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The Involuntary Use of Home Office and Perceived Work-Related Social Isolation During the COVID-19 Pandemic: Implications for Work Engagement and Burnout in the Norwegian Banking Sector

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## Abstract

The outbreak of the COVID-19 pandemic has led to dramatic changes in people's everyday life and organizations have experienced a radical shift to follow the government's restrictions. Restrictions aiming to segregate people have led organizations to force their employees to work from home. This change to the involuntary use of home office is predicted to have psychological effects on employees' work engagement and well-being. Further, employees have been prone to experiencing work-related social isolation both when working from home and at the office due to social restrictions. This perceived isolation is suggested to be associated with worsened mental health and reduced work engagement. Further, this study aims to investigate whether perceived work-related social isolation moderates the relationship between the involuntary use of home office and work engagement and burnout. These relationships will be investigated in the light of the Job Demands-Resource model.

We employed a cross-sectional research design containing responses from four Norwegian banks located in western Norway, including 135 participants. The respondents self-reported average days spent involuntarily working from home each month during the pandemic, perceived work-related social isolation, work engagement, and burnout. The results of our analysis indicated a significant and positive relationship between perceived work-related social isolation and burnout and a significant negative relationship between perceived work-related social isolation and work engagement. Thus, the findings suggest that leaders should be aware of whether their employees experience work-related social isolation and meet them with sufficient resources to prevent burnout. At the same time, there was no significant relationship found between the involuntary use of home office and work engagement or burnout. Further, no support was found for perceived work-related social isolation to moderate the relationship between the involuntary use of home office and work engagement or burnout. Based on these findings, theoretical and practical implications are discussed. Limitations and directions for further research are also provided.

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## 1.0 Introduction

The COVID-19 pandemic has led to severe consequences worldwide, including unprecedented challenges to public health and the world of work. On the 1st of June 2021, over 170 million confirmed cases, including more than 3.8 million deaths, were registered globally (World Health Organization, 2021). In addition, some people experience losing their jobs, while others have experienced radical changes in their working environments (Tetlow et al., 2020). The first infected Norwegian citizen was registered on the 26th of February 2020 (Kolberg et al., 2020). From this point, the virus spread, resulting in the need for lockdown on the 12th of March 2020 (Regjeringen, 2020). Since then, Norway has been affected by restrictions in various degrees of severity reflecting the infection levels, which has led to dramatic changes in individuals' everyday and work life. These restrictions require social distancing, self-isolation, and limited traveling (Nicola et al., 2020). One of the restrictions taken to limit social interactions is encouraging and requiring employees to work from home. This radical shift has demanded employees to adjust to new policies and procedures of working (Carnevale & Hatak, 2020), cope with unsuitable working environments at home (Waizenegger et al., 2020), and communicate with their colleagues in new ways (Holt-Lunstad, 2020). In addition, employees have been exposed to work-related social isolation due to restrictions aiming to ensure social distancing, which has been found to affect individuals' need for relatedness and belongingness (Baumeister & Leary, 1995).

The intrusive measures to limit the spread of the COVID-19 virus have sparked an interest in the effects on peoples' mental health among researchers. Some studies have focused on general levels of stress (Limcaoco et al., 2020; CVS Health, 2020), while others focused on increased levels of depression and anxiety (Bidzan-Bluma et al., 2020; Bueno-Notivol et al., 2021; Magson et al., 2021; Center for National Health Statistics, 2021). Many studies carried out during the COVID-19 pandemic seem to have one overall conclusion; that people's mental health is at risk due to the increased presence of pandemic anxiety, social isolation due to lockdowns, job loss or fear of job loss, and role stress (Cullen et al., 2020; Kumar & Nayar, 2021; Pfefferbaum & North, 2020). Further, the interest in the effects of employees working from home on wellbeing and productivity has

gained enormous interest (Evanoff et al., 2020; Feng & Savani, 2020; Lane et al., 2020; Xiao et al., 2021). We want to expand the existing literature on working from home by investigating the associations between the involuntary use of home office, work engagement and burnout. On the other hand, perceived work-related social isolation has been less focused on. Therefore, we want to fill this gap by investigating the associations between work-related social isolation, work engagement and burnout. Further, we want to investigate the moderating effect of perceived work-related social isolation on the relationship between the involuntary use of home office and work engagement and burnout. We will do this in the light of The Job Demands-Resources model (Bakker & Demerouti, 2007), where the involuntary use of home office is considered as a job demand and perceived work-related social isolation is understood as a lack of resources based on previous findings. Previous research suggests involuntarily working from home to reflect a massive shift in job demands as employees experience changes in their physical, psychological, intellectual, and social environment. When working from home employees experience challenges related to interacting with colleagues (Sardeshmukh et al., 2012), unsuitable working environments (Allen et al., 2020), technical issues (Wu & Chen, 2020), and workplace autonomy when being forced to work from home (Spiegelaere et al., 2016). Further, due to limited social contact, both in work and everyday life, people have been prone to experience work-related social isolation. Previous studies predict this type of isolation to affect employees' relatedness both towards the organization and their colleagues (Baumeister & Leary, 1995). Further, it can possibly represent a lack of other essential resources, such as support and feedback (Menec et al., 2020).

The banking sector has several attributes which make it well-suited for the purposes of this study. First, the sector is characterized by office workers, which has made it possible for the employees to work from home. Consequently, these employees can potentially be exposed to perceived work-related social isolation to a greater extent compared to other sectors (e.g., the health care sector and the retail industry). Moreover, the Norwegian banking sector had a good foundation for meeting the economic challenges related to the COVID-19 pandemic (Norges Bank, 2020). Thus, it is possible that the sector experiences lower levels of job insecurity than, for example, the tourism and restaurant industry (NHO, 2020;



SSB, n.d.). This may reduce the likelihood of job insecurity during the pandemic to affect our results. Further, by investigating only one sector, we avoid insecurities related to variations in our findings being caused by respondents representing different sectors and working under different conditions.

This research will contribute with theoretical and practical implications and increased knowledge in the literature of working from home and perceived work-related social isolation. The findings may be highly relevant since the home office is predicted to continue being utilized by contemporary corporations worldwide in the future (Barrero et al., 2021; Lund et al., 2020). Knowledge about how to attain engaged employees in this situation is important as engaged employees show better in-role task performance (Christian et al., 2011), better financial results (Xanthopoulou et al., 2009), are more productive (Cropanzano & Wright, 2001), and have a desire to succeed (Bakker et al., 2008; Bakker & Leiter, 2010). On the other hand, burnout can lead to exhaustion, overwhelm, self-doubting, anxiousness, bitterness, and cynical feelings (Maslach & Leiter, 2005). Therefore, organizations should be aware of factors that can impact the levels of burnout and work engagement. In this study, the involuntary use of home office and perceived work-related social isolation are investigated individually and in combination with respect to work engagement and burnout.

## **1.1 Research Question**

This thesis aims to investigate the following research question: *How can the involuntary use of home office and perceived work-related social isolation affect work engagement and burnout in the Norwegian banking sector?* The research question consists of four core variables; The involuntary use of home office, perceived work-related social isolation, burnout, and work engagement. These variables will be further elaborated on.

## **1.2 Outline of Thesis**

To examine our research question, the theoretical background will be elaborated on. We will start by addressing The Job Demands-Resources model and relevant literature on the involuntary use of home office and perceived work-related social

isolation. In addition, the concepts of burnout and work engagement will be presented. Further, previous findings on the effects of the involuntary use of home office and perceived work-related social isolation on burnout and work engagement will be highlighted in the light of The Job Demands-Resource model. This theoretical background will culminate in our hypotheses. When a thorough literature review has been presented and hypotheses have been outlined, the thesis moves on to methodology. In this part, we will elaborate on our research design and research approach. Further, the results from our analysis will be presented. This will lead to a general discussion of our findings, including theoretical and practical implications, limitations, and directions for further research. Lastly, the conclusion will be presented.

## **2.0 Theoretical Background**

### **2.1 The Job Demands-Resource Model**

The Job Demands-Resources (JD-R) model is a highly used model among researchers when looking at the effects of job characteristics on employees' wellbeing. The central assumption of the JD-R model is that every occupation may have different risk factors linked with job stress. These factors can be separated into two general categories; job demands and job resources (Bakker et al., 2003; Demerouti, Bakker, Jonge, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001). Hence, this constitutes an overarching model that can be applied to different occupational settings, regardless of the particular resources and demands involved.

Job demands refer to those psychological, physical, organizational, or social aspects of the job that require continuous psychological (emotional and cognitive) and/or physical skills or effort and are therefore associated with certain psychological and/or physiological costs. Job demands are “things that have to be done” (Schaufeli & Bakker, 2004). Examples are high work pressure, an unfavorable physical environment, or demanding interactions with colleagues. Although job demands are not necessarily negative, they may turn into stressors when job demands are high over a longer period of time or in hindrance of

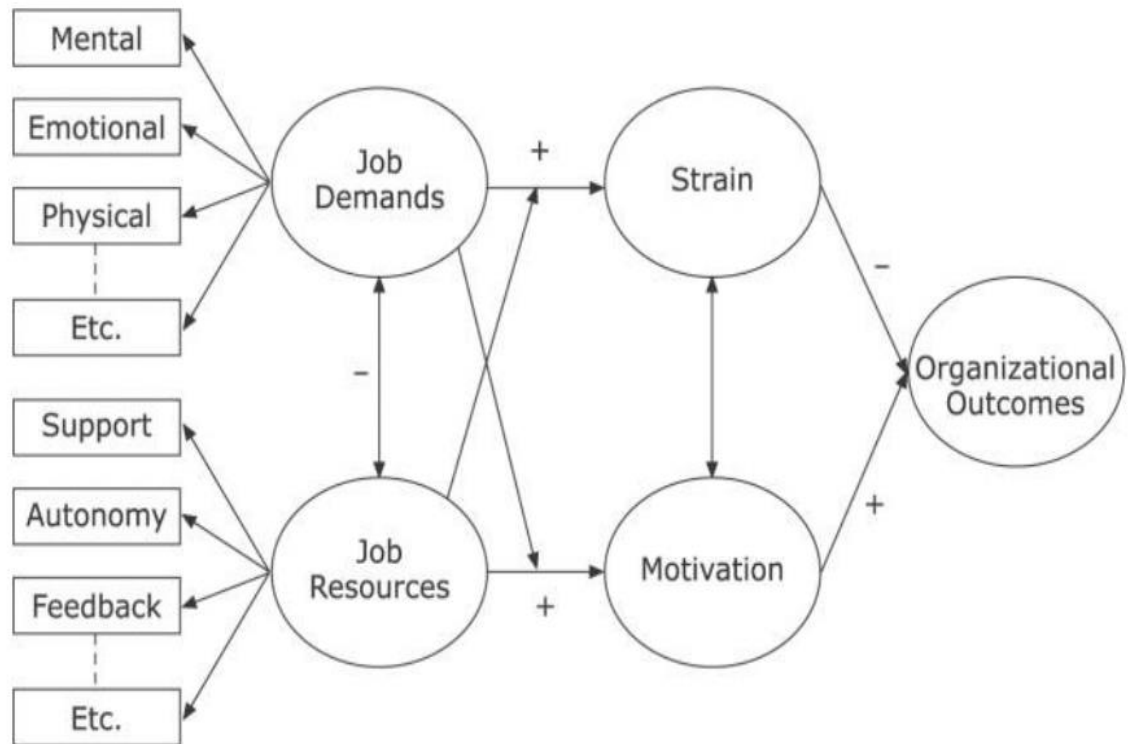
resources (Demerouti, Bakker, Nachreiner, et al., 2001; Meijman & Mulder, 1998).

The second set of working conditions is job resources, which are not only crucial to deal with job demands, but they are also essential in their own right (Bakker & Demerouti, 2007). Job resources refer to those psychological, physical, social, or organizational aspects of the job that can do any of the following: “a) be functional in achieving work goals, b) reduce job demands at the associated physiological and psychological costs, and c) stimulate personal growth and development” (Demerouti, Bakker, Nachreiner, et al., 2001, p. 501). This means that different work conditions can provide resources for the employee. Job resources may be located at the level of the task (e.g., task identity, autonomy, skill variety, task significance, performance feedback), the organization of work (e.g., participation in decision making, role clarity), the social and interpersonal relations (e.g., team climate, co-worker and supervisor support), and the level of the organization at large (e.g., job security, opportunities, pay, career) (Bakker & Demerouti, 2007).

The two basic premises of the JD-R model are that: high job demands lead to strain (burnout) and that a high level of job resources leads to higher productivity and increased motivation (work engagement). Further, job demands moderate the relationship between resources and work engagement, and resources moderate the relationship between job demands and burnout (Demerouti, Bakker, Nachreiner, et al., 2001). These relationships are presented in Figure 1. In this thesis, the involuntary use of home office is understood as a job demand and perceived work-related social isolation is considered as a lack of resources, both potentially associated with lower levels of work engagement and higher levels of burnout.

**Figure 1**

*The Job Demands-Resources Model (Bakker & Demerouti, 2007).*



## 2.2 The Involuntary Use of Home Office

There has been a rapid change during the COVID-19 pandemic to the involuntary use of home offices for a large number of office workers. Employees have experienced radical changes in the work environment as a result of having to adjust to remote work and implement new workplace policies and procedures (Carnevale & Hatak, 2020). This change forces knowledge workers to use technology in new ways to perform their work and engage with their colleagues. In addition, they experience added pressure from managing home environments that may not be suitable for work purposes (Waizenegger et al., 2020). Further, Wu and Chen (2020) found that employees who regularly work in an office or workstation show a higher workload when working from home because the work requires more time due to technical issues. This has been shown to be valid across

different occupations. These findings are further supported by Olson and Ølgrim (2020) who stated that the most severe issues associated with working from home in the banking industry to be technical and security issues. Furthermore, working from home challenges the ability to interact in a stable environment that allows face-to-face communication (Sardeshmukh et al., 2012). As a consequence, social interactions will be more difficult to accomplish. During the pandemic, digital platforms, such as zoom, are utilized to facilitate social interactions and communication, which is found to be mentally exhausting (Bailenson, 2021; Fauville et al., 2021; Schroeder, 2021). These virtual meetings have to be planned, which also challenges the informal communication between employees. Further, Allen et al. (2020) found that the absence of a dedicated office space and having many household members was associated with less work-nonwork balance. This conflict increases individuals' stress levels, lowers productivity, and challenges individuals' commitment to work and family due to the confusion of roles (Greenhaus & Powell, 2006).

