-industrial society

Mental health has increasingly gained importance in the occupational literature. Industrialized societies became exceedingly stratified as the division of labor increased and a higher diversity of skills and resources was required (Erikson et al., 1979; Bergman & Joye, 2001). As defined by Parsons (1940, p.841) "Social stratification is regarded as the differential ranking of the human individuals who compose a given social system and their treatment as superior and inferior relative to one another in certain socially important respects." With reference to the labor market, social stratification is based on both class structures and the social hierarchy. The

former relates to the social position one takes in the labor market, the latter relates to the hierarchical dimension, comprising status and resources (Bergman & Joye, 2001).

Over the last decades, deindustrialization led to several changes in the sectoral composition of the labor market and the workplace environment (Borel-Saladin & Crankshaw, 2009). Additionally, globalization favors a labor market to be in flux, which can cause turbulence (D'Souza et al., 2005; Vanroelen et al., 2009). Bell (1976) claims that this shift towards post-industrial society is supported by four processes on a macro level. First, the service industry has risen and gained great economic importance in developed countries (Bell, 1976; D'Souza et al., 2005; Jennequin, 2008; Vanroelen et al., 2009). With this shift came the rise of the knowledge economy, where knowledge became an important economic attribute as manual jobs declined (Bell, 1976; de Jonge & Kompier, 1997). Bell (1976) claims that the last two processes are intertwined, namely as societal rationalization increased, technical expertise became more significant. Castells (2004) argues that to understand value creation in knowledge societies, the process of work must be examined by distinguishing generic labor from self-programmable labor. Self-programmable labor relies on the workers' education and training to develop a creative capacity in the search for information and in the application of knowledge. Generic labor, on the other hand, entails necessary yet are often little valued tasks. Eventually, many of these tasks are outsourced or replaced by technology. Self-programmable labor is characterized by workers who are multiskilled, professionals in their field and who engage in lifelong learning (Spinuzzi, 2012). The major contrast between both is thus on the level of operational discretion.

These greater transformations are accompanied by changes in the workplace environment. Physical work hazards in post-industrial societies have become much more controlled and regulated, thus eliminating certain physical risk factors (Stansfeld & Candy, 2006; Burgard & Lin, 2013). While physical risk factors are on the decline, the psychosocial risk factors in the workplace environment bear new hazards (Stansfeld & Candy, 2006). Some examples of these risks are a high work pace, mentally and emotionally exacting work, time pressure, exposure to stressful situations, nonstandard work hours, injustice at work and repetitive strain (de Jonge & Kompier, 1997; Rössler, 2012; Burgard & Lin, 2013; Hassard et al., 2018). Hence, the changing nature of the workplace environment has not disengaged the effects on health, even more so, working conditions still produce significant effects on people's health (Lerner et al., 1994; de Jonge & Kompier, 1997; D'Souza et al., 2005; Schieman & Reid, 2009; Vanroelen et al., 2009).

Psychosocial risk factors in the workplace environment have been associated with poor physical health (such as an increased risk for cardiovascular illness, hypertension, angina and overweight), poor mental health (such as depression, burnout, overstrain or psychosomatic diseases) and increased health impairing behaviors (de Jonge & Kompier, 1997; D'Souza et al. 2005; Virtanen et al., 2007; Stansfeld et al., 2012; Campos-Serna et al., 2013; Hassard et al., 2018). An important concept in this regard is job strain. Job strain is explained as “negative psychological and physiological responses to stress” (Cotton & Hart, 2003, p. 118). The effects on mental health are becoming increasingly relevant in post-industrial society. Job strain can entail long-term and extensive effects (de Jonge & Kompier, 1997), as a human and an economic burden is placed on the individual, the organization and society at large (Stansfeld et al., 2012). Several theories have aimed to identify which elements particularly can counterbalance or aggravate the detrimental mental health consequences of the psychosocial workplace environment.

Gender stratification in the workplace environment in relation to women's mental health

Stansfeld and Candy (2006, p.444) confirm the importance of linking psychosocial work characteristics to the social structural context when considering their implications on mental health: “Social hierarchies and the implicit power relationships contained therein influence the distribution of work-related stressors and support and even influence mediating factors such as self-esteem”. Gender is identified by the literature as a central stratification mechanism when it comes to the distribution of work-related stressors (Kraus & Yonay, 2000; Sanne et al., 2005; Schieman et al., 2006 & Virtanen et al., 2007; Vanroelen et al., 2009). In other words, there are systematic gender inequalities in the availability of certain work-related characteristics.

There are several mechanisms underlying gender stratification on the labor market. Firstly, the labor market is gender segregated. As defined by the European Institute for Gender Equality (2021), there are “differences in patterns of representation of women and men in the labor market”. In post-industrial societies, women entering managerial positions are more likely to occupy the service provision or the care sector whereas men occupy industrial sectors (Tan et al., 2021). The process of entering the labor market in either a female-typical or a male-typical sector is referred to as horizontal segregation (Campos-Serna et al., 2013). Female-typical sectors offer less rewards for high-status positions (Reskin, 1993; Tan et al., 2021). Consequently, horizontal segregation results in gender stratified access to certain outcomes.

This forms a structural source of inequality (Birkelund, 1992). Furthermore, men typically occupy the dominant positions which endorse differential treatment and access to resources vis-à-vis women who occupy subordinate positions (Reskin, 1993). This is the process of vertical segregation (Campos-Serna et al., 2013). Thus, there is a gender gap in the control over some valuable workplace resources such as status, financial rewards and workplace power (Baron & Bielby, 1980; Roos, 1981; Wright et al., 1995). Discrepancies in access to and experiences in authority positions lay at the core of these inequalities (Jaffee, 1989; Wright et al., 1995). This is confirmed by Wright's (1997) theory on the class structure of modern society. In post-industrial societies, not only ownership of the means of production, but additionally skills and organizational assets (authority) are central, of which the latter two are both inherent to the concept of job authority (Bergman & Joye, 2001). Hence, while the labor market is characterized by horizontal segregation, on an organizational level processes of vertical segregation give rise to inequalities (Jaffee, 1989; Birkelund, 1992).

The gender gap in high-status jobs is spatially nor temporally confined and the implications thereof on mental health should not be underestimated (Wolf & Fligstein, 1979; Adler, 1993; Wright et al., 1995; Smith, 2002). The health sociology literature marks a gender gap in depression with a higher prevalence amongst women (Van de Velde et al., 2013), this trend also applies to findings from the occupational health literature, where a gender gap is marked for mental health (Campos-Serna et al., 2013; Pudrovska & Karraker, 2014; Harnois & Bastos, 2018). The association between work and health for women is found to be affected by spillover effects of the distribution of unpaid work (Grönlund, 2007). As women's participation in the labor force has increased, the distribution of such unpaid tasks has not changed significantly and are often still considered as women's responsibility (Grönlund, 2007; Campos-Serna et al., 2013). Additionally, processes of gender stratification obstruct women's access to resources and are limiting women's agency, resulting in feelings of powerlessness, a risk factor for depression (Van de Velde et al., 2013). An evaluation of the workplace environment is becoming increasingly relevant when addressing these inequalities as the workplace is central to the distribution of resources. Research based on data from 1957 to 2004 indicated that among American white men and women, white women with high job authority suffered significantly more from depressive symptoms than their male counterparts whose position was beneficial for their mental health (Pudrovska & Karraker, 2014). While the effects and the conceptualization of job authority are still ambiguous, the relevance of inspecting the gender stratified risk factors of the workplace environment is confirmed. Risk factors can be assessed by reviewing several

organizational theories. An organizational-level approach to examine the issue is supported by Baron and Bielby (1980, p.738): “firms link the "macro" and "micro" dimensions of work organization and inequality”.

2.2 Exploring the gendered implications of the Job Demand-Control model

The Job Demand-Control model

The balance between job demands and control was introduced as central to the association with mental health. The classic conceptualization for this association is the JDC-model (Karasek, 1979; Pudrovska & Karraker, 2014). Two psychosocial work-related concepts form the basis of this model (Karasek, 1979). ‘Demands’ define the group of work-related stress sources such as the amount of work and the pace at which the work must be completed, often referred to as time pressure (Karasek, 1979, p.287; D’Souza et al. 2005). ‘Control’, sometimes named ‘resources’, refers to the job decision latitude, in other words, the authority one can exercise in one’s work environment (Karasek, 1979, p.287; Schieman et al., 2006). In this sense, job control is the element distinguishing healthy jobs from unhealthy jobs (Grönlund, 2007). While most literature emphasizes the positive implications of job control, it is worth mentioning that for some people job control can feel like a burden, since it takes additional responsibility to deal with this freedom and to organize the balance between the work sphere and the private sphere (ibid.).

For the association between job demands, job control and mental health specifically, research found that the balance between elements of job control and demands can affect anxiety and depressive disorders (Sanne et al., 2005; Mark & Smith, 2012; Bentley et al., 2015). For example, decision-making authority has been identified as a significant protective factor of mental health in previous research (Bentley et al., 2015; Zaniboni et al., 2016). Apart from the direct effects on well-being, the level of demands and decision latitude has indirect effects through the employee’s work motivation, learning behavior and overall satisfaction (Karasek, 1979; de Jonge & Kompier, 1997). The scope of the JDC-model is quite broad as Karasek’s (1979) theory has been expanded upon by other researchers: Grönlund (2007) includes not only work pace, but also being included in policy-making processes in the scope of decision latitude, D’Souza and colleagues (2005) added skill development to the conceptualization of job control. Lastly, in most research decision latitude consists of two sub-elements, namely decision-

making authority and skill discretion (such as de Jonge and Kompier, 1997; Mausner-Dorsch & Eaton, 2000; Mark & Smith, 2012).

