Research Article

How does employee cultural background influence the effects of telework on job stress? The roles of power distance, individualism, and beliefs about telework

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A B S T R A C T

Previous research into telework and job stress is characterized by inconsistent findings and reported beneficial, nonsignificant, and dysfunctional effects of telework on employees' job stress levels and well-being. To investigate when the effects of telework on job stress are beneficial versus dysfunctional, the study draws on telework research and cultural value theory and analyzes the moderating role of employee cultural background (i.e., individualism and power distance), the influence of which on the effects of telework is expected to be transmitted by an employee's beliefs about telework effectiveness and isolation. Although prior research analyzed the effects of telework in different occupations and industries, a very important matter has received very little attention – namely, the effects of telework on job stress across employees with different cultural backgrounds. To successfully implement telework arrangements, organizations must know whether employee cultural background influences the effectiveness of telework. The current COVID-19 pandemic and the related implementation of telework arrangements in many countries amplify the importance of understanding the influence of culture on the effects of telework on employee well-being. The hypotheses are tested through a three-wave survey study with 604 teleworkers from different countries. The results indicate that telework only reduces job stress when employees do not believe that telework will lead to social isolation. The study further expands telework research by showing that employees with high power distance scores have negative beliefs about telework, whereas employees with high individualism scores have positive beliefs about the effectiveness of telework.

1. Introduction

Recently, the use of telework (also called working from home or remote work) strongly increased for several reasons: the COVID-19 pandemic (Barnes, 2020; Chamakiotis, Panteli, & Davison, 2021; Dwivedi et al., 2020; Papagiannidis, Harris, & Morton, 2020; Sharma et al., 2020; Venkatesh, 2020); the need for it in today's globalizing and complex business environment (Srivastava & Chandra, 2018); the potential advantages to employee well-being (Gajendran & Harrison, 2007); the autonomy it provides to employees (Golden, 2006); the cost savings on travel and offices (Scott-Clarke, 2013). Telework can be defined as work that is performed at home using information and communication technology.

While telework arrangements emerged in the 1970s, technological constraints limited its diffusion across industries. Gallup's annual work and education survey indicated that adoption of teleworking remained low well into the 1990s (Hoyt & Lester, 1995). In 1995, just nine percent of the US workforce reported use of telecommuting at any stage of their working lives (Hoyt & Lester, 1995). In the subsequent decade, however, organizations invested in and improved their information and communication technology to facilitate virtual work arrangements for their employees (Holland & Bardoel, 2016; Lin, 2011; Stanko & Beckman, 2015). This led to an increase of telework (Gallup, 2017). Many government departments at both state and federal levels have also sought to encourage the diffusion of virtual work for public sector employees (Gajendran & Harrison, 2007; Mahler, 2012). The Society for Human Resource Management reported that 70 percent of organizations offered employees the opportunity to spend at least some of their working week telecommuting (SHRM, 2018). These impetuses for virtual work arrangements have of course been magnified by the need to telework to reduce the adverse consequences associated with the COVID-19 pandemic (Chamakiotis et al., 2021; Dwivedi et al., 2020;

Papagiannidis et al., 2020 Sharma et al., 2020).

Despite the strong increase in telework arrangements, previous literature reviews and meta-analyses concluded that telework is not always beneficial for employees, in terms of reducing their job stress or improving their well-being (Bailey & Kurland, 2002; Beauregard, Basile, & Canónico, 2019; Gajendran & Harrison, 2007; Raghuram, Hill, Gibbs, & Maruping, 2019). More specifically, these reviews concluded that telework can be beneficial for some employees by reducing job stress through offering them increased autonomy and flexibility and helping them to reduce their commute time (e.g., Anderson, Kaplan, & Vega, 2015; Bosua, Gloet, Kurnia, Mendoza, & Yong, 2013; Delanoeije & Verbruggen, 2020; Grant, Wallace, & Spurgeon, 2013; Hartig, Kylin, & Johansson, 2007). However, telework can be also destructive to an employee's well-being due to social isolation, Zoom fatigue, and the difficulty of maintaining a work-life balance (e.g., Heiden, Widar, Wiitavaara, & Boman, 2021; Kazekami, 2020; Nakrošienė, Bučiūnienė, & Goštautaitė, 2019; Richter, 2020; Song & Gao, 2020; Weinert, Maier, & Laumer, 2015; Weinert, Maier, Laumer, & Weitzel, 2014).

Similarly, there are also several media reports documenting the concerns about the consequences of telework for employees' well-being and productivity. For example, more than 85 percent of 5000 American survey respondents indicated that they need better support from their organization to telework (Thrive Global, 2020). Relatedly, the TELUS international survey (Forbes, 2020) reported that around 75% of teleworkers struggle with work stress during the pandemic and that around 80% of teleworkers would think about switching to another organization that offers better mental health support. Another report also noted that while telework helped employees to reduce financial difficulties, it increased loneliness and mental distress (The Guardian, 2021). This also reflected in the opinion of many policy making experts such as by Nick Bloom (from Stanford Institute for Economic Policy Research) who said that "forcing everybody home, often around kids, in shared rooms or bedrooms and no escape socially in non-work time will be generating major mental stress. This typically leads to loneliness and depression, which is mentally costly and often leads to physical health declines too." (Financial Times, 2020). These media reports and the mixed findings of prior research suggest that more empirical research is needed to integrate moderators and to analyze *when* telework has beneficial versus dysfunctional effects on job stress (Beauregard et al., 2019; Raghuram et al., 2019).

To address this research gap, this study draws on telework research and cultural value theory and to analyzes the moderating role of an employee's cultural background (i.e., individualism and power distance), the influence of which on the effects of telework is expected to be transmitted by an employee's beliefs about telework effectiveness and isolation. Although prior research analyzed the effects of telework in different occupations and industries (Bailey & Kurland, 2002; Gajendran & Harrison, 2007; Raghuram et al., 2019), a recent literature review on telework (Beauregard et al., 2019) concluded that a very important matter has received very little attention – namely, the effects of telework on job stress across employees with different cultural backgrounds. Much of the research into telework and job stress was conducted in a single-country context in Western countries, neglecting cultural differences regarding attitudes about telework and the effectiveness of telework (Muthukrishna et al., 2020; Peters, Ligthart, Bardoel, & Poutsma, 2016; Venkatesh, 2020).