Moreover, existing studies show positive effects of voluntary (Bloom et al., 2015) and occasional use of the home office (Biron & Veldhoven, 2016; Henke et al., 2016), but these positive effects seem to diminish when working from home constantly or involuntarily (Anderson et al., 2015; W. Wang et al., 2020). Previous research has addressed the difficulty of carrying out interdependent tasks while being physically dispersed and that working from home is unsuitable for such work (Biron & Veldhoven, 2016; Kaplan et al., 2018). Many of the tasks in the banking sector are characterized by high levels of interdependence. For example, creating new services or products requires employees with different knowledge and skills (e.g., marketing, UX design, and developing) to cooperate. Therefore, working from home can result in increased levels of stress due to challenges associated with coordination and frequent exchange of information (Golden & Veiga, 2005). Another issue associated with forcing employees to work from home is limited workplace autonomy. According to Spiegelaere et al. (2016), limited workplace autonomy leads to less engaged workers and higher levels of burnout. During the COVID-19 pandemic, public spaces, such as cafés or libraries, have been closed down, which limits the opportunities for changing work environments. This can be particularly demanding for individuals experiencing unsuitable working environments at home. Based on this

background, it is reasonable to consider the involuntary use of home office as a job demand.

### **2.3 Perceived Work-Related Social Isolation**

To limit the spread of the pandemic, segregation has been necessary, but human beings are not suited to manage social isolation for a long time. The absence of relationships removes essential conditions for the development of personal identity and the exercise of reason (Pietrabissa & Simpson, 2020). Consequently, several researchers predict the pandemic to have negative effects on people's mental health (Cullen et al., 2020; Kumar & Nayar, 2021; Pfefferbaum & North, 2020). When individuals are exposed to segregation, it affects their need to belong as they experience detachment from the community (Baumeister & Leary, 1995). Experiencing detachment from the community is associated with emotional stress and reduced helpfulness towards other individuals (Baumeister et al., 2007), which can have negative consequences for organizations. People have a need for relatedness or belongingness, which reflects the universal propensity to interact with, be connected to, and experience caring for other people (Baumeister & Leary, 1995). Individuals need to associate and identify with others through long-term, positive relationships (Buss, 1991; Edwards & Cable, 2009). To satisfy this need, individuals must frequently interact with the same people, and this interaction must occur in a relatively stable environment (Baumeister & Leary, 1995). The pandemic leads to less frequent interactions among individuals, which might weaken relationships. Hence, individuals' need for relatedness and belongingness can be negatively affected.

Further, limited social interactions can result in feelings of isolation among employees. Isolation perceptions have been identified as one of the main issues for employees working from home (Cooper & Kurland, 2002; N. B. Kurland & Cooper, 2002; Vega & Brennan, 2000). From an evolutionary perspective, humans are expected to perceive social and physical separation from the group as negative because it leads to deprivation of protection and support, which is crucial for survival. Buss (1996) stated that the lack of support is an essential factor leading to perceived work-related social isolation in today's organizations. In this paper, work-related social isolation is referred to as a two-dimensional construct

of individuals' perceptions of isolation from others at work and social isolation from both colleagues and from the company's support network. Further, individuals' work-related isolation results from a perceived lack of availability of recognition and support, not being part of the group, and missed opportunities for informal interactions with colleagues. This can occur independently of working from home, as the pandemic results in fewer people at the office and strict rules on who and how you can meet colleagues at work. Nevertheless, perceived work-related social isolation may be more prevalent when working from home as opportunities for networking and interactions can diminish. Workplace isolation reflects employees' desire to be a part of a network of colleagues who provide support and help in specific work-related situations. It represents employees' need for the availability of peers, co-workers, and supervisors for work-related social support. Further, physical distance affects availability and is, therefore, likely to increase the perception of isolation (Marshall et al., 2007). Besides, we suggest in this thesis that perceived work-related social isolation emanates from availability, not just spatial separation.

Previous research has found that employees working from home experience two types of isolation, social and organizational isolation. Employees working from home miss the social interaction of informal chats, meetings around the coffee machine, and spontaneous discussions (Cooper & Kurland, 2002). Thus, informal interactions among colleagues are affected when working from home (Wiesenfeld et al., 2001). Working from home and being physically separated from colleagues serve to exacerbate feelings of being out of touch (Scott & Timmerman, 1999). The lack of informal interactions, emotional support, and affective bond, along with the reduction in intimacy, results in employees working from home feeling socially isolated (Mann et al., 2000). Based on this background, perceived work-related social isolation is considered as a lack of resources in this thesis as it denotes a hindrance for the need for social relatedness, both towards the organization and colleagues. Further, this can possibly represent a lack of other important resources, such as perceptions of less social support and feedback, social detachment from the organization, and less social interactions with colleagues.

## 2.4 Burnout

Burnout is a phenomenon of notable global significance and is defined as "a state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's capacity to perform" (Maslach et al., 1996, p. 20). To clarify, burnout is characterized by more than having a bad day or feeling blue (Maslach & Leiter, 2005). It is a multidimensional construct that goes beyond mere exhaustion (Maslach & Jackson, 1981). In addition, burnout is measured on a continuous scale, meaning that individuals can experience different levels of burnout. Further, Schaufeli et al. (2020) divided burnout into four core dimensions; exhaustion, mental distance, and emotional and cognitive impairment. Three of these dimensions refer to the inability to invest energy (exhaustion, emotional and cognitive impairment), and one refers to the unwillingness to invest energy (mental distance). Exhaustion is characterized by extreme tiredness and both physical and mental loss of energy. Emotional impairment reflects reduced functional capacity to regulate emotional processes, such as sadness and anger, adequately. Further, cognitive impairment reflects the reduced functional capacity to regulate one's cognitive processes, such as attention and memory. The last core element of burnout, mental distance, is linked to psychological detachment and mental withdrawal from the job. This is seen as an ineffective coping mechanism to deal with feelings of exhaustion. For instance, it might cause conflicts with clients or colleagues, and hence, worsen the employee's feelings of exhaustion (de Beer et al., 2020; Schaufeli et al., 2020).

Both researchers and practitioners consider burnout as a major concern as it has many negative effects, both for the employees and the organization. Burnout is often linked to both mental and physical problems, such as depression, anxiety, and muscular pain (Wang et al., 2015). In addition, insomnia, exhaustion, increased use of drugs and alcohol, and increased family and marital problems can be consequences of burnout (Maslach et al., 1996). Further, burnout is known to affect morale, absenteeism, intention to leave, performance, commitment, and creativity (Halbesleben & Buckley, 2004; Maslach et al., 1997; Maslach & Goldberg, 1998; Schaufeli et al., 1993). On the other hand, lower levels of burnout are found to increase work satisfaction and reduce turnover (Abu-Bader, 2000). Based on these findings, it is crucial for organizations to avoid and reduce burnout (Johnstone et al., 2016).



In this thesis, the involuntary use of the home office is considered as a job demand due to the many challenges associated with working from home (Carnevale & Hatak, 2020; Sardeshmukh et al., 2012; Waizenegger et al., 2020; Wu & Chen, 2020). The JD-R model suggests that the development of burnout follows two processes tied to job demands. In the first process, extreme job demands can exhaust employees' physical and mental resources and, therefore, lead to constant overuse of energy, resulting in burnout and exhaustion (Demerouti et al., 2000; Demerouti, Bakker, Jonge, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001; Leiter, 1993). Research directly on the involuntary use of home offices is limited, but there are found negative effects of working from home in general and during the COVID-19 pandemic. One of these negative effects is related to chronic workplace stress, which can result in burnout for employees (Gray-Stanley & Muramatsu, 2011; Kristensen et al., 2005; Maslach & Jackson, 1984; Maslach & Leiter, 2016; Shirom et al., 2010; Wood et al., 2020). Previous research has found challenges associated with moving quickly to remote work leading to work-life stress. Moreover, work-life stress can be caused by role overload and role stress from balancing work and family issues (Bolger et al., 1989; Duxbury et al., 2018) the impact of the physical environment on job performance (Vischer, 2007), lack of perceived organizational support (Stamper & Johlke, 2003), and the impact of subjective experiences of time on work stress (Eldor et al., 2017). At the same time, findings suggest that perceived stress has increased during the pandemic, especially for people with limited experience of working from home. This perceived stress is found to be associated with burnout (Hayes et al., 2020). Further, Hockey (1993) has stated that individuals use performance-protection strategies under the influence of environmental demands. Performance protection is accomplished by mobilizing sympathetic activation (endocrine and autonomic) and/or boosting subjective effort (use of active control in processing information). Therefore, the greater the effort and/or activation, the greater the psychological cost for the individual. Consequently, dealing with the demands that follow from working from home can be mentally draining for employees.

Perceived work-related social isolation is suggested to be a lack of resources in this thesis. In the second process of the development of burnout, according to the

JD-R model, the lack of resources makes the meeting of job demands difficult, which further leads to disengagement from work (Demerouti, Bakker, Nachreiner, et al., 2001). Work-related social isolation has been found to increase subjective levels of both physical and emotional burnout (Stephenson & Bauer, 2010) and negatively impact work engagement (Shikha, 2008). During the COVID-19 pandemic, many employees have limited opportunities for social contact with their co-workers. This can be understood as a lack of resources by itself and, at the same time, be considered as a contributing factor for the lack of other important resources, such as support. Two previous studies found social isolation to be associated with less social support (Emerson et al., 2021; Menec et al., 2020). Further, Stephenson and Bauer (2010) found the lack of support to be one main contributing factor to burnout. Cherniss (1985) stated that the lack of feedback is another particular source of burnout. Moreover, Windeler et al. (2017) found that perceived work-related social isolation can lead to burnout, loneliness, anxiety, and psychological issues through disinterest in or rejection by colleagues. Furthermore, in jobs characterized by being interdependent, it is required to have a continuous information exchange among employees. When a person feels isolated from colleagues and information exchange is hampered, work intensification may be worsened for such individuals, which can have negative effects on employees' well-being (Chung & van der Lippe, 2018).

## **2.5 Work Engagement**

While disengaged employees are unproductive, engaged employees are efficient, highly productive, and beneficial for the organization (Ind, 2010). Work engagement has several definitions, but the general definition of work engagement describes it as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002, p. 74). People who are engaged in their work display enthusiasm, have high energy levels and are completely absorbed in their work activities. According to Schaufeli et al. (2006), there are three different dimensions of work engagement: vigor, dedication, and absorption. The first dimension, vigor, is characterized by mental resilience, high energy levels while working, and the willingness to devote effort to one's work. Dedication is characterized by being strongly involved in one's job and experiencing a certain degree of significance, enthusiasm, challenge, pride,

and inspiration. The last dimension, absorption, can be described as being fully concentrated and happily engrossed in one's work. In this state, employees have difficulties with detaching themselves from work, and time passes quickly (Maslach et al., 2001). These dimensions can be seen in contrast to the four core elements of burnout; exhaustion, mental distance, and emotional and cognitive impairment.

Further, work engagement is characterized as a motivational concept, which means that engaged employees have a desire to seek challenging goals and succeed (Bakker et al., 2008; Bakker & Leiter, 2010). Employees' engagement can mirror the positive energy employees bring to their work. In addition, engaged employees seem to exude more energy than disengaged employees, and they quickly engage in their work tasks. Engaged employees often experience positive emotions related to their work. They have the capacity to be energetic, and they promptly transfer that energy to their work and other employees (Bakker et al., 2008; Bakker & Leiter, 2010). Moreover, engaged employees are often considered happy, and this can explain why they are more productive. Happy employees are more optimistic, confident, and sensitive to opportunities at work (Cropanzano & Wright, 2001).

A major reason why work engagement has become such a popular concept is its ability to predict essential organizational, team, and employee outcomes. Engaged workers show better in-role task performance (Christian et al., 2011) and better financial results (Xanthopoulou et al., 2009) because of their strong focus and dedication to their work activities. Further, engaged workers are more likely to innovate and be entrepreneurial, and have more creative ideas because of their openness to new experiences (Gawke et al., 2017; Orth & Volmer, 2017). Moreover, studies show that these employees are more likely to help their colleagues, and a team's engagement has been positively associated with team performance (Costa et al., 2015; Tims et al., 2013). Engagement has important ripple effects in teamwork because it crosses over from one individual to the other (Bakker et al., 2006; Gutermann et al., 2017; Van Mierlo & Bakker, 2018).

The JD-R model suggests that a combination of personal resources and job characteristics predicts job performance through work engagement. Moreover,

lack of resources and high job demands can result in less engaged employees (Bakker et al., 2003; Demerouti, Bakker, Jonge, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001). Work engagement is most likely to occur when employees are provided with challenges and sufficient resources to meet these challenges (Bakker & Sanz-Vergel, 2013; Tadić et al., 2015). During the COVID-19 pandemic, individuals may have experienced a lack of personal and job resources, such as support and feedback, due to limited social contact with colleagues, leaders, and friends. The lack of these resources can potentially result in less engaged employees when meeting challenges like the rapid shift to involuntarily working from home. Moreover, when being separated from your colleagues, the opportunity for transferring positive energy between employees will diminish, which is a contributing factor for increased work engagement (Bakker et al., 2008; Bakker & Leiter, 2010). Furthermore, the theory proposes that when resources are available, workers can proactively seek challenges and job resources, for example, by asking for support, feedback, and opportunities for development and by starting new interesting projects (Bakker & Demerouti, 2014, 2017; Demerouti, 2014). When experiencing work-related social isolation, these resources can be more difficult to attain. Less social contact with colleagues and friends reduces availability and makes it less convenient to acquire these resources. Moreover, the COVID-19 pandemic leads to a higher workload for employees in the banking sector (Olsen & Øgrim, 2020; Wu & Chen, 2020). Many of the tasks are characterized by interdependence, which is found to aggravate the negative effects of perceived work-related social isolation (Chung & van der Lippe, 2018).

Further, since the involuntary use of home office is considered as a job demand, it can have a negative effect on work engagement alone, but the negative effect can be strengthened when employees are not met with sufficient resources (Bakker & Demerouti, 2007). Therefore, perceived work-related social isolation is suggested to strengthen the negative relationship between the involuntary use of home office and work engagement, and the positive relationship between the involuntary use of home office and burnout in this thesis. Additionally, the involuntary use of home office and perceived work-related social isolation is proposed to be negatively associated with work engagement and positively associated with burnout.