The JDC-model reveals a quadrant with four types of jobs: high demand-high control jobs with a learning perspective and development opportunities (active jobs), high demand-low control jobs (high strain), low demand-high control jobs (low strain) and low demand-low control jobs (passive jobs) (Taris et al., 2003; Vanroelen et al., 2009; Badawy & Schieman, 2020). The model states that the joint effects of low control and high demands result in a chronic imbalance leading to 'job strain', a term coined to address the outcome of this model (Karasek, 1979). Job strain affects mental strain (Karasek, 1979; Virtanen et al., 2007). The JDC-model posits that active jobs are associated with lower levels of mental strain such as depression, as these jobs have greater resources (Karasek, 1979; Tan et al., 2021). In other words, this model states that job demands do not necessarily imply distress if they are combined with high levels of control (Grönlund, 2007). According to Karasek (1979), the mental health of employees could be ameliorated by increasing decision latitude while maintaining productivity by holding demands constant. Thus, the JDC-model postulates that active jobs are overall the most beneficial for mental health. It assumes that the higher the demands and the level of decision latitude and skill discretion, the more advantageous the effects on mental health.

However, a critique arises on this model, namely whether the outcome of the JDC-model can be generalized. While this framework has been used in many instances to address the association between mental health and the psychosocial work environment, the literature marks much debate concerning its implications (Grönlund, 2007). Karasek (1979) expects that high control and high demands benefit mental health and decrease job strain. Tan and colleagues (2021) claim that this model is too simplistic. After all, the JDC-model cannot explain how different individuals, when placed under the same conditions, can possibly experience different health outcomes (Mark & Smith, 2012). Accordingly, an American study concluded that women were found to be more susceptible to psychological job strain than men (Mausner-Dorsch & Eaton, 2000). As an attempt of explaining this phenomenon the writers insist that women are more exposed to psychological job strain in the workplace environment and that they are more sensitive to it (Mausner-Dorsch & Eaton, 2000). A contradictory perspective was offered by Grönlund (2007), who argues that active jobs are gender neutral and that women might employ job control in such a way that it can buffer the high demands. This raises questions as to whether Karasek's (1979) predictions hold for both genders.

If the JDC-model does hold and active jobs are the most beneficial for mental health, a larger issue arises. The model assumes that the beneficial outcomes are egalitarian. However, job decision latitude is contingent on the organizational authority structure. Yet, the assumption that the organizational authority structure is gender segregated was not integrated in the JDC-model. If Karasek's (1979) assumption is right and active jobs are beneficial for mental health, then the unequal access to these positions is even more problematic since women would not only be excluded from occupational or monetary resources, but also from psychosocial resources which could benefit their mental health.

Gender segregation in the organizational authority structure

Women are systematically underrepresented in high-status positions and this contributes to gender inequality at large (Wright et al., 1995; Kraus & Yonay, 2000; Sanne et al., 2005; Schieman et al., 2006 & Virtanen et al., 2007; Vanroelen et al., 2009; Blommaert et al., 2020). A cross-national study of 26 countries examined gender segregation in the labor market and found that most countries have a majority of men in high-status jobs with high job authority (Yaish & Stier, 2009). Occupational gender segregation theory concentrates on supply-side and demand-side actions (Reskin, 1993). The former focuses on the employees, the latter on the employers, however, in some cases factors affect both groups simultaneously. Overall, the discrepancy can be traced back to a combination of two factors, namely the availability of high authority positions is specific to occupational fields. Due to occupational segregation and discrimination, women are less likely to be granted access to these positions than men (Roos, 1981). As Tan and colleagues (2021, p.3) summarize, a common misconception is: "Think manager, think male". Following the literature, the issue will now be explored from different theoretical perspectives.

Wright and colleagues (1995) suggest a *political and economic approach* to explain why women are less likely to be in high authority positions than men working in the same field. According to this approach, the chronic underrepresentation of women in high-status positions can be explained by some mechanisms of exclusion by the demand-side. These mechanisms relate to discrimination by employers. The glass ceiling for example, which is a mechanism obstructing women's promotion into high-status jobs. The glass ceiling skews the sex ratio in high authority jobs (Reskin, 1993). This was confirmed by Blommaert and colleagues (2020),

who found increasing gender gaps in positions of higher levels of management. Thus, the higher up the hierarchy of job authority, the more likely gender discrimination will occur through employers (Smith, 2002). Although some contradicting research states that the glass ceiling hypothesis does not hold when accounting for all occupations (Wright et al., 1995; Stainbeck et al., 2011; McLaughlin et al., 2012). This means that discrimination does not necessarily increase significantly as women climb up the occupational ladder, but rather that there are strong entry barriers to those occupations. Whereas women face difficulties at the initial entrance into these positions, men are faced with the glass escalator phenomenon, as they tend to get higher returns on their human capital investment in the labor market (Wolf & Fligstein, 1979; McLaughlin et al., 2012 & Doering & Thébaud, 2017). Especially in female-dominated occupations, men are boosted into high job authority positions (McLaughlin et al., 2012; Doering & Thébaud, 2017). Another mechanism is conceptualized as social closure (Smith, 2002). Social closure is the desire of men to perpetuate their privileges and maintain hegemony, leading to the reproduction and institutionalization of initial inequalities (Wright et al., 1995; Smith, 2002). Reskin and Ross (1992) address the issue that men's economic motives to perpetuate privileges have faded. Consequently, a political and economic approach does not suffice to explain the current gender gap in high-status jobs.

Another perspective takes on the *cultural approach* of gender status beliefs. These beliefs are held by both men and women and revolve around the cultural ideals for men and women in society (Doering & Thébaud, 2017). Cultural beliefs are inherently influenced by patriarchal bias and socialization (Stainbeck et al., 2011). Typically in these beliefs, certain traits are found desirable for men yet less desirable for women. The desirable traits are then again associated with qualities of authority (Doering & Thébaud, 2017). Reskin and Ross (1992) indicate that this is often due to stereotyping. A double mechanism of exclusion and self-exclusion is at stake here as actions are taken both on the demand- and the supply-side (Reskin, 1993; Schieman et al., 2006). The theoretical framework needs to include the mechanism of women self-selecting in low authority positions. Either according to their preferences of role, family responsibilities or because of socialization, women can engage in self-selecting out of these occupations (Yaish & Stier, 2009). However, if this self-selection is a result of women's agency is ambiguous since organizational exclusionary actions can affect individual decisions (Reskin, 1993). For organizations, the "ideal" employee for a high-status job is typically someone who is committed to the job and prioritizes it (Schieman et al., 2006). Employers often refrain from selecting women because of concerns about job commitment (Reskin & Ross, 1992). Especially for

younger women this is an issue (Tan et al., 2021). Grönlund (2007) explains that while in contemporary societies, motherhood and career commitment are not necessarily seen as conflicting goals anymore, there are still some underlying implications which allow only men to be strongly associated with the identity of the “ideal employee”, consequently high-status jobs are being reserved for them (Reskin, 1993; Schieman et al., 2006). This process is what the literature refers to as the “segregation code” (Reskin, 1993). The assumption that women are less committed to their job or put in less effort was not confirmed by research, moreover, contrary effects were found (Reskin, 1993). Hence, the impact of traditional gender beliefs among employers during selection processes is substantial.

Expanding on this theory, *human capital theory* contributes to explaining why women lack in high-status positions (Yaish & Stier, 2009). Human capital theory wrongly assumes that women have accumulated lower levels of education and work experience (Kraus & Yonay, 2000). Consequently, according to this theory, women do not hold the qualifications to obtain high-status jobs. When combining role theory with human capital theory, this issue could be allocated to a rational balance made by families: men pursue status attainment and build their identity around their work-role which leads them to invest in their human capital, while women take care of the household (Kraus & Yonay, 2000; Schieman et al., 2006). Accordingly, the family role which women traditionally occupy is less interested in being devoted to building up human capital, resulting in women being less eligible to occupy high-status jobs (Yaish & Stier, 2009).

However, traditional role balance and human capital theory approaches are highly contested and have been refuted on numerous grounds. Firstly, the gap in experience and qualifications between men and women decreased over the course of the last decades (Reskin & Ross, 1992). Even more so, women’s higher educational attainments have risen dramatically and in most western countries, the gender gap in education has been reversed (O’Connor, 2015; Barone & Assirelli, 2020). In other words, women have the necessary qualifications. Additionally, research confirms that even when taking into account the differences in education and work experience, inequalities endure (Adler, 1993). Hence, this approach cannot fully explain the gender gap. Education, however, remains a relevant factor as horizontal gender segregation in higher education forms a pathway to labor market segregation (Barone & Assirelli, 2020). A second critique on this approach is that these theories are overly focused on patriarchal ideals, roles and economic benefits (Kraus & Yonay, 2000). They wrongly assume equal opportunity structures for men and women when entering occupations (Roos, 1981) and they are quite

lacking in acknowledging the agency of women in these situations. Thus, this indicates the importance of addressing structural barriers in explaining occupational segregation (Birkelund, 1992; Adler, 1993).

