

**Workplace Technostress on Work-life Conflict during the time of
COVID-19 in Denmark: The Moderating Effect of Segmentation
Preferences and Coping Strategies**

by

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ABSTRACT

Employee in Denmark has experienced a sudden and increased conflict in their work-life balance during the COVID-19 pandemic as a string of telecommuting has been implemented. However, there is limited understanding of how Danish employees are dealing with the increased technostress as every individual differs in the underlying factors, such as segmentation preferences and coping strategies, that influences them when reacting to certain events. This study used the quantitative data collection and statistical analysis approach to examine how Danish employees deal with technostress on their work-life conflict, moderated by segmentation preferences and coping strategies. In order to test the relationships, the research study collected 221 responses from Danes telecommuting during COVID-19 in Demark. The collected data was analyzed using IBM SPSS Statistics 23 to test the proposed hypothesis. The results of the research confirmed that technostress positively predicted work-life conflict, and that problem focused coping strategy weakened the effect of techno-overload on work-life conflict. The study contributed to existing literature and theory by placing it in the context of COVID-19.

Keywords: COVID-19, technostress, work-life conflict, segmentation preferences and coping strategies

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CHAPTER I INTRODUCTION

The aim of this chapter is to provide a basis for the commencing research as well as a foundation from which to understand its scope and approach. It discusses the necessary topics for understanding the study such as the background of the study, the problem statement, the objectives and purpose of the study, the research questions, the significance of the study, and lastly defines the terms used.

Background of the Study

The modern world is constantly changing and technology in the form of computers, tablets and smartphones is becoming increasingly symbiotic with human life. The use of these technologies has in the Year 2020 become crucial for many people to continue their line of work. As the first international outbreaks of the COVID-19 pandemic hit in the beginning of the Year 2020, there began a fluctuating wave of social distancing, layoffs, job insecurity, and the dissolution of the many boundaries between home and work life (International Labour Organization (ILO), 2020; Sheridan et al., 2020). Attempting to nip infection numbers in the bud, Denmark decided to implement the first round of telecommuting for public non-essential workers on March 11, 2020 (Ottosen & Ancher-Jensen, 2021).

Following this development, the need to keep up with evolving tech is not only affecting our private lives but is also a constant game-changer in our work lives, especially in terms of information and communication technologies (ICT). Since these technologies were first introduced to the workplace, their appearance and function has changed greatly. Many types of computing devices used for work and entertainment are no longer stationary and are designed to accompany us wherever we go. Smartphones are so multi-functional that they have become the focus of the personal computer industry and are being cemented as a near essential part of participation in our society.

With the surge of ICTs, companies have been able to adopt and implement a higher level of flexibility in the form of flextime and telecommuting, which has given employees more choices regarding their work arrangements especially in the time of COVID-19. Hence, by using ICT devices employees are not bound by their office as a place of work, thus, they can work from home. The individual benefits of these work arrangements have been less

commuting time, lower commuting cost, lower work clothes cost, lower food cost, and lower daycare cost to name a few (ILO, 2020; Leung & Zhang, 2017).

Digital technology has furthermore become a crucial part of countries and companies' competitive power and is an important skill for individuals to continue their professional and personal development (Ragu-Nathan et al., 2008). Denmark is a part of Scandinavia and is one of the leading countries in using digital technologies and is reported by the Digital Economy and Society Index (DESI) 2020 (European Commission, 2020) to be ranked the third most digital country out of the 28 European member states. It is therefore natural for Denmark to have digital technology as an integrated part of the workplace.

This shift caused by COVID-19 has likely been a drastic change for a lot of employees, as most did not expect the possibility of having to adapt so fully to telecommuting in order to keep their jobs. Additionally, this is probably also the first time that many companies have had such a large part of their workforce working from home (ILO, 2020). Based on a study conducted in January from 1,101 danish companies with a total of 118,000 employees, before the hit of the pandemic in Denmark and the lockdown that followed in March 2020 around 4% of their employees worked at home on any given business day. This number changed to around 34% during the lockdown in the spring of 2020 (Sørensen & Kaldahl, 2021). Therefore, it is likely that not many organizations had developed a procedure for a sudden shift to telecommuting at the beginning of the pandemic (Vaziri et al., 2020). This hesitation on the part of these organizations is expected to create uncertainty among their employees.

In Denmark, infection rates were worsening throughout 2020 (Sundhedsdatastyrelsen, 2020) thrusting Danish work life through chaotic changes. A study by the European Foundation for the Improvement of Living Working Condition (Eurofound, 2020) on work-life balance in Europe during the pandemic shows that there has been a decrease in work-life balance for parents with children under 17 when telecommuting. In this study respondents were asked to answer the degree to which they felt that they had a hard time concentrating on the job because of family. In this study 22% of people with children while telecommuting reported this issue. Furthermore, 17% of people with children while telecommuting reported that they felt that their family prevents them from allocating time to their job. Thus, managing the conflict between the work and home domains was expected to be a pressing issue for individuals as they are likely to differ in their segmentation preferences. Some individuals prefer high segmentation, meaning their work and home domain are kept as far apart from each other as possible in

contrast to individuals who prefer low segmentation and thus lets the two domains overlap (Ashforth et al., 2000).

Furthermore, during the time period of COVID-19, Danes have struggled dealing with the implications and changes caused by the pandemic. In a study by Petersen and Roepstorff (2020) that is continually collecting data from December 16 of 2020 to monitor Danes' behavior and attitudes to the COVID-19 pandemic shows that individuals in the ages of 18-34 and 35-55 years old have had a surge in feeling stressed since June 2020. Furthermore, in the same study also shows that the number of individuals that fear the consequences of the pandemic have gone up since June 2020. Additionally, the individuals who were originally optimistic about Denmark being able to gain control over the situation in the near future has gone down since June 2020. Therefore, as there has been an overall increase in worries it is expected that Danes will be more sensitive and vulnerable to events that can further change their everyday life.

Moreover, telecommuting used to be offered to employees as a voluntary and flexible work arrangement to help them. However, during the pandemic, it has been forced upon parts of the workforce and not all are able to adapt and handle the techno stressors and work-life conflict that are expected to arise from this change (ILO, 2020). A report by the Organization for Economic Cooperation and Development (OECD, 2020) highlights that during the time of COVID-19 the use of telecommuting can bring with it less child-care support, social isolation and a blurred boundary between work and family can be crossed and overlooked. This has resulted in more pressure on the employees as they have to deal with these challenges themselves (Chang et al., 2020).

Moreover, as individuals differ, they will tackle these issues differently from each other, and as they have different pre-existing experiences, it is likely that they will utilize different coping strategies (Drach-Zahavy & Somech, 2008). A series of in-depth interviews were conducted by Sandbakken et al. (2021) during the first COVID-19 lockdown in Norway, which is a part of Scandinavia. The interviews were done in order to get a better understanding of how people were coping during the lockdown. The results of their study showed that people used a range of different coping strategies that included problem focused and emotion focused strategies amongst others to handle the new situation. Therefore, how a person copes with the changes to their work-life balance may result in different degrees of work-life conflict as the coping response and strategy differs from each person. Coping strategies refers to a set of

behaviors, thought and emotions one can utilize to adjust to stressful situations or event (Bonneville-Roussy et al., 2017). Thus, it takes time before Danes are utilizing coping strategies that are able to adjust and come to rest at a new normal.

Problem Statement

This study was motivated as there is a need for more understanding on how Danish employees are faring during the time of COVID-19. Denmark is known for having a good work life balance and a very stable society. However, with the occurrence of COVID-19, this balance was expected to feel a shift as a result of pressure on organizations to follow safety regulations by implementing telecommuting. A new strain was expected to fall on the employees, as they needed to cope with the sudden changes on their work-life interface. The lines between work and life are becoming blurrier and it was expected that they would be impacted with new forms of conflict (Vaziri et al., 2020).

Accordingly, when tackling this issue, it is important to remember that employees are diverse individuals and what works for one does not necessarily work for another (Ayyagari et al., 2011). For many this was their first time telecommuting and thus they might have to get accustomed to new ICTs resulting in experiences of technostress (Ragu-Nathan et al., 2008; Vaziri et al., 2020). Furthermore, while some employees might be comfortable with working from home others have much stronger segmentation preferences and they need the work and home domains to be kept separate. Whatever the case for the individual employee, this separation of domains dissolves completely when telecommuting (Ashforth et al., 2000). As a result, individuals might have a tough time suddenly being forced to adapt to new segmentation preferences. With these kinds of changes, it is up to the individual's coping ability to survive or thrive in the midst of these changes. It is expected that every employee will adjust and arrive at the new normal in different ways.

Purpose of the study

The aim of this quantitative study is to examine the relationship between technostress and work-life conflict as it is being moderated by segmentation preferences and coping strategies for employees in Denmark. Specifically, the research has two main objectives with the first being to discuss the impact of technostress on work-life conflict. The second being to

examine the moderating role of segmentation preferences and coping strategies in the relationship between technostress and work-life conflict.

Danish employees have a good work-life balance according to the latest update of OECD's Better Life Index (2019) as the country scores a 9 on a scale from 1 to 10. Thus, they have not had the need to learn how to cope with situations where the idea of work-life balance is suddenly changed. The aim is thus to study how different individuals react regarding their work-life conflict when telecommuting is not a choice but instead forced upon them. Based on the perception of Danish society the researcher expected that the forced implementation of telecommuting would have a strong effect on the work-life conflict. This is the case as with a change like COVID-19 to suddenly happen it was expected that Danish employees would not know how to cope with it and thus it can suddenly create a lot of conflict. Furthermore, Danes are known for having strong segmentation preferences so suddenly having to have an integrated life with no clear boundaries will likely add to the work-life conflict. The purpose is thus to see how Danish telecommuters are responding to this arrangement.

Significance of the Study

The literature on technostress is still developing therefore this study's significance is beneficial to Danish organizations and human resource (HR) managers when attempting to better understand how technostress can affect their employee's perception of their work-life conflict and thus the work-life balance. Furthermore, as the study is conducted in time of social change caused by COVID-19 it will likely add to the technostress interface and thus the study of it will expand and change. Moreover, it gives organizations a clearer idea of Danish employee's segmentation preferences and coping strategies. The study is thus beneficial to organizations in Denmark to help them support and understand the needs of their employees in this time. Additionally, it examines if work-life conflict can function as an outcome variable in the presented relationship. Thus, it highlights the need for more research in this area going forward as ICTs are ever changing.

Scope of the Study

This study focuses on employees in Denmark who telecommute. Next, the variables are obtained from self-reporting in online survey results. Lastly, the study was limited to only examining the variables technostress, segmentation preferences, coping strategies and work-

life conflict. Moreover, this paper only deals with two dimensions of technostress, techno-overload and techno-invasion, as they are deemed more relevant for the current research.

Research Questions

This study is made to understand the relationship between technostress which includes the dimensions of techno-overload and invasion, and work-life conflict, with a moderating effect of segmentation preferences and coping strategies. Seven research questions are as follows:

1. Does technostress cause an increase in work-life conflict in Denmark?
2. Do Danish employees have a strong perceived techno-overload and techno-invasion?
3. What is the level of segmentation preference of Danish employees?
4. Which coping strategies does Danish employees use most?
5. Do segmentation preferences have a moderating effect on the relationship between technostress and work-life conflict during the COVID-19 pandemic in Denmark?
6. Do the proposed coping strategies have a moderating effect on the relationship between technostress and work-life conflict during the COVID-19 pandemic in Denmark?
7. Which of the proposed coping strategies has the best effect as a moderator?

Definition of Terms

Technostress

In this study technostress is used as the independent variable and refers to the issues that has arrived with the surge of ICTs as individuals have to stay in constant connectivity causing overload and stress (Ragu-Nathan et al., 2008). The sphere of technostress includes the dimensions of techno-overload and techno-invasion. In this study techno-overload refers to the pressure that comes from having to work faster and longer than before because of ICTs (Tarafdar et al., 2007; Vaziri et al., 2020). This study measures techno-overload by using the techno-overload scale by Tarafdar et al. (2007).

In this study techno-invasion describes how ICTs can be invasive and thus give the feeling of having to always be available which then causes unclear boundaries between work and home life (Tarafdar et al., 2007; Vaziri et al., 2020). This study measures techno-invasion by using the techno-invasion scale by Tarafdar et al. (2007).

Work-life Conflict

In this study, Work-life Conflict is used as the dependent variable. According to Netemeyer et al. (1996) work-life conflict is defined as occurring when an individual's work role starts invading the space of the personal role (Tams et al., 2020; Sarker et al., 2018). Furthermore, this study looks at work-life conflict as including extended social circles and not just the core family (Kossek & Lee, 2017; Siegel et al., 2005).

Segmentation Preferences

Segmentation preferences is used as the first moderator variable. According to Kreiner (2006) segmentation preferences refers to the degree of how much separation there should be between the work and home domain for the individual. The concept consists of segmentation and integration, with the first being the preference of high to full segmentation and the second being low to no segmentation. This study measures the variable by using the segmentation preferences scale developed by Kreiner (2006).

Coping Strategies

Coping strategies are in this study used as the second moderator variable and it refers to how individuals through actions and thoughts manage a perceived threatening or stressful experience wherein the demands exceed their capabilities. This study deals with coping strategies in the sphere of problem focused coping and socially supported coping (Bonneville-Roussy et al., 2017; Carver, 1997; Lazarus & Folkman, 1987; Litman, 2006). This study measures coping strategies by using the Brief COPE measurement scale developed by Carver (1997) which is a shorter modified version of Carver et al., (1989) COPE measurement scale.

CHAPTER II LITERATURE REVIEW

The purpose of the following chapter is to provide the study with the relevant theory and empirical background essential to understanding the terms that was used throughout the study. Furthermore, the following chapter will also attempt to map out the relationships that existing literature has already established between the chosen variables.

The first section of the chapter strives to provide a basic understanding of the Kingdom of Denmark so as to gain a sufficient context of Danish society. The second section of the chapter gives a detailed overview of the variables and puts them in relation to the existing literature. The third section highlights and gives an overview of the theory that is relevant for further understanding of the relationships and how they are affected and affect each other. The last section takes the variables and examines their relationships in contrast to each other based on existing literature. Derived from the empirical and theoretical findings in this chapter the development and finalization of the hypotheses will appear.

Overview of the Kingdom of Denmark

Denmark also officially referred to as The Kingdom of Denmark is located in northern Europe and is a part of Scandinavia, together with Sweden and Norway. The country consists of the peninsula Jutland and numerous islands. The people in Denmark are known as Danes and the country has a population of around 5,831,000 million people in 2020 spread out on an area of 42,938 km². In Denmark the government consist of constitutional and ceremonial head of state in the form of monarchy with one legislative house, the Folketing. Denmark centers around having a strong social welfare system that offers a range of benefits. As a part of the social welfare system Danes are offered free healthcare that mean that the population has a good overall health. Furthermore, education in Denmark is also free resulting in the adult population being literate (Linton et al., 2021; Torfing, 1999).

Denmark has a strong economy and high standard of living proved by having one of the highest per capita gross national product. The main industries contributing mostly to the economy is the service industries (service jobs in public administration, education, health, and social services), trade (export of agricultural products and industrial products), and manufacturing (food processing and pharmaceutical industry). Therefore, Denmark is reliant on foreign trade to maintain its steady economy (Linton et al., 2021).