## 2.6 Hypotheses

Overall, job resources and job demands are often negatively correlated since high job demands have the potential to prevent the mobilization of job resources, and lack of resources makes meeting high job demands difficult (Bakker & Demerouti, 2007). In this study, the involuntary use of home office is characterized as a job demand, while perceived work-related social isolation is considered as a lack of resources. Based on previous findings, it is suggested that the involuntary use of home office is negatively associated with work engagement and positively associated with burnout as it is related to more challenging ways to interact with colleagues (Sardeshmukh et al., 2012), unsuitable working environments (Allen et al., 2020), technical issues (Wu & Chen, 2020), and limited workplace autonomy (Spiegelaere et al., 2016). Further, perceived work-related social isolation is suggested to be positively associated with burnout and negatively associated with work engagement. This is proposed based on research finding work-related social isolation to indicate a hindrance for the need for social relatedness, both towards the organization and colleagues (Baumeister & Leary, 1995). Further, this can possibly represent a lack of other essential resources, such as support and feedback (Mann et al., 2000), social attachment to the organization (Baumeister et al., 2007), and social interactions with colleagues (Mann et al., 2000). Furthermore, perceived work-related social isolation is proposed to strengthen the relationship between the involuntary use of home office and work engagement and burnout. These moderating relationships are suggested based on the JD-R model proposing that high job demands, combined with lack of resources, may create a blooming environment for burnout and are likely to reduce work engagement (Schaufeli & Bakker, 2004). The suggested relationships are presented in Figure 2, and our hypotheses are as follows:

***Hypothesis 1a:*** *There is a direct negative association between the involuntary use of home office and work engagement.*

***Hypothesis 1b:*** *There is a direct positive association between the involuntary use of home office and burnout.*

**Hypothesis 2a:** *There is a direct negative association between perceived work-related social isolation and work engagement.*

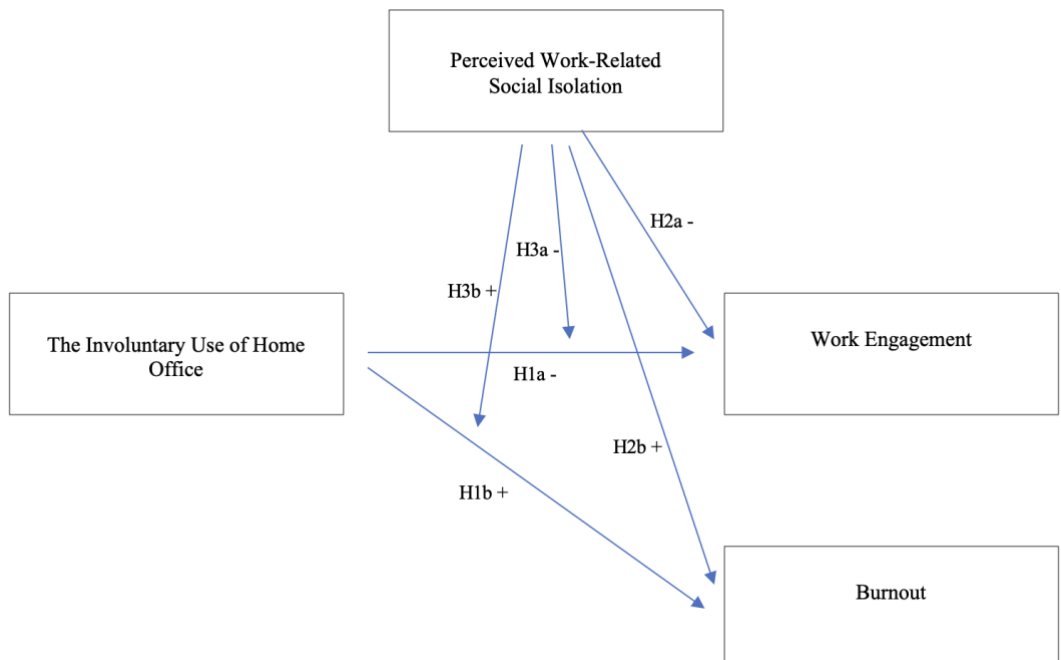
**Hypothesis 2b:** *There is a direct positive association between perceived work-related social isolation and burnout.*

**Hypothesis 3a:** *The negative association between the involuntary use of home office and work engagement is stronger for employees who experience work-related social isolation.*

**Hypothesis 3b:** *The positive association between the involuntary use of home office and burnout is stronger for employees who experience work-related social isolation.*

**Figure 2**

*Conceptual Model with Hypotheses*



## **3.0 Methodology**

### **3.1 Research Design**

To investigate our research question and test our hypotheses, we employed a cross-sectional research design, which is structured to find relationships between different variables at one point in time. The main goal was to determine whether the variables influence and are related to each other (M. Saunders et al., 2009). Qualtrics, an online survey software, was used to create the questionnaire. Moreover, a quantitative method approach was used to test our hypotheses (Yilmaz, 2013).

### **3.2 Sample and Procedure**

During the spring of 2021, we distributed a web-based questionnaire to employees in four Norwegian banks located in western Norway. We wanted to distribute our survey in a sector characterized by office workers and low job insecurity to reduce insecurities in our results and attain a good foundation for testing our hypotheses. Therefore, we chose to carry out our study in the banking industry. We decided to conduct the study in one sector to avoid insecurities related to variations in our findings being caused by respondents representing different sectors. Employees from different sectors may experience different levels of job insecurity and challenges related to their work situation during the COVID-19 pandemic.

Before gathering data, we applied for approval from The Norwegian Centre for Research Data (NSD) to ensure that the participants' anonymity was protected. The NSD concluded that no direct or indirect information which can identify individuals was included in this project. Therefore, the project did not need further assessment from the NSD.

The survey was distributed through personal contacts from the HR department in each bank. These contacts recruited participants within their organization through an email invitation containing information about the study and the link to the survey presented in Qualtrics. The estimated time, according to Qualtrics, for participants to complete the questionnaire was four minutes. We ensured confidentiality in the invitation and introduction text, where we emphasized that

all responses would remain anonymous to minimize the presence of response distortion (Chan, 2009). Further, consent was ensured by respondents choosing to accept the terms for participating. The possibility of withdrawing from the questionnaire and contact information for receiving more information regarding the study was also provided (see Appendix A).

Altogether, 168 employees were invited to take part in the study. We received 135 responses, of which 39 responses were removed after checking the dataset for outliers and missing values. This resulted in 96 complete responses and a response rate of 57%. When it comes to gender, 48 participants were male (50%) and 48 were female (50%). Regarding age, 11.5% were under 26 years old, 25% were between 26 and 35 years old, 34.4% were between 36 and 45 years old, 26% were between 46 and 60 years old, and 3.1% were over 60 years old. Fifty-two (54.2%) of the respondents had children younger than 18 years old living at home, while 44 (45.8%) respondents had no children under 18 living at home. Concerning the number of years working in the company, 34 (35.4%) participants reported “0-3 years”, 18 (18.8%) reported “3-5 years”, 15 (15.6%) reported “5-10 years”, and 29 (30.2%) reported “more than 10 years”.

### **3.3 Measures**

To provide a description of the participants contributing to the study, demographic information, including gender, age, seniority, and whether the participants had children under 18 years living at home was first collected. Further, one variable regarding the involuntary use of home office and three different validated scales were used in the questionnaire. The Friendship scale and The Burnout Assessment Tool were originally in English and were translated into Norwegian for the respondents to answer the questionnaire in their mother tongue. Moreover, back-translation was used, a highly recommended technique for translation, to ensure quality (Maneesriwongul & Dixon, 2004). Finally, before sending the questionnaire to the respondents, it was tested by four people to ensure that the layout, language, and technical features were clear and worked correctly. Minor adjustments were then made in phrasings while ensuring the same wording in the items.



**The Involuntary Use of Home Office.** The involuntary use of home office was measured on a continuous scale, ranging from 0-31 days on average each month. The question was formulated as: “On average during the COVID-19 pandemic (from the 12th of March), how many days per month have you been forced to work from home while wanting to be at the office?” (see Appendix B).

**Perceived Work-Related Social Isolation.** The Friendship Scale (Hawthorne & Griffith, 2000) was used to measure perceived work-related social isolation, which is both a moderator and an independent variable in our hypotheses. We adjusted the items to be suitable for measuring perceived isolation in a work-related setting. This was done by using the word “colleagues” instead of “people” and “someone.” In addition, the items were customized for work-related situations during the COVID-19 pandemic. A five-point Likert scale, coded from 1 (“not at all”) to 5 (“to a high degree”), was provided for the participants to rate their experience of isolation during the pandemic. Three of the items were positively worded and were, therefore, reverse coded. Examples of items in the scale are “... I have felt isolated from my colleagues” and “... it has been easy to get in contact with others at work if I needed it” (reverse coded) (see Appendix B). Previous research has established the scale’s validity (Hawthorne and Griffith, 2000). It has also been proven to have a high internal consistency (Cronbach  $\alpha = .83$ ) (G. Hawthorne, 2006), which was also the case in this study (Cronbach  $\alpha = .73$ ). The desired value of Cronbach  $\alpha$  tends to differ between different researchers, but the main rule is that the value should be between .70 and .90 (Drost, 2011).

**Work Engagement.** Schaufeli, Bakker, and Salanova’s 17 items Utrecht Work Engagement (UWES-17) Scale (2006) was used to measure the level of work engagement. Out of these 17 items, six items measured vigor (e.g., “at my work, I feel bursting with energy”), five measured dedication (e.g., “my job inspires me”), and six items measured absorption (e.g., “when I am working, I forget everything else around me”) (see Appendix B). They were all measured using a seven-point Likert scale ranging from 1 (“never during the last year”) to 7 (“daily”). The original UWES-17 scale has been validated and shown to have good psychometric features for its scores (Schaufeli et al., 2006). For example, internal consistencies (Cronbach  $\alpha$ ) typically range from .80 to .90 (Demerouti, Bakker, Jonge, et al.,

2001; Durán et al., 2004; Montgomery et al., 2003; Schaufeli & Bakker, 2004). In this study, the Cronbach  $\alpha$  of the UWES-17 scale was .95.

**Burnout.** The short version of the Burnout Assessment Tool (BAT-12) Scale (Schaufeli et al., 2020) was used to measure the level of burnout. This is a 12-item scale, consisting of three items measuring exhaustion (e.g., “at work, I feel mentally exhausted”), three items measuring mental distance (e.g., “at work, I do not think much about what I am doing and I function on autopilot”), three items measuring cognitive impairment (e.g., “when I’m working, I have trouble concentrating”), and three items measuring emotional impairment (e.g., “When working, I become irritable when things don’t go my way”) (see Appendix B). These items were measured using a five-point Likert scale, ranging from 1 (“never”) to 5 (“always”). The scale has previously been validated. Moreover, previous research has reported a Cronbach  $\alpha$  of .85 for this scale (Schaufeli et al., 2020). Additionally, the scale showed an acceptable internal validity in our study (Cronbach  $\alpha$  = .87).

### 3.3.1 Control Variables

We included control variables in our study to control for potential confounding effects. The participants were asked to provide demographic information about their age, gender, seniority, and the number of children under 18 years living at home to describe the participants contributing to the study and to control for sociodemographic differences that may influence the results. Age was included as previous research has shown age to be associated with higher levels of work engagement (Douglas & Roberts, 2020; Kim & Kang, 2017) and lower levels of exhaustion (Haley et al., 2013). This was measured with the following categories: 1 (“younger than 26 years old”), 2 (“26-35 years old”), 3 (“36-45 years old”), 4 (“46-60 years old”), and 5 (“older than 60 years old”). Gender was also included as it has been shown to influence work engagement (James et al., 2011; Mastenbroek et al., 2013) and exhaustion (Mastenbroek et al., 2013). It was measured as 1 (“man”) and 2 (“woman”). Moreover, Robinson et al. (2004) argue that increased seniority is associated with higher levels of work engagement. Seniority was, therefore, included as we wanted to discover whether this could affect work engagement and burnout in the banking industry. This was measured

with the following categories: 1 (“0-3 years”), 2 (“3-5 years”), 3 (“5-10 years”), and 4 (“more than 10 years”). Finally, to uncover the home situation of the participants, they were asked to provide information on whether they had children under 18 years living at home. This was included because having children under 18 years living at home has been found to be associated with increased levels of burnout when working from home (A. K. Griffith, 2020; Hoffman et al., 2020), and was measured by answering 1 (“yes”) or 2 (“no”).

### **3.4 Factor Analysis**

Factor analysis was conducted to ensure that the measures of the dependent variables, work engagement and burnout, had acceptable levels of convergent and discriminant validity in this study (Pallant, 2010). It was important to find out if the scales measure separate aspects. For example, a low score on work engagement does not necessarily mean that individuals experience burnout. Therefore, we performed an exploratory principal component analysis with Direct Oblimin rotation. The Direct Oblimin rotation was executed to evaluate the factor structures, determine item retention, and identify the dimensions of the constructs (Pallant, 2010).

Principal Component Analysis (PCA) is one of the most commonly used methods for reducing the dimensionality of the dataset while preserving a high degree of variability (Jolliffe & Cadima, 2016). This analysis is crucial to understand the sample and variable relationships and the structure and complexity of the data and model to identify potential outliers and establish potential clusters (Kutz, 2016). The factor analysis was conducted on The 17 items Utrecht Work Engagement Scale (UWES-17) and The Burnout Assessment Tool (BAT-12) scale containing 29 items in total, using SPSS version 27.

Before performing PCA, the suitability of the data for factor analysis was assessed. Investigation of the correlation matrix revealed some coefficients above .30, aligning with Pallant’s (2010) recommendations for performing factor analysis. Further, the KMO and Barlett’s test showed significant results. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy showed a result of .86,

exceeding the recommended value of .60 (Kaiser, 1970, 1974). Moreover, Bartlett's test of Sphericity expressed a significance level of  $p < .001$ .

The PCA showed the presence of five components with eigenvalues exceeding 1, explaining 44.14%, 12.97%, 6.60%, 4.96%, and 3.79% of the variance, respectively, and 72.46% in total. A change in the shape of the plot after the second component was revealed when inspecting the scree plot. After using Cattell's (1966) scree test, two components were retained for further investigation.

The two-component solution combined explained a total of 57.12% of the variance. In the analysis, items with strong loadings (above .40) on the primary factor were retained, aligning with Pallant's (2010) recommendations. This resulted in removing item 6: "I'm cynical about what my work means to others" from The BAT-12 scale, with loading below .40. Furthermore, items with cross-loadings of .35 or greater were removed according to the recommendations of Lai and Kapstad (2009). Four cross-loadings were identified in the Direct Oblimin rotation table. Item 5 ("At my job, I am very resilient mentally") was removed from The UWES-17 to avoid cross-loadings, as it showed a cross-loading value of -.45. In addition, item 4 ("I struggle to find any enthusiasm for my work"), 7 ("At work, I have trouble staying focused"), and 8 ("When I'm working, I have trouble concentrating") were removed from The BAT-12 scale since they showed cross-loading values of -.66, -.64 and -.50 respectively (see Appendix C). Further, the Direct Oblimin solution after removing the cross-loaded items, revealed that the components had several strong loadings and that all variables loaded sustainably on only one component (see Appendix D). The UWES-17 had factor loadings between .63 and .86, and The BAT-12 scale had loadings between .53 and .84. These factor loadings had acceptable values, as research states that a value above .40 is acceptable (Peterson, 2000).