Another theoretical approach considers these structural barriers which endorse women to occupy female-dominated jobs. This corresponds to the *segmented labor market theory*. Segmented labor market theory considers that women occupy certain occupational fields in the peripheral sectors of the labor market which are inherently less likely to have many high job authority positions (Wolf & Fligstein, 1979; Roos, 1981). Whether certain jobs are labelled as typically masculine or typically feminine has repercussions for the established conditions of the labor force (Doering & Thébaud, 2017). Female-typical occupational fields are characterized by low entry barriers, less chances for mobility and promotion, less authority positions, lower pay, less benefits and less training and development opportunities (Roos, 1981; Reskin, 1993; Kraus & Yonay, 2000). In other words, occupational segregation does not benefit women in terms of rewards (Adler, 1993). Women occupy these positions as a result of structural exclusion and seeking relief from the work-family imbalance (Smith, 2002) or in some instances, women might not pursue such jobs out of precaution to avoid future conflict (Grönlund, 2007). A mutually reinforcing mechanism may be at play, where women who seek this relief are drawn to these occupations *because* they have been made female-typical (Reskin, 1993). An example of this is the high concentration of women working in the public sector (Yaish & Stier, 2009). The public sector is typically perceived as female-dominated as it is considered to be a family-friendly work environment which can alleviate work-to-home interference, yet it is also the sector which generally promotes gender and racial equality more than other sectors, thus increasing access (Yaish & Stier, 2009; Smith, 2002). Horizontal segregation, however, cannot fully explain the gaps in job authority, indicating that discrimination in access to these positions plays a role in the disparity as well (Wright et al., 1995; Smith, 2002).

The perspectives which have been introduced can identify the organizational-level repercussions of gender segregation and gender stratification in the labor market. To conclude, the gender segregated nature of access to jobs with high job control cannot be attributed to merely one of these perspectives. Supply-side actions (women's attitudes, education, socialization), demand-side actions (employer's behaviors, discrimination, gender-status beliefs) and the organization and conditions of the labor market, systems of social control and

employment relations are all contributing factors to the gendered access to high authority jobs (Wolf & Fligstein, 1979; Reskin, 1993).

The abovementioned theoretical approaches lead to a hypothesis concerning the effect of active job characteristics on mental health for men and women. The first hypothesis aims to examine whether active jobs are indeed beneficial for mental health and whether these effects are gender neutral. Following the suggested paradigms concerning the gender segregated access to authority positions, the hypothesis can have important implications. Gendered effects in the active job characteristic would imply that the workplace environment is gender stratified in the distribution of its resources. If the implications of the proposed JDC-model hold and both men and women benefit from active job characteristics, then gender segregation in access to said positions excludes women from these resources.

Hypothesis 1: Under similar job conditions of high job demands and high job control, active jobs do not exercise an equally beneficial effect on the mental health of men and women

2.3 Introducing job authority: stress of higher status or buffering effect?

Job authority as a coveted work characteristic

Karasek (1979) has established that active jobs are the most beneficial occupational positions concerning mental health. The effectiveness of the developed framework of the JDC-model as a measure for job strain has been proven in numerous empirical research, however, not all research is in favor of this model (Grönlund, 2007). For one, it does not disclose a comprehensive view of the psychosocial characteristics of the workplace environment. The concept of job control defined as job decision latitude and skill discretion does not include a perspective of control in the broadest sense. Instead, the concept of job authority expands on the notion of job control by encompassing not only control over personal work but includes control over other's work (Pudrovska & Karraker, 2014; Badawy & Schieman, 2020). The conceptualization of job authority is based on three focal points: the degree of supervisory aspects over the activities of others, the ability to influence the pay of others and the ability to hire and fire others (Elliot & Smith, 2004, p.372). Job authority differs from job control as defined by Karasek (1979) as it centers the conceptualization around the legitimation of

workplace power (Wolf & Fligstein, 1979). This adds an extra dimension to the resistance experienced by women in these positions.

Overall, one could say that high job authority is a coveted work characteristic. People in high authority positions are often advantaged in terms of socioeconomic resources (Pudrovska & Karraker, 2014). Additionally, a high level of job authority holds a certain level of prestige and social standing (Schieman & Reid, 2009; D'Souza et al., 2005). It brings some definite benefits to the workplace environment: increased workplace freedom, such as having job decision latitude, the ability to control your schedule and nonroutine work as well as increased resources, including higher pay (Schieman & Reid, 2009; Pudrovska & Karraker, 2014; Badawy & Schieman, 2020). While job authority in itself is a valuable job characteristic, it also brings about other favorable job conditions such as an overall higher level of workplace autonomy and chances for promotion (Schieman & Reid, 2009). The link between job authority and mental health is made on the basis of the assessment of rewards which is linked to the level of workplace status one has obtained (Schieman & Reid, 2009). The rewards of a personal, social and pecuniary kind are attributes which are considered to be beneficial to one's mental health (Schieman & Reid, 2009).

The gender differential effects of job authority

The research of Pudrovska and Karraker (2014) reveals that while women in high authority positions did yield the benefits in socioeconomic terms (which is normally a predictor of mental well-being), they were also more likely to exhibit symptoms of depression. This alludes to the possibility that job authority entails different consequences for men and women. The higher social status in the workplace on which job authority is based, comes with some personal characteristics which are typically linked to ideal conception of masculinity (Schieman & Reid, 2009). According to this line of thought, women are not only found to not encompass the qualities for authority, but authority is simply not legitimated for them (Doering & Thébaud, 2017). Yet the gender differential effect of women's experience in high authority positions reaches further than legitimacy. There are four elements, namely job pressure, role blurring, interpersonal conflict and work-to-home interference (Schieman & Reid, 2009; Badawy & Schieman, 2020) which are characterizing for job authority. The literature suggests that women's psychological hardship in high job authority positions is centered around these four elements. While these elements can be experienced by all people in high authority positions,

the literature reveals that this possibly suppresses the positive effects of job authority on mental health, especially for women (Pudrovska & Karraker, 2014).

The characteristics of job authority are all interconnected developments, yet the effects can also be seen separately. Job pressure is most straightforward. It is established that high-status jobs bring high demands and workloads. Research has endorsed that a high workload can accelerate psychological distress, as caused by feelings of overwhelm (Badawy & Schieman, 2020). Because of restricted access, women in high authority positions are a minority. This makes them more visible in the organization. This experienced visibility is associated with higher stress as women in high authority positions feel a greater pressure to perform, succeed and prove themselves (Reskin et al., 1999). There are competing suggested effects of more women entering an occupation or a higher position: one line of thought suggests that as more women enter an occupation the pressure diminishes for them, this is referred to as the power hypothesis (Reskin et al., 1999; Kraus & Yonay, 2000). To the contrary, the intensified competition theory or the threat hypothesis, suggests that more women entering an occupation will trigger men into behaving more openly discriminatory to ensure that they occupy high-status positions in order to perpetuate their sense of status (Reskin et al., 1999; Kraus & Yonay, 2000).

Discriminatory behavior leads to the second element characterizing high job authority, namely interpersonal conflict. Having power and status in a workplace environment leads to supervising, directing, controlling, sanctioning and interacting with others (Schieman & Reid, 2009). All these actions can cause interpersonal conflict among employees or between employees and their supervisor. Frone (2000) addresses the importance of the quality of interactions with others, since these can have direct effects on the individual's mental health. The quality of interaction is one of the most common sources of distress, so it cannot be underestimated in balancing the effects of job authority (Frone, 2000). The nature of the relation of the people engaging in interaction is also of importance when it comes to job authority. In occupational literature, typically a division is made between interaction among employees and interaction between employees and their supervisor. However, gender is a mediating factor in interaction. Research found that gender heterogeneity in the workplace provides higher likelihoods of interpersonal conflict (Reskin et al., 1999). According to social psychology, demographic similarity affects the quality of the interaction (Reskin et al., 1999). As identification is beneficial for communication, women in male-typical high job authority occupations do not reap these benefits in interpersonal contact. Instead, interpersonal conflict

is more likely to occur when women occupy authority positions. Both employees and employers were not only found to be more in favor of a male authority figure, they were also found to be more likely to act negatively towards a female authority figure (Kraus & Yonay, 2000). Women in high authority jobs are found to have a higher likelihood of being discriminated against than their counterparts in low authority positions (Stainbeck et al., 2011). This claim was confirmed by Doering & Thébaud (2017), co-workers often dislike women in authority positions on the grounds of not adhering to the common gender status beliefs. As women in high authority positions belong to a minority in their occupations, they experience more gender stereotyping by the dominant group (Reskin et al., 1999). These behaviors may affect the workplace environment and generate rough interactions between women in authority positions and their employees, which can influence their mental health.

Research found that female managers working in organizations with a high male-female ratio have low job satisfaction (Reskin et al., 1999). Addressing this issue even further, McLaughlin and colleagues (2012) include sexual harassment in the scope of gender-based conflict in the workplace. Both the vulnerable-victim hypothesis as well as the power-threat model are put forward as possible mechanisms relating sexual harassment to job authority. The former hypothesis states that the more vulnerable the position of the employee, the higher the likelihood of experiencing sexual harassment. This indicates that people at the lower end of the workplace hierarchy, or people who are naturally in a more disadvantaged position, have higher chances of becoming victims themselves. This American study (McLaughlin et al., 2012) however, found evidence in favor of the latter theory, namely that women in positions with high job authority were more likely to be victims of sexual harassment in the workplace environment and to experience social isolation. As the male identity is built around the role as status achievers, women in authority form a threat if they do not conform to the widely accepted gender status beliefs. This issue addresses the gender stratified nature of the workplace environment, as women in male-dominated occupations had higher probabilities of experiencing sexual harassment, as did women at the higher end of the job authority hierarchy.