The culture in Denmark can be described as having a flat societal hierarchy, being very individualistic, having high femininity value and low uncertainty avoidance, as well as being short-term oriented and indulgent (Hofstede Insights, 2021). The fact that Denmark has a flat societal hierarchy compared to other countries means that norms center around an egalitarian viewpoint that values being independent, having equal rights, expecting accessibility to superiors and preferring a workplace management to facilitate and empower their employees. Additionally, this form of power balance structure is highly decentralized and relies on an open communication between coworkers and managers (Hofstede et al., 2010).

The Danish society revolves around independence meaning that the Danish individual is in charge of taking care of themselves and their immediate family (Hofstede et al., 2010). Furthermore, because of this it is common for children to move out of their parents' house when they are able to in order to establish independence (Reher, 1998). This independence is further strengthened by the fact that the majority of people start working before turning 18 as it is not uncommon to have a job at the age of 13 delivering newspapers and it is even more common to have a part time job in the ages of 15-18 (Frederiksen, 1999). For some individuals this means that they start building a network of friends and social activities amongst other that have a similar importance to family (Reher, 1998).

Denmark is regarded as a feminine society and thus values caring for each other and having a good quality of life. This is done by maintaining a good work-life balance and equality between individuals. Additionally, having free time and flexibility in their work life is preferred (Hofstede et al., 2010). When it comes to uncertainty avoidance, Danes have a low score meaning that they can handle an unstructured and unpredictable life. Denmark has a short-term oriented culture which makes it a normative society by leaning towards preserving traditions, and because of this, societal changes are considered suspicious. Furthermore, because of the short-term mindset, it is believed that efforts should bring forth quick results. Danish society inhabits a high degree of indulgence resulting in following impulses and desires that lets them live life to the fullest, leading to free time being highly regarded (Hofstede et al., 2010).

By taking these cultural trait into the context of the COVID-19 pandemic it is to be expected that this will further influence the way in which Danes respond to the changes while telecommuting. Firstly, as Denmark has a flat hierarchy it could meant that Danish managers expect their employees to communicate with them directly and if they are struggling with anything. However as there is a strong level of independence employees might feel that they

are expected to handle it themselves resulting in a possible lack of communication. Moreover, as a feminine society work-life balance and equality is highly valued meaning that being in a situation of telecommuting where this is harder is likely to pose a challenge to Danish employees. However, Danes have a low uncertainty avoidance so with the appropriate coping strategy Danish employees should be able to handle the stressors of telecommuting. Even though this is the case Danes are still short-term oriented and normative which could lead to them struggling to cope with the idea that Danish society could change permanently and that it will take long-time effort to get back to a new normal. Additionally, as Danes are indulgent it may be difficult for them to set up clear boundaries while working at home as they might be too easily distracted by what they want to do instead of their work. Based on these cultural aspects there is grounds for possible conflicts to arise.

Technostress

According to Tarafdar et al. (2007) information and communication technology (ICT) refers to groups of efficient tools that in many ways can assist employees to better perform their jobs and it has made information sharing faster and more efficient. Nevertheless, it can also have a negative effect as the degree of information people is receiving nowadays are vast, and this can lead to the boundaries between the work-home domain becoming more permeable. Additionally, this can give rise to a loss of privacy and for some the degree to which the technologies are being used can be too much for certain individuals. According to exiting literature this negative effect is known as technostress and the issue further stems from the individual being unable to cope with or adjust to the usage of ICTs as a part of their work (Tarafdar et al. 2007).

Existing literature by Ragu-Nathan et al. (2008) states that technostress can be caused by various factors such as it can help their user stay connected. However, this also brings the issue of constant connectivity and thus there is no excuse to not reply to the various emails that are received and need to be responded, thus prolonging the workday. With the utilization of ICTs comes an efficiency that allows the consumer to be performing more than one action or task at a time with information going in and out simultaneously. Thus, the amount of information is greater than in the past and the time spend sorting all of this is constant. Furthermore, as ICTs are constantly changing the only way to keep a competitive advantage is by maintaining and continuing to update the technology used and the skills needed to use it.

The literature (Ragu-Nathan et al., 2008) additionally states, the farther technology advances the greater the complexity around it becomes. Thus, this can cause the employees to feel unsure about what future expectations will be placed upon them regarding their performance when using the ICT. Moreover, it is hard to develop a work style around the technology. This is because when the employee becomes accustomed to the technology it is possible that it will be switched with an updated or different version. As a result, there is a strong ambiguity around the use and implementation of future ICTs. Another problem that can arise is that ICTs makes multitasking increasingly doable as one can accomplish more in less time. Nonetheless, there is a limit to how efficient the work will be and for some they will be pushed beyond their abilities which can lead to increased tension, lower degree of perceived control and lower job satisfaction (Ragu-Nathan et al., 2008).

These creators of technostress can according to Tarafdar et al. (2007) generate job-related strain within employees, and it is known to incorporate five-technostress creators. (1) The first is techno-overload, which refers to how ICTs are expected to help the individual to work faster and more efficiently than before. However, this pressures employees to expedite their work and continue working longer periods as well as it can lead to having less people to do the same amount of work. (2) The second is techno-invasion, which refers to the invasiveness of ICTs which gives the employees a sense of being required to be available and accessible at all times regardless of which domains they are currently occupying. (3) The third one is techno-complexity, which refers to how well the employees feels like they comprehend the used technology and how much time they need to invest in this comprehension. (4) The fourth is techno-insecurity, which refers to feeling insecure in one's job at the fearfulness of being replaced by a new ICT, and lastly (5) the fifth is techno-uncertainty, which refers to the discomfort experienced by the thought or feeling of constantly having to adjust to new ICTs (Tams et al., 2020; Vaziri et al., 2020).

In this research study out of the five technostress creators only techno-overload and techno-invasion has been selected for the study. These two technostress creators have been selected over the three others as they are more relevant in the relationship with work-life conflict. This is the case as techno-overload involves working longer periods and techno-invasion refers to how an individual is expected to be available at all times which both could have an effect on work-life balance. Thus, when an individual is at home these two technostress creators is most likely to have an effect on the boundaries between when it is time to work and when are an individual is not on the clock while at home (Molino et al., 2020).

Segmentation Preferences and Coping Strategies

This research study examines the relationship between technostress and work-life conflict, it is thus important to consider the underlying factors influencing the individual when reacting to certain events. This is the case as everyone differs and this can greatly affect the outcome of the data and results. In the case of the individuals' preferences, it can be useful to look at the individuals' segmentation preferences and coping strategies (Ayyagari et al., 2011).

Segmentation Preferences

When looking at segmentation preferences prior research by Kreiner (2006) and Nippert-Eng (2008) specifies how most individuals can be divided into two main groups. The first group is segmenters who are individuals that prefer to keep the work domain and the life domain divided into segments that are separated from each other as much as possible. There should be clear lines between the domains to make sure one does not intrude on the other. As a result, possessions such as calendars, keys and clothes are maintained separately by having two calendars, keys on different keychains and changing from the work outfit to the designated home outfit. It is also crucial to preserve events and issues in their respective domains, therefore things that happened at home should not be discussed at work and the other way around (Kreiner, 2006; Nippert-Eng, 2008).

According to Ashforth et al., (2000) since segmenters use clear boundaries to ensure that nothing from one domain slips into the other they do not have to worry about being distracted by cross role interruptions. For that reason, they can better immerse themselves in the role associated with the given domain. Therefore, it is expected that there will be a larger gap between roles and thus no overlap between the roles can be seen. As a result, the transition progress goes from role exit to movement to entry and thus it is focused on rites of separation, transition and incorporation. However, they also believe that when individuals who strive for a strong segmentation have to transition between roles, it can be difficult to not let emotions and parts of one domain's identity spill over to the other domain.

The second group consists of integrators who are individuals that prefer that the two domains interact with each other and thus also affects one another. For these individuals there are no clear lines between the domains, and thus it is common to have aspects from the home domain present at the workplace and aspects of the work domain at home. Take for example the action of having family pictures on their work desks and even further inviting coworkers to

their home for socialization and talk about family at the workplace (Kreiner, 2006; Nippert-Eng, 2008).

Existing literature by Ashforth et al. (2000) states that in the case of the preference of integration, the domains could possibly be linked by location and time. Individuals with these preferences might work at home, in a family business or a total institution, such as the military, convents, prisons among others. This way the two domains remain in the same sphere and high integration can be achieved. Moreover, for these individuals, role transition is more straightforward because of the high similarity between the roles, and it is thus simpler for them to switch between domains. Therefore, there will usually be a natural overlap between the roles making the transition distance shorter and thus more seamless. However, it can also cause a disturbance as it is tougher to maintain a healthy balance between the domains and the required role associated with the currently used domain.

Coping Strategies

When individuals are faced with life changing event, they also differ in how they react and respond to the situation at hand. One of the processes that determine this is called coping and it depends on the individual how appropriate their coping is. The notion of coping is often dealt with in contrast to stress as it appears as a response to stressful situations. Previous research has looked at the topic of coping in different ways. The most commonly used perception regarding coping strategies is that it incorporates the ways in which individuals actively respond or chose to deal with the stressful situations (Bonneville-Roussy et al., 2017).

When the individual is in a stressful situation that needs to be assessed they start by appraising the situation regarding the threat, challenge, or loss that it poses and then in the context of how to respond to it, which is then followed by the coping responses that the individual may possess (Carver & Scheier, 1994). There are many ways that individuals can choose to cope with stressful situations and depending on the situation one coping strategy might be more efficient than the other. In prior research by Carver (1997) he developed the Brief COPE scale that was an improved and shorter version of the COPE scale developed by Carver et al. (1989). This scale measures various coping strategies and has divided them into the fourteen sub-dimensions of active coping, planning, positive reframing, acceptance, humor, religion, use of emotional support, use of instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame.

Active coping refers to how the individual decides to remove the stress inducer or minimize the effect and is used alongside planning in which the individual considers how to deal with the situation most efficiently (Yusoff et al., 2010). When using positive reframing the goal is to manage the emotions resulted by the stress as opposed to dealing with the stressor itself (Carver et al., 1989). Self- distraction incorporates shifting ones focus from the situation or thing that is stress inducing, this can be done by engaging in another activity to keep mind and body busy elsewhere. (Yusoff et al., 2010).

The coping strategies of seeking instrumental support and emotional support are different in that the first seeks advice, help or information and the latter moral support, compassion, or sympathy (Yusoff et al., 2010). Furthermore, when seeking support, the individual can also use venting to unload their stress unto their support system (Carver et al., 1989). Religion refers to using faith for emotional support during stressful events (Litman, 2006).

The act of behavioral disengagement centers around the individual giving up or decreasing their actions in a stress inducing situation (Yusoff et al., 2010). The factor self-blame refers to how the individual will take the responsibility and blame themselves for the stressful situation (Carver, 1997). The opposing strategies of denial and acceptance also appears where the first one deals with refusing to accept reality and diminishing the agitation, whereas the latter is about accepting and dealing with the situation (Litman, 2006; Yusoff et al., 2010). The act of coping with substance use refers to using alcohol or drugs to minimize the distress and the act of using humor refers to joking about the situation and not treating it seriously (Litman, 2006).

In the development of the Brief COPE scale Carver (1997) placed most of the sub-dimensions into either the main dimensions of problem focused coping or emotion focused coping. However, in a later contribution to the scale by Litman (2006) he found that it provides better support and result by dividing the fourteen sub-dimensions into the four factors of self-sufficient coping (problem focused coping and emotion focused coping), socially supported coping, and avoidant coping.

Problem focused coping is in other literature also known as problem-solving or control coping and as the name states it is a form of coping where the individual will find ways to actively respond or deal with the situation at hand (Bonneville-Roussy et al., 2017; Li et al., 2021). An important factor for this strategy is that the individual is trying to solve the stress

creating issue. This can be accomplished by assessing the situation, finding a solution, plan it and then apply it to the situation (Li et al., 2021). Thus, this strategy for coping relies on the action of removal or reduction of the stress inducer, and it also works by looking at things in a positive light (Carver & Scheier, 1994). Problem focused coping incorporates active coping and planning (Carver, 1997; Carver & Scheier, 1994).

Emotion focused coping has the goal of minimizing or dealing with the emotional side that can appear as a result of the stress inducing situation. Here the individual is the main focus, in contrast to problem focused coping where the main focus is on how to manage the stressor itself (Carver et al., 1989). In existing literature, it is established that emotion-focused coping strategies include a wide range of strategies. Which from a positive approach includes positive reframing, acceptance, humor, and religion (Carver, 1997; Carver & Scheier, 1994) and from a negative approach includes denial and venting of emotions (Baker & Berenbaum, 2007).

Furthermore, in other literature emotion focused coping is also known as emotion-regulating or escape coping. In the literature it also highlights that emotion-focused coping can center around the concept that the individuals first action is not to tackle the issue at hand but instead it utilizes a form of escapism or avoidance. This form of coping strategy means that the individual does not have to face the possible emotional issues that can arise from the stress inducing situation (Li et al., 2021).

Based on this some researchers indicate that emotion-focused coping strategies is not affective. The reasoning is that some of the strategies involve managing the issue and others avoiding it. Furthermore, some items in emotion-coping scales are written in a way that makes individuals believe that efforts to cope are instead signs of distress. Therefore, based on these issues there is a confusing around the term emotion-focused meaning that it can be misleading for researchers and respondents to evenly perceive and thus respond to the concept (Baker & Berenbaum, 2007).

Litman (2006) highlights that socially supported coping mechanism can both belong under problem and emotion focused coping as it just refers to whether one seeks out advice or help from others and furthermore whether or not that they have a social support system. This form of coping incorporates the use of emotional support, instrumental support, and venting (Carver, 1997; Carver & Scheier, 1994).

Furthermore, Litman (2006) states that in research when dealing with coping strategies the act of avoidance has come up and thus, links it to the coping strategies measured in the Brief COPE scale by Carver (1997). Avoidant coping strategies incorporates a form of escapism and includes self-distraction, denial, substance use, behavioral disengagement, and self-blame (Carver, 1997; Carver & Scheier, 1994). Furthermore, based on the information above about emotion-focused coping strategy avoidant coping strategy could belong or be a branch of emotion-focused coping strategy.

Work-life Conflict

Work-life balance is an important thing for employees as finding the right balance can be difficult. It is therefore natural for conflict in the work-family/life interface to occur and finding ways to deal with this possible imbalance can be difficult.

Work-life Conflict is a big topic in research, and many have definitions that encapsules the term. McMillan et al. (2011) argues that preceding research on the topic of work-life conflict has divided it into being time-based, strain-based and behavioral-based. Work-life conflict caused by time is the most dominant of the three and it encapsulates either how the participation in one role will affect how much time is available to perform their other role or that being concerned with one role places a limit on how engaged they can be in the other, regardless of them physically being there or not. Here, work-related time conflict refers to work hours per week, commuting time, overtime and shiftwork and family-related time refers to time spent not at work dealing with family matters. Thus, time conflict appears in the form of role overload and strain on the individual as there is a limit to time and effort.

This is consistent with other literature as Netemeyer et al. (1996) maintains that work-family conflict and family-work conflict happens when there are role expectations between the domains that are incompatible. The authors establish that responsibilities, requirements, expectations, duties and commitments are the common demands of a role, and that this is regardless of domains. This incompatibility stems from when an individual participates in the tasks of one of the domain's roles and it in return makes the ability to participate in the other more difficult. Accordingly, the individual is not able to keep up with the demands in either the work or home domain, and thus spillover in the form of work-life conflict is bound to happen. As a result, time is highly related to this type of conflict as one can measure the amount of time one allocates to the specific domain's role. Therefore, conflict occurs when the

individual cannot perform their duties (Adams et al., 1996; Barber et al., 2019; Netemeyer et al., 2004).