Analyzing how an employee's cultural background shapes the effects of telework on an employee's job stress level is important for several practical reasons. First, to successfully implement telework arrangements, organizations must know whether the effectiveness of telework is influenced by an employee's cultural background (Peters et al., 2016; Peters, Bleijenbergh, & Oldenkamp, 2009; & Raghuram & Fang, 2014). Interestingly, a recent media report suggests that the effects of telework on employees' well-being depend on an employee's cultural background. Precisely, the dysfunctional effects of COVID-19 and telework on mental health were higher in Hong Kong (63%) and Italy (62%) than

in Germany (44%) (Financial Times, 2021). Second, because of the COVID-19 pandemic, many employees around the world were asked to work from home this year (Barnes, 2020; Chamakiotis et al., 2021; Dwivedi et al., 2020; Kodama, 2020; Venkatesh, 2020). After the COVID-19 pandemic, these new telework arrangements are likely to transform into a hybrid form of telework, whereby employees have the option to work a few days per week from home and a few days from their office (European Commission's Science & Knowledge Center, 2020; Feitosa & Salas, 2020; Gratton, 2021a; b; The Economist, 2020). It is therefore important to understand why some employees report different levels of job stress because of telework. Finally, prior cross-cultural research showed that an employee's cultural values influence how an employee reacts to different work modes and systems like teamwork, performance-based pay, participative decision-making, and management by walking around (Hofstede, 2001; Taras, Steel, & Kirkman, 2011; Taras, Kirkman, & Steel, 2010). Cultural values may also influence the effects of the telework work mode.

To address these issues, this study uses a three-wave survey study with 604 teleworkers from a large variety of countries. The study's overall aim is to analyze the effects of telework on job stress across employees with different cultural backgrounds. This analysis and the survey study create the basis for three main contributions. First, the study expands on research into the effects of telework on employee job stress levels. To analyze when telework reduces job stress and to clarify inconsistent findings of prior research about telework and stress (Bailey & Kurland, 2002; Beauregard et al., 2019; Gajendran & Harrison, 2007; Raghuram et al., 2019), this study examines the moderating role of an employee's beliefs about telework, which are, in turn, influenced by an employee's cultural values. The study argues that an employee's increased engagement in telework only reduces job stress when the employee has positive beliefs about telework effectiveness. This focus on individual beliefs reflects the conclusion of Dwivedi and colleagues (2020: 8) that "technology is merely a tool and the degree of success it has depends on how individuals respond to it."

Second, drawing on cultural value theory (Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004), the study also increases our understanding of the influence of culture on the effects of telework on job stress because we expect cultural values to have an indirect effect (i. e., power distance and individualism) on the relationship between telework and job stress by influencing an employee's beliefs about telework (Fig. 1). Expressed differently, cultural values are expected to transmit their influence on the effects of telework through specific beliefs about telework. The study's results provide important recommendations for organizations about how to enable the beneficial effects of telework on the well-being of employees with different cultural backgrounds. The study's findings provide further information about whether employee beliefs about telework effectiveness depend on their cultural values and expand prior cross-cultural research on telework (Peters et al., 2009, 2016), which mostly focused on cultural differences regarding the adoption of telework practices and managers' support of telework and organizational control mechanisms. Prior research neglected the impact of cultural differences on the effects of telework, as well as individual employee perspectives.

Finally, the study introduces the concepts of beliefs about telework effectiveness and isolation. The study focuses on these two types of beliefs because prior telework research often examined employee effectiveness and social isolation as outcomes of telework (Bailey & Kurland, 2002; Beauregard et al., 2019; Gajendran & Harrison, 2007; Raghuram et al., 2019). Most studies reported the beneficial effects of telework on employee effectiveness, but the dysfunctional effects of telework on social isolation. The introduction of beliefs about telework allows an expansion of the prior research on cultural differences and work modes (e.g., team-based systems, performance-based pay, participative decision-making, self-management, management by walking around, etc.) that mostly focused on the moderating role of cultural values and how they influence the effectiveness of different work modes
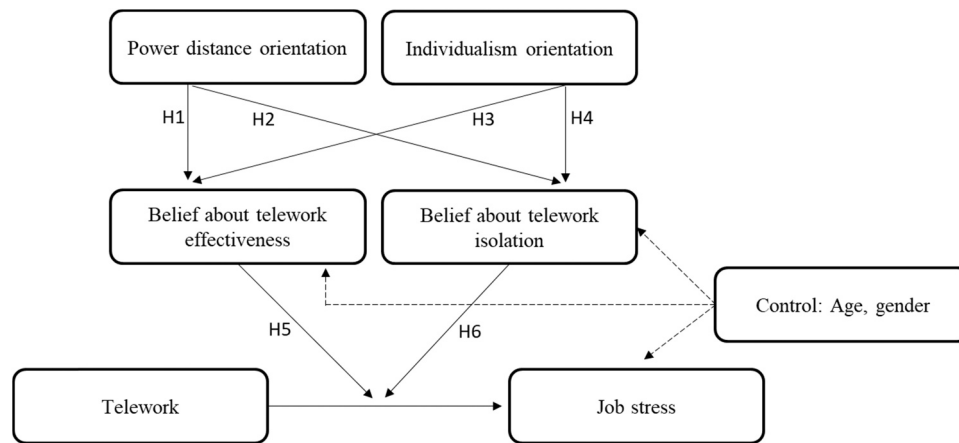
Fig. 1. Research model.

(Hofstede, 2001; Taras et al., 2011). However, the effect sizes of the cultural value effects were small (Taras et al., 2010), indicating that prior research might have missed an important mechanism to explain cultural value effects. This study argues that it is more appropriate to expect that cultural values influence the effectiveness of a work mode, such as telework, by influencing employees' specific beliefs about telework.

This article continues with a literature review of research about cultural values, beliefs about telework effectiveness and social isolation, and telework and job stress. After that, the article explains the hypotheses. Next, the article describes the sample, procedures, and the measurement scales of the survey study. The next section includes the study's results, which are then discussed in the final section of the article.

2. Definitions and literature review

2.1. Cultural value research

An employee's cultural background is often captured in management research through cultural values that are often defined as assumptions of individuals that are influenced by their cultural background and that guide their feelings, thinking, and behavior (Hofstede, 2001) or as desirable modes of behavior (Meglino & Ravlin, 1998). In 1984, Hofstede developed and confirmed a cultural value framework based on four dimensions: power distance, individualism-collectivism, uncertainty avoidance, and masculinity-femininity. This study focuses on power distance and individualism for theoretical reasons.

Power distance at the individual level can be defined as the extent to which an individual expects and accepts a powerful supervisor (Clugston, Howell, & Dorfman, 2000; Kirkman & Shapiro, 2001; Kirkman, Chen, Farh, Chen, & Lowe, 2009; Maznevski, Gomez, DiStefano, Noorderhaven, & Wu, 2002). Working from home might be challenging for an employee who has a high power distance orientation because she or he expects her or his supervisor to provide guidance, which is arguably more difficult and less common in telework arrangements. We further focus on individualism because employees with an individualism orientation may enjoy working from home because it is an individualistic work mode (Taskin & Devos, 2005). According to Maznevski and colleagues (2002: 277), employees with an individualism orientation believe that the "primary responsibility is to and for ourselves as individuals." This type of thinking should fit particularly well with the telework context. The masculinity-femininity and uncertainty avoidance dimensions are less likely to be related to telework and attitudes about telework because masculinity-femininity refers to an employee's beliefs about gender equality, while uncertainty avoidance describes an employee's attitude toward risk and rules (Hofstede, 1984).