The last two characterizing elements of job authority are work-to-home interference and role blurring. They are conceptually different yet interlinked in their effects (Badawy & Schieman, 2020). Work-to-home interference occurs when the different domains in which one plays a role interfere with one another (Schieman & Reid, 2009). For example, extra workload may undermine the role as a parent. Work-to-home interference is the imbalance in the available

personal resources (such as time, energy, responsibility et cetera) between the work-role and the family-role (Badawy & Schieman, 2020). High-status jobs typically are time consuming and require high levels of authority. This can cause role conflict for the individual. A competing hypothesis, the expansion hypothesis, suggests that multiple roles do not necessarily create conflict but can act as a buffer for stress (Grönlund, 2007). According to this perspective, multiple roles can have stimulating effects, as long as they do not endorse a significant increase in job demands. Some roles in this case, could endorse a role bargaining position in which the individual can balance obligations, however, this privilege is more likely to be reserved for men (Grönlund, 2007). The literature identifies role blurring as another characterizing element for jobs with high workplace authority. Role blurring is the inability to differentiate between work and non-work roles (Badawy & Schieman, 2020). More specifically, this relates to engaging in work-related actions outside of the temporal or spatial boundaries of the workplace environment (Badawy & Schieman, 2020). When combined, these act as chronic stressors and cause strain (Badawy & Schieman, 2020). The literature marks a clear association between workplace characteristics and role strain (Tan et al., 2021). The workplace culture can either heighten or reduce stressors. In some workplace cultures, certain practices are expected in pursuit of the workplace norms (Schieman & Reid, 2009). This is one of the push factors of women self-selecting out of high authority jobs into jobs in the public sector (Yaish & Stier, 2009). In other workplace cultures, the family-work relation is supported and can mediate the effects of work-to-home interference on mental health (Stainbeck et al., 2011). Both work-to-home imbalance and role blurring are induced by mechanisms associated with gender-role theory. While gender-roles and expectations can form a set of direct causes of chronic stressors for women, they also contribute to gendered expectations on an organizational level (Kessler, 2003; Van de Velde et al., 2010). Social roles and social positions of women are particularly sensitive to role blurring and the work-to-home imbalance (Van de Velde et al., 2010). Therefore, the female role is more likely to bring about psychological distress.

There are different theories approaching the roles occupied by men and women in society and how this influences gender segregation. Roles are often institutionalized and differ according to the cultural or national context (Strandh et al. 2013). Structural differences are found across Europe concerning the inconsistent labor market participation of women. Additionally, there are strong cultural values attached to the meaning of work. In some cultures, defamilization is encouraged among women. This is defined as “individuals’ potential for independence from their family and relatives through paid labour and state intervention” (Strandh et al., 2013,

p.652). Two typologies are related to this theory. Following the traditional role balance theory, Schieman and colleagues (2006) hint at the relation between the gendered identity-building process and workplace implications in cultures with a traditional male breadwinner model. In this approach, defamilization is not encouraged and women tend to build their identity around their family and the role of being a caregiver, even though in most societies women also have occupations (Strandh et al., 2013). Men's identity, on the other hand, is built around status attainment, which can be achieved through high-status jobs (Schieman et al., 2006).

Another gender-role theory is the egalitarian role balance (Schieman et al., 2006). This theory assumes that in some cultures where gender relations have become egalitarian, a symmetrical balance for both men and women in their work- and family-role has emerged which encourages defamilization (Strandh et al., 2013). However, while gender relations overall may be egalitarian in some societies, this does not necessarily imply an equal distribution of job authority among men and women (Wright et al., 1995). Research found that for the case of work-to-home interference, the implications of these two theories differ. Following the former theory, as the identity of women is built around their family-role, research found that women tend to feel guilt when experiencing work-to-home interference and role blurring (Schieman et al., 2006). For women, these characteristics of job authority would not only trigger emotional responses, but they are more likely to clear the boundaries between the work-role and the family-role by reducing work responsibilities and not pursuing high authority positions (Badawy & Schieman, 2020). In the latter theory, the effects of high-status jobs will be more similar among men and women since the work- and family-role is balanced for both genders (Schieman et al., 2006). In societies which are less gender egalitarian, due to gender ideals and gender roles, psychological distress can thus be increased for women in high authority positions (Pudrovska & Karraker, 2014).

Two theories on the relation between job authority and mental health

The abovementioned perspectives establish that job authority brings some characteristics which may suppress women's mental health specifically. The overall relation between job authority and mental health, however, remains ambiguous since two opposing perspectives are acknowledged in the literature. Central to these perspectives is the relation between job demands and elements of control at work in relation to mental health. First, the Stress of Higher Status hypothesis criticizes the JDC-model for being too simplistic (Tan et al., 2021). The main

difference between both paradigms is that the JDC-model believes that there is a trade-off between job demands and job control and that therefore, certain psychosocial work characteristics can act as resources to alleviate demands and promote mental health (Badawy & Schieman, 2020). The Stress of Higher status does not agree with this trade-off, since it hypothesizes that the ‘resources’ in high-status jobs, such as high job authority, relate to specific stressors which cause psychological distress and job strain (Schieman et al., 2006; Badawy & Schieman, 2020; Tan et al., 2021).

In consonance with the latter paradigm, Australian research found that every occupational status group had associations with job strain and effects thereof on mental health (D’Souza et al., 2005). Yet, high status workers were found to have a higher likelihood of experiencing depression and anxiety because of job strain (D’Souza et al., 2005). This finding was confirmed by Vanroelen and colleagues (2009) as they found consistent patterns of mental health problems among groups with high strain, iso-strain and active jobs. In other words, a higher prevalence of psychological distress in high strain jobs was expected, but also an increased prevalence of this issue was found in active jobs (Amick et al., 1998; Vanroelen et al., 2009). According to Badawy and Schieman (2020) this is due to job authority augmenting exposure to stress in the workplace. As was concluded by D’Souza and colleagues (2005, p.228): “Higher status does not protect employees from the health consequences of job strain”. Thus, according to this model higher job authority does not necessarily guarantee improvements for mental health as it is expected to bring its own adversities. The trade-off between the effects of status on health outcomes is not sudden, but rather an effect of accumulation (D’Souza et al., 2005).

While the tension between job authority and the exposure to high demands and the effects thereof on mental health are acknowledged in this model, the issue was explored further in the research by Vanroelen and colleagues (2009). Employing an alternative interpretation, they explore the “buffering effects of job control” (Vanroelen et al., 2009, p.331). The buffering hypothesis agrees with the possibility of a trade-off between demands and control. However, this hypothesis states that when a certain threshold of the level of job control is obtained, job authority has the possibility to prevent increasing demands from undermining health (Sanne et al., 2005). In other words, the buffering hypothesis entails that high job authority brings resources which can ease the psychological strain caused by high demands. Some literature expects that high-status workers have easy access to resources, which can facilitate certain coping mechanisms (D’Souza et al., 2005). Evidence supports the claim that workers in certain

occupations, who enjoy high levels of job authority, reap the benefits of their positions in some health related issues (Stansfeld & Candy, 2006; Vanroelen et al., 2009). Other research found no support for the buffer hypothesis when relating it to depression and anxiety as outcomes (Sanne et al., 2005). Indeed, when using mental health scales, the buffer hypothesis is often not confirmed (Vanroelen et al., 2009).

Whether the buffer hypothesis succeeds in contradicting the Stress of High Status hypothesis concerning mental health outcomes remains unsettled (Vanroelen et al., 2009). While higher occupational social classes are associated with increased control, status and authority, the exact association thereof for mental health is still unclear. After exploring the beneficial traits which are generated by job authority, it appears logical that job authority brings resources that to some extent can counter psychological distress and fuel well-being. However, the Stress of Higher Status hypothesis shows that there are definitely pitfalls associated with high job authority which could undermine the benefits. After an examination of these pitfalls, it would appear that especially women are subject to the negative consequences that job authority brings. This leads to the following two hypotheses:

Hypothesis 2: A higher position in the authority hierarchy is a mental health resource for men

Hypothesis 3: The Stress of Higher Status limits the mental health benefits of job authority for women

3. Methods

3.1 Sample

The data used in the analysis are a subset of the European Working Conditions Survey (EWCS) and were accessed through the UK Data Service (European Foundation for the Improvement of Living and Working Conditions, 2020). Since 1990, Eurofound has organized a survey that gathers information on the working conditions of employees every 5 years. The data are collected through face-to-face interviews. As the measure for mental health, the WHO-5, was only included in the 5th and the 6th wave of the EWCS, 2010 and 2015 respectively, a pooled dataset was created consisting of data from both waves.

Respondents were selected using multi-stage, stratified, random sampling. The target sample size is about 1000 respondents per country in both waves, with some exceptions. The dataset from 2010 consists of the then 27 EU Member States (the United Kingdom still included) and Turkey, Croatia, the Former Yugoslavian Republic of Macedonia, Norway, Albania, Kosovo, and Montenegro. The sample size included 43 816 respondents. The sample size of the 6th wave of the survey is 43 850. In the 6th wave, respondents from 28 Member States and Norway, Switzerland, Albania, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey were included.