### **3.5 Analyses**

The Statistical Package for the Social Sciences (SPSS) version 27 was utilized to conduct the analysis of the dataset. Initially, the data were inspected for missing values and outliers. Scale reliability was then tested to check for Cronbach  $\alpha$

values above .70, which is commonly seen as an acceptable value (Drost, 2011). Further, three items in The Friendship Scale had to be reverse coded before creating the variable for perceived work-related social isolation. The categorical control variables had to be transformed to dichotomous variables with the values 0 and 1 because categorical variables are not suitable for multiple regression (Griffith, 2007; Gupta, 1999). These variables were made into dummy variables with two large categories. The control variable, seniority, was divided into 0 (less than 5 years) and 1 (5 years or more) as Robinson et al. (2004) has stated that increased seniority is associated with enhanced levels of work engagement. Moreover, age was separated into 0 (18-45 years) and 1 (46 years or older). This was done because research has shown that older employees are significantly more engaged in their work than younger employees (Douglas & Roberts, 2020).

Further, exploratory factor analysis was conducted to ensure that the measures of the dependent variables, work engagement and burnout, had acceptable levels of convergent and discriminant validity in this study (Pallant, 2010). This was done through the use of principal component analysis (PCA) with Direct Oblimin rotation. Before performing the PCA, the suitability of the data for factor analysis was assessed. The factor analysis resulted in removing four items from The Burnout Assessment Tool (BAT) scale ("I struggle to find any enthusiasm for my work," "I'm cynical about what my work means to others," "at work, I have trouble staying focused," and "when I'm working, I have trouble concentrating") and one item from The Utrecht Work Engagement Scale (UWES-17) ("at my job, I am very resilient mentally").

Further, items that had the desired reliability were combined by a summated mean function into variables. Descriptive statistics (means and standard deviations/percentages) and correlations were then computed and assessed. The normality, linearity, and homoscedasticity of the variables were also evaluated to check the suitability for hypothesis testing. Moreover, examination of the bivariate correlations indicated that "gender," "seniority," and "children under 18 years living at home" were not significantly correlated with our dependent variables. A comparison between our hypothesis tests with and without "gender," "seniority," and "number of children living at home" yielded identical results. Thus, to maximize statistical power and offer the most interpretable results, we

reported the results without controlling for these variables. We did, however, control for age as it was significantly related to work engagement in our descriptive statistics. Age was also related in a manner consistent with our theory-based expectation that older employees are associated with higher levels of work engagement and lower levels of burnout (Douglas & Roberts, 2020; Kim & Kang, 2017).

Multiple regression analyses in SPSS were used to test hypotheses 1a: "There is a direct negative association between the involuntary use of home office and work engagement" and 1b: "There is a direct positive association between the involuntary use of home office and burnout." Hypotheses 2a: "There is a direct negative association between perceived work-related social isolation and work engagement" and 2b: "There is a direct positive association between perceived work-related social isolation and burnout" followed the same procedure. Further, to test hypotheses 3a, expressing: "The negative association between the involuntary use of home office and work engagement is stronger for employees who feel socially isolated," and 3b, expressing: "The positive association between the involuntary use of home office and burnout is stronger for employees who feel socially isolated," Process Macro version 3.5 (Hayes, 2020) was applied as it allows for bootstrapping. Bootstrapping can be explained as a method where the data is repeated (Hayes et al., 2017; Preacher et al., 2007). The bootstrapping method does not assume the sample to be normally distributed and, therefore, the inferences generated are more likely to be precise (Hayes et al., 2017). Our analysis was conducted with a 95% confidence interval, with bootstrapping containing 5,000 resamplings. Moreover, the interaction term was computed by centering the variables before multiplying them with one another. This was done to reduce the correlations between the interaction term and the independent variables so that the effect of the independent variables was distinguishable from the interactions. Centering the variables ensures that the model does not have an estimating problem in the form of multicollinearity (Kraemer & Blasey, 2004).

## 4.0 Results

### 4.1 Descriptive Statistics

We conducted descriptive analyses to estimate means and standard deviations/percentages. These estimates, together with correlations and coefficient  $\alpha$  reliability are presented in Table 1. The scales have shown high internal consistency, with reliability estimates ranging from .73 to .95. Further, the variables showed to be normally distributed. The requirement for Skewness and Kurtosis was met, requiring Skewness to be between -2 and 2 and Kurtosis between -4 and 4 (Pallant, 2010). The tolerance and the variance inflation factor (VIF) is evaluated when testing the hypotheses. This is done to check for multicollinearity among the independent variables.

As expected, a significant negative correlation was found between work engagement and perceived work-related social isolation ( $r=-.23$ ,  $p=.029$ ) and between work engagement and burnout ( $r=-.42$ ,  $p<.001$ ). In addition, burnout and perceived work-related social isolation were found to be positively correlated ( $r=.43$ ,  $p=.004$ ). The involuntary use of home office and perceived work-related social isolation were significantly positively related ( $r=.27$ ,  $p=.019$ ), as anticipated. Further, work engagement and age were positively correlated ( $r=.24$ ,  $p=.019$ ), which is in line with previous research finding that older employees are more engaged than younger employees (Douglas & Roberts, 2020; Kim & Kang, 2017).

Surprisingly, there was no significant correlation between the involuntary use of home office and work engagement ( $r=-.04$ ,  $p=.707$ ). Likewise, there was no significant correlation between the involuntary use of home office and burnout ( $r=.04$ ,  $p=.782$ ). In addition, burnout and having children under 18 years living at home were not found to have a significant correlation ( $r=-.03$ ,  $p=.796$ ). In contrast to previous findings (James et al., 2011; Mastebroek et al., 2013), work engagement and gender were not significantly correlated ( $r=-.11$ ,  $p=.320$ ). Further, no correlation between seniority and work engagement ( $r=.14$ ,  $p=.183$ ) or burnout ( $r=.04$ ,  $p=.712$ ) was found.

**Table 1***Descriptive Statistics, Reliabilities and Bivariate Correlations for All Included Variables*

	Mean(SD)/%	1	2	3	4	5	6	7	8
1. Age	70.8/29.2%	-							
2. Gender	50/50%	-.05	-						
3. Seniority	54.2/45.8%	.28**	.17	-					
4. Children under 18 years living at home	45.8/54.2%	.04	.00	.26*	-				
5. The involuntary use of home office	11.52 (9.00)	.03	.06	-.10	.09	-			
6. Perceived work-related social isolation	2.34 (0.58)	.04	-.12	-.18	.05	.27*	<b>(.73)</b>		
7. Burnout	2.05 (0.51)	-.20	.06	.04	-.03	.04	.33**	<b>(.87)</b>	
8. Work Engagement	5.00 (1.16)	.24*	-.11	.14	.07	-.04	-.23*	-.42**	<b>(.95)</b>

*Note.* N=96. Percentages are presented as value 0/1. Coefficient  $\alpha$  are displayed on the diagonal in parenthesis. <sup>1</sup> Age: coded 0 (18-45 years) and 1 (46 and older). <sup>2</sup> Gender: Man, 0; Woman, 1. <sup>3</sup> Seniority: coded 0 (0-5 years) and 1 (more than 5 years). <sup>4</sup> Children under 18 years living at home: No, 0; Yes, 1. <sup>5</sup> Involuntary use of home office: 0 - 31 days. <sup>6</sup> Work-related social isolation: coded from 1 (not at all) to 5 (to a great extent). <sup>7</sup> Burnout: coded from 1 (never) to 5 (always). <sup>8</sup> Work engagement: coded from 1 (never during the last year) to 7 (daily).

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



## 4.2 Test of Hypotheses

Both multiple regression and The Process Macro version 3.5 supplement to SPSS (Hayes, 2020) were used to test the hypotheses. We decided to report both the standardized and unstandardized coefficients for H1a, H1b, H2a, and H2b when reporting the results to ensure transference between the analyses (Pallant, 2010; Tabachnick & Fidell, 2007). When testing hypotheses 3a and 3b, only the unstandardized coefficients were reported in line with the default output from The Process Macro supplement (Hayes, 2020). Further, there were no indications for multicollinearity in the analysis, following the recommendations of Pallant (2010), where tolerance should be above .10 and VIF below 10.

The results are presented in Tables 2, 3, 4, 5, 6, and 7. Included in the tables are the unstandardized beta coefficients, standardized beta coefficients for H1a, H1b, H2a, and H2b, significance levels, R squared, F values, and standard deviations. Age was included in the analysis to control for confounding effects since the control variable showed to be positively correlated with work engagement. Additionally, previous studies have found support for the relationship between age and work engagement (Douglas and Roberts, 2020; Kim and Kang, 2016).

**Hypothesis 1a.** H1a stated that the involuntary use of home office is negatively related to work engagement. The results of this multiple regression analysis are presented in Table 2. The tolerance and VIF values were .99 and 1.01, respectively. Hence, no multicollinearity was detected (Pallant, 2010). None of the models showed to be significant in explaining the variance in work engagement. In addition, model 2 showed no significant relationship between the involuntary use of home office and work engagement ( $B=-.01$ ,  $\beta=-.05$ ,  $p=.654$ ). Hypothesis 1a was, therefore, not supported.

**Table 2**

*The Relationship Between the Independent Variable (The Involuntary Use of Home Office) and Work Engagement*

Predictor	Work Engagement	
	Model 1	Model 2
Age	.44 (.17)	.45 (.17)
The involuntary use of home office		-.01 (-.05)
R <sup>2</sup>	.03	.03
SE	1.19	1.19
F	2.16	1.17

*Note.* N=96. Unstandardized coefficients are presented. Standardized beta coefficients are presented in parentheses.

\*p<.05, \*\*p<.01, \*\*\*p<.001

**Hypothesis 1b.** H1b stated that there is a positive association between the involuntary use of home office and burnout. The results are presented in Table 3. No multicollinearity was detected as the tolerance value showed .99 and the VIF value showed 1.01 (Pallant, 2010). Neither the control variable or the involuntary use of home office had any significant impact on the variance in burnout. Further, the involuntary use of home office in model 2 had a non-significant relationship with burnout (B=.00,  $\beta$ =.04, p=.740). Thus, H1b was not supported.

**Table 3**

*The Relationship Between the Independent Variable (The Involuntary Use of Home Office) and Burnout*

Predictor	Burnout	
	Model 1	Model 2
Age	-.14 (-.12)	-.14 (-.12)
The involuntary use of home office		.00 (-.04)
R <sup>2</sup>	.06	.02
SE	.53	.54
F	.92	.51

*Note.* N=96. Unstandardized coefficients are presented. Standardized beta coefficients are presented in parentheses.

\*p<.05, \*\*p<.01, \*\*\*p<.001

**Hypothesis 2a.** H2a proposed a negative relationship between perceived work-related social isolation and work engagement. The results of the multiple regression are presented in Table 4. There was no indication of multicollinearity, as the tolerance value showed .99 and the VIF value showed 1.00 (Pallant, 2010). In model 1, age showed a significant positive relationship with work engagement and explained 5.90% of the variance in work engagement. Model 2 was also significant ( $F=5.84$ ,  $p=.004$ ), and the explained variance increased from 5.90% to 12% when adding perceived work-related social isolation ( $R^2$  change=.06). Further, the result of this analysis showed that perceived work-related social isolation was significantly and negatively related to work engagement ( $B=-.50$ ,  $\beta=-.25$ ,  $p=.017$ ). Thus, the results supported hypothesis 2a.

**Table 4**

*The Relationship Between the Independent Variable (Perceived Work-related Social Isolation) and Work Engagement*

Predictor	Work Engagement	
	Model 1	Model 2
Age	.66 (.24)*	.65 (.26)*
Perceived work-related social isolation		-.50 (-.25)*
R <sup>2</sup>	.06	.12
SE	1.14	1.11
F	5.46*	5.84**

*Note.* N=96. Unstandardized coefficients are presented. Standardized beta coefficients are presented in parentheses.

\*p<.05, \*\*p<.01, \*\*\*p<.001

**Hypothesis 2b.** H2b stated that perceived work-related social isolation is positively related to burnout. Table 5 presents the results from the multiple regression. The tolerance showed a value of .99, and the VIF value showed 1.00 (Pallant, 2010). In model 1, only the control variable was included (R<sup>2</sup>=.04, p=.084). Model 2 was significant (F=6.54, p=002), and the explained variance was 15.70% when adding perceived work-related social isolation in model 2 (R<sup>2</sup> Change=.12). Moreover, a significant positive relationship between perceived work-related social isolation and burnout was found (B=.34,  $\beta$ =.34, p=.003). Hence, hypothesis 2b was supported.

**Table 5**

*The Relationship Between the Independent Variable (Perceived Work-related Social Isolation) and Burnout*

Predictor	Burnout	
	Model 1	Model 2
Age	-.23 (-.25)	-.24 (-.25)
Perceived work-related social isolation		.34 (.34)**
R <sup>2</sup>	.04	.16
SE	.53	.50
F	3.08	6.54**

*Note.* N=96. Unstandardized coefficients are presented. Standardized beta coefficients are presented in parentheses.

\*p<.05, \*\*p<.01, \*\*\*p<.001

**Hypothesis 3a.** H3a stated that perceived work-related social isolation moderates the relationship between the involuntary use of home office and work engagement. The results of the multiple regression, using Process Macro, are presented in Table 6. The model did not show any significant impact on the variance in work engagement ( $F=2.22$ ,  $p=.081$ ). In addition, there was no significant relationship found between the involuntary use of home office and work engagement ( $B=-.00$ ,  $p=.782$ ), which coincides with the results of hypothesis 1a. However, no significant relationship between the interaction term and work engagement was found ( $B=.00$ ,  $p=.918$ ). Therefore, hypothesis 3a was not supported and perceived work-related social isolation did not moderate the relationship between the involuntary use of home office and work engagement.

**Table 6**

*The Moderating Effect of Perceived Work-Related Social Isolation on the Relationship Between the Independent Variable (The Involuntary Use of Home Office) and Work Engagement*

Predictor	Work Engagement			
	Effect	SE	95% CI	
			LL	UL
Age	.48	.29	-.11	1.07
The involuntary use of home office	-.00	.02	-.03	.04
Perceived work-related social isolation	-.63	.25	-1.09	-.12
Interaction term (involuntary use of home office * perceived work-related social isolation)	.00	.02	-.03	.04
Total $R^2$	.11			
F	2.22			

*Note.* N=96. Effect = unstandardized regression coefficients for all independent variables.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Hypothesis 3b.** H3b predicted that perceived work-related social isolation moderates the positive relationship between the involuntary use of home office and burnout. Results from the test are presented in Table 7. The model did not reveal any significant impact on the variance in burnout ( $F=2.43$ ,  $p=.057$ ). Further, the results showed a non-significant relationship between the involuntary use of home office and burnout ( $B=-.03$ ,  $p=.832$ ), consistent with the results from hypothesis 1b. Additionally, no significant relationship was detected between the interaction term and burnout ( $B=.01$ ,  $p=.348$ ). This means that perceived work-related social isolation did not moderate the relationship between the involuntary use of home office and burnout. Thus, hypothesis 3b was not supported.