Regarding the level of analysis, Hofstede (1984) assumed that cultural values are valid at the national level. However, subsequent cross-cultural research often indicated a higher within-nation variance than cross-national variance (Coon & Kemmelmeier, 2001; Gelfand, Leslie, & Fehr, 2008; Lenartowicz, Johnson, & White, 2003; Steel & Taras, 2010; Tung, 2008). Research that followed on from Hofstede has applied and confirmed the concept of cultural values at the individual level (e.g., De Luque & Sommer, 2000; Dorfman & Howell, 1988; Clugston et al., 2000; Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006; Kirkman et al., 2009; Maznevski et al., 2002; Triandis, 2004; Dierdorff, Bell, & Belohlav, 2011). We adopt this individual perspective to analyze the power distance and individualism orientations of individual employees in the context of telework.

2.2. Beliefs about telework effectiveness and social isolation

To explain the influence of cultural values on the effects of telework on job stress, this study introduces the concepts of beliefs about telework effectiveness and social isolation. The study focuses on beliefs about telework because it can be expected that the influence of an employee's cultural values on an employee's acceptance of work modes and systems (e.g., telework arrangement) is transmitted through an employee's beliefs related to a specific work mode or system (e.g., beliefs about telework). Cultural values refer to broad assumptions that people have about life, work, and relationships (Maznevski et al., 2002; Meglino & Ravlin, 1998). It is therefore useful to integrate more specific beliefs related to telework in the research model to explain the influence of cultural values on the effects of telework.

Specifically, the study analyzes employees' beliefs about whether telework increases effectiveness and social isolation. If employees have high beliefs about telework effectiveness, they believe that working from home will help them to be more productive, to better concentrate on their job, and to increase their work motivation. They are optimistic that telework will facilitate their work and improve the effectiveness and quality of their work (Adamovic et al., 2021; Schepers, de Jong, de Ruyter, & Wetzels, 2011; Wan, Wang, & Haggerty, 2008). In contrast, if employees have low beliefs about telework effectiveness, they believe that telework is detrimental to their effectiveness and that their productivity, concentration, and motivation may decrease due to potential issues like social isolation or work-family conflict.

Regarding beliefs about telework isolation, if employees have high beliefs about telework isolation, they believe that working from home will increase their social isolation, characterized by loneliness and a lack of learning and cooperation with coworkers (Bentley et al., 2016; Gao & Sai, 2020; Green et al., 2020; Lal & Dwivedi, 2009). In contrast, if employees have low beliefs about telework isolation, they believe that telework will not increase social isolation. These employees feel more

optimistic about the effects of telework on learning, cooperation, and interpersonal relationships and communications with managers and coworkers.

The study focuses on these two beliefs because prior telework research often reported two opposing effects of telework on employees (Bailey & Kurland, 2002; Beauregard et al., 2019; Gajendran & Harrison, 2007; Raghuram et al., 2019). On the one hand, telework can be beneficial for employees and organizations by increasing the effectiveness of employees (i.e., productivity, concentration, and motivation). Employees have more autonomy and flexibility, which have been shown to be beneficial to job performance (Baltes, Briggs, Huff, Wright, & Neuman, 1999; Gajendran & Harrison, 2007; Pearlson & Saunders, 2001; Reyt & Wiesenfeld, 2015). Many employees also reported that telework allows them to better concentrate and accomplish complex tasks (Apgar, 1998; Bailey & Kurland, 2002). On the other hand, prior research also found that many employees are dissatisfied with telework because it often creates feelings of social isolation (Bartel, Wrzesniewski, & Wiesenfeld, 2012 Bartel, Wrzesniewski, & Wiesenfeld, 2012; Bentley et al., 2016; Cooper & Kurland, 2002; Green, Tappin, & Bentley, 2020; Sharma et al., 2020). Telework is an individualistic work method, which usually makes it more difficult for employees to collaborate with coworkers and managers, to learn from them, and to develop interpersonal relationships with them characterized by trust (Griffith, Sawyer, & Neale, 2003; Kirs & Bagchi, 2012; Staples, Hulland, & Higgins, 1999).

It is important to acknowledge that prior research distinguishes between different dimensions of isolation that are called social isolation, professional isolation, and physical isolation (Cooper & Kurland, 2002). Social isolation refers to a lack of informal interactions and face-to-face communication with coworkers and managers (Lal & Dwivedi, 2009). Professional isolation refers to the risk of career disadvantages, due to missing out on networking and mentoring (Cooper & Kurland, 2002). Physical isolation refers to "employees' experience of working in settings in which they are not colocated with fellow organization members" (Bartel et al., 2012: 744). Like many prior studies (e.g., Baruch, 2001; Bentley et al., 2016; Gao & Sai, 2020; Green et al., 2020; Lal & Dwivedi, 2009; Tavares, 2017), this study focuses on social isolation because telework is likely to cause social isolation, which often represents a major issue for teleworkers. Teleworkers often feel lonely and forgotten by their employer and miss social interactions and positive relationships with coworkers (Bentley et al., 2016; Harris, 2003; Dwivedi et al., 2020; Mann & Holdsworth, 2003; Sharma et al., 2020). In contrast, telework does not need to be related to professional isolation (Adamovic et al., 2021; Bartel et al., 2012; Golden et al., 2008). Finally, in the context of home-based telework, it is also important to mention that all three dimensions of isolation can be interrelated and summarized under general isolation (Golden, Veiga, & Dino, 2008).

2.3. Prior Research into Telework and Job Stress

Following Lazarus and Folkman (1984: 19), stress is described as "a particular relationship between the person and the environment that is appraised as taxing or as exceeding his or her resources and endangering his or her well-being." This means stress is an individual's subjective response to the demands of her or his environment (Taris, Peters, Le Blanc, Schreurs, & Schaufeli, 2001). Job stress occurs when an employee does not have the abilities or resources to cope with job demands (Demerouti et al., 2001). Examples of job demands that cause job stress are high workload, interpersonal conflict, and uncertainty. In the context of telework, prior research identified several job demands, such as social isolation, conflict, and lack of teamwork and information exchange (Adamovic, 2018; Griffith et al., 2003; Sharma et al., 2020; Staples et al., 1999). These job demands function as stressors that trigger a health impairment process, causing job stress (Demerouti, Bakker, & Leiter, 2014).