According to McMillan et al. (2011) strain-based conflict arises when there is a strain or a stressor in one role that affect how one functions in their other role. This type of strain is associated with the person-environment (P-E) fit theory where the degree to which an individual's knowledge, skills and abilities fit their role expectations will determine the P-E fit. In former research, work-based strain has led to stress related events at work and job burnout. Behavioral-based conflict happens when there is a clash between the behavioral requirements in the different roles, since what is appropriate for one role might not be for another.

Kossek and Lee (2017) state that current research on the topic of work-life conflict tend to only look at the life domains as being limited to the notion of family and it rarely extends to other social circles that the individual might perceive as being belonging to the life domain. However, some do note that the idea of family role goes beyond the core family and incorporates friends, classmates, social or activity bound group, and self-care, amongst others. This is the case as these take into consideration the various other non-work demands individuals devote themselves to. Thus, the notion of work-life conflict will be more relevant as it is not limited to family (Siegel et al., 2005).

Existing literature on the topic of work-life conflict further highlights that this form of conflict is typically associated with and affects work-related outcomes such as burnout, alienation, job satisfaction, organizational commitment, turnover, depression, and other health related issues, amongst others. Likewise, family-related outcomes were shown in the form of reduced family life quality which were shown to negatively affect the individual's marriage and also life and family satisfaction (Adams et al., 1996; Siegel et al., 2005).

Theoretical Foundations and Hypothesis Development

In order to get a greater understanding of the relationship between the following variables, the two theories (boundary theory and the transactional theory of stress) were used to conceptualize this relationship.

Boundary Theory

Boundary theory strives to explore the different approaches in which the individuals decide to manage their boundaries. The management can be regarding how they develop,

maintain and change their boundaries in the given domain so as to have the preferred role order (Ashforth et al., 2000; Kossek & Lautsch, 2012). Boundary theory proposes that individuals differ in the degree to which they prefer having clear lines between their boundaries. The concept of spillover appears as a crucial part of this theory and the amount of spillover is structured by the individual's preferences regarding segmentation or integration of their work and home domains. This boundary preference remains similar and is not likely to change. Thus, it is preferred that the preference is consistent with the actual situation (Derks et al., 2016).

However, according to Kossek and Lautsch (2012) it is not always merely having a preference that will decide the individual's actual situation as it is also crucial managing the responsibilities that comes with the given domain's role. Thus, when looking at the work role one has to balance being on time and doing a good job and in the case of the family role you have to take care and provide for your family by providing them with emotional support and helping out around the house. Thus, there might exist a preference, however, the ideal situation might not always be the case as the individual has to work constantly and actively on maintaining the boundaries.

In the sphere of boundary theory existing literature (Ashforth et al., 2000; Kossek & Lautsch, 2012) argues that there are two factors that greatly influence the visibility and thus the degree of blurriness of the boundaries. These factors are known as boundary permeability and flexibility, with the first one determining how much the individual is willing to let parts of one role spill over to that of another. This spillover can appear in the form of being bodily present in one domain but still maintaining psychological or behavioral traits from another such as receiving personal calls at work, giving out one's personal number to their colleagues, amongst others. Whereas flexibility refers to how one's role might change at any given moment, in this case the role is not bound by location and time. Thus, having a higher degree of flexibility makes it easier to transition between the roles.

Based on the above, when looking at the boundaries one might find that even though they have been clearly defined or setup they still vary in the extent to which they overlook and share their space. When looking at the domain of work and home they are often set up with very clear boundaries in the form of location and time amongst others, making it hard to realize that they may or can overlap. Thus, when looking at boundaries the permeability of them determines the amount of transition and transcending needed. Transitioning between domains is easier when the boundary is more permeable, whereas if it is less then you need more time

or concentration to step into the other domain. When the transition between the boundaries become efficient enough it moves into the sphere of transcending (Nippert-Eng, 2008).

In the sphere of boundary theory existing literature has furthermore proposed boundary management styles in order for employees to manage their work-life role boundaries. Here boundary permeability and flexibility decide if roles are segmented or integrated. Drawing on this three boundary management styles were established, with the first being segmentation, the second integration and the third being a hybrid that centers around alternating between the two first approaches (Kossek & Lautsch, 2012).

Transactional Theory of Stress

The transactional theory of stress establishes how stress centers around cognitive appraisal and coping, wherein depending on how well one manages these the degree of stress may vary. Cognitive appraisal incorporates how an individual perceives how a situation can affect their well-being and then depending on this appraisal the individual will decide whether to or how to cope with its demands (Drach-Zahavy & Somech, 2008; Lazarus & Folkman, 1987).

Prior literature by Lazarus and Folkman (1987) establishes that there are two forms of appraisal, primary and secondary. Primary appraisal occurs as a response to when the individual notices a threat happening to them that could affect their well-being thus this creates a motivational factor. Three types of primary appraisal regarding harm are outlined as experience, anticipation and challenge with the last being an opportunity to gain something. This appraisal follows two approaches of cognition where the first one is comprised of judging how good the chances are regarding if the situation will give the probability to grow or if it will result in failure. The second one takes the approach of emotion which is the emotional response to the stress (Drach-Zahavy & Somech, 2008).

Secondary appraisal occurs as an addition to the primary one and it is the process of judging which existing coping strategies are needed to deal with the threat at hand (Hauk et al., 2019). Therefore, it is also here that it will be decided whether the threat will result in a negative experience or a chance to gain something. Furthermore, this is also the moment in which the individuals decide if the threat can actually be dealt with or not in the context of one's own capabilities (Lazarus & Folkman, 1987). Thus, the combination of these two forms of appraisal

will inform the individual whether to perceive the situation as a challenge or threat (Drach-Zahavy & Somech, 2008).

When the individual has appraised the perceived threat, they will then proceed to implement the chosen coping response so as to avoid or diminish the possible negative outcomes (Hauk et al., 2019). If the individual appraises the situation as being a challenge it will lead to a positive attitude and it will most likely lead to the individual using problem focused coping. Whereas, if the individual appraises it as a threat, then it might lead to an emotion focused coping response which can heighten the strain process (Drach-Zahavy & Somech, 2008).

The Relationship Between Technostress and Work-life Conflict

With the surge of information and communication technology (ICT) devices it is possible to conveniently work from home. However, this has in some caused technostress in the form of overload and invasion that makes it problematic to set up clear boundaries between the two domains as pressure to do more increases and the access to each individual becomes easy. As a result, this can increase the work-life conflict. The situation may be worsened when there is a demand to work from home (Ayyagari et al., 2011; Vaziri et al., 2020).

According to Tams et al. (2020), with the surge of the use of mobile technologies employees are more accessible to their workplaces than ever before. This accessibility causes employers to presume higher efficiency from their employees, thinking that they should be able to respond faster to emails and messages, and that they themselves would coordinate work with colleagues. Moreover, when one shifts focus to a task in another domain it hinders the completion of the original domain's relevant task. Based on the effect of spillover and having to choose where to fulfill one's roles it is to be expected that it will cause conflict in the work-live interface.

On the other hand, according to Vaziri et al. (2020) in the scope of COVID-19 the work-life conflict may also decrease as telecommuting and social distancing has put a hold on long commutes, social obligations, workplace issues and for some it may reduce their workload. However, even though it might decrease certain aspects, other research has found that it can heighten work-life conflict as inter-role conflict happens. This is the case as the tasks the individual has to do in one domain competes for the limited time available. It has been found

that individuals with a higher degree of flexibility, but low permeability had low levels of work-life conflict whereas the opposite lead to high levels (Leung & Zhang, 2017).

In prior research done by Barber et al. (2019), they examined the relationship between workplace telepressures and work-life balance outcomes. For the variable of work-life balance outcomes they included spillover process outcomes, which they specified as incorporating work-life conflict and enrichment. From their study they found that individuals who had a higher level of workplace telepressure reported a lower work-life balance satisfaction, lower work-life balance effectiveness and a higher work-family conflict.

Furthermore, by putting the theory in contrast to Danish culture it has been established that there is a flat societal hierarchy and a high level of independence. This further results in there being an egalitarian mind-set that values one's superiors being accessible (Hofstede et al., 2010). This could be tied together to the theory of technostress where the individual has to be accessible at all times. Based on this, it can be expected that Danes are of the belief that while working at home their managers should be accessible to them which in turn could lead to an increased work-life conflict for Danes in supervisor or management positions.

Additionally, this form of power balance values the independence and existing experience of their employees (Hofstede et al., 2010). Therefore, it could likely cause supervisors to assume that their employees can handle themselves and thus neglect them, which, in a Danish company setting, can further result in technostress during telecommuting as Danish employees may be expected to handle it themselves.

Furthermore, Danes also have a high level of indulgence and thus it is likely it will be a challenge for them to allocate their time appropriately by not giving into their impulses and desires while working from home (Hofstede et al., 2010). During telecommuting there is less monitoring of how one spends their time working and thus it is easier to stray from the tasks. Therefore, if they give into their impulses and desires, it will likely result in them not completing their work during prescribed work hours. As a result, they will have to finish these tasks during the time that has been allocated to the home domain. Based on this, it is expected to cause a time-based work-life conflict.

Additionally, Danish culture is feminine which means that having a good work-life balance is important and seen as an equal right (Hofstede et al., 2010), and thus it is likely that by not having it, it can result in work-life conflict.

Accordingly, the following hypothesis in the context of COVID-19 is proposed:

Hypothesis 1: There is a positive relationship between technostress and work-life conflict.

Hypothesis 1(a): There is a positive relationship between techno-overload and work-life conflict.

Hypothesis 1(b): There is a positive relationship between techno-invasion and work-life conflict.

Moderating Effect of Segmentation Preferences between Technostress and Work-life Conflict

According to Liu et al. (2013) segmentation preferences can also be used as a coping mechanism that can moderate the effect of work-life conflict. They believe that individuals seeking a higher level of segmentation between their work and home domains will experience higher levels of conflict if this balance is not provided by their workplace. Moreover, in contrast if they seek lower level of segmentation between their work and home domains, they will experience lower levels of conflict if this is provided. Their study showed that individuals with lower segmentation preferences in high supply organizations had a somewhat lower work-home conflict. Moreover, the individuals that had a neutral attitude towards segmentation preferences proved to also have a perceived lower work-home conflict. As a result, it becomes harder to fulfill home demands as one will have to disregard these demands when work shows up in the private through work related emails or phone calls. Devices such as smartphones is thus linked to having more permeable boundaries between the domains (Derks et al., 2016).

By drawing on the cultural knowledge of Denmark it has been established that it is a feminine society where work-life balance, equality and having free time are highly valued (Hofstede et al., 2010). Therefore, it is likely that Danes lean towards segmentation. When looking at segmentation preferences in the context of COVID-19 according to Vaziri et al. (2020), individuals who are segmenters are anticipated to become disrupted by the sudden change of the telecommuting as the distance between domains are suddenly tightened and there is not a change for them to transition between roles. As a result, these individuals should experience more conflict. Contrastingly, individuals who are integrators are expected to be less disrupted by telecommuting as the distance between the domains becomes smaller and thus the

transition becomes easier. As a result, these individuals should experience the same amount or less conflict (Vaziri et al., 2020).

Existing literature by Kreiner (2006) has found that when dealing with the relationship between ICT use outside work hours and work-to-home conflict, with a moderating effect of integration preferences that ICT use outside of work hours is related to a higher work-to-home conflict. However, the opposite is also the case as individuals' preferences affects the direction of this relationship. For the individuals who prefer to have less transition between the domains and their roles the option of ICT provides them with flexibility and a different kind of control in that they can complete their work instead of having to stop by going home, and they obtain a balance that suit them where they can perform home tasks at work without conflict since they are performing work tasks at home (Gadeyne et al., 2018).

Derks et al. (2016) conducted a study in the Netherlands, a country that shares similar cultural values to Denmark (Hofstede Insights, 2021). The study was conducted with boundary theory as a theoretical background and investigated the role of segmentation preferences as a moderator between the relationship of work-related smartphone use during off work hours and work-family conflict. In their study they found that individuals who preferred lower segmentation to none had lower work-family conflict when using their smartphone for work-related purposes. Moreover, they argue that this was the case as the use of the smartphone increase flexibility and boundary control.

Additionally, their hypothesis that segmenters would experience more work-life conflict when using their smartphone for work during off hours was rejected. They argued that this was likely due to segmenters using boundary management strategies in a way that it would sustain the impermeable boundaries set up between the two domains. This was consistent with another research by Duxbury et al. (2014) that showed how segmenters actively limited their smartphone work use at home to clearly set their boundaries. However, that study was conducted in a time before COVID-19 and thus it is possible that a similar study in the context of the pandemic may yield different results.

Therefore, based on the prior literature and the boundary theory a high-level of segmentation preference should strengthen the effect of technostress on work-life conflict whereas a low-level of segmentation preference should be able to mitigate the effect of technostress on work-life conflict. Accordingly, the following hypothesis are proposed:

Hypothesis 2: The positive relationship between technostress and work-life conflict is aggravated by a higher level of segmentation preference.

Hypothesis 2(a): The positive relationship between techno-overload and work-life conflict is aggravated by a higher level of segmentation preference.

Hypothesis 2(b): The positive relationship between techno-invasion and work-life conflict is aggravated by a higher level of segmentation preference.

Moderating Effect of Coping Strategies Between Technostress and Work-life Conflict

The literature suggests that stress is formed by a process in which the demands surrounding the individual goes beyond what the individual can do. Thus, with this as a background, the literature further suggests that technostress occurs as a result of failing to adapt to a situation as they cannot cope with the demands stemming from ICTs (Hauk et al., 2019; Lazarus & Folkman, 1987; Ragu-Nathan et al., 2008; Tarafdar et al., 2007). Hence, according to Hauk et al. (2019) it is possible to build the notion of technostress on the concept of transactional theory of stress which proposes that the individual goes through the processes of primary appraisal, secondary appraisal, and coping. The first one deals with perceiving the threat, the second one figures out how to cope with the situation and the last one copes with the situation to the best of their capabilities (Lazarus & Folkman, 1987).

Building on this notion the transactional theory of stress states that implementing the proper coping strategies will help in avoiding or diminishing possible negative outcomes (Hauk et al., 2019), therefore a suitable coping strategy should be able to mitigate the negative effect of technostress on work-life conflict.

In accordance with the literature, individuals who utilize problem focused coping strategies should be able to better deal with and handle stress inducing situations (Bonneville-Roussy et al., 2017; Li et al., 2021). In the scope of problem focused coping there is also the viewpoint that the stressful situation can be seen as a challenge and thus a chance to improve oneself and thus these individuals have a more positive attitude (Drach-Zahavy & Somech, 2008). Moreover, Drach-Zahavy and Somech (2008) highlight that prior studies have found that problem-focused coping in the form of help-seeking and direct-action when used at the home domain resulted in lower family interference with work conflict. Thus, it can be expected

that these individuals should be able to deal with techno stressors more efficiently and positively and thus reduce the effect on work-life conflict.

Based on the findings by Litman (2006) the self-sufficient coping strategies of problem focused and socially supported strategies are more approach oriented in that they constructively manage the stress inducer by either removing, reducing, or shifting one's focus away from it. Hence these coping strategies should lean toward having a positive outcome and thus be able to alleviate the negative effect of technostress on work-life conflict (Carver et al. 1989). However, in the study by Litman (2006), socially supported coping strategy separates itself from problem focused as the variable has also showcased a correlation to avoidant and negative traits. Litman (2006) argues that this could be a result of when seeking social support, one has to relive the issues associated with the stressor.