**Table 7**

*The Moderating Effect of Perceived Work-Related Social Isolation on the Relationship Between the Independent Variable (The Involuntary Use of Home Office) and Burnout*

Predictor	Burnout			
	Effect	SE	95% CI	
			LL	UL
Age	-.15	.28	-.42	.12
The involuntary use of home office	-.03	.00	-.02	.01
Perceived work-related social isolation	.20	.12	.10	.58
Interaction term (involuntary use of home office * perceived work-related social isolation)	.01	.01	-.01	.04
Total $R^2$	.14			
F	2.43			

*Note.* N=96. Effect = unstandardized regression coefficients for all independent variables.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## 5.0 General Discussion

The purpose of this thesis was to investigate the effects of the involuntary use of home office and perceived work-related social isolation on work engagement and burnout. Moreover, the moderating role of perceived work-related social isolation on the relationships between the involuntary use of home office and work engagement and burnout was investigated. Since the involuntary aspect of working from home has not been studied in relation to work engagement and burnout to a great extent, it makes our findings significant in this field.

Consequently, these findings can be used as a springboard to further study how

the involuntary use of home office can influence individuals' well-being. Additionally, the study expands the literature on work-related social isolation by finding a significant negative relationship with work engagement and a significant positive relationship with burnout.

As shown in the results, hypotheses 1a and 1b were not supported, indicating that the involuntary use of home office is not associated with work engagement or burnout. These results can be seen in contrast to the JD-R model, which predicts high job demands over a longer period of time to result in burnout (Bakker & Demerouti, 2007). Previous studies have found working from home to be demanding for employees when it comes to technical issues (Wu and Chen, 2020), the difficulty of performing interdependent tasks (Biron & Veldhoven, 2016; Kaplan et al., 2018), balancing work and family life (Allen et al., 2020; Greenhaus & Powell, 2006), and communicating with coworkers (Bailenson, 2021; Fauville et al., 2021; Sardeshmukh et al., 2012; Schroeder, 2021). In addition, employees experience limited workplace autonomy when being forced to work from home, which is found to lead to less engaged workers and higher levels of burnout (Spiegelaere et al., 2016). Based on these findings and the suggested link to the JD-R model, the results of our study were unexpected.

Nevertheless, there can be explanations for these unexpected findings. One explanation could be that the involuntary use of home office can not be considered as a (high) job demand, and therefore will not lead to higher levels of burnout and less engaged workers. Another explanation could be that there might be resources present when working from home that are not available in the office, such as flexibility and autonomy, which helps to meet the demanding challenges of working from home involuntarily. The positive effects of working from home are supported by Bloom et al. (2015), who found productivity and work satisfaction to increase both when working from home voluntarily and involuntarily. The reason for an increase in work satisfaction and productivity was suggested to occur from more flexible working hours. Working from home allows for a reduction in commute time which can be used to get work done or do other duties. This reduction in commute time could make a hectic everyday easier to manage (Barrero et al., 2021; Harpaz, 2002; Rogers et al., 2020). The flexibility that comes with working from home also facilitates autonomy as it allows



employees to control their own workday and provides a more flexible working schedule. Work-time autonomy is found to be positively correlated with work engagement and well-being (Spiegelaere et al., 2014, 2016). Moreover, new digital tools, social platforms, and people's skills to manage these have increased in recent years (Schmid & Petko, 2019). This makes it easier for employees to cope with the challenges that arise when involuntarily working from home, such as communicating, cooperating, and connecting with others. This can be a contributing factor for why the involuntary use of home office may not feel as demanding as expected in this thesis. Further, working from home can result in fewer distractions from work, such as fewer unplanned conversations by the coffee machine or colleagues visiting to have informal chats (Harpaz, 2002; Harris, 2003; N. Kurland & Bailey, 1999). Hence, employees could experience the availability of several resources when being forced to work from home.

We also investigated whether there is a relationship between perceived work-related social isolation and work engagement and burnout. The results supported hypotheses 2a and 2b, showing that perceived work-related social isolation has a significant and negative relationship with work engagement and a positive and significant relationship with burnout. This was expected as we chose to categorize perceived work-related social isolation as a lack of resources. Perceived work-related social isolation was considered as a lack of resources due to previous studies indicating it to denote a hindrance for relatedness, both towards the organization and colleagues (Baumeister and Leary, 1995). Further, this can possibly represent a lack of other essential resources, such as support and feedback (Mann et al., 2000), social attachment to the organization (Baumeister et al., 2007), and social interactions with colleagues (Mann et al., 2000). According to the JD-R model, lack of resources is linked to less work engagement and higher levels of burnout (Bakker et al., 2003; Demerouti, Bakker, Jonge, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001; Stephenson & Bauer, 2010; Windeler et al., 2017). The findings are consistent with previous research suggesting a negative link between work-related isolation and work engagement and a positive link between perceived work-related social isolation and burnout (Chung & van der Lippe, 2018; Shikha, 2008; Stephenson & Bauer, 2010; Windeler et al., 2017). Our finding contributes to gaining an understanding of the effects of perceived work-related social isolation and its importance. It should be

noted that perceived work-related social isolation can occur independently of working from home or in the office. This is supported by Aizenberg and Oplatka (2019), who discovered the presence of perceived work-related social isolation among professionals at the workplace. During the COVID-19 pandemic, employees may have experienced work-related social isolation also at work due to empty office spaces. This will be further discussed in the practical implications. However, the non-causal relationship found in this study should be further investigated to explore the causality of the relationship.

Conversely, hypotheses 3a and 3b were not supported. This means that perceived work-related social isolation does not moderate the relationship between the involuntary use of home office and work engagement or burnout. These findings can be seen in contrast to Chung and van der Lippe (2018), who stated that when a person feels professionally isolated, and information exchange is hampered, work intensification may be worsened for such individuals (Chung & Van der Lippe, 2018). In other words, perceived work-related social isolation should worsen the negative aspects of involuntarily working from home. According to the JD-R model, the combination of a lack of resources (perceived work-related social isolation) and a (high) job demand (the involuntary use of home office) should negatively affect work engagement and positively affect burnout (Bakker et al., 2003; Demerouti, Bakker, Jonge, et al., 2001; Demerouti, Bakker, Nachreiner, et al., 2001; Stephenson & Bauer, 2010; Windeler et al., 2017). Therefore, the findings from H3a and H3b are unexpected and further support the doubt of whether the involuntary use of home office should be understood as a job demand.

However, there may be explanations for our unexpected results. The average number of days per month spent involuntarily working from home during the pandemic was 11.50 days in our study, which might be a number too low to conclude anything regarding the effects of the variable. Further, the COVID-19 pandemic has led to fewer employees in the office space, which diminishes the differences between working from home and at the office. Employees can experience work-related social isolation regardless of where they work. Hence, the involuntary use of home office might not be experienced as worse than working at the office. Further, employees working from home may experience

less fear related to being infected with the COVID-19 virus, which can be a positive factor when working from home. When looking at the JD-R model, there might be resources available when working from home, which makes it less demanding or helps to encounter challenges. These arguments could serve as explanations for why our hypotheses were not supported.

## **5.1 Limitations and Directions for Further Research**

This study has provided some important implications, but our research has some limitations that should be noted. First, using a cross-sectional study method made us unable to conclude anything about causality when it comes to the results of the study (Greener, 2008). This means that perceived work-related social isolation may influence work engagement and burnout, but it could also be the other way around. Further research could draw upon the causality problem on the relationship between perceived work-related social isolation and work engagement and burnout by using an experimental (Stufflebeam, 1970) or longitudinal (Bachman & Schutt, 2016) research design to enable the possibility of high internal validity.

Another limitation was our sample size, which might be considered somewhat low (Pallant, 2010). Concurrently, Tabachnick and Fidell (2007) have suggested the requirements for the sample size to be calculated as  $N > 50 + 8m$  ( $m$ =number of independent variables). Our sample size of 96 respondents was in line with this recommendation. Nevertheless, we encourage further research to use a larger sample to increase the study's external validity. A greater sample including different sectors could generalize our findings beyond the Norwegian banking industry (Pallant, 2010). Further, we cannot say to what extent our results would generalize beyond the current context of the pandemic. The COVID-19 pandemic is considered an extraordinary situation, and it would be difficult to say anything about how these findings are transferable to a normal situation.

The degree to which the respondents have been working from home has also changed during the pandemic, which may have resulted in different interpretations of the situation at different points in time. Based on this, the respondents' use of selective memory may have affected the results of this study (Saunders, 2013).

Besides, the study relied on employees' self-reports, which could lead to common method variance (CMV) and provide concern for the validity of the findings (Chang et al., 2010). Likewise, social desirability bias can be evident when self-reporting since people want to be perceived positively. Consequently, respondents might underestimate less favorable aspects or overemphasize the good (Bell et al., 2019). In order to reduce social desirability bias and CMV, all participants were informed that their confidentiality was ensured. However, based on the way we collected the responses, we were not able to control for non-response bias. In other words, we could not control for the fact that employees who did not respond to our survey might differ significantly from the employees who responded (Barclay et al., 2002). For example, participants suffering from burnout might not have been motivated to respond to the survey, which might have weakened the validity of our results.

To extend the findings of this study, an aim could be to determine causal effects, which can be done by conducting an intervention study. Through facilitating work-related social isolation into one specific group and thereby seeing how this influences burnout and work engagement, it will be possible to detect causal relationships and locate the changes in each group. Also, by replicating the study in a larger sample, the relationships may be more prominent. Another suggestion is to conduct in-depth interviews to understand the reasons behind perceived work-related social isolation.

Moreover, as two significant relationships were evident in our study, future research should further explore the relationships between perceived work-related social isolation and work engagement and burnout. Further research should also emphasize leaders' approaches to facilitating good working environments and reduce perceived work-related social isolation among their employees. This will contribute to the field of working from home and expand the literature on work-related social isolation as well as leadership. Research on perceived work-related social isolation is important, as it is shown in this study to affect work engagement and burnout. Further, exploring the relationships between work engagement, burnout, and working from home is essential as the use of home office is predicted to be more evident in the future (Barrero et al., 2021; Lund et al., 2020). Increasing the knowledge in this field will be important to understand

the effects on individuals' well-being when working from home, both voluntarily and involuntarily. In addition, these studies can provide organizations with important knowledge on how to best facilitate the use of home offices in the future.

## **5.2 Practical Implications**

Despite the limitations in this study, earlier research and our findings will have important implications for organizations in the banking industry considering the use of home offices. Several researchers and managers anticipate that the use of the home office will continue after the pandemic (Barrero et al., 2021; Lund et al., 2020). In light of this, our findings are important as they may help leaders and organizations in the banking sector in how to best facilitate the workday for their employees. In addition, our findings might be transferable to other sectors similar to the banking sector, characterized by low job insecurity and office-workers.

It is essential to take into consideration that perceived work-related social isolation can occur independently of working from home. Our findings indicate that the involuntary use of home office is not associated with work engagement or burnout but that perceived work-related social isolation is associated with less work engagement and higher levels of burnout. Based on this, letting employees choose whether to work from home might result in negative consequences. It can lead to empty office spaces and increase the experience of social isolation among employees who work at the office and those working from home. The office space is found to be an important meeting point for people as it facilitates networking and social interactions and may therefore serve as a crucial factor for preventing perceived work-related social isolation (Haynes, 2008). Further, people who live alone may depend more on their colleagues or the organization to cover their need for social relatedness (Haynes, 2008). These people may benefit the most from social contact at work and can be prone to experience work-related social isolation if deprived of these interactions (Olson, 1983). Building on this, social happenings at work or social gatherings outside the office, such as team building activities, business trips with colleagues and informal dinners, can be beneficial if employees have to work from home or an optional practice is performed. Further, in line with the JD-R model, it is crucial to provide employees with sufficient

resources to prevent perceived work-related social isolation (Bakker & Demerouti, 2007). Examples of such resources can be: using remote platforms for communication, available leaders, feedback, or digital gatherings with colleagues.

This study found that work-related social isolation leads to less engagement and higher levels of self-reported burnout. At the same time, the involuntary use of home office did not show any associations with burnout or work engagement. Likewise, the moderating effect of perceived work-related social isolation on this relationship was not supported. In other words, there is no evidence for a more negative effect on employees' well-being when working from home than at the office. On the other hand, what affects employees' levels of work engagement and burnout is their perception of work-related social isolation. Based on this, managers should take action to prevent perceived work-related social isolation independently of where the employees work and be cautious about employees who show signs or express feelings of work-related social isolation. This is crucial to facilitate engaged and energetic employees.

## **6.0 Conclusion**

This study contributes to the literature on work-related social isolation and the field of working from home. We aimed to provide a study contributing to expanding the literature in these fields by studying the relationships between perceived work-related social isolation, the involuntary use of home office, and work engagement and burnout in the Norwegian banking sector.

This study found a significant negative association between perceived work-related social isolation and work engagement and a significant positive association between perceived work-related social isolation and burnout. However, there were no significant results for relationships between the involuntary use of home office and work engagement or burnout. Likewise, our hypotheses elaborating on perceived work-related social isolation as a moderator for the relationship between the involuntary use of home office and work engagement and burnout received no support. These findings challenge theory and encourage further research in the fields of working from home and work-related social isolation. Further, there are solid arguments for focusing on working from home and

perceived work-related social isolation to get knowledge about how to handle the future workplace.