Research evidence and media reports show that today's employees are more likely to experience job stress and other mental health issues

because of increasing job demands (Sonnentag & Fritz, 2015). Increased job stress can lead to job burnout and depression (Bakusic, Schaufeili, Claes, & Godderis, 2017; Schachner, Noack, Van de Vijver, & Eckstein, 2016), often indicated by feelings of helplessness, worthlessness, and suicidal ideation (Goldberg et al., 1997). Importantly, job stress is one of the leading causes of employee absenteeism, having a large impact on the productivity and quality of life of employees (Alonso, Angermeyer, Bernert, et al., 2004; Bakusic et al., 2017).

Research into telework assumes that one key reason why employees want to work from home is to reduce their job stress (Bailey & Kurland, 2002; Bosua et al., 2013; Gajendran & Harrison, 2007; Hartig et al., 2007). However, mixed findings exist about the effects of telework on job stress. On the one hand, prior research has demonstrated that employees who spend more time working from home feel less stressed (Delanoeije & Verbruggen, 2020; Giurge & Bohns, 2020; Konradt, Hertel, & Schmook, 2003; Raghuram & Wiesenfeld, 2004). One main reason for this is that employees have more autonomy about how they do their work (Gajendran & Harrison, 2007; Pearlson & Saunders, 2001; Reyt & Wiesenfeld, 2015). Furthermore, through an increased amount of telework, employees can often better integrate their work responsibilities with their family and caring obligations (Baltes et al., 1999). Finally, spending more time working from home allows employees to save valuable time by eliminating their commute to the workplace (Bailey & Kurland, 2002). This may help employees to have a better work-life balance and spend more time with their family and friends and on recreational activities (Kreiner, Hollensbe, & Sheep, 2009; Raghuram & Wiesenfeld, 2004; Taskin & Edwards, 2007).

On the other hand, it is important to acknowledge that prior research also reported that telework can increase job stress (e.g., Heiden et al., 2021; Kazekami, 2020; Song & Gao, 2020; Weinert et al., 2014, 2015). Potential problems for an employee's well-being caused by an increased amount of telework include social isolation, conflict, and lack of teamwork and information exchanges (Griffith et al., 2003; Staples et al., 1999). Furthermore, the use of new information and communication technology can create uncertainty (Schepers et al., 2011) and be a stressful experience for some employees who have not received the required training or organizational support (Bartelt & Dennis, 2014). Some employees even consider telework as a barrier for personal and professional satisfaction (Wan et al., 2008). The reasons for this are difficulties managing work-life boundaries and focusing on work if teleworkers have caring responsibilities (Benlian, 2020).

3. Theoretical Background and Development of Hypotheses

3.1. The influence of power distance on beliefs about telework

This study first argues that employees with high power distance scores will have negative beliefs about telework, in terms of reduced effectiveness (Fig. 1). According to Hofstede's cultural value framework (1984), due to expected power and status differences, an employee with a high power distance score tends to expect a supervisor to provide clear guidance (for empirical evidence, see: Kirkman et al., 2009; Liu, Yang, & Nauta, 2013). Hofstede (1984) further argues that employees might be used to and expect a direct, charismatic, and powerful manager who does not consult subordinates when making decisions and does not explain decisions (for empirical evidence, see: Kim & Leung, 2007; Liu et al., 2013; Rowney & Taras, 2008).

Working from home provides employees with increased autonomy (Gajendran & Harrison, 2007). They are often required to independently organize themselves and their work. Working from home also gives their supervisors less control over their work, making it difficult for supervisors to provide clear instructions (Raghuram & Fang, 2014). Being disconnected from a supervisor is likely to be more difficult for high power distance employees because they expect a manager who provides guidance on their work. Employees with a high power distance orientation may therefore think that the physical distance from their

supervisor will interfere with their work. The supervisor will not be present to provide regular feedback and guidance to them. Thus, employees with a high power distance orientation may believe that their work effectiveness will suffer.

In contrast, employees with a low power distance orientation often do not consider an autocratic and powerful supervisor to be legitimate (Ollo-Lopez, Bayo-Moriones, & Larraza-Kintana, 2011). Despite different job and pay levels, power and status differences are often not tolerated by these employees. This is likely to result in more positive beliefs about telework. To a lower extent, these employees may require a supervisor who provides direction (Hofstede, 2001; Maznevski et al., 2002). These employees are likely to feel comfortable making their own decisions about their work. This will help them to remain productive, suggesting that they will have more positive beliefs about telework.

Hypothesis 1. Employees with high scores on power distance believe that telework decreases an employee's effectiveness.

This study further predicts that employees with high power distance scores are more likely to believe that telework will increase social isolation (Fig. 1). According to Hofstede's power distance theorizing (1984), an employee with a high power distance score not only expects a supervisor to provide a clear description of tasks and goals but also a clear guidance for managing interpersonal relationships in work groups (Kirkman, Lowe, & Gibson, 2017; Liu et al., 2013). Reduced interactions with their supervisor will therefore bring these employees to believe that telework leads to social isolation.

Working from home makes it more difficult for employees to have meetings with their supervisor on a regular basis (Raghuram & Fang, 2014). This disconnect from their supervisor is likely to be more difficult for employees with a high power distance orientation, because they often look up to their supervisor to organize and manage social interactions. These employees are therefore likely to think that the telework will worsen the quality of their social relationships at work and reduce the frequency of interpersonal communications. The supervisor will be less "socially present" and is less likely to be available for informal communication and coffee catchups or to organize team meetings. Thus, employees with a high power distance orientation may believe that they will be isolated from their supervisor and group.

In contrast, employees with a low power distance orientation do not require their supervisor to organizes team meetings (Hofstede, 2001; Maznevski et al., 2002). These employees often feel empowered to reach out to their supervisor and work colleagues using information and communication technology. This will enable them to maintain effective social relationships with coworkers. This suggests that they will not associate telework with social isolation. Based on these arguments, this study hypothesizes that:

Hypothesis 2. Employees with high scores on power distance believe that telework increases social isolation.

3.2. The influence of individualism on beliefs about telework

In his cultural value framework, Hofstede (2001) argued that employees who are high in individualism tend to prefer working individually instead of working in groups (see also Fischer et al., 2009; Rosinski, 2010). Hofstede also theorized that they tend to put a higher value on the achievement of personal goals than on the goals of the group (see also Earley, 1993; Fischer et al., 2009; House et al., 2004). This focus on individual work methods and goals is likely to be related to having positive beliefs about telework effectiveness, because telework is considered to be an individualistic work method (Taskin & Devos, 2005).