Drach-Zahavy and Somech (2008) noted in their research that the act of coping with work-life conflicts is a hard issue to tackle for employees as not everyone is suited for practices such as telecommuting. Furthermore, the individual's pre-existing abilities is usually the ones that they will use to cope with the stressful situation caused by the two domains' demands. Consequently, this results in the individual not being able to use the coping strategies that is the most optimal fit for the given threat. Moreover, the overall effectiveness is also influenced by things such as personal factors, workplace characteristics and the societal context.

Additionally, Danish culture has a low uncertainty avoidance and therefore it is likely that they should be able to cope well with the sudden shift to telecommuting. Moreover, by tying it to transactional theory of stress it should depend on their pre-existing coping strategies and how well they can be used in the context of telecommuting during COVID-19. Nonetheless, even though there is a low uncertainty avoidance, Danes also have a normative society (Hofstede et al., 2010), and thus it is likely that they are uncomfortable with the societal changes brought by COVID-19. As a result, some might have a hard time coping with the idea of the possible long-term changes which could lead to the proposed coping strategies having little to no effect. Accordingly, the coping strategy should not only match the situation but also the individual using it.

Therefore, based on the prior literature using the appropriate coping strategies efficiently should be able to ameliorate the effect of technostress on work-life conflict. Accordingly, the following hypotheses are proposed:

Hypothesis 3: The positive relationship between technostress and work-life conflict is ameliorated by problem-focused coping strategies.

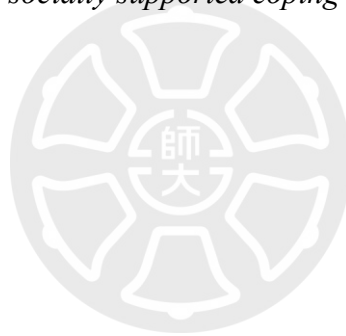
Hypothesis 3(a): The positive relationship between techno-overload and work-life conflict is ameliorated by problem-focused coping strategies.

Hypothesis 3(b): The positive relationship between techno-invasion and work-life conflict is ameliorated by problem-focused coping strategies.

Hypothesis 4: The positive relationship between technostress and work-life conflict is ameliorated by socially supported coping strategies.

Hypothesis 4(a): The positive relationship between techno-overload and work-life conflict is ameliorated by socially supported coping strategies.

Hypothesis 4(b): The positive relationship between techno-invasion and work-life conflict is ameliorated by socially supported coping strategies.



CHAPTER III METHODOLOGY

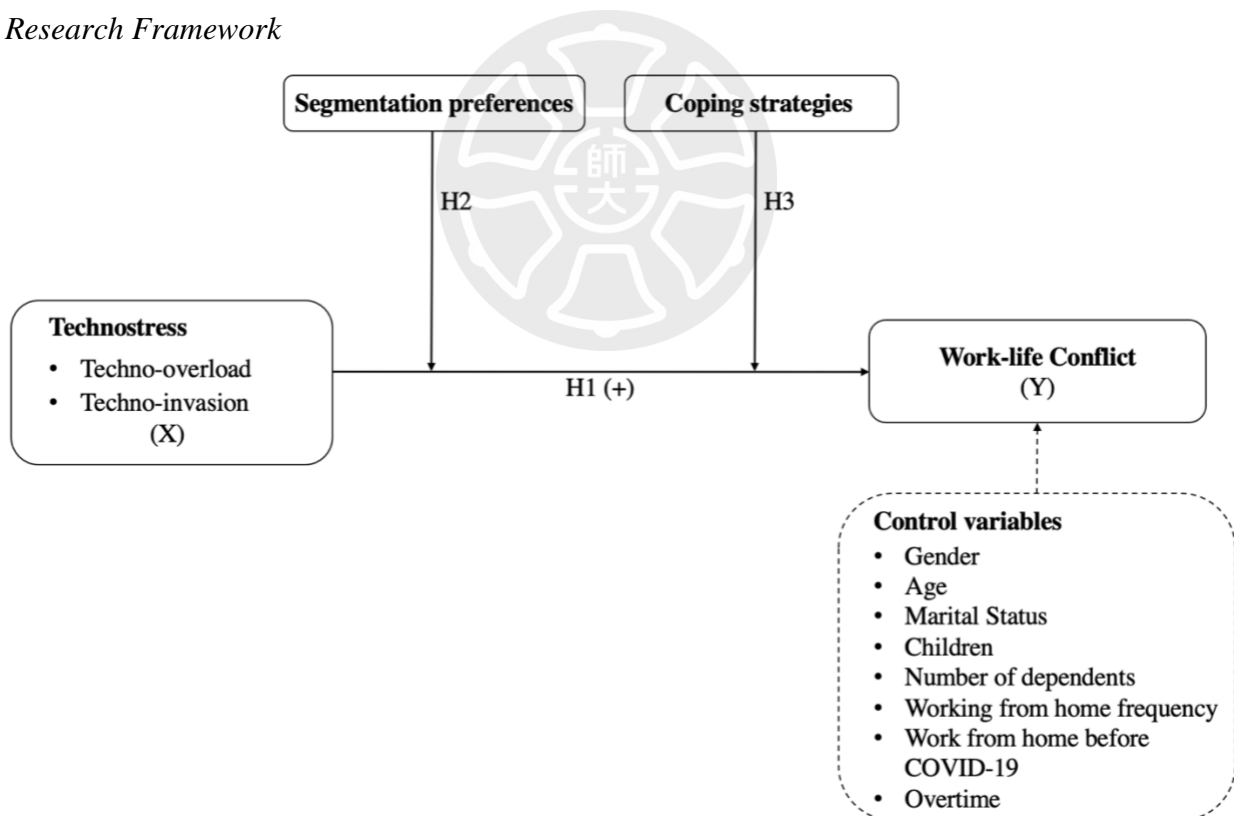
This chapter introduces and defines the methods and instruments used in conducting this study. The chapter furthermore includes the conceptual model of the research framework, procedure, design, sampling, data collection, measurement instruments, reliability and validity.

Research Framework

The research framework of this research study was developed based on the review of the literature and depicts the relationships between the variables used in this study. The framework consists of the independent variable's techno-overload and techno-invasion, the dependent variable work-life conflict and the moderating variables segmentation preferences and coping strategies that include problem-focused and socially supported coping strategy.

Figure 3.1

Research Framework



Note. Compiled by the researcher for the study. White boxes represent the focus of the study.

Research Hypotheses

Following the literature review, the hypotheses below were developed:

Hypothesis 1: There is a positive relationship between technostress and work-life conflict.

Hypothesis 1(a): There is a positive relationship between techno-overload and work-life conflict.

Hypothesis 1(b): There is a positive relationship between techno-invasion and work-life conflict.

Hypothesis 2: The positive relationship between technostress and work-life conflict is aggravated by a higher level of segmentation preference.

Hypothesis 2(a): The positive relationship between techno-overload and work-life conflict is aggravated by a higher level of segmentation preference.

Hypothesis 2(b): The positive relationship between techno-invasion and work-life conflict is aggravated by a higher level of segmentation preference.

Hypothesis 3: The positive relationship between technostress and work-life conflict is ameliorated by problem-focused coping strategies.

Hypothesis 3(a): The positive relationship between techno-overload and work-life conflict is ameliorated by problem-focused coping strategies.

Hypothesis 3(b): The positive relationship between techno-invasion and work-life conflict is ameliorated by problem-focused coping strategies.

Hypothesis 4: The positive relationship between technostress and work-life conflict is ameliorated by socially supported coping strategies.

Hypothesis 4(a): The positive relationship between techno-overload and work-life conflict is ameliorated by socially supported coping strategies.

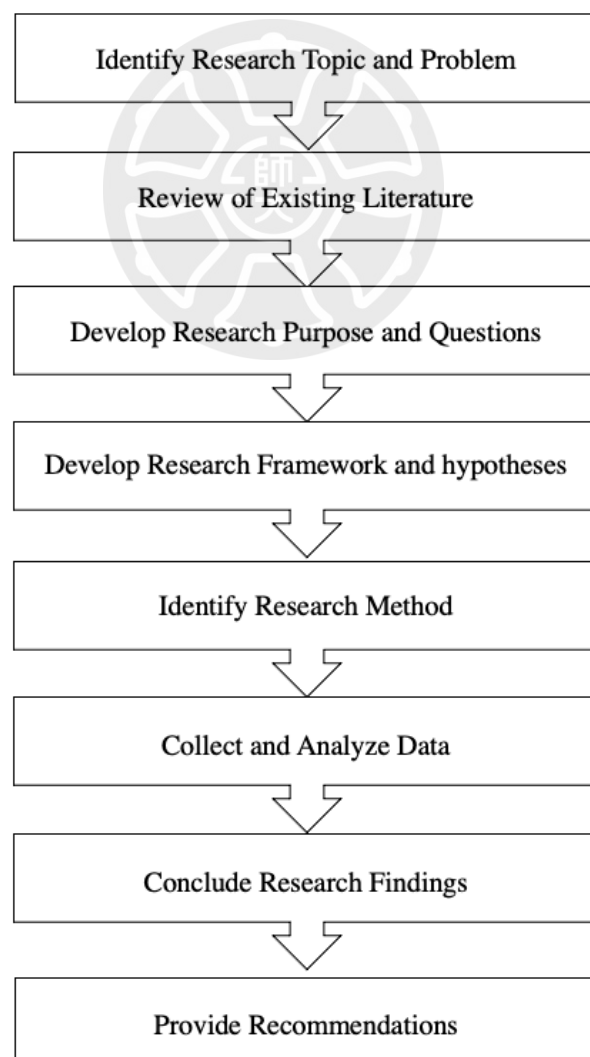
Hypothesis 4(b): The positive relationship between techno-invasion and work-life conflict is ameliorated by socially supported coping strategies.

Research Procedure

The following section gives a comprehensive account of the research procedure and thus the steps that was conducted by the researchers as shown by Figure 3.2. The first step in conducting this research was to identify the research topic and problem and then to review the exiting literature so as to develop the research purpose and questions. Based upon this the framework and hypotheses were developed to clarify and guide the study. Then, the research method was identified to decide which way to collect and analyze the data. Following that, the data were collected through survey questionnaire and analyzed in the IBM SPSS Statistics 23 statistical software program. Finally, the research findings were concluded, and recommendations were provided for future research.

Figure 3.2

Research Procedure



Research Design

The research design section intends to specify the overall design of the study. The method used in the study is quantitative research using survey questionnaire. The survey questionnaire functioned as a means to collect the data on the measures of technostress (e.g., techno-overload and techno-invasion), segmentation preferences and coping strategies, and work-life conflict. Afterwards, to establish the study's findings and conclusions statistical tools was used.

Sample and Data Collection

This study used a cross-sectional design method as the data was collected from workers across the population in Denmark during the time period of COVID-19. The participants examined in this study are employees from Denmark working in any industry. The sampling criteria was set to aim at selecting people who are currently telecommuting. Furthermore, based on the purpose of this study the participants would be able to participate in the survey if they use some kind of information and communication technologies such as computer, phone etc. as a part of their work or in a work context.

The online data collection was conducted in the time period from March 2021 to June 2021. The study employed three form of sampling method to collect the data. The first method used was convenience sampling method and it was done by posting the online survey to social media platforms, such as Facebook, Instagram and LinkedIn or sending it to acquaintances. The second method was purposive sampling and was done by researching which industries at that time had the most employees working at home during COVID-19. Afterwards, the researcher looked for companies in those industries and reached out to them for sending the survey to their employees. These two methods led to the last method of using snowball sampling as some of the respondents would share the online survey to their social media or forward it to people whom they knew fit the criteria. From the online survey a total of 40 pilot test responses and 221 main study responses were collected.

Questionnaire Design

In this study a quantitative research approach is used to measure the hypotheses. The researchers adopt a self-report survey questionnaire for the collection data. The questionnaire is divided into five parts, with the first part containing the relevant screening questions and the

three next parts containing measurement items of the variables and the last part containing the demographic questions.

To reach the intended sample profile the first section included the following developed screening questions: (1) Do you use your computer or phone for work? and (2) As a part of your job do you ever work from home?

The second section included the independent variable technostress which has two dimensions, techno-overload with five questions, and techno-invasion with four questions. The third section includes the moderator's segmentation preferences with four questions and coping strategies with 28 questions. The fourth section includes the dependent variable work-life conflict which includes five questions. The fifth section contains the demographic information questions which includes gender, age, marital status, whether the respondents have children, number of dependents, how frequently they use a computer or phone in order to do their work, how often they work from home, whether they telecommuted before COVID-19 and the amount they work overtime.

The questions have been adopted in English as the measurement scale pertaining these variables are limited for the intended sample profile. However, the questions were translated to Danish to avoid exclusion of individuals with lower English capabilities. The completed questionnaire contained two screening questions, 46 items and 11 demographic questions, and it was accompanied by a cover letter stating the confidentiality of the given information and the research purpose of the study.

Measurement

This research examines the relationships between technostress (e.g., techno-overload and techno-invasion), segmentation preferences and coping strategies, and work-life conflict. To operationalize the variables, the researcher determined a list of items that together created the variables from already existing literature. The following sections defines the chosen instruments of measurement that was either adopted or adapted to fit the scope of study.

Independent Variables: Technostress

To measure the existing technostress the two independent variables techno-overload and techno-invasion were selected with a total of nine items. The two variables were analyzed at the dimensional level.

Techno-overload was measured using the techno-overload scale (Tarafdar et al., 2007), which includes five items. The statements in the questionnaire enquired respondents to rate their level of how forced they feel by the technology they are required to use in their work. Sample items include “I am forced by this technology to do more work than I can handle” and “I am forced to change my work habits to adapt to new technologies”. Items are anchored by 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Regarding reliability, the original researchers reported a Cronbach Alpha of .89.

Techno-invasion was measured using the techno-invasion scale (Tarafdar et al., 2007), which includes four items. The statements in the questionnaire enquired the respondents to rate the level of invasion that technology used for work affects the respondent’s private lives. Sample items include “I have to be in touch with my work even during my vacation due to this technology” and “I feel my personal life is being invaded by this technology”. Items are anchored by 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Regarding reliability, the researchers that this scale is adopted from reported a Cronbach Alpha of .81.

Moderators: Segmentation Preferences and Coping Strategies

Segmentation preferences was measured using the segmentation preferences scale (Kreiner, 2006), which includes four items. The statements in the questionnaire enquire the respondents to rate the degree to which they prefer work and private life to stay separate. Samples include “I don’t like to have to think about work while I’m at home” and “I like to be able to leave work behind when I go home”.

The items are anchored by 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with four being *neutral*. For this scale higher scores indicated a stronger segmentation preference between the work and home domains, whereas lower scores indicated stronger integration preference. The researchers that this scale is adopted from reported a Cronbach Alpha of .91.

Coping strategies was measured using the Brief COPE scale (Carver, 1997), with a total of 28-item. A study by Litman (2006) further built on the scale by sorting the 28-items into four main-dimensions, with a total of fourteen sub-dimensions of two items each. The following shows the different dimensions followed by the Cronbach Alpha value from the study by Litman (2006). Problem-focused coping strategies includes active coping ($\alpha = .68$)

and planning ($\alpha = .73$). Emotion-focused coping strategies includes positive reframing ($\alpha = .64$), acceptance ($\alpha = .57$), humor ($\alpha = .73$) and religion ($\alpha = .82$). Socially supported coping strategies included the use of emotional support ($\alpha = .71$), instrumental support ($\alpha = .64$) and venting ($\alpha = .50$). Avoidant coping strategies included self-distraction ($\alpha = .71$), denial ($\alpha = .54$), substance use ($\alpha = .90$), behavioral disengagement ($\alpha = .65$) and self-blame ($\alpha = .69$).