Missing values of each country were analyzed for both datasets individually. Cases with missing information, except for mental health and educational level, were omitted from the sample. For the mental health variable, mean substitution was used to replace missing values. The missing values for educational level were recoded into a separate category and were used in the analysis. No variable has more than 2.8% (N = 2412) missing values. A complete overview of all the missing values as well as the operationalization of the variables can be found in the supplementary material (supplementary material 1.4). In line with existing literature, the sample was restricted to respondents of ages 18 to 65, as people outside of this category are often in peculiar work situations (Rigó et al., 2020). All respondents were employed during the period of data gathering. The final dataset consists of 79 043 respondents from 36 countries.

3.2 Measures

Dependent variable

Mental health. Mental health is measured using the 5-item World Health Organization Well-Being Index (WHO-5). This scale is commonly used in the context of work organization and mental health (Ariza-Montes et al., 2018) and the use of it in research as a tool to compare well-being across groups is supported by the literature (Topp et al., 2015). The measure includes 5 constructs which measure well-being (Topp et al., 2015). Respondents were required to rate the following constructs “*I have felt cheerful and in good spirits*”, “*I have felt calm and relaxed*”, “*I have felt active and vigorous*”, “*I woke up feeling fresh and rested*” and “*My daily life has been filled with things that interest me*” on a Likert scale ranging from 0 to 5. The constructs were coded as (0) at no time, (1) some of the time, (2) less than half of the time, (3) more than half of the time, (4) most of the time, (5) all of the time. Reliability of the scale is very good

(Cronbach's $\alpha = 0.883$). The indices were tested by means of a Principal Component Analysis (PCA). The PCA indicated one factor underlying the items (for further analysis, see supplementary material 1.2). As performed by Ariza-Montes (2018), an index for mental health is created by multiplying the sum of all indices by 4. The created scale for mental health ranges from 0 to 100, with higher scores indicating higher frequency of feelings of well-being. The four first items of the WHO-5 had very low number of missing values. Mean substitution was used to deal with the missing values on “*My daily life has been filled with things that interest me*” (0.8%, N=706). While this method might bring a potential bias to the data (Acock, 2005), for a small amount of missing values this is a satisfactory method (Field, 2013; Dray & Josse, 2015).

Independent variables

Job Demand-Control model. Active jobs, or jobs with both a high level of control and demands, are conceptualized in theoretical reference to the elements elaborated upon in the literature study. Since the original Job Control Questionnaire as introduced by Karasek (1979) is not included in the EWCS, it is suggested approaching the original conceptualization with measurements introduced by the EWCS (Muckenhuber et al., 2014). All waves of the EWCS include the same proxy-indicators.

Job demands. Following existing literature (García-Herrero et al., 2017; Rigó et al., 2020) job demands are obtained from the constructs “*Does your job involve working at very high speed?*” and “*Does your job involve working to tight deadlines?*”. The two included variables show internal consistency ($r_{\text{Spearman-Brown}} = 0.79$). In line with the existing literature (Niedhammer et al., 2012; Nappo, 2018) the sum of the scores is dichotomized at the median to identify high and low levels of job demands. In this case (0) indicates low job demands and high job demands is coded as (1).

Job control. The concept of job control is established based on aspects of decision-latitude and skill discretion. This approach to elements of job control is supported by the literature (Niedhammer et al., 2012; García-Herrero et al., 2017; Nappo, 2018; Rigó et al., 2020). In this analysis, both aspects of decision-latitude and skill discretion will be included as separate variables.

Decision latitude. Decision latitude consists of three (1) yes or (2) no questions, namely “*Free to change order of tasks*”, “*Free to change method of tasks*”, “*Free to change speed or rate of work*” (Cronbach’s $\alpha = 0.79$). Again, the sum of the scores is dichotomized at the median to identify high and low levels of decision latitude. In this case (0) indicates low decision latitude and high decision latitude is (1).

Skill discretion. Four elements of skill discretion were identified, existing of three (1) yes or (2) no questions “*Does your job include monotonous tasks?*”, “*Does your job include learning new things?*”, “*Does your job involve complex tasks*” and one question with an answer category ranging from (1) always to (5) never “*You are able to apply your own ideas at work*”. Due to a high amount of missing values in both the 2010 and the 2015 sample data, the latter variable was not included (see supplementary material 1.4). The Cronbach’s alpha of the former three variables $\alpha = 0.29$ indicated a rise to an acceptable level of $\alpha = 0.60$ if “*Does your job include monotonous tasks?*” was excluded. Therefore, the variable skill discretion consists of the sum of the scores for “*Does your job include learning new things?*” and “*Does your job involve complex tasks*”. The scores were dichotomized around the median and coded as (0) low skill discretion and (1) high skill discretion.

Job authority. Measures of job authority can include three aspects, namely supervision over others’ activities, the ability to influence others’ pay and the ability to hire and fire (Elliot & Smith, 2004). Only one proxy-indicator of job authority is proposed in the 5th and 6th wave of the EWCS, namely “*How many people work under your supervision, for whom pay increases, bonuses or promotion depend directly on you?*”. This measure is representative for high job authority: “Having responsibility to hire and fire and/or determine pay represents a much higher level of authority than does having the responsibility of supervising others.” (Wolf & Fligstein, 1979, p.240). Thus, a high authoritative level is correlated with the ability to influence pay. In line with existing literature (Pudrovska & Karraker, 2014) job authority is included as a categorical variable and is coded in the original EWCS dataset as (0) none, (1) 1 to 9 people and (2) 10 or more people.

Gender. Gender is included as a dichotomous variable (0 = male).

Age. The variable age was recoded in categories coded as (0) 18 to 30 years, (1) 31 to 45 years, (2) 46 to 55 years and (3) 56 to 65 years.

Covariates

The choice of which explanatory variables are controlled for is partly supported by previous research and by elements found in the literature study.

Sector. Following the literature (Badawy & Schieman, 2020), the sector in which the respondent works is included. This measure is recoded as (0) the public sector, (1) the private sector or (2) other sectors (joint public-private organizations, non-profit sector or other).

Sex discrimination. Whether the respondent has been discriminated against in the last 12 months on the basis of their sex is included and is coded as (1) yes or (0) no, as suggested by Niedhammer and colleagues (2012).

Family status. In line with existing literature (Pudrovska & Karraker, 2014; Badawy & Schieman, 2020) family statuses are included, namely whether the respondent lives with their partner or spouse (0 = no, 1 = yes) and whether the respondent lives with their children (0 = no, 1 = yes).

Educational level. Education is measured according to the International Standard Classification of Education (ISCED). This scale includes 7 levels of education. The measure was recoded into categories, namely (0) lower educated (ISCED 0-2), (1) intermediately educated (ISCED 3-4) and (2) higher educated (ISCED 5-6). The missing values were coded into another category (3) and are used in the analysis.

3.3 Statistical analysis

The descriptive statistics for all included variables stratified by gender are obtained by performing a one-way ANOVA for the continuous variable mental health index and a chi-square test for the categorical (dummy) variables (Table 1). The preliminary analyses are performed in SPSS. Additional preliminary analyses can be found in the supplementary material.

To take into account the clustered nature of the data, multilevel modelling is performed. The data is clustered in time and in countries, where 79 043 employees (level 1) are nested in 2 waves (level 2) which are nested in 36 countries (level 3). As the data consists of only 2 waves, survey-waves cannot be considered as a higher level variable. Therefore, the second level is considered as country-waves (Dudal et al., 2018). This level consists of 69 units. This is

sufficient to consider as a higher level. Multilevel models are estimated using the MLwiN software package. Weights are turned off as there is some ambiguity in the performance of MLwiN when including weights, especially for populations with few clusters (less than 500) (Centre for Multilevel Modelling, 2011)

First, a null model is estimated to test the appropriateness of the multilevel model. Then, the baseline model includes gender, age and the control variables (sector, sex discrimination, living with partner or spouse, living with children and educational level). In the third model active job characteristics (job demands, decision latitude and skill discretion) are added. Subsequently, the fourth model includes job authority in the analysis. In the fifth model, interaction terms are estimated to test for significant between-gender differences. These models report fixed effects which can be interpreted as coefficients. In the final model, a random slope is added for gender. The random slope was added to look for possible between-country level differences in the association with mental health (Table 2). For each model, the variance at each level is mentioned as well as the goodness of fit of the model, with lower -2 Loglikelihood scores referring to a better model fit.

4. Results

4.1 Results from descriptive statistics

The country-level characteristics with the descriptive statistics of the focal variables can be found in the supplementary material (supplementary material 1.1). The sample comprises 51.1% men ($N = 40\,422$) and 48.9% women ($N = 38\,621$). The mean age of the sample is 41.9 years ($SE = 0.04$). Table 1 shows the descriptive statistics of the dataset stratified by gender. With regard to the key variables, women reported overall lower levels of mental health than men ($p < 0.001$). On the mental health index, women had a mean score of 65.81 whereas men scored 68.10 on average. In the sample, more men had jobs with active job characteristics such as high job demands ($p < 0.001$), high skill discretion ($p < 0.05$) and high decision latitude ($p < 0.001$) than women. A similar trend was found for authority positions in the workplace environment. Whereas more women occupied jobs with no job authority, 7.6% of men had authority over 1 to 9 people, as compared to 4.5% of women ($p < 0.001$). The gender gap for authority over more than 10 people at work showed an even larger gender gap, as only 1.4% of women occupied such a position as compared to 2.8% of male workers ($p < 0.001$).