Employees with an individualism orientation may like working individually from home because, during this work mode, they can work in the way they want, and they can concentrate on their individual work. Such an individual work method also allows them to focus on individual

goals achievements and to get recognition for their individual work. In contrast, in a traditional office and team environment, they would have otherwise shared this recognition with their teammates. Telework arrangements may increase the work motivation of employees with an individualism orientation. Thus, they are likely to believe that telework will increase their effectiveness. Based on these arguments, the study hypothesizes that:

Hypothesis 3. Employees with high scores on individualism believe that telework increases an employee's effectiveness.

Hofstede (2001) further argued that employees with an individualism orientation often rely on themselves instead of on their coworkers (see also Fischer et al., 2009; Rosinski, 2010). These employees tend to feel more comfortable when their rewards and work outcomes depend on themselves and not on their coworkers. This focus on themselves and on individual goals and achievements is likely to bring these employees to believe that telework will not lead to social isolation.

Working individually from home might be the preferred work mode of employees with an individualism orientation, because they are responsible for themselves during this work mode. In a virtual work environment, they are less accountable to their coworkers do not need to help their coworkers on a regular basis. This will make it easier for them to advance their careers and to achieve their goals. Also, they tend to avoid groupwork (Hofstede, 2001), indicating that interpersonal relationships are less important for these employees. They are likely to be less concerned about any social isolation due to telework. It is therefore likely that they worry less about issues related to social isolation and interpersonal relationships. Taken together, the study predicts that:

Hypothesis 4. Employees with high scores on individualism believe that telework does not lead to social isolation.

3.3. The moderating role of beliefs about telework on the effects of telework on job stress

Prior research into telework and job stress is characterized by contradictory findings (Bailey & Kurland, 2002; Beauregard et al., 2019; Gajendran & Harrison, 2007; Raghuram et al., 2019; Tavares, 2017). To clarify when telework has beneficial versus dysfunctional effects on job stress, this study first considers the moderating role of beliefs about telework effectiveness on the relationship between telework and job stress. Specifically, the study expects that increased engagement in telework will only reduce job stress if employees have positive beliefs about telework effectiveness.

If employees believe that working from home more often will increase their effectiveness, they are likely to be more motivated to work from home. They may believe that their job stress level will decrease because telework allows them to have more autonomy and decision-making power about their work. These employees might be more confident that they can utilize information and communication technology in an effective way to work from home (Adamovic et al., 2021). They may also believe that telework allows them to structure their work independently and to organize themselves (Schepers et al., 2011; Wang & Haggerty, 2011). They are therefore more likely to think of telework as an opportunity to reduce stress, strengthening the beneficial effects of telework on job stress. Based on these arguments, the study hypothesizes:

Hypothesis 5. Beliefs about telework effectiveness moderate the relationship between telework and job stress. Telework only decreases job stress if employees have positive beliefs about telework effectiveness.

As a second moderator for the relationship between telework and job stress, the study analyzes the influence of beliefs about telework. The study hypothesizes that telework will only have beneficial effects on employees' well-being if employees believe that it will not lead to social

isolation. In contrast, telework should not reduce employees' job stress levels if they believe that telework will lead to social isolation.

If employees believe that working from home more will not lead to social isolation, they may believe that their job stress level will decrease because telework allows them to have effective social relationships and interpersonal communications with coworkers and supervisors despite the physical distance. These employees may thing that they can utilize information and communication technology in such a way they can stay connected with their coworkers and still have effective knowledge and information exchanges (Wan et al., 2008). In contrast, employees who believe that telework will cause social isolation are less likely to benefit from telework. Despite the potential benefits of working from home, they may think they are not ready or lack the discipline to work from home (Hertel, Konradt, & Voss, 2006), which weakens or eliminates the beneficial effects of telework on job stress. These individuals may feel less comfortable with new information and communication technology (Wang & Haggerty, 2011), and the required use of new virtual work technology brings uncertainty to their work (Schepers et al., 2011). This may weaken the beneficial effects of telework on job stress. They might be concerned that they cannot cope with potential telework challenges, such as the social isolation from their supervisor and colleagues (Kurland & Egan, 1999; O'Leary, Wilson, & Metiu, 2014; Staples et al., 1999). Based on this argumentation, the study predicts:

Hypothesis 6. Beliefs about telework isolation moderate the relationship between telework and job stress. Telework only decreases job stress if employees believe that telework will not lead to social isolation.

4. Methods

4.1. Sample and procedures

The hypotheses (Fig. 1) are tested through a three-phase survey study with employees from a large variety of organizations in different industries and countries. The data were collected in 2019. Cultural values and demographic information were measured in time 1, telework and beliefs about telework were measured in time 2, and job stress was measured in time 3. Separating the variables of the research model using a time lag reduces the risk of common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). In the first survey, 1956 employees participated. Out of these employees, 903 employees completed the second survey, leading to a response rate of 46%. Out of these employees, 604 employees also completed the third survey, leading to a response rate of 67%. Most employees (52%) were men. The average age of respondents was 44 years (ranging from 19 to 71 years). The employees were living in 23 countries, whereby most of them lived in Portugal (9.9%), Argentina (9.3%), Mexico (7.9%), and Hong Kong (7.6%). Please Table 2 for the other countries. Most employees had a university degree (71.2%). Regarding the employment status, 87% of the employees were full-time employees, while 13% worked part-time. The respondents worked in the following occupational areas: Engineering (10.1%), Finance/Banking (5.8%), Human resource management (4.5%), Marketing (4.5%), Planning (1.8%), Research and Development (3.0%), Education (13.7%), Production (5.5%), Support services (for example, plant and equipment maintenance) (3.5%), Government institution/Political party (3.1%), Transportation (2.5%), Law (2.3%), Postal (1.0%), Telecommunications (2.3%), Retail (7.9%), Insurance (1.7%), Social services (3.1%), Health care (5.0%), Culture/Art (5.6%), Television/Film (1.2%), Scientific research (0.5%), and Other (11.4%).

With the help of the market research company Lightspeed, the surveys were sent to employees by email. The survey links were sent to the participating employees at intervals of around three months, which equates to the common time lag of other similar studies (e.g., Colquitt et al., 2011). Both market research companies controlled the identity of the participants to avoid any false registrations or double-registrations.

The survey also included test questions in the survey, which automatically screen out participants that do not respond correctly to the test questions. An example of such a test question is a statement like "This is a test to check if you read all statements. Please respond with strongly disagree."

Finally, employees were only allowed to participate if they were spending at least 20% of their total work time working from home (see also Hartig et al., 2007). The reason for this was that the study focused on and was interested in employees who were working from home and how the amount of telework time influences an employee's job stress level. The study used 20% as the cut-off value because, in prior research, it represents one day per week for a full-time employee who works five days per week. The telework time of the study participants ranged from 20% (= one day per week) to 100% (= five days per week). Finally, on average, 24.3% of the employees' coworkers worked from home.