The statements in the questionnaire enquired the respondents to self-report regarding different coping in response to a stressful situation. In the scope of this study, a higher score represents that the individual uses the coping strategies more efficiently. Samples include “I’ve been concentrating my efforts on doing something about the situation I’m in” and “I’ve been giving up trying to deal with it”. The items are anchored by 4-point scale, ranging from 1 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*).

Dependent Variable: Work-life Conflict

Work-life conflict was measured using the work-family conflict scale from Netemeyer et al. (1996), which includes five items. The statements in the questionnaire enquired the respondents to rate the level of inter-role conflict that arises due to job demands interference with the performance of personal duties. Samples include “The demands of my work interfere with my home and family life” and “My job produces strain that makes it difficult to fulfill family duties”. The items were anchored by 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The researchers that this scale is adopted from reported a Cronbach Alpha of .95.

Control Variables

Earlier research has shown that gender, marital status, having children and overtime influence the degree of work-life conflict (Siegel et al., 2005). Furthermore, these control variables have been used in existing literature on studies done in the context of COVID-19 (Vaziri et al., 2020). Thus, for a better understanding of the substantive relationship, these control variables were used.

Gender was in the study used as a dichotomous control variable and was coded as 0 for male and 1 for female. Age was measured in a range from 1 to 6 (20 years or younger = 1, 21-30 years = 2, 31-40 years = 3, 41-50 = 4, 51-60 years = 5 and 61 years or above = 6). Marital status was used as a control variable to determine work-life conflict between marital groups

and was dummy coded (Single/divorced = 0, Married/Co-habiting = 1). Children was measured by either yes or no (No = 0, Yes = 1). How many dependents each participant has was answered by writing the amount.

Further, frequency in hours a week the respondent is telecommuting was measured as an open-ended question and whether the respondent telecommuted before COVID-19 was dummy coded (No = 0, Yes = 1). Overtime was measured as an open-ended question by asking how much the respondents work overtime per week in hours.

Validity and Reliability

Validity and reliability tests were conducted to reflect the internal and external consistency of the measurement scales. This was showcased using a pilot test, Cronbach's Alpha validity tests, and confirmatory factor analysis (CFA).

Pilot Test

A pilot test of 40 responses was conducted to ensure that the research design was appropriate in regard to wording and understanding of the survey to ensure applicable responses. The pilot test was conducted to ensure the validity and reliability of the questionnaire before going forward with the official distribution. Moreover, the language of the original scales has been translated from English to Danish. Thus, this test is done to make sure that the language of the questionnaire is understandable and conveys the same meaning as the original questionnaire. The pilot test was conducted with the first 40 responses of the survey and the responses were not included in the final data collection.

The Cronbach Alpha values of data were analysed using IBM SPSS Statistics 23 statistical software program and can be seen in Table 3.1. The Cronbach Alpha value for Techno-Overload was .87, Techno-Invasion was .75, Segmentation Preferences was .90, Problem Focused Coping Strategy was .82, Emotion Focused Coping Strategy was .63, Socially Supported Coping Strategy was .90, Avoidant Coping Strategy .81 and Work-life Balance was .89. Amongst these variables Segmentation Preferences had excellent internal consistency. Techno Overload, Problem Focused Coping Strategy, Socially Supported Coping Strategy, Avoidant Coping Strategy and Work Life Conflict had good internal consistency. While Techno Invasion had acceptable internal consistency and Emotion Focused Coping Strategy had a questionable internal consistency.

Table 3.1*Cronbach Alpha of the Measurement in the Pilot Test Study*

Variables	α
Techno-overload	.87
Techno-invasion	.75
Segmentation Preferences	.90
Problem Focused Coping Strategy	.82
Emotion Focused Coping Strategy	.63
Socially Supported Coping Strategy	.90
Avoidant Coping Strategy	.81
Work-life Conflict	.89

*Note. N = 40.***Confirmatory Factor Analysis (CFA)**

Testing the construct validity of the measurement model and accompanying variables CFA was conducted using AMOS. This analysis was done ahead of hypothesis testing so as to establish the model fit of this study. The study established a seven-factor and five-factor model to test each model's fitness to the data. To evaluate the CFA model fit, the following statistical criteria was applied: Chi-squared divided by the degree of freedom (χ^2/df), root mean square error of approximation (RMSEA), standardized root mean square residual (RMR & SRMR), comparative fit index (CFI), Tucker-Lewis index (TLI), incremental fit index (IFI) and Parsimony Normed Fit Index (PNFI).

To determine whether the model showcased an acceptable model fit the following the statistical criteria for model fit had to be meet. For χ^2/df the values should be between 2.0-5.0 (Hooper et al., 2008), RMSEA should have a value below 0.08 to display a good fit (MacCallum et al., 1996), SRMR values should be below 0.05 for a well-fitting model and below 0.08 for an acceptable fitting model (Byrne, 2013; Hu & Bentler, 1999), CFI value should be greater than .90 (Hu & Bentler, 1999), TLI should have a value above 0.95 (Hooper et al., 2008), IFI should have a value greater than .90 (Hu & Bentler, 1999) and PNFI is considered a good fit if the value is above .50 (Mulaik et al., 1989)

Firstly, the researcher conducted CFA on the seven-factor model with technostress drawn as second order. The model consisted of 46 items, with nine items measuring

technostress with two dimensions, techno-overload with five items and techno-invasion with four items, four items measuring segmentation preferences, 28 items measuring coping strategies with four dimensions; Problem-focused with five items, emotion-focused with seven items, socially supported with four items and avoidant with 12 items, and five items measuring work-life conflict. These 46 items did not present an acceptable fit with the proposed model ($\chi^2 = 2101.46$; $df = 966$; $\chi^2/df = 2.17$; $RMSEA = .07$; $SRMR = .90$; $CFI = .77$; $TLI = .75$). The results of the model fit for the proposed seven-factor model can be seen in Table 3.3.

In order to improve the overall fit of the model and before making changes, the fit values and factor loadings were considered. Existing research has established that the factor loadings must be greater than .50 and desirably above .70 (Hair et al., 2006). Based on this information together with the results of the model a criterion for a factor loading greater than .60 is aimed for. Furthermore, the Master Validity plug-in for AMOS made by Gaskin (2016) was used to calculate the values for composite reliability (CR) and average variance extracted (AVE) in order to gain a better understanding of how to improve the model fit.

The items measuring the dimension emotion-focused presented low factor loadings that ranged from .18 to .76, and avoidant coping strategy presented low factor loadings that ranged from .14 to .72. Moreover, the validity analysis for these two dimensions also showed low values for the CR and AVE. Based on the factor loadings and validity concerns the dimensions emotion-focused and avoidant coping strategy were deleted. Based on this analysis an adjusted five-factor model with technostress drawn as second order were proposed. It consisted of 27 items, with nine items measuring technostress with two dimensions, techno-overload with five items and techno-invasion with four items, four items measuring segmentation preferences, 28 items measuring coping strategies in the form of four dimensions; problem-focused with five items and socially supported with four items, and five items measuring work-life conflict.

The goodness-of-fit indices of the five-factor model shown in Figure 3.3 provides an acceptable fit to the data and overall meets the threshold ($\chi^2 = 555.74$; $df = 312$; $\chi^2/df = 1.78$; $RMSEA = .06$; $SRMR = .07$; $CFI = .93$; $TLI = .92$). The values for χ^2/df , and TLI are slightly below the threshold but are still acceptable for the overall model fit. The factor loading for techno-overload ranged from .49 to .86, techno-invasion ranged from .61 to .75, segmentation preferences ranged from .77 to .83, problem focused coping strategy ranged from .66 to .81, socially supported coping strategy ranged from .77 to .89, and work-life conflict ranged from .75 to .93. The techno-overload scale Item 5 had a factor loading of only .49 however,

because the AVE and CR was within the appropriate values it was decided to keep the item. The CFA Model of the measurements can be seen in Figure 3.3.

Table 3.2

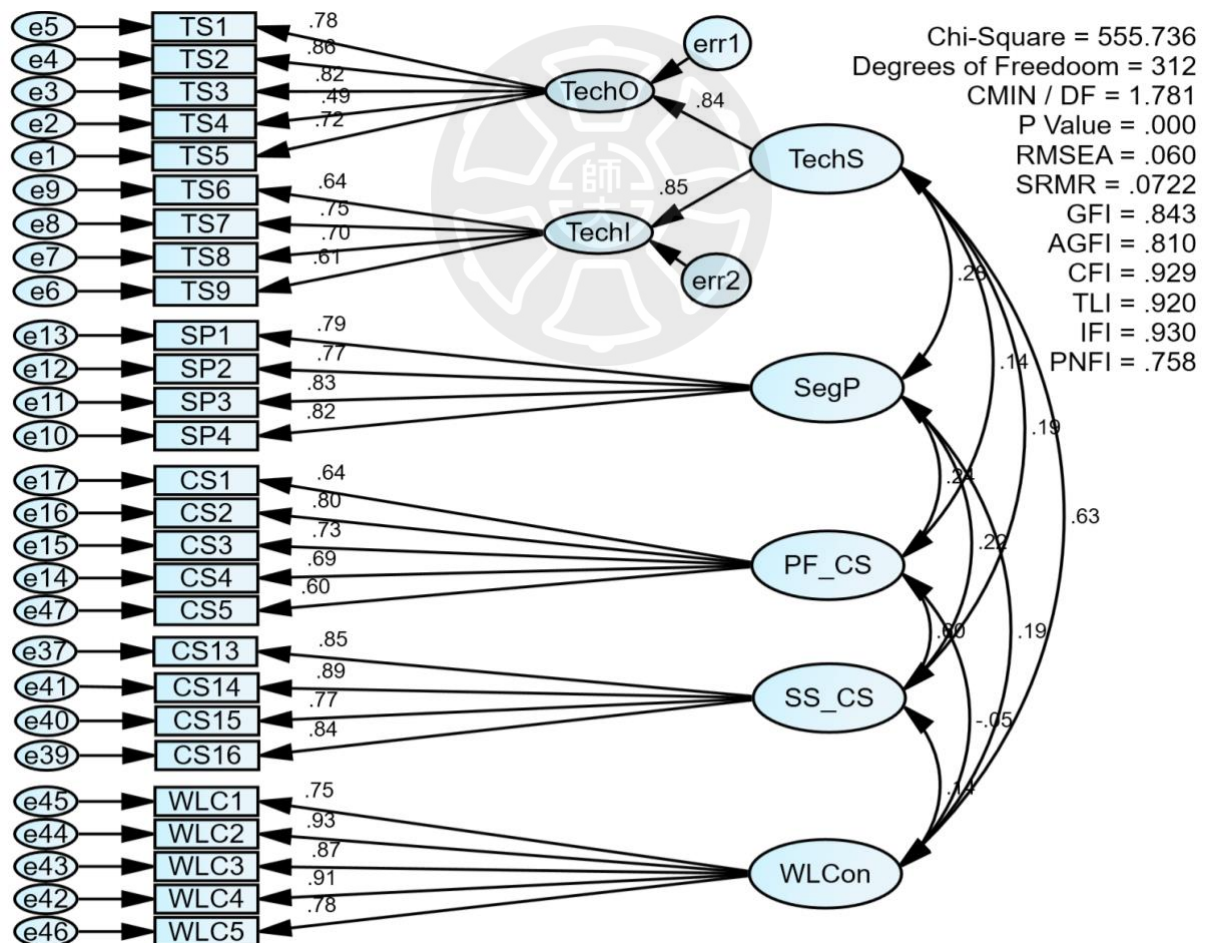
Confirmatory Factor Analysis of the Proposed Measurement Model

Model	χ^2	df	χ^2/df	RMSEA	SRMR	CFI	IFI	TLI
Threshold			2-5	<.08	<.08	>.90	>.90	>.95
Seven-factor model	2101.46	966	2.17	.07	.90	.77	.77	.75
Five-factor model	555.74	312	1.78	.06	.072	.93	.93	.92
Three-factor model	1182.36	319	3.71	.11	.121	.75	.75	.72
One-factor model	2194.26	322	6.81	.16	.207	.45	.46	.41

Note. N = 221.

Figure 3.3

CFA of Five-factor Measurement Model



Convergent Validity and Discriminant Validity

In order to gain further understanding of the fit of the items in the proposed model the construct validity was examined. By determining the construct validity, it was possible to examine if the observed variables measured what they were intended to measure. The construct validity was in this study examined by the process of establishing the convergent validity of the model. To establish these the study has used AMOS and the Master Validity plug-in for AMOS made by Gaskin (2016) to calculate the values for composite reliability (CR) and average variance extracted (AVE).

According to existing research, the value of CR should be above .70, and the value of AVE should be above .50 to claim that the study has a good and appropriate convergent validity (Hair et al., 2016).

In this study, the CR and AVE for the items in the dimensions emotional-focused coping strategy and avoidant coping strategy was below the criteria for having an appropriate convergent validity. Furthermore, as the items measuring emotional-focused coping strategy and avoidant coping strategy had a poor factor loading, the researcher decided to delete the two dimensions to achieve better CR, AVE, and overall better model fit.

Furthermore, in conducting the validity analysis it was further recommended that CS5, which is Item 5 measuring problem focused coping strategy, should be removed from the model as it had an AVE value below .50. However, existing literature has argued that AVE is frequently too strict, and that reliability thus can be drawn based on CR alone (Malhotra & Dash, 2011). Additionally, the value of the AVE for Item 5 is only slightly below .50 with a value of .49. Based upon this the researcher has decided to keep the item in the scale. The CR and AVE values for the five-factor model in the main study can be seen in Table 3.4.

Table 3.3*AVE and CR Values for Research Variables of Main Study*

Variable	No.	Error variance	Factor Loading	t Value	CR	AVE
Techno-overload	1	.61	0.78	35.11***	0.83	0.71
	2	.75	0.86	34.13***		
	3	.67	0.82	33.43***		
	4	.24	0.49	36.55***		
	5	.52	0.72	32.02***		
Techno-invasion	6	.42	0.64	30.78***	0.88	0.65
	7	.57	0.75	28.46***		
	8	.49	0.70	30.59***		
	9	.37	0.61	26.72***		
Variable	No.	Error variance	Factor Loading	t Value	CR	AVE
Segmentation Preferences	1	.63	0.79	28.49***	0.82	0.49
	2	.59	0.77	32.49***		
	3	.69	0.83	37.98***		
	4	.68	0.82	41.04***		
Variable	No.	Error variance	Factor Loading	t Value	CR	AVE
Problem Focused Coping Strategy	1	.41	0.66	32.60***	0.90	0.70
	2	.65	0.81	35.00***		
	3	.53	0.72	29.47***		
	4	.48	0.70	34.72***		
	5	.37	0.60			
Socially Supported Coping Strategy	13	.72	0.85	30.20***	0.93	0.72
	14	.79	0.89	28.27***		
	15	.59	0.77	28.74***		
	16	.70	0.84	28.36***		
Variable	No.	Error variance	Factor Loading	t Value	CR	AVE
Work-life Conflict	1	.57	0.75	28.40***	0.93	0.72
	2	.86	0.93	28.66***		
	3	.75	0.87	26.76***		
	4	.83	0.91	27.09***		
	5	.61	0.78	25.47***		

To further gain a greater understanding of the fit of the items in the proposed model the discriminant validity was also examined. This was done by reviewing the squared root of variable's AVE values. To achieve an appropriate value, the square root of AVE should be greater than inter-construct correlations (Fornell & Larcker, 1981). The square root values were also extracted by using AMOS and the master validity plug-in (Gaskin, 2016) to calculate the values. As shown in Table 3.4 the squared root of AVE for the variables, technostress (.84), segmentation preferences (.80), problem focused coping strategy (.70), socially supported coping strategy (.84) and work-life conflict were all greater than the inter-construct correlations (Fornell & Larcker, 1981).