Concerning the covariates, the analysis shows that most workers in the sample are employed in the private sector (men = 38.2%; women = 30.2%). Whereas in the private sector more men than women are employed, the contrary is found in the public sector where more women (14.9%) than men (9.9%) are working ($p < 0.001$). The large majority of the employees in the sample indicated to not have been subjected to discrimination at work on the basis of their sex in the past year, of which 50.7% were men and 47.4% were women. Of the respondents in the sample who had been subjected to sex discrimination in the past year, significantly more of them were women, 1.4% as compared to 0.5% of men in the sample ($p < 0.001$). With regard to family status, the majority of the workers cohabit with their partner or spouse, of which 30.3% are women and 33.6% are men. A discrepancy is found for children, as more women in the sample live with children in the household than men ($p < 0.001$). Lastly for educational level, significant discrepancies are found ($p < 0.001$). Most European employees are intermediately educated (men = 24.6%; women = 22%) or higher educated. Women have obtained higher levels of education than men (men = 14%; women = 17.1%). The proportion of workers who are lower educated is 11.1% and 8.5% for men and women respectively.

4.2 Results from multilevel analysis

The results from the multilevel analysis are presented in Table 2. Preliminary analyses in MLwiN indicated that a multilevel model is a significantly better approach than a single level model as a multilevel approach can account for the clustering of the data. The intraclass correlation coefficient (ICC) showed that 0.95% of the variance is situated at a country level and 4.00% of the variance is situated on the level of country-waves. As can be seen in the baseline model, the gender gap in mental health is confirmed ($b_{\text{women}} = -2.33$; $SE = 0.15$; $p < .001$) while controlling for the covariates. Overall, mental health deteriorates with age, with a significant decrease especially in the two eldest age groups ($b_{\text{age46to55}} = -4.10$; $SE = 0.22$; $p < 0.001$; $b_{\text{age56to65}} = -3.84$; $SE = 0.26$; $p < .001$) in comparison to the youngest age group. Respondents employed in the private sector ($b_{\text{private}} = -0.78$; $SE = 0.18$; $p < .001$) scored lower on the mental health index than their peers in the public sector. Also, having experienced sex discrimination at work significantly decreases employees' mental health ($b_{\text{sexdiscrimination}} = -8.05$; $SE = 0.52$; $p < .001$). Furthermore, family status significantly affects mental health. Whereas living together with a partner or spouse benefits mental health ($b_{\text{partnerspouse}} = 1.20$; $SE = 0.17$; $p < .001$) in comparison to people who live without their partner, living with children decreases

mental health ($b_{\text{children}} = -0.83$; $SE = 0.17$; $p < .001$) when compared to people who do not live with children. Lastly, the educational level is positively associated with mental health. Being intermediately educated ($b_{\text{intermediate}} = 2.07$; $SE = 0.21$; $p < .001$) or higher educated ($b_{\text{higher}} = 3.47$; $SE = 0.22$; $p < .001$) forms a resource for mental health when compared to people who are lower educated.

The active job conditions are accounted for in Model 3. Firstly, high job demands decrease the mental health of employees ($b_{\text{demands}} = -3.85$; $SE = 0.15$; $p < .001$) as compared to employees in jobs with low job demands. The job characteristics of decision latitude and skill discretion have a positive association with mental health, as compared to workers who do not have these active job characteristics. Out of both elements, decision latitude ($b_{\text{decisionlatitude}} = 2.74$; $SE = 0.15$; $p < .001$) had a slightly stronger effect than skill discretion ($b_{\text{skilldiscretion}} = 2.42$; $SE = 0.18$; $p < .001$). This implies that certain active job characteristics endorse a positive association with mental health.

In Model 4, the Stress of Higher Status hypothesis is tested. The amount of job authority one has in the workplace environment shows a positive association with one's score on the mental health index. This contradicts the assumption of the Stress of Higher Status hypothesis, which states that high-status jobs bear unfavorable mental health implications. Having authority over 1 to 9 people at work forms a resource for the association with mental health, but the beneficial effect increases even further for people who have authority over more than 10 people as compared to the employees who have no job authority ($b_{1-9\text{people}} = 2.04$; $SE = 0.22$; $p < .001$; $b_{10\text{ or more}} = 2.50$; $SE = 0.36$; $p < .001$).

In Model 5 interaction effects are added which allow between-gender comparisons of job conditions. This model addresses the three hypotheses which were established in the literature study. Firstly, the interaction effect between gender and high job demands shows a negative effect for women ($b_{\text{gender} \times \text{highjobdemands}} = -0.75$; $SE = 0.29$; $p < 0.01$). For the other two interaction effects of gender and active job characteristics, namely decision latitude and skill discretion, small negative effects were found but neither were significant. This indicates that there is a gender gap in active job characteristics, as high job demands show a significantly worse association with women's mental health as compared to men's. Accordingly, there is a further imbalance as the effect sizes of the elements of job control are not greater among women. Indeed, in accordance with the first hypothesis, under similar job conditions of high demands

and high control, active jobs do not exercise an equally beneficial effect on the mental health of men and women. Secondly, interactions effect were added for gender and authority over 1 to 9 people and gender and authority over more than 10 people, while controlling for the other independent variables and the covariates. The interaction effect between job authority and gender show small increases in the effect sizes of job authority on mental health for women, but these effects were also not significant. Consequently, this confirms the second hypothesis but contradicts the third hypothesis. A higher position in the authority hierarchy is indeed positively associated with mental health for men, but also for women. This contradicts the assumption that the Stress of Higher Status hypothesis limits the mental health benefits of job authority for women, contrarily, it supports a positive association with mental health for women. When adding the interaction effects to the model, the decrease in -2LL was not significant, signifying that the model has not significantly improved. Therefore, the terms were deleted when the last model was estimated.

Upon estimating the random slope, the -2LL parameter indicates a significantly better model fit. Also, the random slope is significant. Indeed, there are differences between countries in the relationship between gender and mental health when controlling for the other variables.

Table 1: Descriptive statistics, stratified by gender: One-way ANOVA and χ^2 -tests on EWCS pooled dataset (N = 79 043)

Variables	Women (N = 38 621)	Men (N = 40 422)
	<i>Mean (SE)</i>	<i>Mean (SE)</i>
Mental health index	65.81*** (0.11)	68.10 (0.10)
	<i>Percentage (N)</i>	<i>Percentage (N)</i>
Age		
18 to 30	9.6% (7604)*	10.9% (8643)
31 to 45	19.3% (15 228)*	19.7% (15 569)
46 to 55	13.3% (10 520)*	13% (10 257)
56 to 65	6.7% (5269)*	7.5% (5953)
JDC-model		
Low job demands	24.7% (19 526)***	22.8% (18045)
High job demands	24.2% (19 095)***	28.3% (22 377)
Low decision latitude	22.8% (18 012)*	23.4% (18 494)
High decision latitude	26.1% (20 609)*	27.7% (21 928)
Low skill discretion	11.8% (9349)***	11.0% (8668)
High skill discretion	37.0% (29 272)***	40.2% (31 754)

Job authority		
No job authority	43% (33 990)***	40.8% (32 251)
Authority over 1-9 people	4.5% (3550)***	7.6% (5976)
Authority over more than 10 people	1.4% (1081)***	2.8% (2195)
Covariates		
Sector		
Private sector	30.2% (23 908)***	38.1% (30 077)
Public sector	14.9% (11 805)***	9.9% (7810)
Other sector	3.7% (2908)***	3.2% (2535)
Sex discrimination		
Has not experienced sex discrimination at work	47.4% (37 501)***	50.7% (40 041)
Has experienced sex discrimination at work	1.4% (1120)***	0.5% (381)
Partner or spouse		
No spouse/partner in the household	18.6% (14 691)***	17.5% (12 869)
Lives with spouse/partner in the household	30.3% (23 930)***	33.6% (26 553)
Children		
No children in the household	22.6% (17 853)***	26.7% (21 129)
Lives with children in the household	26.3% (20 768)***	24.3% (19 293)
Educational level		
Lower educated	8.5% (6683)***	11.1% (8738)
Intermediately educated	22.0% (17 403)***	24.6% (19 473)
Higher educated	17.1% (13 533)***	14.0% (11 078)
Information on education missing	1.3% (1002)***	1.4% (1133)

Note: Asterisks indicate statistically significant differences between men and women.