4.2. Measures

The measurement was conducted at the individual level of analysis. Except for the measurement of telework, employees were asked to respond to a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The respondents had the choice between Chinese, English, French, German, Portuguese, and Spanish survey versions. Professional translators translated the scales and bilingual speakers translated the scales back and proofread them. The participants were instructed that telework is work that is performed remotely from home—outside the 'traditional' workplace—using technology (e.g., computer or telephone).

Telework. To measure telework, employees were asked to indicate the percentage of their total work time they work from home.

Power distance was measured with six items developed by Maznevski and colleagues (2002). The study used these items because the authors developed power distance items at the individual level of analysis and their power distance scale was often used by prior research (e.g., Kirkman & Shapiro, 2001; Lee & Antonakis, 2014). An example item is "People at lower levels in the organization should not have much power in organizations." The coefficient alpha was 0.73.

Individualism was measured with six items developed by Maznevski and colleagues (2002). The study used these items, because the authors developed individualism items at the individual level of analysis and their individualism scale was often used by prior research (e.g., Aycan, Al-Hamadi, Davis, & Budhwar, 2007; Yeganeh & Su, 2011). An example item of individualism is "It is natural to put your own interests ahead of others." The coefficient alpha was 0.67.

Beliefs about telework effectiveness. Prior research (Bailey & Kurland, 2002; Beauregard et al., 2019; Gajendran & Harrison, 2007) often reported the following three positive individual outcomes because of telework: increased productivity, better concentration, and increased motivation. The study therefore used the following three items to measure beliefs about telework effectiveness: 1) Teleworking increases employees' productivity, 2) Teleworking improves employees' concentration, and 3) Teleworking increases employees' motivation." The coefficient alpha for the scale was.93.

Beliefs about telework isolation. Prior research (e.g., Beauregard et al., 2019; Collins, Chou, Warner, & Rowley, 2017; Taskin & Bridoux, 2010; Staples et al., 1999) often reported the following three dysfunctional consequences of telework: social isolation, reduced cooperation among coworkers, and reduced learning. The study therefore used the following three items to measure beliefs about telework isolation: 1) Teleworking leads to isolation of employees, 2) Teleworking decreases mutual learning among employees, and 3) Teleworking decreases cooperation amongst employees. The alpha for the scale was.86.

Job stress was assessed with three items that were developed by Motowidlo and colleagues (1986) and used by Bolino and Turnley (2005). An item example is "My job is extremely stressful." The coefficient alphas for the scale was.89.

Control variables. Age and gender were included as control variables. The significance of the results did not change through the inclusion of either control variables. The study included age, as older employees are sometimes argued to be less familiar with new information and communication technology that is required to work virtually. The study included gender, as women are traditionally responsible for the care of young children and aging family members. Their engagement in telework and telework effects on their well-being could therefore be higher to combine job responsibilities with family responsibilities.

5. Analyses and results

5.1. Descriptive statistics

To describe the research sample and variables, the means, standard deviations, reliabilities, and zero-order correlations are presented in Table 1. The mean scores and standard deviations for the different variables across the employees' countries are represented in Table 2.

5.2. Confirmatory factor analyses to validate scales and measurement model

A confirmatory factor analysis was conducted to assess the fit of the broader measurement model for the study (Brown, 2006). The hypotheses included five latent variables: power distance, individualism, belief about telework effectiveness, belief about telework isolation, and job stress. The resulting model provided a very good fit to the data, χ^2 (200) = 365.39; CFI = .96; TLI = .95; SRMR = .044; and RMSEA = .037. A SRMR value less than.08 is considered a good fit (Hu & Bentler, 1999). Hu and Bentler further suggested that a RMSEA value smaller than.06 provides a very good fit. A CFI and TLI value higher than 0.9 means satisfactory fit (Awang, 2012; Hair, Black, Babin, & Anderson, 2010). Hu and Bentler's work (1999) suggests a higher cut-off value close to 0.95. Based on these common cut-off values, the model fit of the hypothesized measurement model is very good.

Each of the items also had a high loading on the intended sub-factor. The item loadings ranged from.40 to.94, and the average of these loadings was.67. This measurement model was compared with a model in which both scales to measure beliefs about telework were combined. The model fit was significantly worse: χ^2 (204) = 1131.05; CFI = .77; TLI = .74; SRMR = .083; and RMSEA = .087. The original measurement model was also compared with a model in which power distance and individualism were combined to one factor. The model fit got worse: χ^2 (204) = 676.60; CFI = .88; TLI = .87; SRMR = .069; and RMSEA = .062. The hypothesized measurement model was therefore retained.

5.3. Hypotheses testing

To test the hypotheses, the study used a latent variable approach and conducted structural equation modelling, using Mplus 8. Latent variables are used in structural equation modelling to account for measurement error (Brown, 2006; Byrne, 2013). Conducting structural equation modelling also allowed the study to simultaneously test the whole research model and all hypothesized relationships in one analysis. The results are presented in Table 3 and Fig. 2. To plot the interaction, the study used Aiken and West (1991) procedure (± 1 standard deviations) (see also Dawson, 2014).

Hypothesis 1 stated that power distance is negatively related to an employee's belief about telework effectiveness. The results indicate that this relationship is negative and significant ($\beta = -.13$, $p < .01$) (Table 3). Hypothesis 1 is therefore supported. Hypothesis 2 further argued that power distance is positively related to an employee's belief about telework isolation. This hypothesis is also supported ($\beta = .13$, $p < .05$) (Table 3).

Hypothesis 3 stated that individualism is positively related to an employee's belief about telework effectiveness. The results indicate that this relationship is positive and significant ($\beta = .13$, $p < .05$) (Table 3). Hypothesis 3 is therefore supported. Hypothesis 4 further argued that individualism is negatively related to an employee's belief about telework isolation. This hypothesis is not supported ($\beta = .04$, $p > .05$) (Table 3).

Hypothesis 5 argued an employee's beliefs about telework effectiveness moderate the relationship between telework and job stress. which predicted that telework will decrease an employee's job stress. The results (Table 3) first indicate a negative and significant relationship between telework and job stress ($\beta = -.15$, $p < .01$).[1] The results in Fig. 1 further demonstrate that the hypothesized interaction effect did not reach significance ($\beta = -.05$, $p > .05$) (Table 3). Hypothesis 5 is therefore not supported.

Finally, Hypothesis 6 stated that an employee's beliefs about telework isolation moderate the relationship between telework and job stress. The results in Table 3 demonstrate that the hypothesized interaction effect reached significance ($\beta = .11$, $p < .05$). Fig. 2 graphically represents the two-way interaction between telework and beliefs about telework isolation. Fig. 3 illustrates that telework only decreases job stress for employees who believe that telework will not lead to telework isolation. A simple slope analysis provides further support that the relationship between telework and job stress is negative and significant when employees believe that telework will not lead to telework isolation ($\beta = -.15$, $p < .01$), but the relationship is non-significant when employees believe that telework will lead to telework isolation ($\beta = -.04$, $p > .05$). Hypothesis 6 is therefore supported.