Table 3.4

Values of Square Root of AVE

	1	2	3	4	5
Technostress	.84				
Segmentation Preferences	.28**	.80			
Problem Focused Coping Strategy	.14	.24**	.70		
Socially Supported Coping Strategy	.19*	.22**	.60***	.84	
Work-life Conflict	.63***	.20*	-.05	.14	.85

Note. Bolded numbers indicate values of square root AVE

Based on observations during the data collection, some respondents commented that they felt some parts of the questionnaire skewed towards being negative as they had enjoyed working from home during lockdown. In the literature, problem focused coping strategy actively deals with the stress inducer, and it has a positive approach (Bonneville-Roussy et al., 2017; Carver & Scheier, 1994; Li et al., 2021). Socially supported coping strategy can here be connected under problem focused coping strategy as it incorporates actively seeking advice of help from others (Carver, 1997; Carver & Scheier, 1994).

Whereas in contrast emotion-focused coping strategy deals with the emotional distress and less the problem itself (Carver et al., 1989). Moreover, in some literature it appears in the form of escapism or avoidance meaning that the individual does not have to face the possible emotional issues that can arise from the stress inducing situation (Li et al., 2021). Thus, Avoidant coping strategy can be connected under emotion-focused coping strategy.

Connecting this feedback together with the literature it is likely that problem-focused and socially supported coping appears to respondents more active in dealing with the problem in the way they function and thus has a more positive perceived approach. While the emotion-focused coping style and avoidant focused coping style appears to respondents to be more passive in dealing with the issues and thus has a more negative perceived approach in dealing with COVID-19. Based on this observation it is likely that these perceptions have affected the items' reliability of the scale's emotion-focused coping style and avoidant focused coping style and therefore the overall model fit.

Cronbach's Alpha Coefficient Test

To further test the reliability of the items in the scales it is useful to conduct the Cronbach's Alpha coefficient test on the main study and data sample of N, 262 participants. Prior research has established that an acceptable range for the Cronbach's Alpha is from 0.70 to 0.95 (Tavakol & Dennick, 2011). In Table 3.5 the Cronbach's Alpha of the variable's technostress ($\alpha = .88$), segmentation preferences ($\alpha = .89$), problem-focused coping strategies ($\alpha = .82$), socially supported coping strategy ($\alpha = .89$) and work-life conflict ($\alpha = .92$). All the variables of the main study have a Cronbach's Alpha above $\alpha = .70$, which means that the measurements are internally consistent (Tavakol & Dennick, 2011).

Table 3.5

Cronbach Alpha of the Measurement in the Main Study

Construct	Number of Items	α
Techno-overload	5	.84
Techno-invasion	4	.75
Segmentation Preferences	4	.88
Problem Focused Coping Strategy	4	.81
Socially Supported Coping Strategy	4	.90
Work-life Conflict	5	.92

Note. $N = 221$.

Data Analysis

To conduct the data analysis for this research, IBM SPSS Statistics 23 was used to test the relationship among the variables: technostress (e.g., techno-overload and techno-invasion), segmentation preferences, coping strategies (e.g., problem-focused, emotion-focused, socially

supported and avoidant), and work-life conflict. The following section showcases the tools that was adopted to assist in the analysis process which includes descriptive statistics, T-test, Pearson's correlation analysis, and regression analysis.

Descriptive Statistics

Descriptive statistics were utilized first to analyze the valid sample size and demographic information that was collected. It was used to analyze some of the elemental data and thus it created relevant result that was used in the study. Furthermore, the means and standard deviation of technostress (techno-overload and techno-invasion), segmentation preferences, coping strategies (problem-focused, emotion-focused, socially supported and avoidant) and work-life conflict was included for assessment.

Pearson's Correlation Analysis

Before testing the hypotheses, the researcher used Pearson's correlation analysis to determine the direct relationship between the variable's technostress (techno-overload and techno-invasion), segmentation preferences, coping strategies (problem-focused, emotion-focused, socially supported and avoidant), and work-life conflict so as to understand their strength and their direction. In this analysis method two variables are deemed to correlate if one induces a reaction in the other. Thus, by using this analysis method on our collected data the researcher was able to see if the relationship is existing and if it is negative or positive.

Hierarchical Regression Analysis

Hierarchical regression analysis was used for hypothesis testing between the X variable technostress and the Y variable work-life conflict, as well as the effect of the moderator's segmentation preferences and coping strategies (problem-focused, emotion-focused, socially supported and avoidant).

CHAPTER IV DATA ANALYSIS AND FINDINGS

The following chapter presents the analysis of the data and the findings of the study. Firstly, descriptive analysis was conducted using IBM SPSS Statistics 23 to show the overall distribution of the sample respondents' demographic information, it included gender, age, educational level, amongst other. Secondly, the data analysis utilizes Pearson's correlation analysis, T-test, and hierarchal analysis to obtain the findings.

Descriptive Analysis

The sample demographic profile used in the descriptive analysis consisted of data collected from 221 respondents working at home in Denmark during COVID-19. Out of the 221 respondents, 101 (47.7%) were male and 120 (54.3%) were female. In this study gender was dummy coded with 0 for male and 1 for female. Amongst the 221 respondents, there was no one 20 years or younger, 29 (13.1%) were 21-30 years old, 35 (15.8%) were 31-40 years old, 53 (24%) were 41-50 years old, 69 (31.2%) were 51-60 years old, and 35 (15.8%) were 61 years and above. The majority of respondents in this study belong to the age group of 41-60 years old.

Regarding educational level, the majority of respondents had completed a master's degree with a total of 88 (40.3%), followed by bachelor's degree or diploma degree with a total of 63 (28.5%), followed by vocational education 47 (21.3%), and then high school with a total of 10 (4.5%). Out of the 221 responses there was a total of 10 missing entries. Out of the 221 respondents 136 (61.5%) are married, 42 (19%) are cohabiting, 37 (16.7%) are single, and 6 (2.7%) are divorced. Furthermore, 167 (75.6%) of respondents have children and 54 (24.4%) do not have children.

The summary of the demographic information including frequencies and percentages can be seen in Table 4.1. Based on the descriptive analysis out of the 221 respondents a majority of people are 41-60 years old, have finished a master's degree, are married, and have children.

Table 4.1*Descriptive Analysis*

Variable	Items	Frequency	Percentage (%)	
Gender	Male	101	45.7	
	Female	120	54.3	
Age	20 years or younger	0	0.0	
	21-30 years	29	13.1	
	31-40 years	35	15.8	
	41-50 years	53	24.0	
	51-60 years	69	31.2	
	61 years or above	35	15.8	
Educational Level	High school	10	4.5	
	Vocational education	47	21.3	
	Bachelor's degree/ Diploma degree	63	28.5	
	Master's degree	88	39.8	
	Doctoral Degree	3	1.4	
	Total	211	95.5	
	Missing	10	4.5	
	Marital Status	Single	37	16.7
		Married	136	61.5
Cohabiting		42	19.0	
Divorced		6	2.7	
Children	Yes	167	75.6	
	No	54	24.4	

Note. $N = 221$.

In addition to examining the sample demographic profile, it can also be useful to look at the level of the main variables in the study and further conduct a demographic comparison. The results of analysis can be seen in Table 4.2. When looking at the means of all the main variables the means score for techno-overload ($\bar{x} = 2.28$) and techno-invasion ($\bar{x} = 1.83$) appear to be lower compared to the scale average ($\bar{x} = 2.50$). The means of techno-overload and techno-invasion appear slightly higher in males ($\bar{x} = 2.31/1.90$), individuals who are 61 and above ($\bar{x} = 2.35/2.00$) and in individuals who have only completed high school ($\bar{x} = 2.35/2.25$). The means of techno-overload and techno-invasion appear slightly lower in individuals aged 41-50 ($\bar{x} = 2.22/1.69$), individuals who have completed a vocational education ($\bar{x} = 2.17/1.72$) and individuals who are divorced ($\bar{x} = 2.13/1.63$). Besides these there does not seem to be any strong differences in the means of techno-overload and techno-invasion when comparing them among the demographic groups.

When looking at the mean score for segmentation preferences ($\bar{x} = 4.19$), it appears to be higher compared to the scale average ($\bar{x} = 3.5$). This mean score appears to be higher in younger individuals, with the age group of 21-30 reporting the highest mean ($\bar{x} = 5.53$). Furthermore, the mean score also appears highest in individuals who have finished high school ($\bar{x} = 4.98$), who are single ($\bar{x} = 4.88$) and who do not have children ($\bar{x} = 4.69$). Whereas it appears lowest in people above 61 ($\bar{x} = 3.26$), who has a doctoral degree ($\bar{x} = 3.30$) and people who have worked from home before COVID-19 ($\bar{x} = 3.77$).

When examining the mean score of the two coping strategies, problem focused ($\bar{x} = 2.19$) has a mean that is slightly higher than the scale average ($\bar{x} = 2.00$) and socially supported ($\bar{x} = 1.76$) has a mean that is slightly lower. When comparing the mean score among the demographic groups it appears higher in females ($\bar{x} = 2.26/1.93$), people in the age of 21-30 ($\bar{x} = 2.31/2.29$) and single people ($\bar{x} = 2.36/2.11$). However, it appears low in individuals who have completed a doctoral degree ($\bar{x} = 1.73/1.08$). Besides these there does not seem to be any strong differences in the means among groups.

The mean score for work-life conflict ($\bar{x} = 2.62$) has a mean score that is lower than the scale average ($\bar{x} = 3.5$). When comparing it among the demographic groups only individuals who have a doctoral degree ($\bar{x} = 3.47$) showcases a score that is higher than the scale average. Whereas the other means come close to the mean score for work-life conflict.

Table 4.2*Level of Main Variables*

Variable	TS_O	TS_I	SP	PF_CS	SS_CS	WLC
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	2.28 (.77)	1.83 (.72)	4.19 (1.53)	2.19 (.76)	1.76 (.80)	2.62 (1.25)
Gender						
Male	2.31 (.64)	1.90 (.68)	4.17 (1.39)	2.11 (.73)	1.55 (.62)	2.80 (1.19)
Female	2.25 (.87)	1.77 (.75)	4.21 (1.64)	2.26 (.76)	1.93 (.89)	2.46 (1.29)
Age						
21-30 years	2.29 (.83)	2.05 (.83)	5.53 (1.22)	2.31 (.73)	2.29 (.87)	2.82 (1.21)
31-40 years	2.30 (.87)	1.71 (.65)	4.40 (1.55)	2.24 (.82)	1.88 (.90)	2.87 (1.38)
41-50 years	2.22 (.74)	1.69 (.64)	4.02 (1.39)	2.25 (.71)	1.86 (.88)	2.57 (1.24)
51-60 years	2.27 (.82)	1.80 (.71)	4.13 (1.46)	2.16 (.58)	1.57 (.58)	2.46 (1.22)
61 years or above	2.35 (.73)	2.00 (.77)	3.26 (1.35)	2.01 (.83)	1.39 (.55)	2.57 (1.25)
Educational Level						
High school	2.38 (.74)	2.25(1.18)	4.98 (1.82)	2.04 (.62)	1.48 (.64)	2.49 (1.39)
Vocational education	2.17 (.73)	1.72 (.58)	4.22 (1.45)	1.99 (.68)	1.56 (.68)	2.32 (1.06)
Bachelor's degree/ Diploma degree	2.41 (.84)	1.89 (.70)	4.06 (1.58)	2.26 (.70)	1.82 (.77)	2.50 (1.15)
Master's degree	2.25 (.73)	1.79 (.70)	4.11 (1.49)	2.27 (.81)	1.89 (.86)	2.81 (1.29)
Doctoral Degree	2.20 (.60)	2.00 (90)	3.50 (2.29)	1.73 (1.27)	1.08 (.12)	3.47 (1.50)
Marital Status						
Single	2.36 (.76)	1.95 (.69)	4.88 (1.70)	2.36 (.82)	2.11 (.94)	2.72 (1.27)
Married	2.29 (.80)	1.81 (.71)	3.97 (1.44)	2.16 (.75)	1.68 (.76)	2.59 (1.25)
Cohabiting	2.16 (.74)	1.82 (.75)	4.30 (1.58)	2.12 (.76)	1.70 (.74)	2.63 (1.29)
Divorced	2.13 (.72)	1.63 (.83)	4.42 (.77)	2.30 (.33)	1.67 (.34)	2.40 (1.20)
Children						
Yes	2.25 (.80)	1.79 (.72)	4.03 (1.46)	2.18 (.75)	1.63 (.73)	2.58 (1.13)
No	2.28 (.77)	1.95 (.70)	4.69 (1.64)	2.23 (.79)	2.13 (.88)	2.72 (1.13)
WFH before COVID						
Yes	2.24 (.73)	1.84 (.73)	3.77 (1.40)	2.27 (.77)	1.72 (.73)	2.68 (1.23)
No	2.28 (.81)	1.83 (.71)	4.19 (1.56)	2.19 (.74)	1.76 (.85)	2.62 (1.27)

Note. S.D. = Standard deviation, WFH = Work from home, TS_O = Techno-overload, TS_I = Techno-invasion, SP = Segmentation preferences, PF_CS = Problem focused coping strategy, SS_CS = Socially supported coping strategy, WLC = Work-life conflict

Pearson's Correlation Analysis

Pearson's correlation analysis was conducted to gain a better understanding of the relationship between the main variables and essential control variables. Table 4.3 presents the means, standard deviations, and correlations amongst gender, children, use of tech for work, work from home, work from home before COVID-19, overtime, techno-overload, techno-invasion, segmentation preferences, problem focused coping strategy, socially supported coping strategy and work-life conflict.

In accordance with the results, most of the main variables are significantly correlated to each other. Techno-overload shows a strong positive and significant correlation to all the main variables: techno-invasion ($r = .60, p < .01$), segmentation preferences ($r = .24, p < .01$), problem focused coping strategy ($r = .25, p < .01$), socially supported coping strategy ($r = .25, p < .01$), and work-life conflict ($r = .45, p < .01$). Furthermore, techno-invasion shows a positive and significant correlation to segmentation preferences ($r = .16, p < .05$) and a strong positive and significant correlation to work-life conflict ($r = .51, p < .01$).

Segmentation preferences shows a strong positive and significant correlation to problem focused coping strategy ($r = .20, p < .01$), socially supported coping strategy ($r = .18, p < .01$), and work-life conflict ($r = .20, p < .01$). Problem focused coping strategy shows a strong positive and significant correlation to socially supported coping strategy ($r = .52, p < .01$).

The following section goes over the correlation between essential control variables and main variables of the study. Gender has a strong positive and significant correlation to socially supported coping strategy ($r = .24, p < .01$) and a negative and significant correlation to work-life conflict ($r = -.13, p < .05$). Age has a strong negative and significant correlation to segmentation preferences ($r = -.36, p < .01$) and socially supported coping strategy ($r = -.33, p < .01$).

Having children has a positive and significant correlation to segmentation preferences ($r = -.19, p < .01$) and socially supported coping strategy ($r = -.27, p < .01$). Marital status has a negative and significant correlation to segmentation preferences ($r = -.20, p < .05$) and socially supported coping strategy ($r = -.18, p < .01$).