## References

- Abu-Bader, S. H. (2000). Work satisfaction, burnout, and turnover among social workers in Israel: A causal diagram. *International Journal of Social Welfare*, 9(3), 191–200.  
<https://doi.org/10.1111/1468-2397.00128>
- Aizenberg, M., & Oplatka, I. (2019). From professional isolation to effective leadership: Preschool teacher-directors' strategies of shared leadership and pedagogy. *Teachers and Teaching*, 25(8), 994–1013.  
<https://doi.org/10.1080/13540602.2019.1688287>
- Allen, T. D., French, K. A., Dumani, S., & Shockley, K. M. (2020). A cross-national meta-analytic examination of predictors and outcomes associated with work–family conflict. *Journal of Applied Psychology*, 105(6), 539–576.  
<https://doi.org/10.1037/apl0000442>
- Anderson, A. J., Kaplan, S. A., & Vega, R. P. (2015). The impact of telework on emotional experience: When, and for whom, does telework improve daily affective well-being? *European Journal of Work and Organizational Psychology*, 24(6), 882–897. <https://doi.org/10.1080/1359432X.2014.966086>
- Bachman R. D. & Shutt R. S. (2016). Causation and Research Design. The Practice of Research in Criminology and Criminal Justice (6. edition).
- Bailenson, J. N. (2021). Nonverbal Overload: A Theoretical Argument for the Causes of Zoom Fatigue. *Technology, Mind, and Behavior*, 2(1).  
<https://doi.org/10.1037/tmb0000030>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328.  
<https://doi.org/10.1108/02683940710733115>



- Bakker, A. B., & Demerouti, E. (2014). Job Demands-Resources Theory. In C. L. Cooper (Ed.), *Wellbeing* (pp. 1–28). John Wiley & Sons, Ltd.  
<https://doi.org/10.1002/9781118539415.wbwell019>
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285.  
<https://doi.org/10.1037/ocp0000056>
- Bakker, A. B., Demerouti, E., de Boer, E., & Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior, 62*(2), 341–356. [https://doi.org/10.1016/S0001-8791\(02\)00030-1](https://doi.org/10.1016/S0001-8791(02)00030-1)
- Bakker, A. B., Emmerik, H. V., & Euwema, M. C. (2006). Crossover of Burnout and Engagement in Work Teams. *Work and Occupations, 33*(4), 464–489.  
<https://doi.org/10.1177/0730888406291310>
- Bakker, A. B., & Leiter, M. P. (2010). *Work Engagement: A Handbook of Essential Theory and Research*. Psychology Press.
- Bakker, A. B., & Sanz-Vergel, A. I. (2013). Weekly work engagement and flourishing: The role of hindrance and challenge job demands. *Journal of Vocational Behavior, 83*(3), 397–409. <https://doi.org/10.1016/j.jvb.2013.06.008>
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress, 22*(3), 187–200. <https://doi.org/10.1080/02678370802393649>

- Barclay, S., Todd, C., Finlay, I., Grande, G., & Wyatt, P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice, 19*(1), 105–111.
- Barrero, J. M., Bloom, N., & Davis, S. J. (2021). *Why Working from Home Will Stick* (No. w28731). National Bureau of Economic Research.  
<https://doi.org/10.3386/w28731>
- Baumeister, R. F., Brewer, L. E., Tice, D. M., & Twenge, J. M. (2007). Thwarting the Need to Belong: Understanding the Interpersonal and Inner Effects of Social Exclusion. *Social and Personality Psychology Compass, 1*(1), 506–520.  
<https://doi.org/10.1111/j.1751-9004.2007.00020.x>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Bell, E., Bryman, A., & Harley, B. (2019). (Fifth Edition). Oxford University Press.
- Bidzan-Bluma, I., Bidzan, M., Jurek, P., Bidzan, L., Knietzsch, J., Stueck, M., & Bidzan, M. (2020). A Polish and German Population Study of Quality of Life, Well-Being, and Life Satisfaction in Older Adults During the COVID-19 Pandemic. *Frontiers in Psychiatry, 11*. <https://doi.org/10.3389/fpsyt.2020.585813>
- Biron, M., & Veldhoven, M. van. (2016). When control becomes a liability rather than an asset: Comparing home and office days among part-time teleworkers. *Journal of*

*Organizational Behavior*, 37(8), 1317–1337. <https://doi.org/10.1002/job.2106>

Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does Working from Home Work? Evidence from a Chinese Experiment \*. *The Quarterly Journal of Economics*, 130(1), 165–218.  
<https://doi.org/10.1093/qje/qju032>

Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The Contagion of Stress across Multiple Roles. *Journal of Marriage and Family*, 51(1), 175–183.  
<https://doi.org/10.2307/352378>

Bueno-Notivol, J., Gracia-García, P., Olaya, B., Lasheras, I., López-Antón, R., & Santabárbara, J. (2021). Prevalence of depression during the COVID-19 outbreak: A meta-analysis of community-based studies. *International Journal of Clinical and Health Psychology*, 21(1), 100196.  
<https://doi.org/10.1016/j.ijchp.2020.07.007>

Buss, D. M. (1991). Evolutionary Personality Psychology. *Annual Review of Psychology*, 42(1), 459–491. <https://doi.org/10.1146/annurev.ps.42.020191.002331>

Buss, D. M. (1996). The evolutionary psychology of human social strategies. In *Social psychology: Handbook of basic principles* (pp. 3–38). The Guilford Press.

Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183–187. <https://doi.org/10.1016/j.jbusres.2020.05.037>

- Cattell, R. B. (1966). The Scree Test For The Number Of Factors. *Multivariate Behavioral Research*, *1*(2), 245–276.  
[https://doi.org/10.1207/s15327906mbr0102\\_10](https://doi.org/10.1207/s15327906mbr0102_10)
- Causation and Research Design. (2016). In R. D. Bachman & R. K. Schutt, *The Practice of Research in Criminology and Criminal Justice* (6th ed.).
- Chan, D. (2009). So why ask me? Are self report data really that bad? In C. E. Lance & R. J. Vanderberg, *Statistical and Methodological Myths and Urban Legends: Doctrine, Verity and Fable in the Organizational and Social Sciences*. Taylor & Francis.
- Chang, S.-J., van Witteloostuijn, A., & Eden, L. (2010). From the Editors: Common method variance in international business research. *Journal of International Business Studies*, *41*(2), 178–184. <https://doi.org/10.1057/jibs.2009.88>
- Cherniss, C. (1985). Stress, Burnout, and the Special Services Provider. *Special Services in the Schools*, *2*(1), 45–61. [https://doi.org/10.1300/J008v02n01\\_04](https://doi.org/10.1300/J008v02n01_04)
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work Engagement: A Quantitative Review and Test of Its Relations with Task and Contextual Performance. *Personnel Psychology*, *64*(1), 89–136.  
<https://doi.org/10.1111/j.1744-6570.2010.01203.x>
- Chung, H., & van der Lippe, T. (2018). Flexible Working, Work–Life Balance, and Gender Equality: Introduction. *Social Indicators Research*, *151*(2), 365–381.  
<https://doi.org/10.1007/s11205-018-2025-x>

- Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, Professional Isolation, and Employee Development in Public and Private Organizations. *Journal of Organizational Behavior*, 23(4), 511–532.
- Coronavirus disease (COVID-19) – World Health Organization*. (2021, May 1). WHO. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Costa, P. L., Passos, A. M., & Bakker, A. B. (2015). Direct and Contextual Influence of Team Conflict on Team Resources, Team Work Engagement, and Team Performance. *Negotiation and Conflict Management Research*, 8(4), 211–227. <https://doi.org/10.1111/ncmr.12061>
- Cropanzano, R., & Wright, T. A. (2001). When a “happy” worker is really a “productive” worker: A review and further refinement of the happy-productive worker thesis. *Consulting Psychology Journal: Practice and Research*, 53(3), 182–199. <https://doi.org/10.1037/1061-4087.53.3.182>
- Cullen, W., Gulati, G., & Kelly, B. D. (2020). Mental health in the COVID-19 pandemic. *QJM: An International Journal of Medicine*, 113(5), 311–312. <https://doi.org/10.1093/qjmed/hcaa110>
- de Beer, L. T., Schaufeli, W. B., De Witte, H., Hakanen, J. J., Shimazu, A., Glaser, J., Seubert, C., Bosak, J., Sinval, J., & Rudnev, M. (2020). Measurement Invariance of the Burnout Assessment Tool (BAT) Across Seven Cross-National Representative Samples. *International Journal of Environmental Research and Public Health*, 17(15), 5604. <https://doi.org/10.3390/ijerph17155604>
- Demerouti, E. (2014). Design Your Own Job Through Job Crafting. *European Psychologist*, 19(4), 237–247.

<https://doi.org/10.1027/1016-9040/a000188>

- Demerouti, E., Bakker, A. B., Jonge, J. de, Janssen, P. P., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Sand J Work Environ Health*, 27(4), 279–286.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2000). A model of burnout and life satisfaction amongst nurses. *Journal of Advanced Nursing*, 32(2), 454–464. <https://doi.org/10.1046/j.1365-2648.2000.01496.x>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512.  
<https://doi.org/10.1037/0021-9010.86.3.499>
- Douglas, S. K., & Roberts, R. A. (2020). *Older and More Engaged: The Influence of an Employee's Age on Work Engagement*. 20(4), 73–84.
- Drost, E. A. (2011). Validity and Reliability in Social Science Research. *Education Research and Perspectives*, 38(1), 21.
- Durán, A., Extremera, N., & Rey, L. (2004). Engagement and Burnout: Analysing Their Association Patterns. *Psychological Reports*, 94(3), 1048–1050.
- Duxbury, L., Stevenson, M., & Higgins, C. (2018). Too much to do, too little time: Role overload and stress in a multi-role environment. *International Journal of Stress Management*, 25(3), 250–266. <https://doi.org/10.1037/str0000062>

- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology, 94*(3), 654–677.  
<https://doi.org/10.1037/a0014891>
- Eldor, L., Fried, Y., Westman, M., Levi, A. S., Shipp, A. J., & Slowik, L. H. (2017). The experience of work stress and the context of time: Analyzing the role of subjective time. *Organizational Psychology Review, 7*(3), 227–249.  
<https://doi.org/10.1177/2041386617697506>
- Emerson, E., Fortune, N., Llewellyn, G., & Stancliffe, R. (2021). Loneliness, social support, social isolation and wellbeing among working age adults with and without disability: Cross-sectional study. *Disability and Health Journal, 14*(1),  
<https://doi.org/10.1016/j.dhjo.2020.100965>
- Evanoff, B. A., Strickland, J. R., Dale, A. M., Hayibor, L., Page, E., Duncan, J. G., Kannampallil, T., & Gray, D. L. (2020). Work-Related and Personal Factors Associated With Mental Well-Being During the COVID-19 Response: Survey of Health Care and Other Workers. *Journal of Medical Internet Research, 22*(8),  
<https://doi.org/10.2196/21366>
- Fauville, G., Luo, M., Muller Queiroz, A. C., Bailenson, J. N., & Hancock, J. (2021). *Zoom Exhaustion & Fatigue Scale* (SSRN Scholarly Paper ID 3786329). Social Science Research Network. <https://doi.org/10.2139/ssrn.3786329>
- Feng, Z., & Savani, K. (2020). Covid-19 created a gender gap in perceived work productivity and job satisfaction: Implications for dual-career parents working from home. *Gender in Management: An International Journal, 35*(7/8), 719–736.  
<https://doi.org/10.1108/GM-07-2020-0202>

- Gawke, J. C., Gorgievski, M. J., & Bakker, A. B. (2017). Employee intrapreneurship and work engagement: A latent change score approach. *Journal of Vocational Behavior, 100*, 88–100. <https://doi.org/10.1016/j.jvb.2017.03.002>
- Golden, T. D., & Veiga, J. F. (2005). The Impact of Extent of Telecommuting on Job Satisfaction: Resolving Inconsistent Findings. *Journal of Management, 31*(2), 301–318.  
<https://doi.org/10.1177/0149206304271768>
- Gray-Stanley, J. A., & Muramatsu, N. (2011). Work stress, burnout, and social and personal resources among direct care workers. *Research in Developmental Disabilities, 32*(3), 1065–1074.  
<https://doi.org/10.1016/j.ridd.2011.01.025>
- Greener, S. (2008). *Business Research Methods*. Ventus Publishing.
- Greenhaus, J., & Powell, G. N. (2006). When Work And Family Are Allies: A Theory Of Work-Family Enrichment. *The Academy Of Management Review, 31*(1), 72–92.
- Griffith, A. (2007). *SPSS For Dummies*. John Wiley & Sons.
- Griffith, A. K. (2020). *Parental Burnout and Child Maltreatment During the COVID-19 Pandemic*. <https://doi-org.ezproxy.library.bi.no/10.1007/s10896-020-00172-2>
- Gupta, V. (1999). *SPSS for Beginners*. VJBooks Inc.



- Gutermann, D., Lehmann-Willenbrock, N., Boer, D., Born, M., & Voelpel, S. C. (2017). How Leaders Affect Followers' Work Engagement and Performance: Integrating Leader–Member Exchange and Crossover Theory. *British Journal of Management*, 28(2), 299–314. <https://doi.org/10.1111/1467-8551.12214>
- Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in Organizational Life. *Journal of Management*, 30(6), 859–879. <https://doi.org/10.1016/j.jm.2004.06.004>
- Haley, L.-M., Mostert, K., & Els, C. (2013). Burnout and Work Engagement for Different Age Groups: Examining Group-Level Differences and Predictors. *Journal of Psychology in Africa*, 23(2), 283–295. <https://doi.org/10.1080/14330237.2013.10820625>
- Harpaz, I. (2002). Advantages and disadvantages of telecommuting for the individual, organization and society. *Work Study*, 51(2), 74–80. <https://doi.org/10.1108/00438020210418791>
- Harris, L. (2003). Home-based teleworking and the employment relationship: Managerial challenges and dilemmas. *Personnel Review*, 32(4), 422–437. <https://doi.org/10.1108/00483480310477515>
- Hawthorne, D. G., & Griffith, P. (2000). The Friendship Scale: Development and properties. *Centre for Health Program Evaluation*, 23.
- Hawthorne, G. (2006). Measuring Social Isolation in Older Adults: Development and Initial Validation of the Friendship Scale. *Social Indicators Research*, 77(3), 521–548. <https://doi.org/10.1007/s11205-005-7746-y>

Hayes, A. F. (2020). *PROCESS macro for SPSS and SAS*. The PROCESS Macro for SPSS, SAS, and R. <http://processmacro.org/>

Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal (AMJ)*, 25(1), 76–81.  
<https://doi.org/10.1016/j.ausmj.2017.02.001>

Hayes, S. W., Priestley, J. L., Iishmakhametov, N., & Ray, H. E. (2020). “*I’m not Working from Home, I’m Living at Work*”: Perceived Stress and Work-Related Burnout before and during COVID-19.

Haynes, B. P. (2008). An evaluation of the impact of the office environment on productivity. *Facilities*, 26(5/6), 178–195.  
<https://doi.org/10.1108/02632770810864970>

Henke, R. M., Benevent, R., Schulte, P., Rinehart, C., Crighton, K. A., & Corcoran, M. (2016). The Effects of Telecommuting Intensity on Employee Health. *American Journal of Health Promotion*, 30(8), 604–612.  
<https://doi.org/10.4278/ajhp.141027-QUAN-544>

Hockey, G. R. J. (1993). Cognitive-energetical control mechanisms in the management of work demands and psychological health. In *Attention: Selection, awareness, and control: A tribute to Donald Broadbent* (pp. 328–345). Clarendon Press/Oxford University Press.