6. Discussion

One of the study's main findings is that employees' beliefs about telework effectiveness and telework isolation depend on their cultural background, in terms of power distance and individualism orientations. Specifically, employees with low power distance or high individualism scores have positive beliefs about telework effectiveness. Employees with low power distance scores are further concerned that telework will lead to social isolation. These findings are important for telework research (Beauregard et al., 2019; Raghuram et al., 2019) because they show that employees with different cultural backgrounds differ in their attitudes toward telework. The findings suggest that an employee's cultural background provides important information about whether an employee believes that telework is an effective work mode.

Furthermore, the study's findings show that an employee's cultural background plays an indirect role in the relationship between telework and stress because it influences beliefs about telework isolation and effectiveness, which in turn affect the effects of telework on job stress. The study could also have only analyzed the moderating role of cultural values on the relationship between telework and job stress, but then it would have missed out on an explanatory mechanism with beliefs about telework. These findings also need to be considered in the context of the globalization of business. As prior cross-cultural research concluded (Leung et al., 2010; Taras et al., 2011), it is naïve for managers to expect that successful work modes and systems can be transferred without adaptations to another country. Our findings confirm these conclusions and show that the implementation of telework arrangements should be considered in connection with employees' cultural values.

Although spending more time working from home had a direct and significant negative effect on job stress, this effect depended on an employee's beliefs about telework isolation, which in turn were influenced by an employee's power distance orientation. More specifically, spending more time working from home only had beneficial effects on job stress when employees did not believe that telework would lead to

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[1] We also conducted a post-hoc analysis and explored whether telework has a curvilinear effect on job stress. However, the curvilinear effect was non-significant ($\beta = .21$, $p > .05$).

Table 1
Descriptive statistics.

	Mean	SD	1	2	3	4	5	6	7	8
1. Age	44.18	11.57								
2. Gender (0=male, 1=female)	0.48	0.50	-.10*							
3. Telework (%)	48.28	28.13	.17**	.03						
4. Power distance	2.70	0.70	.00	-.20**	.03	(.73)				
5. Individualism	3.86	0.51	-.12**	-.10*	-.08*	.24**	(.67)			
6. Beliefs about telework effectiveness	3.38	1.05	-.09*	.08	-.02	-.09*	.10*	(.93)		
7. Beliefs about telework isolation	3.20	0.96	.03	-.05	.00	.11**	.05	-.17**	(.86)	
8. Job stress	3.18	1.01	-.13**	-.03	-.16**	-.01	.11**	.09*	-.02	(.89)

Note. N=604 employees. Reliabilities (coefficient alpha) appear in parentheses on the diagonal.
*p<0.05.
**p<0.01.

Table 2
Means and standard deviations across countries.

Country		Telework	Indivi-dualism	Power Distance	Belief about telework effective-ness	Belief about telework isolation	Job stress
Argentina (N=56)	Mean	45.45	3.98	2.83	3.97	3.18	3.14
	SD	28.99	0.46	0.72	0.67	1.08	0.97
Australia (N=18)	Mean	64.22	3.64	2.44	3.43	2.80	2.67
	SD	33.10	0.60	0.86	1.08	1.02	1.21
Belgium (N=34)	Mean	50.00	3.68	2.78	1.81	2.83	3.14
	SD	26.49	0.44	0.74	0.70	1.00	1.08
Canada (N=17)	Mean	61.76	3.55	2.60	2.90	2.53	2.75
	SD	30.97	0.49	0.62	0.87	0.87	1.10
China (N=14)	Mean	35.79	3.91	2.92	3.98	3.19	3.55
	SD	26.11	0.44	0.78	0.51	0.83	0.76
Columbia (N=27)	Mean	58.33	3.87	2.80	4.04	2.74	3.01
	SD	31.90	0.51	0.55	0.80	0.96	0.80
Croatia (N=16)	Mean	44.38	3.74	2.44	3.98	2.31	3.69
	SD	25.75	0.54	0.55	1.03	1.21	1.18
Finland (N=21)	Mean	68.86	3.58	2.21	4.14	2.73	3.16
	SD	31.30	0.56	0.66	0.66	0.83	0.87
Germany (N=16)	Mean	59.69	3.64	2.31	3.40	2.63	2.83
	SD	28.72	0.56	0.44	0.98	1.10	1.12
Hong Kong (N=46)	Mean	47.78	3.93	2.87	3.43	2.79	3.37
	SD	19.14	0.43	0.58	0.72	0.72	0.83
India (N=14)	Mean	36.07	4.34	2.81	3.93	2.38	2.86
	SD	22.46	0.46	0.96	0.91	0.94	1.16
Ireland (N=17)	Mean	70.88	3.61	2.52	3.73	2.90	2.86
	SD	31.39	0.50	0.73	0.76	0.91	1.07
Mexico (N=48)	Mean	43.81	4.01	3.01	2.10	3.11	2.94
	SD	26.70	0.46	0.70	0.72	0.94	1.03
Nigeria (N=15)	Mean	35.20	4.04	2.82	3.47	2.40	3.58
	SD	21.82	0.47	0.67	1.14	1.02	1.03
Poland (N=15)	Mean	47.20	3.88	3.03	3.51	2.47	2.53
	SD	28.90	0.45	0.66	0.92	0.79	1.02
Portugal (N=60)	Mean	40.62	4.03	2.69	3.76	2.66	3.46
	SD	25.11	0.52	0.59	0.71	0.90	0.95
Singapore (N=26)	Mean	41.08	3.85	2.53	3.53	3.01	3.33
	SD	24.60	0.54	0.65	0.76	1.00	0.85
South Africa (N=15)	Mean	59.00	3.90	2.66	3.49	2.47	3.44
	SD	34.13	0.52	0.79	0.96	0.82	0.88
Spain (N=27)	Mean	31.67	3.79	2.64	3.72	2.65	3.19
	SD	19.61	0.50	0.75	0.73	0.91	0.94
Switzerland (N=27)	Mean	47.15	3.52	2.28	2.12	3.33	3.27
	SD	24.90	0.49	0.61	0.98	0.96	0.81
Taiwan (N=23)	Mean	50.26	4.15	2.77	3.45	2.67	3.55
	SD	25.74	0.35	0.73	0.75	0.72	0.66
Turkey (N=24)	Mean	38.13	3.89	2.62	3.65	2.67	3.67
	SD	22.55	0.45	0.72	1.10	0.85	1.00
UK (N=28)	Mean	60.18	3.68	2.70	3.70	2.64	2.77
	SD	30.87	0.41	0.79	0.82	1.04	1.34
Total (N=604)	Mean	48.28	3.86	2.70	3.38	2.80	3.18
	SD	28.13	0.51	0.70	1.05	0.96	1.01

social isolation. This finding therefore helps to make sense of previous contradictory findings about telework and job stress (Beauregard et al., 2019; Hartig et al., 2007; Heiden et al., 2021; Tavares, 2017). Prior research often analyzed the direct effects of telework without considering moderators or boundary conditions. The study shows that beliefs about telework are an important moderator that decides whether

telework has beneficial versus dysfunctional effects on job stress.