Work from home frequency refers to how frequently in terms of hours a person works from home during COVID-19. Work from home frequency has a negative and significant correlation to segmentation preferences ($r = -.17, p < .01$). Work from home before COVID has a strong positive and significant correlation to segmentation preferences ($r = .25, p < .01$). Overtime has a positive and significant correlation to techno-overload ($r = .20, p < .01$), techno-invasion ($r = .27, p < .01$) and work-life conflict ($r = .19, p < .01$).



Table 4.3*Means, Standard Deviations and Correlations for the Study Variables*

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Gender	.54	.50													
2 Age	4.21	1.26	-.15*												
3 Children	.76	.43	-.08	.51**											
4 Marital Status	.81	.40	-.06	.23**	.39**										
5 WFH Freq.	25.09	13.42	.05	.07	.04	.14*									
6 WFH Before COVID	.44	.50	.12	-.18**	-.21**	-.07	-.17*								
7 Overtime	3.68	5.24	-.11	.20**	.11	.08	.08	-.13*							
8 TS_O	2.28	.77	-.04	.01	-.07	-.03	.03	.04	.20**	(.84)					
9 TS_I	1.83	.72	-.09	.01	-.10	-.05	-.05	-.02	.27**	.60**	(.75)				
10 SP	4.19	1.53	.01	-.36**	-.19**	-.20**	-.17*	.25**	-.10	.24**	.16*	(.88)			
11 PF_CS	2.19	.76	.09	-.11	-.03	-.10	.03	-.10	.04	.25**	-.03	.20**	(.81)		
12 SS_CS	1.76	.80	.24**	-.33**	-.27**	-.18**	.07	.04	.06	.25**	.03	.18**	.52**	(.90)	
13 WLC	2.62	1.25	-.13*	-.10	-.05	-.02	-.05	-.05	.19**	.45**	.51**	.20**	-.04	.13	(.92)

Note. $N = 221$. SD = Standard deviation, WFH = Work from home, TS_O = Techno-overload, TS_I = Techno-invasion, SP = Segmentation Preferences, PF_CS = Problem Focused Coping Strategy, SS_CS = Socially Supported Coping Strategy, WLC = Work-life Conflict, Gender (male = 0, female = 1), Children (No = 0, Yes = 1), Marital Status (Single/divorced = 0, Married / Co-habiting = 1), WFH before COVID (No = 0, Yes = 1).

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

Hierarchical Regression

For this research, hierarchical regression was conducted using IBM SPSS Statistics 23 to examine the main relationship in the study of technostress (techno-overload and techno-invasion) and work-life conflict, and additionally to test the moderating effect of segmentation preferences and coping strategies (problem-focused and socially supported). Based on this examination it was found out whether the proposed hypothesis was supported or rejected. The results of the hypothesis testing can be seen in Table 4.6.

Firstly, to test Hypothesis 1, all control variables were first entered into the hierarchical regression, followed by technostress (techno-overload and techno-invasion), with work-life conflict as the dependent variable. Secondly, to test the following hypothesis and moderating effects all control variables were first entered into the hierarchical regression, followed by either techno-overload or techno-invasion and then one of the moderating variables (segmentation preferences or coping strategies) together with the fitting interaction term, with work-life conflict as the dependent variable.

The results of the correlation analysis seen in Table 4.3, shows that there was a positive and significant correlation between techno-overload and work-life conflict ($r = .44, p < .01$) and between techno-invasion and work-life conflict ($r = .51, p < .01$). Furthermore, the hierarchical regression analysis for Hypothesis 1 can be seen in consequently Table 4.4 and Table 4.5. Table 4.4 Model 2 indicates that techno-overload had a positive and strong significant influence on work-life conflict ($\beta = .45, p < .001$). Additionally, Table 4.5 Model 2 indicates that techno-invasion also has a positive and strong significant influence on work-life conflict ($\beta = .49, p < .001$). According to the results of the correlation analysis and the hierarchical regression analysis, Hypothesis 1 is supported.

In order to test the Hypothesis 2, the researcher examined the moderating effect of segmentation preferences on the relationship between technostress (techno-overload and techno-invasion) and work-life conflict. Based on the correlation analysis and Table 4.3 segmentation preferences is significantly correlated to techno-overload ($r = .24, p < .01$), techno-invasion ($r = .16, p < .05$) and work-life conflict ($r = .20, p < .01$).

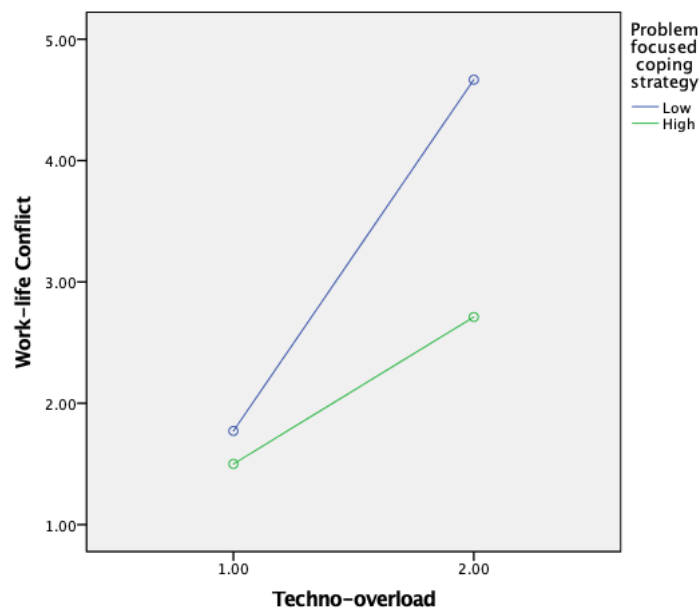
In order for there to be a positive moderating effect, the interaction effect of segmentation preferences must be positive and thus strengthen the main relationship. After conducting the hierarchical regression, the results can be seen in Table 4.4 and Table 4.5 Model

3 which indicates an insignificant interaction between segmentation preferences and techno-overload on work-life conflict ($\beta = .02, n.s.$) and between segmentation preferences and techno-invasion on work-life conflict ($\beta = -.03, n.s.$). Thus, Hypothesis 2 is rejected.

For Hypothesis 3(a), the researcher examined the moderating effect of problem focused coping strategy on the relationship between techno-overload and work-life conflict. Based on the correlation analysis seen in Table 4.3 problem focused coping strategy is significantly correlated to techno-overload ($r = .25, p < .01$). The results in Table 4.4 Model 4 demonstrates that there is a significant and negative interaction between problem focused coping strategy and techno-overload on work-life conflict ($\beta = -.19, p < .01$). In order to better visualize the interactive effect of the moderator, an interaction plot was used. In the figure plotted, there are two regression lines, one derived from one standard deviation above the mean and the other one standard deviation below the mean of the moderator (Aiken et al., 1991). As showcased in Figure 4.1, the relationship between techno-overload and work-life conflict was weakened when there was a high use of problem focused coping strategy. Thus, Hypothesis 3(a) is supported.

Figure 4.1

Moderation Effect of Problem Focused Coping Strategy on Techno-overload and Work-life Conflict



For Hypothesis 3(b), the researcher examined the moderating effect of problem focused coping strategy on the relationship between techno-invasion and work-life conflict. Based on the correlation analysis seen in Table 4.3 problem focused coping strategy is not significantly correlated to techno-invasion ($r = -.03, n.s.$) or work-life conflict ($r = .13, n.s.$). The results in Table 4.5 Model 4 demonstrates that there is not a significant interaction between problem focused coping strategy and techno-invasion on work-life conflict ($\beta = -.04, n.s.$). Thus, Hypothesis 3(b) is rejected.

For Hypothesis 4(a), the researcher examined the moderating effect of socially supported coping strategy on the relationship between techno-overload and work-life conflict. Based on the correlation analysis seen in Table 4.3, socially supported coping strategy is significantly correlated to techno-overload ($r = .25, p < .01$). The results in Table 4.4 Model 5 demonstrates that there is no significant interaction between socially supported coping strategy and techno-overload on work-life conflict ($\beta = -.05, n.s.$). Thus, Hypothesis 4(a) is rejected.

For Hypothesis 4(b), the researcher examined the moderating effect of socially supported coping strategy on the relationship between techno-invasion and work-life conflict. Based on the correlation analysis seen in Table 4.3, socially supported coping strategy is not significantly correlated to techno-invasion ($r = .03, n.s.$) and work-life conflict ($r = .13, n.s.$). The results in Table 4.5 Model 5 demonstrates that there is no significant interaction between socially supported coping strategy and techno-invasion on work-life conflict ($\beta = .03, n.s.$). Thus, Hypothesis 4(b) is rejected.

Table 4.4*The Relationship between Techno-Overload and Work-Life Conflict*

	Work-life Conflict				
	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Control Variables</i>					
Gender	-.12	-.11	-.10	-.07	-.10
Age	-.14	-.17*	-.14	-.21**	-.17*
Children	-.05	.00	-.01	.01	.00
Marital Status	-.02	-.01	.01	-.02	-.01
Dependents	.08	.06	.06	.06	.07
WFH Frequency	-.06	-.07	-.06	-.07	-.07
WFH Before COVID-19	-.06	-.08	-.10	-.12*	-.08
Overtime	.18**	.08	.09	.10	.09
<i>Main Effect</i>					
Techno-overload (TO)		.44***	.42***	.51***	.45***
Segmentation Preferences (SP)			.10		
Problem Focused Coping Strategy (PFCS)				-.17**	
Socially Supported Coping Strategy (SSCS)					.01
<i>Interaction Effect</i>					
TOxSP			.02		
TOxPFCS				-.19**	
TOxSSCS					-.05
<i>F</i>	2.40**	10.13***	8.5	9.12***	6.96
<i>R</i> ²	.08	.27	.28	.33	.27
<i>Adj. R</i> ²	.05	.24	.24	.29	.23
ΔR^2	.08	.18	.01	.06	.00
ΔF	2.40**	52.39***	.98	9.04***	.36
<i>n</i>	221	221	221	221	221

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.5*The Relationship between Techno-invasion and Work-life Conflict*

	Work-life Conflict				
	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Control Variables</i>					
Gender	-.12	-.09	-.08	-.08	-.11
Age	-.14	-.16	-.13*	-.18*	-.13
Children	-.05	.03	.03	.04	.04
Marital Status	-.02	-.01	.01	-.01	.01
Dependents	.08	.06	.05	.05	.06
WFH Frequency	-.06	-.03	-.02	-.03	-.05
WFH Before COVID-19	-.06	-.05	-.07	-.05	-.04
Overtime	.18**	.04	.04	.04	.02
<i>Main Effect</i>					
Techno-invasion (TI)		.49***	.47***	.50***	.50***
Segmentation Preferences (SP)			.12		
Problem Focused Coping Strategy (PFCS)				-.03	
Socially Supported Coping Strategy (SSCS)					.14*
<i>Interaction Effect</i>					
TIxSP			-.03		
TIxPFCS				-.04	
TIxSSCS					.03
<i>F</i>	2.40**	9.92***	8.51	8.12	8.50
<i>R</i> ²	.08	.30	.31	.30	.31
<i>Adj. R</i> ²	.05	.27	.28	.27	.28
ΔR^2	.08	.22	.01	.00	.02
ΔF	2.40**	64.30***	1.79	.32	2.26
<i>n</i>	221	221	221	221	221

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.6*Results of Hypothesis Testing*

Hypothesis	Result
H1 There is a positive relationship between technostress and work-life conflict.	Supported
H1(a) There is a positive relationship between techno-overload and work-life conflict.	Supported
H1(b) There is a positive relationship between techno-invasion and work-life conflict.	Supported
H2 The positive relationship between technostress and work-life conflict is aggravated by a higher level of segmentation preference.	Rejected
H2(a) The positive relationship between techno-overload and work-life conflict is aggravated by a higher level of segmentation preference.	Rejected
H2(b) The positive relationship between techno-invasion and work-life conflict is aggravated by a higher level of segmentation preference.	Rejected
H3 The positive relationship between technostress and work-life conflict is ameliorated by problem-focused coping strategies.	Partially Supported
H3(a) The positive relationship between techno-overload and work-life conflict is ameliorated by problem-focused coping strategies.	Supported
H3(b) The positive relationship between techno-invasion and work-life conflict is ameliorated by problem-focused coping strategies.	Rejected
H4 The positive relationship between technostress and work-life conflict is ameliorated by socially supported coping strategies.	Rejected
H4(a) The positive relationship between techno-overload and work-life conflict is ameliorated by socially supported coping strategies.	Rejected
H4(b) The positive relationship between techno-invasion and work-life conflict is ameliorated by socially supported coping strategies.	Rejected



CHAPTER V CONCLUSION AND DISCUSSION

The following chapter is written in order to draw conclusions of the research and to discuss the results of the research findings by putting them in contrast to the literature, theoretical and practical implications, limitations, and suggestions for future research.

Conclusion

This research aimed to uncover whether technostress caused an increase in work-life conflict and whether this was affected by segmentation preferences and coping strategies. Based on the quantitative analysis of Danish employee's experience in a context of COVID-19, it can be concluded that technostress does cause an increase in work-life conflict. However, the descriptive results appear to show that Danes experience a lower degree of perceived technostress compared to the scale average. Furthermore, it appears that Danes have a high level of segmentation preferences and thus lean towards segmentation. However, based on the statistical analysis segmentation preferences did not have a moderating effect on the relationship between technostress and work-life conflict. When looking at the descriptive results it appears that Danish employees utilize problem focused coping strategy on a higher level than socially supported coping strategy. Additionally, it can be concluded that only problem focused coping strategy had a moderating effect on techno-overload.

Discussion

The aim of this research study was to examine the impact of the two techno stressors, techno-overload, and techno-invasion in the form of ICT's use for work in a setting of telecommuting on the interface of work-life conflict. Furthermore, it aimed to highlight the moderating effect of segmentation preferences and coping strategies in the form of problem-focused and socially supported coping strategies as these factors are likely to affect the degree to which the individual handles techno stressors. Based on existing literature it was predicated that the dimensions of techno-overload and techno-invasion contribute to the experience of work-life conflict. The results suggested that, after controlling for gender, age, children, marital status, dependents, work from home frequency, work from home before COVID-19 and overtime, both techno-overload and techno-invasion were positively and significantly related to work-life conflict.

As predicted, ICT use while telecommuting cause technostress in individual's resulting in work-life conflict as it is difficult to set up clear boundaries between the home and the work domains (Ayyagari et al., 2011; Vaziri et al., 2020). This is the case as the tasks the individual has to do in one domain competes with the other for the limited time available (Leung & Zhang, 2017). Additionally, based on the findings the dimensions of techno-overload and techno-invasion have in the context of telecommuting the potential to spill over from one domain into the other. This is caused by the individual having a harder time to successfully focus on tasks in one of the domains and thus when they must decide where to allocate their resources it creates conflict between the two domains (Tams et al., 2020).

Moreover, considering Danish culture (Hofstede et al., 2010) it could be that having an egalitarian viewpoint in the Danish companies has led the management to believe that employees could handle the stressors associated with telecommuting by themselves. Furthermore, the results also show that because Denmark is an indulgent society (Hofstede et al., 2010). This means that Danish employees have likely had a hard time efficiently allocating their time appropriately and thus it has contributed to the increased work-life conflict caused by technostress.