- Hoffman, K. E., Garner, D., Koong, A. C., & Woodward, W. A. (2020). Understanding the Intersection of Working from Home and Burnout to Optimize Post-COVID19 Work Arrangements in Radiation Oncology. *International Journal of Radiation Oncology Biology Physics*, 108(2), 370–373.  
<https://doi.org/10.1016/j.ijrobp.2020.06.062>
- Holt-Lunstad, J. (2020, June 22). *The Double Pandemic Of Social Isolation And COVID-19: Cross-Sector Policy Must Address Both*. HealthAffairs.  
<https://www.healthaffairs.org/doi/10.1377/hblog20200609.53823/full/>
- Ind, N. (2010). *Meaning at Work*. Cappelen Akademisk Forlag.
- James, J. B., Mckechnie, S., & Swanberg, J. (2011). Predicting employee engagement in an age-diverse retail workforce. *Journal of Organizational Behavior*, 32(2), 173–196.
- Johnstone, B., Kaiser, A., Injeyan, M. C., Sappleton, K., Chitayat, D., Stephens, D., & Shuman, C. (2016). The Relationship Between Burnout and Occupational Stress in Genetic Counselors. *Journal of Genetic Counseling*, 25(4), 731–741.  
<https://doi.org/10.1007/s10897-016-9968-3>
- Jolliffe, I. T., & Cadima, J. (2016). Principal component analysis: A review and recent developments. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 374(2065), 20150202.  
<https://doi.org/10.1098/rsta.2015.0202>
- Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35(4), 401–415.  
<https://doi.org/10.1007/BF02291817>

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*, 31–36.

<https://doi.org/10.1007/BF02291575>

Kaplan, S., Engelsted, L., Lei, X., & Lockwood, K. (2018). Unpackaging Manager Mistrust in Allowing Telework: Comparing and Integrating Theoretical Perspectives. *Journal of Business and Psychology*, *33*(3), 365–382.

<https://doi.org/10.1007/s10869-017-9498-5>

Kim, N., & Kang, S.-W. (2017). Older and More Engaged: The Mediating Role of Age-Linked Resources on Work Engagement. *Human Resource Management*, *56*(5), 731–746.

<https://doi.org/10.1002/hrm.21802>

Kolberg, M., Olsson, S. V., Elster, K., Lote, P. A., Mjaaland, O., & Åsali, S. (2020, February 26). *Første tilfelle av koronasmitte i Norge*. NRK.

<https://www.nrk.no/norge/forste-tilfelle-av-koronasmitte-i-norge-1.14920058>

Kraemer, H. C., & Blasey, C. M. (2004). Centring in regression analyses: A strategy to prevent errors in statistical inference. *International Journal of Methods in Psychiatric Research*, *13*(3), 141–151. <https://doi.org/10.1002/mpr.170>

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, *19*(3), 192–207. <https://doi.org/10.1080/02678370500297720>

Kumar, A., & Nayar, K. R. (2021). COVID 19 and its mental health consequences. *Journal of Mental Health*, *30*(1), 1–2.

<https://doi.org/10.1080/09638237.2020.1757052>

Kurland, N. B., & Cooper, C. D. (2002). Manager control and employee isolation in telecommuting environments. *The Journal of High Technology Management Research*, 13(1), 107–126. [https://doi.org/10.1016/S1047-8310\(01\)00051-7](https://doi.org/10.1016/S1047-8310(01)00051-7)

Kurland, N., & Bailey, D. (1999). *The Advantages and Challenges of Working Here*.

Kutz, M. (2016). Exploratory data analysis. *Handbook of Measurement in Science and Engineering*.

Lai, L., & Kapstad, J. C. (2009). Perceived competence mobilization: An explorative study of predictors and impact on turnover intentions. *International Journal of Human Resource Management*, 20(9), 1985–1998. <https://doi.org/10.1080/09585190903142423>

Lane, I., Mullen, M., & Costa, A. (2020). Working from Home During the COVID-19 Pandemic: Tips and Strategies to Maintain Productivity & Connectedness. *Psychiatry Information in Brief*, 17(5). <https://doi.org/10.7191/pib.1145>

Leiter, M. (1993). Burnout as a developmental process: Consideration of models. *Professional Burnout: Recent Developments in Theory and Research*.

Limcaoco, R. S. G., Mateos, E. M., Fernández, J. M., & Roncero, C. (2020). Anxiety, worry and perceived stress in the world due to the COVID-19 pandemic, March 2020. Preliminary results. *MedRxiv*. <https://doi.org/10.1101/2020.04.03.20043992>

- Lund, S., Madgavkar, A., Manyika, J., & Smit, S. (2020). *The future of remote work: An analysis of 2,000 tasks, 800 jobs, and 9 countries* / McKinsey. McKinsey & Company. <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries#>
- Magson, N. R., Freeman, J. Y. A., Rapee, R. M., Richardson, C. E., Oar, E. L., & Fardouly, J. (2021). Risk and Protective Factors for Prospective Changes in Adolescent Mental Health during the COVID-19 Pandemic. *Journal of Youth and Adolescence*, *50*(1), 44–57. <https://doi.org/10.1007/s10964-020-01332-9>
- Maneesriwongul, W., & Dixon, J. K. (2004). Instrument translation process: A methods review. *Journal of Advanced Nursing*, *48*(2), 175–186. <https://doi.org/10.1111/j.1365-2648.2004.03185.x>
- Mann, S., Varey, R., & Button, W. (2000). An exploration of the emotional impact of teleworking via computer-mediated communication. *Journal of Managerial Psychology*, *15*(7), 668–690. <https://doi.org/10.1108/02683940010378054>
- Marshall, G. W., Michaels, C. E., & Mulki, J. P. (2007). Workplace isolation: Exploring the construct and its measurement. *Psychology & Marketing*, *24*(3), 195–223. <https://doi.org/10.1002/mar.20158>
- Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied and Preventive Psychology*, *7*(1), 63–74. [https://doi.org/10.1016/S0962-1849\(98\)80022-X](https://doi.org/10.1016/S0962-1849(98)80022-X)

- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99–113.  
<https://doi.org/10.1002/job.4030020205>
- Maslach, C., & Jackson, S. E. (1984). Burnout in organizational settings. *Applied Social Psychology Annual*, 5, 133–153.
- Maslach, C., Jackson, S., & Leiter, M. (1996). The Maslach Burnout Inventory Manual. In *Evaluating Stress: A Book of Resources* (Vol. 3, pp. 191–218).
- Maslach, C., & Leiter, M. (2005). Reversing burnout: How to rekindle your passion for your work. *Stanford Social Innovation Review*, 3, 42–49.
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111.  
<https://doi.org/10.1002/wps.20311>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, 52(1), 397. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Mastenbroek, N., Jaarsma, D., Demerouti, E., Scherpbier, A., & Beukelen, P. (2013). Burnout and engagement, and its predictors in young veterinary professionals: The influence of gender. *The Veterinary Record*, 174, 1–7.  
<https://doi.org/10.1136/vr.101762>
- Meijman, T. F., & Mulder, G. (1998). Psychological Aspects of Workload. In *Handbook of Work and Organizational Psychology* (2nd ed., pp. 5–33). Psychology Press.

- Menec, V. H., Newall, N. E., Mackenzie, C. S., Shooshtari, S., & Nowicki, S. (2020). Examining social isolation and loneliness in combination in relation to social support and psychological distress using Canadian Longitudinal Study of Aging (CLSA) data. *PLOS ONE*, *15*(3), e0230673.  
<https://doi.org/10.1371/journal.pone.0230673>
- Mental Health—Household Pulse Survey—COVID-19*. (2021, May 18). National Center for Health Statistics. <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>
- Montgomery, A. J., Peeters, M. C. W., Schaufeli, W. B., & Den Ouden, M. (2003). *Work-home interference among newspaper managers: Its relationship with burnout and engagement*. *16*(2), 195–211.
- Most adults are experiencing more stress than same time last year, new report shows*. (2020, June 16). CVS Health. <https://cvshealth.com/news-and-insights/articles/most-adults-are-experiencing-more-stress-than-same-time-last-year-new>
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, *78*, 185–193.  
<https://doi.org/10.1016/j.ijssu.2020.04.018>
- Norges Bank. (2020). *Finansiell Stabilitet; Sårbarhet og Risiko*. [https://www.norges-bank.no/contentassets/b3eb84932f954041899b357b19a5259c/fs\\_finansiell\\_stabilitet\\_2020.pdf?v=11/10/2020125951&ft=.pdf](https://www.norges-bank.no/contentassets/b3eb84932f954041899b357b19a5259c/fs_finansiell_stabilitet_2020.pdf?v=11/10/2020125951&ft=.pdf)



- Olsen, C. R., & Øgrim, T. I. (2020). *Mange ansatte kan ikke ha hjemmekontor*.
- Olson, M. H. (1983). Remote Office Work: Changing Work Paterns in Space and Time. *Working Paper Series*, 26(3).
- Orth, M., & Volmer, J. (2017). Daily within-person effects of job autonomy and work engagement on innovative behaviour: The cross-level moderating role of creative self-efficacy. *European Journal of Work and Organizational Psychology*, 26(4), 601–612. <https://doi.org/10.1080/1359432X.2017.1332042>
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using the SPSS program* (4th ed.). McGraw Hill.
- Peterson, R. A. (2000). A Meta-Analysis of Variance Accounted for and Factor Loadings in Exploratory Factor Analysis. *Marketing Letters*, 11(3), 261–275. <https://doi-org.ezproxy.library.bi.no/10.1023/A:1008191211004>
- Pfefferbaum, B., & North, C. S. (2020). Mental Health and the Covid-19 Pandemic. *New England Journal of Medicine*, 383(6), 510–512. <https://doi.org/10.1056/NEJMp2008017>
- Pietrabissa, G., & Simpson, S. G. (2020). Psychological Consequences of Social Isolation During COVID-19 Outbreak. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.02201>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions. *Multivariate Behavioral Research*, 42(1), 185–227. <https://doi.org/10.1080/00273170701341316>

Regjeringen. (2020, March 12). *Omfattende tiltak for å bekjempe koronaviruset* [Pressemelding]. Regjeringen.no; regjeringen.no.  
<https://www.regjeringen.no/no/aktuelt/nye-tiltak/id2693327/>

*Restaurant- og serveringsbransjen tar korona-grep.* (2020, April 8). NHO Reiseliv.  
<https://www.nhoreiseliv.no/innkjopskjeden/nyhet/2020/korona-grep/>

Robinson, D., Perryman, S., & Hayday, S. (2004). The drivers of employee engagement. *Institute for Employment Studies, Brighton, 408.*

Rogers, J. P., Chesney, E., Oliver, D., Pollak, T. A., McGuire, P., Fusar-Poli, P., Zandi, M. S., Lewis, G., & David, A. S. (2020). Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: A systematic review and meta-analysis with comparison to the COVID-19 pandemic. *The Lancet Psychiatry, 7*(7), 611–627. [https://doi.org/10.1016/S2215-0366\(20\)30203-0](https://doi.org/10.1016/S2215-0366(20)30203-0)

Sardeshmukh, S. R., Sharma, D., & Golden, T. D. (2012). Impact of telework on exhaustion and job engagement: A job demands and job resources model. *New Technology, Work and Employment, 27*(3), 193–207.  
<https://doi.org/10.1111/j.1468-005X.2012.00284.x>

Saunders, J. (2013). Selective memory bias for self-threatening memories in trait anxiety. *Cognition and Emotion, 27*(1), 21–36.  
<https://doi.org/10.1080/02699931.2012.683851>

- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (fifth). Pearson Education Limited.  
file:///Users/sirioppedal/Downloads/Research\_methods\_for\_business\_students\_f.pdf
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The Measurement of Work Engagement With a Short Questionnaire: A Cross-National Study. *Educational and Psychological Measurement*, 66(4), 701–716.  
<https://doi.org/10.1177/0013164405282471>
- Schaufeli, W. B., Desart, S., & De Witte, H. (2020). Burnout Assessment Tool (BAT)—Development, Validity, and Reliability. *International Journal of Environmental Research and Public Health*, 17(24), 9495.  
<https://doi.org/10.3390/ijerph17249495>
- Schaufeli, W. B., Maslach, C., & Marek, T. (1993). *Professional Burnout: Recent Developments in Theory and Research*. Taylor & Francis.
- Schaufeli, W. B., Salanova, M., Gonzela-Rom'a, V., & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 71–92.
- Schmid, R., & Petko, D. (2019). Does the use of educational technology in personalized learning environments correlate with self-reported digital skills and beliefs of secondary-school students? *Computers & Education*, 136, 75–86.

<https://doi.org/10.1016/j.compedu.2019.03.006>

Schroeder, R. (2021). *Zoom Fatigue: What we Have Learned*.

<https://uidl.naswa.org/handle/20.500.11941/3581>

Scott, C. R., & Timmerman, C. E. (1999). Communication technology use and multiple workplace identifications among organizational teleworkers with varied degrees of virtuality. *IEEE Transactions on Professional Communication*, 42(4), 240–260. <https://doi.org/10.1109/47.807961>

Shikha, A. A. (2008). *Does Workplace Isolation Matter? Examining the Impact of Workplace Isolation on Telecommuter Work Engagement*. Master of Science, Florida Institute of Technology.

Shirom, A., Nirel, N., & Vinokur, A. D. (2010). Work Hours and Caseload as Predictors of Physician Burnout: The Mediating Effects by Perceived Workload and by Autonomy. *Applied Psychology*, 59(4), 539–565. <https://doi.org/10.1111/j.1464-0597.2009.00411.x>

Spiegelaere, S. D., Gyes, G. V., & Hootegem, G. V. (2016). Not All Autonomy is the Same. Different Dimensions of Job Autonomy and Their Relation to Work Engagement & Innovative Work Behavior. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 26(4), 515–527. <https://doi.org/10.1002/hfm.20666>

Spiegelaere, S. D., Gyes, G. V., Witte, H. D., Niesen, W., & Hootegem, G. V. (2014). On the Relation of Job Insecurity, Job Autonomy, Innovative Work Behaviour and the Mediating Effect of Work Engagement. *Creativity and Innovation Management*, 23(3), 318–330. <https://doi.org/10.1111/caim.12079>

*SSB-tall for desember: Et mørkt år for overnattingsbransjen.* (n.d.). Retrieved May 25, 2021, from <https://www.nhoreiseliv.no/tall-og-fakta/ssb/nyhet/et-morkt-ar-for-overnattingsbransjen/>

Stamper, C. L., & Johlke, M. C. (2003). The Impact of Perceived Organizational Support on the Relationship Between Boundary Spanner Role Stress and Work Outcomes. *Journal of Management*, 29(4), 569–588. [https://doi.org/10.1016/S0149-2063\\_03\\_00025-4](https://doi.org/10.1016/S0149-2063_03_00025-4)

Stephenson, L. E., & Bauer, S. C. (2010). The Role of Isolation in Predicting New Principals' Burnout. *International Journal of Education Policy and Leadership*, 5(9). wh

Stufflebeam, D. L. (1970). *The use of Experimental Design in Educational Evaluation*. 15.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (7th ed.). Pearson Education.