*= $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$

Table 2: Multilevel analysis: Mental health index regressed on active job characteristics, job authority, gender, age and covariates

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Intercept	66.84***	(0.61)	68.95***	(0.66)	68.26***	(0.68)	68.46***	(0.67)	68.08***	(0.69)	68.42***	(0.70)
Independent variables												
Gender (ref = men)												
Women			-2.33***	(0.15)	-2.32***	(0.15)	-2.14***	(0.15)	-1.40***	(0.35)	-2.08***	(0.25)
Age (ref = 18 to 30 years)												
31 to 45			-2.58***	(0.21)	-2.81***	(0.21)	-2.92***	(0.21)	-2.92***	(0.21)	-2.92***	(0.21)
46 to 55			-4.10***	(0.22)	-4.47***	(0.22)	-4.64***	(0.22)	-4.64***	(0.23)	-4.64***	(0.22)
56 to 65			-3.84***	(0.26)	-4.55***	(0.26)	-4.71***	0.26	-4.69***	(0.26)	-4.71***	(0.26)
Active job conditions												
High job demands					-3.85***	(0.15)	-3.96***	(0.15)	-3.59***	(0.20)	-3.96***	(0.15)
High decision latitude					2.74***	(0.15)	2.56***	(0.15)	2.56***	(0.21)	2.56***	(0.15)
High skill discretion					2.42***	(0.18)	2.29***	(0.18)	2.53***	(0.25)	2.30***	(0.18)
Job authority												
1 to 9 people							2.04***	(0.22)	2.00***	(0.29)	2.04***	(0.22)
10 or more people							2.50***	(0.36)	2.25***	(0.45)	2.49***	(0.36)
Interaction effects												
Active job conditions x gender												
Women x high job demands									-0.75**	(0.29)		
Women x high decision latitude									-0.03	(0.29)		
Women x high skill discretion									-0.47	(0.34)		
Job authority x gender												
1 to 9 people									0.09	(0.45)		

10 or more people								0.10	(0.76)			
Covariates												
Sector (ref = public sector)												
Private sector			-0.78***	(0.18)	-0.52**	(0.18)	-0.64***	(0.18)	-0.65***	(0.18)	-0.65***	(0.18)
Other sectors			-0.95**	(0.31)	-1.11***	(0.31)	-1.13***	(0.31)	-1.14***	(0.31)	-1.15***	(0.31)
Sex discrimination												
Sex discrimination at work (ref = not experienced)			-8.05***	(0.52)	-7.24***	(0.52)	-7.33***	(0.52)	-7.29***	(0.52)	-7.35***	(0.52)
Partner or spouse (ref = not living with your partner)												
Living with your spouse/partner			1.20***	(0.17)	1.14***	(0.16)	1.07***	(0.16)	1.07***	(0.16)	1.07***	(0.16)
Children (ref=not living with children)												
Living with your children			-0.83***	(0.17)	-0.90***	(0.17)	-0.93***	0.17	-0.93***	(0.17)	-0.92***	(0.17)
Educational level (ref = lower educated)												
Intermediately educated			2.07***	(0.21)	1.74***	(0.21)	1.64***	(0.21)	1.65***	(0.21)	1.65***	(0.21)
Higher educated			3.47***	(0.22)	2.43***	(0.23)	2.14***	(0.23)	2.16***	(0.23)	2.15***	(0.23)
Information on educational level missing			0.72	1.43	0.59	(1.42)	0.51	(1.42)	0.50	(1.42)	0.60	(1.42)
Variance components and model fit												
Country	4.05	(3.80)	3.87	(3.63)	3.63	(3.69)	3.42	(3.67)	3.45	(3.68)	4.80	(3.97)
Country-waves	17.04***	(4.26)	16.30***	(4.08)	16.92***	(4.23)	17.06***	(4.26)	17.04***	(4.25)	17.01***	(4.25)
Individual	405.19***	(2.04)	398.75***	(2.01)	392.23***	(1.97)	391.64***	(1.97)	391.59***	(1.97)	391.35***	(1.97)
- 2LL	699194.47		697925.00		696624.54		696506.05		696496.55		696481.85	
Random slope country											1.34**	(0.51)

*N individuals = 79 043 ; N country-waves = 69 ; N country = 36; *p < 0.05; **p < 0.01; ***p < 0.001*

5. Discussion and conclusion

This paper aimed to examine certain workplace characteristics in relation to employee mental health in Europe, taking into account the gender stratified nature of the workplace environment. The central research question of this paper is:

How do the effects of high-status job characteristics on mental health differ between men and women, given the gender stratified nature of the workplace environment?

Much literature has shown an interest in the multiple factors at the workplace environment which can shape workers' health (Burgard & Lin, 2013; Mensah, 2021). Therefore, the scope of this paper reviewed the perspective of workers with active job characteristics and workplace authority, taking gender stratification as its starting point. This approach is relevant for two main reasons. Firstly, the post-industrial era has changed the labor market and the workplace environment (Bell, 1976). The economy has become more service-based and many job tasks have come to be digitized and computerized. Workers now need to adopt a diversity of skills and show greater flexibility to deal with these changes. In accordance with these aggregate changes, Castells (2004) highlights the rising importance of self-programmable labor, or labor consisting of multiskilled employees who engage in lifelong learning. Therefore, experiences of workers in jobs with active job characteristics specifically were considered, as the active job type "is portrayed as the prototype for modern, flexible work life" (Grönlund, 2007, p.488). Additionally, the changed nature of the workplace environment has reduced certain physical risk factors, yet exposure to psychosocial risk factors persists (Burgard & Lin, 2013). The importance of unraveling factors which may determine healthy work is ongoing, as psychosocial risk factors are associated with job strain and these can affect mental health.

Secondly, the literature indicates that over the past decades, an increasing number of women have entered the labor market (Mensah, 2021). Because of processes of gender stratification, there are differences in access to and experiences in healthy work for men and women. Thus, the possible gender differences in mental health resources in the workplace environment of workers in advantaged employment positions, such as active jobs, are of interest (Mensah, 2021).

5.1 Active job characteristics, gender stratification and mental health

The analyses have confirmed the importance of the psychosocial work environment on mental health. First, accordingly to the theoretical framework of gender stratification, it was hypothesized that there is a discrepancy in the distribution of the beneficial effects of active job characteristics on the mental health of men and women. In line with the existing literature (Mark & Smith, 2012; Cottini & Lucifora, 2013), the negative association between job demands and mental health was confirmed. In accordance with Bentley and colleagues (2015) both elements of job control were associated with a rise in mental health. Indeed, the effect of decision latitude was the strongest. In congruence with the JDC-model (Karasek, 1979), high job demands as compared to low job demands are negatively associated with mental health and high control as compared to low control shows a positive association with the mental health index. In contrast to what Grönlund (2007) suggested, the benefits of active jobs are, however, not equally distributed among men and women. In terms of gender differences, the negative association between job demands and mental health was exacerbated for women. The literature often finds a gender gap in skill discretion and decision latitude, where women have less job control on both elements (Niedhammer et al., 2012), as the analysis confirmed. Accordingly, a gender gap was also marked for the association between high skill discretion, high decision latitude and mental health, however, these effects were not significantly lower for women as they were for men. These findings are in contrast to Grönlund's (2007) proposition, as high job control does not entail a buffering effect for women specifically.

The literature provides some suggestions as to explain this trend. As elaborated upon in the literature study, a common issue for women in active jobs is work-to-home interference (Schieman & Reid, 2009). As Grönlund (2007) suggests, high job demands might undermine women's mental health more than men's as it further unbalances the work-to-home equilibrium. High job demands may interfere with unpaid work responsibilities, creating a spillover which develops worse associations between job demands and mental health for women (Burgard & Lin, 2013). As reported by Mausner-Dorsch and Eaton (2000) and Burgard and Lin (2013) it is plausible that women are more susceptible to the psychological strain created by work-to-home conflict. Although contrasting findings were reported by Niedhammer and colleagues (2012) who found that men were more likely to report psychological demands and work-to-home conflict.

In other words, the adversities in terms of job demands are stronger among women while the benefits of skill discretion and decision latitude are less pronounced, which further imbalances the effect of both constructs on mental health. This confirms the findings suggested in the literature study, namely that processes of gender stratification affect the unequal distribution of resources. For both men and women, the overall implication of active jobs shows a positive association with mental health, but the association is less clear-cut for women. This implies that the JDC-model cannot be generalized, as suggested by Karasek (1979) but rather, the model should integrate the possibility of gender differential effects for all constructs.

5.2 Job authority, gender stratification and mental health

Throughout the literature, the question has been raised as to whether job authority is a resource or a cost in terms of mental health. The second and third hypothesis suggested that on the one hand, the effects of job authority would form a resource for men's mental health. On the other hand, in accordance with the Stress of Higher Status hypothesis, the third hypothesis proposed that the possible beneficial effects of job authority would be limited for women's mental health. In contrast to what the hypotheses suggested, the effects of job authority are gender neutral and form a resource for both men and women's mental health. This contrasts earlier findings. While some research has argued that only men benefit from job authority in terms of mental health (Pudrovska & Karraker, 2014), that job authority endorses higher job pressure, role blurring and more work-to-home conflict (Badawy & Schieman, 2020) and that the stress of higher status undermines the rewards of such jobs for both genders (Schieman et al., 2006), the analysis implies contradictory findings. D'Souza and colleagues (2005) suggested that people in high-status positions are exposed to adverse working conditions. Indeed, job demands have unraveled some negative associations with mental health. The analysis showed a small increase in the negative effect of job demands when adding job authority to the model. However, the analysis contradicts the Stress of Higher Status hypothesis, as the construct of job authority was positively associated with mental health. This indicates that the buffer hypothesis is correct in stating that job authority entails certain resources. Contradictory to what was suggested by Pudrovska and Karraker (2014) these resources are not significantly influenced by gender.