Based on the data analysis it was established that Danes lean towards being segmenters which are in accordance with the existing literature. However, the results showed that segmentation preferences do not have a moderating effect on the relationship between technostress and work-life conflict. This outcome was unexpected as the majority of existing literature showcases that segmentation preferences has a significant relation to work-life balance outcomes (Derks et al., 2016; Kreiner, 2006; Vaziri et al., 2020). However, by drawing on the societal context of the study the outcome can be a result of the circumstances of COVID-19. This outcome is consistent with a study by Lapierre et al., (2016), examining boundary management strategies as a moderation effect between forced telework and work-family conflict. In their research the authors did not find a moderating effect and argued that whether the individual leans towards integration or segmentation it might not accurately represent the individual's skills towards not experiencing work-family conflict in the circumstances of forced telework.

Additionally, when looking at boundary preferences the individual may experience work-family conflict when their preference do not match their actual situation provided by their employer (Liu et al., 2013). Furthermore, by placing it in the context of COVID-19 where the

employees are not able to be accommodated according to preferences not because of their employer but the social context it might not have the same effect as in a pre-pandemic context. Moreover, when the individual is in a situation where they are forced to telecommute, they might be able to adapt regardless of their segmentation preference. Therefore, the forced aspect of telecommuting due to COVID-19 may explain the non-significant results in our study (Kerman et al., 2021).

In order to gain a better understanding of the results it can be useful to further look at the statistical analysis. When conducting the regression analysis, the results showed that segmentation preferences are strongly correlated to both technostress (e.g., techno-overload and techno-invasion) and work-life conflict. However, it did not have a significant effect on the main relationship. This could possibly be caused by the main effect between technostress and work-life conflict being too strongly related. Because of this, it is likely that the moderator has less of an effect in creating any change, even though it correlates to the main variables. This can further be tied to the context of COVID-19 as the pandemic has caused high levels of technostress which has resulted in heightened work-life conflict. Consequently, this effect has been so universal that a personal trait such as segmentation preferences barely causes a change in that relationship. Additionally, the correlation analysis indicates that segmentation preference has a strong positive association with work-life conflict which is in accordance with existing literature.

This argument is further supported by the study conducted by Derks et al. (2016). The study was conducted in the Netherlands which shares similar cultural values to Denmark (Hofstede Insights, 2021) and in a time before the COVID-19 pandemic. The study found that the role of segmentation preferences was significant between work-related smartphone use during off work hours and work-family conflict. Thus, it is likely that segmentation preferences could also be significant in this study if it had been conducted in Denmark ahead of the pandemic.

Drawing on the transactional theory of stress the research study examined the role of coping strategies. Based on the results of the analysis it was established that problem focused coping strategy can in some individuals decrease the work-life conflict caused by techno-overload if the coping strategy is utilized correctly. Derived from the literature by Drach-Zahavy and Somech (2008) work-life conflict can be difficult to cope with in the context of telecommuting as not everyone is equally suited for it. Additionally, as it is a new situation the

individuals will use their pre-existing coping strategies to handle the situation. Based on this the reason that the use of problem-focused strategy ameliorating the work-life conflict is caused by this coping strategy being an optimal fit for the given threat in the case of some individuals. This showcases that problem focused coping strategy is optimal in the given situation of Danish employees telecommuting.

The data analysis showed that problem-focused coping did not have an effect in the experienced work-life conflict caused by techno-invasion and that socially supported coping strategy did not show an effect caused by techno-overload and techno-invasion. By drawing on the transactional theory the reason for this could be that during secondary appraisal the individual has evaluated that problem-focused or socially supported coping strategy is not appropriate to deal with the given threat (Drach-Zahavy & Somech, 2008; Hauk et al., 2019). Moreover, based on the theory during the secondary appraisal the individual decides if the threat can be dealt with based on their capabilities (Lazarus & Folkman, 1987).

This appraisal outcome could thus be caused by either the notion that a part of the reason Danes experience heightened work-life conflict is that they do not possess an existing experience in coping strategies that they can apply to the given situation and context of COVID-19. Thus, they are not knowledgeable on how to handle the given threat (Lazarus & Folkman, 1987). In the case of socially supported coping strategy, another possible reason is the notion that this coping strategy incorporates negative and avoidant traits (Litman, 2006), and thus during the secondary appraisal the individual may have deemed this coping response is not healthy in the given situation. This notion is further supported by the level of main variables' mean score showing that the adoption of problem focused coping strategy has a higher mean score than that of socially supported coping strategy.

Theoretical Implications

The present study was conducted to contribute to the existing literature and theory by firstly examining the relationship between technostress and work-life conflict and secondly the effect of segmentation preferences and coping strategies in the context of telecommuting during COVID-19.

Among the main findings of the research study, results indicated a positive association between the techno stressors, techno-overload and techno-invasion, and work-life conflict, establishing the need to tackle the growing use of ICTs for work purposes and the negative

outcomes. Additionally, the research showcases telecommuting to be connected to technostress creators. Thus, implicating that existing theory on technostress regarding the dimension's techno-overload and techno-invasion are still applicable in the context of telecommuting during COVID-19. Furthermore, it has been established that the theory is especially useful when examining the individual experience with ICT use when telecommuting. The research presented furthermore verified that the theory on technostress is maintained in the Danish population and in a population that already has a pre-existing well-established work-life balance.

The study additionally showed that common ways of coping with stressful events or situations did not have an apparent influence on how well individuals handled the stressors in a COVID-19 context. The coping strategies measurement scale had items that incorporated topics such as seeking guidance from the individual's social circles, focusing on their attitude, and avoiding the stressor amongst others (Carver, 1997; Litman, 2006). Therefore, it can be useful to approach this from the view of telecommuting and the context of COVID-19. When working from home during the pandemic individuals do not have the same access to their social circles therefore it is likely harder and it may not be as efficient to seek comfort and guidance in how to cope with the situation. Furthermore, as telecommuting and the pandemic requires the individual to spend a substantial amount of time at home in front of a technical device it might be more efficient to include coping mechanisms that engages in online activity and hobbies amongst others. Moreover, as the pandemic is a widespread issue it might not be possible at all to avoid the issues that comes as a result.

Practical Implications

The finding of this study indicates that Danish employees that have been unable to adjust to the sudden surge in ICT use during telecommuting resulting in technostress has indeed experienced an increase in their perceived work-life conflict. This shows that it is important for employers to clearly communicate with their employees in helping them set up clear boundaries at home (Tarafdar et al., 2007). Furthermore, it could be useful to establish guidelines for when it is appropriate to send emails and request to employees and colleagues, so they do not feel forced to always respond and be available. This could help in limiting the amount of spill-over in the home domain (Tams et al., 2020; Vaziri et al., 2020).

The study showed that the Danish respondents do have a somewhat uniform preference that leans towards segmentation. However, it did not affect their work-life conflict caused by technology in the context of COVID-19. Moreover, it showed that not all coping strategies work equally and this further emphasizes the notion that individuals are different in their needs and thus companies need to focus on communication with their employees in gaining a better understanding of their needs. To ensure that Danish employees can better cope with the stressors from telecommuting during COVID-19 it is advised that appropriate training sessions and resources are established.

Based on the results of the study and the acquired societal knowledge, the following suggestions are proposed. From the data analysis, Danes are more likely to use problem focused coping strategies. Therefore, to establish appropriate training sessions and resources, it is useful to keep in mind that they should be able to help reduce the stressors to have the best effects. Furthermore, As Danes have a short-term focus, conducting surveys regularly that enquires about the challenges and needs of employees during these times will quickly highlight which employees should be assisted with online training, workshops, and possible coaching sessions. Here companies can utilize existing training programs such as communication skills and modify them to fit the circumstances of telecommuting. Furthermore, as Danes have a low hierarchy structure, they may greatly benefit from having planned sessions or meetings where employees can openly share how to effectively telecommute, such as what challenges they have faced and how they were able to overcome them.

Additionally, based on the study conducted in Norway by Sandbakken et al. (2021), it was found that the respondents in their interview used problem focused coping strategy to deal with the changes. Their study highlighted how respondents were reducing the stressors by reconstructing their routines and creating more structure in their life. This was done by having more time for projects and hobbies. Furthermore, as Danes are indulgent it would be appropriate to ask employees to update or prepare an individual workplan in dialogue with their supervisor as a means to stay on track during telecommuting (ILO, 2020) and in order to establish more structured routines while telecommuting.

Limitations and Suggestions for Future Research

It is relevant to point out the possible limitations of the study and the obtained results. Firstly, an important limitation to identify is related to the study's sample size, in a manner that

it would be suggested to expand the sample size in further research in order to provide a better representation of the Danish population and support the existing results. Additionally, in order to further verify the findings future research can be done when the heightened state caused by the pandemic normalizes in order to assesses and compare the data.

Based on feedback from some respondents and based on the statistical results the study could possibly have been limited by only looking at work-life conflict. Some individuals have likely had a positive experience with the sudden telecommuting. Therefore, in order to further contribute to the literature, it would be useful to include the work-life enrichment scale in future research.





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APPENDIX A: RESEARCH QUESTIONNAIRE

Dear participants,

I invite you to participate in this research study. My name is Lizette Hansen, and I am a master student in the Graduate Institute of International Human Resource Development at National Taiwan Normal University, Taiwan, R.O.C.. The purpose of the questionnaire is to conduct a research on how the use of technology affect individual's life. The information from this questionnaire was used to write my master's thesis.

The purpose of this questionnaire is to examine the underlying reasons why some employees handle working from home under COVID-19 better and some worse. By selecting whether you disagree or agree with the statements, I can use my statistics program to analyze if you have had a positive or negative experience.

I would be grateful if you could spend 10 minutes answering the following questions. There are no right or wrong answers. Your participation in this research project is completely voluntary. If you are willing to take part in the study, you will be asked to read a series of statements and indicate your disagreement or agreement by marking the appropriate response category.

By completing this questionnaire, you give your consent to Lizette Hansen to process (including collect, store, delete and anonymize) your information in connection with information about you, your experience working from home during COVID-19 for the purpose of above objectives. Your responses will in the thesis be used in anonymized form. Lizette Hansen is obliged to process personal information in accordance with the EU General Data Protection Regulation (GDPR). Personal information collected through this questionnaire will be stored securely and will only be used for the above purposes.

For the sake of the possibility of historical comparison in future reports with the same purpose, your answer will be kept until [31.12.2021], after which all personally identifiable information will be deleted or anonymized.

You can withdraw your consent at any time, after which Lizette Hansen will delete your answer. However, your answer will still be included in an anonymized form in the already prepared results and statistics at the time of the withdrawal.

If you have questions regarding the questionnaire and the processing of your answer, or want to withdraw your consent, please contact the author.

Thank you for your assistance in this important endeavor.

Sincerely yours,

Lizette Hansen.



Screening questions

Q1. Do you use a computer or phone for work? Yes No

(Thank you, but you no longer need to fill out the questionnaire)

Q2. As a part of your job do you ever work from home? Yes No

(Thank you, but you no longer need to fill out the questionnaire)

Part I

The following 9 statements assess your perception of your technology use during the time period of COVID-19. The term *this technology* refers to the information and communication technologies that you use day-to-day such as computers and smartphones to access applications you use in your job, such as e-mail, office automation system, database systems, application development tools, APP's, social media use related to work and so on. Please read each of the following statements carefully and select the response that best characterizes how you feel, where:

1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree

	Because of COVID-19 ...	1	2	3	4	5
1	I am forced by this technology* to work much faster.					
2	I am forced by this technology to do more work than I can handle.					
3	I am forced by this technology to work with very tight time schedules.					
4	I am forced to change my work habits to adapt to new technologies.					
5	I have a higher workload because of increased technology complexity.					
6	I spend less time with my family due to this technology.					
7	I have to be in touch with my work even during my vacation due to this technology.					
8	I have to sacrifice my vacation and weekend time to keep current on new technologies.					

9	I feel my personal life is being invaded by this technology.					
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Part IIa

The following 4 statements assess your personal preferences regarding work and home life. Please read each of the following statements carefully and select the response that best characterizes how you feel, where:

1= strongly disagree, 2= disagree, 3= more or less disagree, 4= Neutral, 5= more or less agree, 6= agree, 7= strongly agree

	Please rate how often you have felt each emotion within the past 2 months	1	2	3	4	5	6	7
1	I don't like to have to think about work while I'm at home							
2	I prefer to keep work life at work							
3	I don't like work issues creeping into my home life							
4	I like to be able to leave work behind when I go home							

Part IIb

The following 28 statements assess different coping style. Please indicate to what extent you have shown the following ways of thinking and acting in the last 4 weeks, to deal with the consequences of the COVID-19 pandemic. Please read each of the following statements carefully and indicate how much you have been using each coping style, where:

1= I haven't been doing this at all, 2= I've been doing this a little bit, 3= I've been doing this a medium amount, 4= I've been doing this a lot

		1	2	3	4
1.	I've been concentrating my efforts on doing something about the situation I'm in.				
2.	I've been taking action to try to make the situation better.				
3.	I've been trying to come up with a strategy about what to do.				

4.	I've been thinking hard about what steps to take.				
5.	I've been trying to see it in a different light, to make it seem more positive.				
6.	I've been looking for something good in what is happening.				
7.	I've been accepting the reality of the fact that it has happened.				
8.	I've been learning to live with it.				
9.	I've been making jokes about it.				
10.	I've been making fun of the situation.				
11.	I've been trying to find comfort in my religion or spiritual beliefs.				
12.	I've been praying or meditating.				
13.	I've been getting emotional support from others.				
14.	I've been getting comfort and understanding from someone.				
15.	I've been trying to get advice or help from other people about what to do.				
16.	I've been getting help and advice from other people.				
17.	I've been turning to work or other activities to take my mind of things.				
18.	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
19.	I've been saying to myself "this isn't real."				
20.	I've been refusing to believe that it has happened.				
21.	I've been saying things to let my unpleasant feelings escape.				
22.	I've been expressing my negative feelings.				
23.	I've been using alcohol or other drugs to make myself feel better.				
24.	I've been using alcohol or other drugs to help me get through it.				
25.	I've been giving up trying to deal with it.				
26.	I've been giving up the attempt to cope.				
27.	I've been criticizing myself.				
28.	I've been blaming myself for things that happened.				

Part III

The following 5 statements assess your perception of your work life. The term *family* can also incorporate friends, classmates, social or activity bound groups, and personal free time. Please read each of the following statements carefully and select the response that best characterizes how you feel, where:

1= strongly disagree, 2= disagree, 3= more or less disagree, 4= Neutral, 5= more or less agree, 6= agree, 7= strongly agree

		1	2	3	4	5	6	7
1.	The demands of my work interfere with my home and family life.							
2.	The amount of time my job takes makes it difficult to fulfill family responsibilities.							
3.	Things I want to do at home do not get done because of the demands my job puts on me.							
4.	My job produces strain that makes it difficult to fulfill family duties.							
5.	Due to work-related duties, I have to make changes to my plans for family activities.							

Part IV: Participant information

Q1. Gender: Male Female Other _____

Q2. Age:

- 20 years or younger 21-30 years 31-40 years
 41-50 years 51-60 years 61 years or above

Q3. Please indicate your highest completed level of education:

- High school
 Vocational education
 Bachelor's degree/ Diploma degree
 Master's degree
 Doctoral Degree
 Other _____

Q4. Please indicate your Marital status:

- Single Married Cohabiting Divorced

Q5. Do you have children? Yes No

Q6. If yes, do they live with you? Yes No

Q7. How many are financially dependent on you? _____

Q8. How frequently do you use a computer or phone in order to do your work?

_____ Hour(s) per week

Q9. How often do you work from home? _____ Hour(s) per week

Q10: Did you telecommute before COVID-19? Yes No

Q11. How many hours do you work overtime each week (on average)?

_____ Hour(s)

Thank you for your participation.