Tadić, M., Bakker, A. B., & Oerlemans, W. G. M. (2015). Challenge versus hindrance job demands and well-being: A diary study on the moderating role of job resources. *Journal of Occupational and Organizational Psychology*, 88(4), 702–725. <https://doi.org/10.1111/joop.12094>

Tetlow, G., Pope, T., & Dalton, G. (2020). *Coronavirus and unemployment*.

- Tims, M., Bakker, A. B., Derks, D., & van Rhenen, W. (2013). Job Crafting at the Team and Individual Level: Implications for Work Engagement and Performance. *Group & Organization Management, 38*(4), 427–454.  
<https://doi.org/10.1177/1059601113492421>
- Van Mierlo, H., & Bakker, A. B. (2018). Crossover of engagement in groups. *Career Development International, 23*(1), 106–118. <https://doi.org/10.1108/CDI-03-2017-0060>
- Vega, G., & Brennan, L. (2000). Isolation and technology: The human disconnect. *Journal of Organizational Change Management, 13*(5), 468–481.  
<https://doi.org/10.1108/09534810010377435>
- Vischer, J. C. (2007). The effects of the physical environment on job performance: Towards a theoretical model of workspace stress. *Stress and Health, 23*(3), 175–184.  
<https://doi.org/10.1002/smi.1134>
- Waizenegger, L., McKenna, B., Cai, W., & Bendz, T. (2020). An affordance perspective of team collaboration and enforced working from home during COVID-19. *European Journal of Information Systems, 29*(4), 429–442.  
<https://doi.org/10.1080/0960085X.2020.1800417>
- Wang, W., Albert, L., & Sun, Q. (2020). Employee isolation and telecommuter organizational commitment. *Employee Relations: The International Journal, 42*(3), 609–625.  
<https://doi.org/10.1108/ER-06-2019-0246>

- Wang, Y., Ramos, A., Wu, H., Liu, L., Yang, X., Wang, J., & Wang, L. (2015). Relationship between occupational stress and burnout among Chinese teachers: A cross-sectional survey in Liaoning, China. *International Archives of Occupational and Environmental Health*, 88(5), 589–597. <https://doi.org/10.1007/s00420-014-0987-9>
- Wiesenfeld, B. M., Raghuram, S., & Garud, R. (2001). Organizational identification among virtual workers: The role of need for affiliation and perceived work-based social support. *Journal of Management*, 27(2), 213–229. <https://doi.org/10.1177/014920630102700205>
- Windeler, J. B., Chudoba, K. M., & Sundrup, R. Z. (2017). Getting away from them all: Managing exhaustion from social interaction with telework. *Journal of Organizational Behavior*, 38(7), 977–995. <https://doi.org/10.1002/job.2176>
- Wood, B. A., Guimaraes, A. B., Holm, C. E., Hayes, S. W., & Brooks, K. R. (2020). Academic Librarian Burnout: A Survey Using the Copenhagen Burnout Inventory (CBI). *Journal of Library Administration*, 60(5), 512–531. <https://doi.org/10.1080/01930826.2020.1729622>
- Wu, H., & Chen, Y. (2020). The Impact of Work from Home (WFH) on Workload and Productivity in Terms of Different Tasks and Occupations. In C. Stephanidis, G. Salvendy, J. Wei, S. Yamamoto, H. Mori, G. Meiselwitz, F. F.-H. Nah, & K. Siau (Eds.), *HCI International 2020 – Late Breaking Papers: Interaction, Knowledge and Social Media* (pp. 693–706). Springer International Publishing. [https://doi.org/10.1007/978-3-030-60152-2\\_52](https://doi.org/10.1007/978-3-030-60152-2_52)
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82(1), 183–

200.

<https://doi.org/10.1348/096317908X285633>

Xiao, Y., Becerik-Gerber, B., Lucas, G., & Roll, S. C. (2021). Impacts of Working From Home During COVID-19 Pandemic on Physical and Mental Well-Being of Office Workstation Users. *Journal of Occupational and Environmental Medicine*, 63(3), 181–190. <https://doi.org/10.1097/JOM.0000000000002097>

Yilmaz, K. (2013). Comparison of Quantitative and Qualitative Research Traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), 311–325. <https://doi.org/10.1111/ejed.12014>



## Appendices

### Appendix A

#### Information Sheet

#### **Invitasjon til å delta i en spørreundersøkelse om din arbeidssituasjon under COVID-19-pandemien.**

Dette er en invitasjon til å delta i en kort spørreskjemaundersøkelse om arbeidsbetingelser og trivsel under COVID-19-pandemien. Forskningsprosjektet er en del av en masteroppgave (MSc) ved Handelshøyskolen BI. Dine svar fra undersøkelsen vil bli registrert elektronisk. Det tar omtrent 4 minutter å fylle ut spørreskjemaet.

Denne spørreundersøkelsen er anonym, og svarene du oppgir vil bli holdt konfidensielle. Vi vil bare bruke opplysningene du oppgir til formålene vi forteller om i dette skrivet, og behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

Det er frivillig å delta. Hvis du velger å delta, kan du når som helst velge å trekke samtykket uten å oppgi noen grunn. Dette gjør du ved å lukke spørreskjemaet før du er ferdig - dine data vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta. Når du har fullført spørreskjemaet vil vi ikke kunne slette dine data, ettersom vi ikke kan gjenkjenne hvilke data som er oppgitt av deg.

Resultater fra denne undersøkelsen skal benyttes i en masteroppgave, men det kan også bli aktuelt å publisere dem i form av en vitenskapelig artikkel. Det vil ikke være mulig å gjenkjenne enkeltpersoner i disse arbeidene.

Vi behandler opplysningene om deg basert på ditt samtykke.

NSD - Norsk senter for forskningsdata AS har vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Hvis du har noen spørsmål knyttet til denne studien, ta kontakt med:

- Karoline Aarebrot, Karoline.aarebrot@gmail.com, 45 27 16 77
- Siri Oppedal, Oppedalsiri@gmail.com, 48 04 35 76
- Mats Glambek, Mats.glambek@bi.no, 99 59 77 02 (veileder)

Hvis du har noen spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

- NSD, Norsk senter for forskningsdata AS på e-post (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Med vennlig hilsen,

Karoline Aarebrot, Siri Oppedal og Mats Glambek.

- Jeg har lest informasjonen i dette skrivet og samtykker til å delta
- Jeg samtykker ikke til å delta

## Appendix B

### Survey

	Yngre enn 26 år	26-35	36-45	46-60	Eldre enn 60
Hva er din alder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Mann	Kvinne
Kjønn?	<input type="checkbox"/>	<input type="checkbox"/>

	0-3 år	3-5 år	5-10 år	Mer enn 10 år
Hvor mange år har du jobbet i banken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Ja	Nei
Har du barn i din husstand under 18 år?	<input type="checkbox"/>	<input type="checkbox"/>

Nå kommer noen utsagn om sosial kontakt med kolleger under pandemien. Du vurderer hvor godt utsagnene stemmer for deg ved å bruke en skala fra 1 (overhodet ikke) til 5 (i svært stor grad).

Når jeg tenker på hvordan pandemien har påvirket min arbeidshverdag, vil jeg si at ...

Perceived Work-related Social Isolation	Overhodet ikke	I liten grad	I noen grad	I stor grad	I svært stor grad
... jeg har følt meg isolert fra mine kollegaer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

... jeg har hatt lett for å forholde meg til mine kollegaer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... jeg har hatt kollegaer jeg har kunnet dele mine følelser med.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... det har vært enkelt å komme i kontakt med andre på jobben hvis jeg har trengt det.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... jeg har følt meg ensom og uten venner blant kollegaene.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I gjennomsnitt i løpet av Covid-19-pandemien (fra 12. mars), hvor mange dager per måned har du måttet jobbe hjemmefra når du egentlig ønsket å være fysisk til stede på din arbeidsplass?

**The Involuntary Use of Home Office**

0 3 6 9 12 16 19 22 25 28 31

Antall dager

Videre presenteres noen utsagn som handler om hvordan du opplever ditt arbeid og din arbeidssituasjon. Vi ber deg om å ta stilling til hvor godt hvert utsagn passer for deg, ved å benytte en skala fra 1 (aldri i det siste året) til 7 (daglig).

<b>Work Engagement</b>	<b>Aldri i det siste året</b>	<b>Noen ganger det siste året</b>	<b>Månedlig</b>	<b>Noen ganger i måneden</b>	<b>Ukentlig</b>	<b>Noen ganger i uken</b>	<b>Daglig</b>
Jeg er full av energi i arbeidet mitt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Jeg synes at arbeidet mitt har både mål og mening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tiden bare flyr når jeg arbeider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler meg sterk og energisk på jobben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er entusiastisk i jobben min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er entusiastisk i jobben min	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Når jeg arbeider, glemmer jeg alt annet rundt meg.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg blir inspirert av jobben min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Når jeg står opp om morgenen ser jeg frem til å gå på jobben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler meg glad når jeg er fordypet i arbeidet mitt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er stolt av det arbeidet jeg gjør.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er oppslukt av arbeidet mitt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

På jobben kan jeg holde på med å arbeide i lange perioder av gangen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For meg er jobben en positiv utfordring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg blir fullstendig revet med av arbeidet mitt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler meg psykisk sterk på jobben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Det er vanskelig for meg å løsrive meg fra jobben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er alltid utholdende på jobb, selv når ting ikke går bra.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

De følgende utsagnene er relatert til din arbeidssituasjon og hvordan du opplever denne. Vi ber deg om å ta stilling til hvor godt hvert utsagn passer for deg, ved å benytte skala fra 1 (aldri) til 5 (alltid).

<b>Burnout</b>	<b>Aldri</b>	<b>Sjelden</b>	<b>Av og til</b>	<b>Ofte</b>	<b>Alltid</b>
Jeg føler meg mentalt utmattet på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg finner det vanskelig å gjenopprette energinivået etter en dag på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Jeg føler meg fysisk utmattet på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg sliter med å finne noe entusiasme for arbeidet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler en stor motvilje mot jobben min.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er kynisk overfor hva arbeidet mitt betyr for andre.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har problemer med å holde meg fokusert på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg har problemer med å konsentrere meg når jeg jobber.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg gjør feil i arbeidet fordi jeg har tankene mine andre steder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg føler meg ikke i stand til å kontrollere følelsene mine på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg gjenkjenner ikke meg selv i måten jeg reagerer følelsesmessig på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg kan overreagere utilsiktet på jobb.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix C

### Factor Analysis Before Removing Items

Item	Factor loading	
	1	2
Factor 1: The Utrecht Work Engagement Scale		
1 Jeg er full av energi i arbeidet mitt	.84	
2 Jeg føler meg sterk og energisk på jobben	.83	
3 Når jeg står opp om morgenen ser jeg frem til å gå på jobben	.81	
4 På jobben kan jeg holde på med arbeidet i lange perioder av gangen	.77	
5 Jeg føler meg psykisk sterk på jobben	.46	-.45
6 Jeg er alltid utholdende på jobb, selv når ting ikke går bra	.63	
7 Jeg synes at arbeidet mitt har både mål og mening	.74	
8 Jeg er entusiastisk i jobben min	.79	
9 Jeg blir inspirert av jobben min	.86	
10 Jeg er stolt av det arbeidet jeg gjør	.65	
11 For meg er jobben en positiv utfordring	.72	
12 Tiden bare flyr når jeg arbeider	.83	
13 Når jeg arbeider, glemmer jeg alt annet rundt meg	.85	
14 Jeg føler meg glad når jeg er fordypet i arbeidet mitt	.77	
15 Jeg er oppslukt av arbeidet mitt	.85	



16	Jeg blir fullstendig revet med av arbeidet mitt	.84
17	Det er vanskelig for meg å løsrive meg fra jobben	.73

## Factor 2: The Burnout Assessment Tool

1	Jeg føler meg mentalt utmattet på jobb	.81
2	Jeg finner det vanskelig å gjenopprette energinivået etter en dag på jobb	.71
3	Jeg føler meg fysisk utmattet på jobb	.84
4	Jeg sliter med å finne noe entusiasme for arbeidet	-.66
5	Jeg føler en stor motvilje mot jobben min	.62
6	Jeg er kynisk overfor hva arbeidet mitt betyr for andre	.38
7	Jeg har problemer med å holde meg fokusert på jobb	-.64
8	Jeg har problemer med å konsentrere meg når jeg jobber	-.50
9	Jeg gjør feil i arbeidet fordi tankene mine er andre steder	.53
10	Jeg føler meg ikke i stand til å kontrollere følelsene mine på jobb	.76
11	Jeg gjenkjenner ikke meg selv i måten jeg reagerer følelsesmessig på jobb	.74
12	Jeg kan over reagere utilsiktet på jobb	.60

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## Appendix D

### Factor Analysis After Removing Item 5, 21, 23, 24, and 25

Item	Factor loading	
	1	2
Factor 1: The Utrecht Work Engagement Scale		
9 Jeg blir inspirert av jobben min	.86	
13 Når jeg arbeider, glemmer jeg alt annet rundt meg	.85	
15 Jeg er oppslukt av arbeidet mitt	.85	
1 Jeg er full av energi i arbeidet mitt	.84	
16 Jeg blir fullstendig revet med av arbeidet mitt	.84	
2 Jeg føler meg sterk og energisk på jobben	.83	
12 Tiden bare flyr når jeg arbeider	.83	
3 Når jeg står opp om morgenen ser jeg frem til å gå på jobben	.81	
8 Jeg er entusiastisk i jobben min	.79	
4 På jobben kan jeg holde på med arbeidet i lange perioder av gangen	.77	
14 Jeg føler meg glad når jeg er fordypet i arbeidet mitt	.77	
7 Jeg synes at arbeidet mitt har både mål og mening	.74	
17 Det er vanskelig for meg å løsrive meg fra jobben	.73	
11 For meg er jobben en positiv utfordring	.72	

10	Jeg er stolt av det arbeidet jeg gjør	.65
6	Jeg er alltid utholdende på jobb, selv når ting ikke går bra	.63
Factor 2: The Burnout Assessment Tool		
3	Jeg føler meg fysisk utmattet på jobb	.84
1	Jeg føler meg mentalt utmattet på jobb	.81
10	Jeg føler meg ikke i stand til å kontrollere følelsene mine på jobb	.76
11	Jeg gjenkjenner ikke meg selv i måten jeg reagerer følelsesmessig på jobb	.74
2	Jeg finner det vanskelig å gjenopprette energinivået etter en dag på jobb	.71
5	Jeg føler en stor motvilje mot jobben min	.62
12	Jeg kan over reagere utilsiktet på jobb	.60
9	Jeg gjør feil i arbeidet fordi tankene mine er andre steder	.53

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