If active jobs, and especially high-status jobs with high levels of job authority are positively associated with mental health, some issues arise which cannot be overlooked. First, gender

segregation mechanisms exclude women from obtaining these resources. As substantial previous research has concluded, there is a gender gap in authority in the workplace environment (Jaffee, 1989; Smith, 2002; Blommaert et al., 2020). The unequal patterns of representation in high authority positions relate to vertical segregation. This gender gap is confirmed by the results, as men occupy significantly more authority positions. Whereas 10.4% of male workers hold jobs with authority, only 5.4% of female workers occupy similar positions. In the literature study, some theoretical reflections were made concerning gender segregation in the workplace environment. Wright and colleagues (1995) suggested that this might be due to the glass ceiling, while more cultural perspectives addressed this issue as exclusion based on discrimination concerning gender status beliefs (Doering & Thébaud, 2017). The underlying reason for this discrepancy was not included in the scope of the analysis, however, its persistence should be addressed. Moreover, the analysis has revealed evidence against the human capital theory as explanation for the gender gap. In accordance with previous research (O'Connor, 2015; Barone & Assirelli, 2020), the gender gap in higher educational attainments has been reversed. 17.1% of female workers and 14% of male workers in the sample have attended higher education. This confirms the arguments made against the human capital approach of gender segregation in the workplace environment, as women do have the necessary qualifications to occupy these jobs.

A further investigation leads to the horizontal gender segregated nature of the labor market. Once again, in line with the existing literature (Yaish & Stier, 2009), the analysis confirmed these tendencies. According to the segmented labor market theory, women occupy the peripheral sectors of the labor market where jobs entail less authority positions. As shown by the findings from the analysis, significantly more women worked in the public sector than men, namely 14.7% of female workers as compared to 9.9% of male workers. Again, explanations for the overrepresentation of women in the public sector are suggested but cannot be confirmed considering the scope of this paper. However, as the previous explanations have considered discriminatory acts, the literature study has also mentioned a mutually influencing mechanism where women self-select into female-typical jobs. The increased negative association between job demands and mental health among women may be related to this phenomenon as to seek relief from work-to-home conflict.

It should be addressed that the results indicated factors which could be detrimental to the mental health of employees in high-status jobs. For example, in accordance with earlier research, sex

discrimination at the workplace environment was found to severely affect the association with mental health (Harnois & Bastos, 2018). The results showed that significantly more women than men in the sample had experienced sex-based discrimination at work. Lastly, the analysis revealed country differences in the effect of gender when considering the association between mental health and psychosocial work characteristics. Country-level variables were not included in this paper so the differences could not be explored further. Other research (e.g. Niedhammer et al., 2012; Strandh et al., 2013; Muckenhuber et al., 2014) has investigated these country differences and found that exposure to certain psychosocial workplace risks indeed differs between countries in Europe.

5.3 Limitations, strengths and recommendations for future research

This study has some limitations, which should be addressed before reflecting on recommendations for further research. One of the main limitations concerns the conceptualization of the key variables, since the original JDC-questionnaire was not included in the EWCS dataset. Therefore, proxy-indicators are used instead. A similar approach is supported by previous research (Niedhammer et al., 2012; Muckenhuber et al., 2014; Rigó et al., 2020) and the scales which were made using the proxy-indicators were supported by the PCA and showed good reliability. Additionally, as only one variable was included concerning job authority, the concept has a rather limited scope. Although, it shouldn't affect the results as the literature confirmed that this is an adequate approach (Wolf & Fligstein, 1979). Secondly, the nature of the cross-sectional research design allows to establish associations but prohibits from making any causal claims between mental health and psychosocial characteristics of the workplace environment. Another important issue to raise is that the nature of the EWCS questionnaire may induce some bias. There is a possibility of self-selection bias among participants in high-status jobs. As individuals experience job strain, they might select themselves out of these jobs. The analysis indicated that job demands are heightened among women and, in accordance with findings of the literature study, women are more likely to seek a relief from the experienced imbalance by self-selecting out of high-status jobs (Badawy & Schieman, 2020). This may cause an underestimation of the association between mental health and certain workplace risk factors (Sanne et al., 2005), especially for women. Also, the questionnaire allows respondents to report on job demands, job control, job authority and mental health variables themselves, which could endorse an over- or under-estimation of the effect of certain factors considering the mental health status of the respondent (Sanne et al.,

2005). Nonetheless, this method is appropriate to gather large amounts of data (Niedhammer et al., 2012) and the reporting of individual experiences has an added value (Sanne et al., 2005). Selection effects should be taken into account, as mental health can affect access to certain employment positions (Strandh et al., 2013). Lastly, the results should be interpreted with caution as they are based on a European dataset. Thus, the findings cannot be generalized in relation to the specificities of other labor markets. A multilevel approach was applied, yet as the scope of this paper did not include an investigation into country-level differences, the between-country differences could not be further explained.

Therefore, a first recommendation for future research is to incorporate country-level variables. This can allow further insights in the association between mental health, gender and psychosocial work characteristics, as the occupational literature has indicated that there are not only differences within but also between societies concerning these topics (Burgard & Lin, 2013). For example, some occupational research has marked between-country differences in the prevalence of exposure to certain psychosocial working conditions (Niedhammer et al., 2012). The degree to which societies are gender egalitarian may be an influencing factor in women's experiences in high-status positions (Strandh et al., 2013; Pudrovska & Karraker, 2014). Another study found associations between the Gini-index and the impact of job demands on job strain (Muckenhuber et al., 2014). However, these studies are rather restrictive in their scope, making conceptualization another important recommendation for further research. A broader conceptualization encompassing not only aspects of the JDC-model and the constructs of job authority but also additional constructs, such as the work-family balance and social support is recommended, as this would result in a very comprehensive framework of psychosocial risk and buffering factors. Lastly, a longitudinal research design is proposed. Longitudinal research designs can offer a study of how psychosocial work characteristics affect employees' mental health and change throughout one's career.

Having acknowledged the limitations and recommendations for future research, this paper has certain strengths. Firstly, it has extended the scope of psychosocial workplace characteristics by not using either active job characteristics or job authority, but by combining both. This has filled the gap in the literature which commonly overlooks the experiences of workers having authority over others. Many studies do not include the legitimation of workplace power, however, this has proven to be a relevant aspect. To the best of my knowledge, no previous studies incorporated such a conceptualization using a European population sample. Also, a

multilevel approach was used, taking into account the hierarchical nature of the dataset. The dataset itself consists of recent data and a large sample size. This permitted including between-gender comparisons, which are exceedingly important to incorporate in occupational health studies (Niedhammer et al., 2012). Lastly, this paper used the WHO-5 scale as a key indicator for mental health. Its use for between-group comparisons has been strongly recommended by the literature (Topp et al., 2015).

5.4 Practical implication

The analyses presented here show the relevance of the psychosocial work environment for policy implications. As the strongest effect was found for job demands, a suggestion for policy is to control job demands as to lower their negative association with mental health. As proposed by Vanroelen and colleagues (2009) policy should aim at keeping job demands at a manageable level. Specifically, this could target the gender gap in the experiences of job demands by considering the gender stratified nature of the workplace environment. On an organizational level, more attention could be given to improving job control among employees. Especially since research found that raising job control among employees results in improvements for mental health (Bentley et al., 2015). Lastly, policies should include more gendered perspectives on psychosocial work characteristics by focusing on equal access to high-status jobs. Employing women for high-status jobs can help close the current gender gap in organizational authority positions and additionally benefit women's mental health.

5.5 Conclusion

This paper documents the differential experiences of men and women in high-status jobs in relation to their mental health. Hypotheses related to the JDC-model and the Stress of Higher Status model were tested. Women scored significantly lower on the mental health index than men. While job demands have a negative association with mental health, overall characteristics related to active jobs (decision latitude and skill discretion) were found to be beneficial concerning their implications for mental health. However, job demands had more detrimental effects on the mental health of women in active jobs than for men in similar occupations. This implies that the nature of the workplace environment endorses women to experience more psychosocial stressors than men, even under similar job conditions. Concerning high-status jobs, however, job authority notably showed equally positive associations for both men and women's mental health.

The overall conclusion which can be derived from the abovementioned remarks is that high-status jobs and their relation to mental health indeed differ according to gender. Firstly, job demands constitute a bigger risk for the mental health of women. Several theories were put forward which allude to the factors underlying this observation. Most theories point in the direction of the ongoing inequalities in the division of unpaid work which has spillover effects in the workplace environment, to explain this discrepancy (Grönlund, 2007; Burgard & Lin, 2013). This reaches further than the scope of this paper, but it does confirm the need for more attention towards keeping job demands at a manageable level, especially for women, as to optimize their returns on mental health. Overall, high-status jobs are positively associated with mental health for both genders as the elements of job control and job authority outweigh the negative effect of job demands. Consequently, this implies that job authority in itself does not carry additional psychosocial workplace risks for women as was suggested by previous research (Pudrovska & Karraker, 2014). This poses the issue of unequal access to high-status positions. Processes of gender stratification withhold women from attaining the mental health resources associated with these positions. While this issue has a structural aspect, it is not merely a structural problem. Women have the adequate qualifications, yet they are still underrepresented in authority positions. Also, women are significantly more affected by high job demands. Therefore, a cultural perspective on job characteristics should not be overlooked. Several mechanisms, revolving around gender roles, gendered identity building (Schieman et al., 2006), gender status beliefs and stereotyping or discrimination (Reskin et al., 1999) are still relevant in the contemporary workplace environment. Consequently, these mechanisms can affect women's choices and chances in pursuing the mental health resources carried by high-status careers.

6. Reference list

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