The study shows that this hybrid work mode, whereby employees have the option to decide how many days they work from home per week, seems promising because, on average, higher engagement in telework reduces job stress. This finding is important to note because prior research also reported the dysfunctional effects of telework

Table 3
Results of Structural Equation Modelling.

	Belief about telework effectiveness	Belief about telework isolation	Job Stress
Control			
Age	-.08	.03	-.12 **
Gender	.06	-.02	-.04
Main effect			
Power distance	-.13 *	.13 *	
Individualism	.13 *	.04	
Belief about telework effectiveness			.17 *
Belief about telework isolatio			−.16
Telework			.15 **
Interaction term Telework × Belief about telework effectiveness			-.05
Telework×Belief about telework isolation			.11 *

Note. N = 604. Values are standardized regression coefficients.
* *p* < 0.05.
* * *p* < 0.01.

(Heiden et al., 2021; Kazekami, 2020; Song & Gao, 2020; Weinert et al., 2014, 2015).

6.1. Theoretical contributions

The findings expand prior research about telework that was mostly conducted in Western countries and that mostly included just one country in the empirical investigations (Beauregard et al., 2019; Muthukrishna et al., 2020; Peters et al., 2009, 2016; Venkatesh, 2020). Not much was therefore known about any cultural differences with regards to telework and about the effects of an employee's cultural values on beliefs about telework. The study provides strong evidence that while some employees (with low power distance and high individualism scores) may welcome telework arrangements, other employees (with high power distance and low individualism scores) could consider telework to be a dysfunctional work mode.

The study's second contribution is that it provides evidence that the effects of telework on an employee's job stress depend on beliefs about telework and cultural values. Although many practitioners and scholars expect telework to have beneficial effects on employee well-being (Beauregard et al., 2019; Gajendran & Harrison, 2007; Hartig et al., 2007; O'Hara, 2014), the study's findings show that telework effectiveness is not universal. Telework is therefore not a silver bullet to reduce job stress and there is no guarantee that telework will always have beneficial effects on employee well-being (Beham, Baierl, & Poelmans, 2015). Instead, it seems to be important for managers to
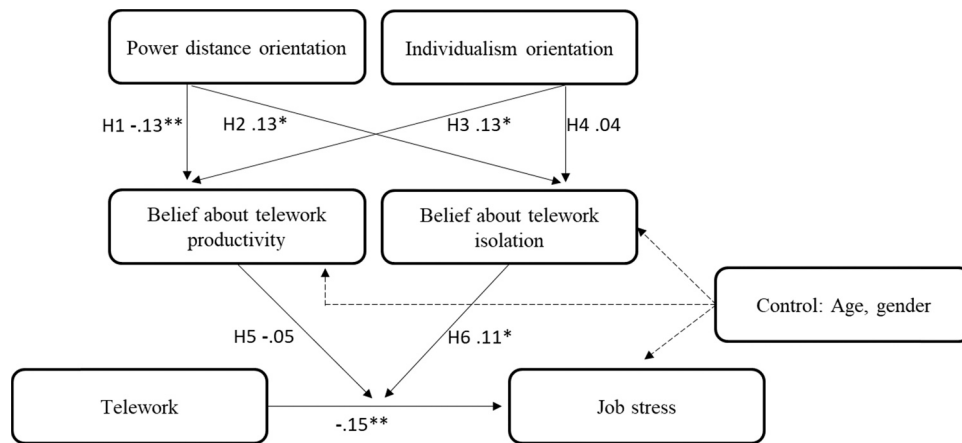

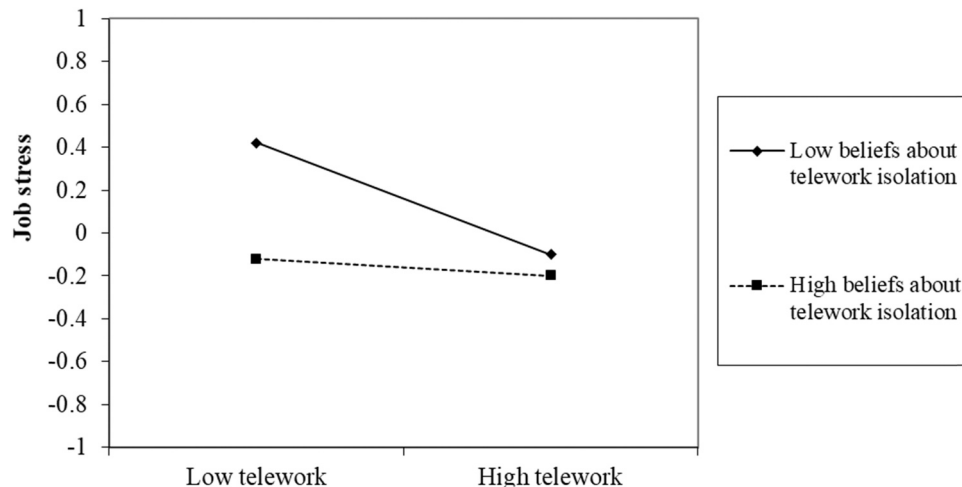**Fig. 2.** Results of structural equation modeling.

Fig. 3. Interaction between telework and beliefs about telework isolation. *Note.* All variables were standardized prior to analysis.

acknowledge that employees have different beliefs regarding telework.

Third, it is important to mention that the present study was conducted before the COVID-19 pandemic. All study participants had the choice to work from home, but it was not an obligation for them do so, as was the case for many employees during the COVID-19 pandemic (Barnes, 2020; Chamakiotis et al., 2021; Dwivedi et al., 2020; Papagiannidis et al., 2020; Venkatesh, 2020). Nevertheless, the study has important implications for the future of work after the COVID-19 pandemic because recent research indicates that the hybrid work mode seems to be the preferred work choice of employees and therefore the future of work arrangements (European Commission's Science & Knowledge Center, 2020; Feitosa & Salas, 2020; Gratton, 2021a; b; The Economist, 2020). By adopting a hybrid work mode, employees work a few days per week from home to benefit from telework advantages like increased job autonomy and the elimination of the work commute. At the same time, employees still go to their traditional office a few days per week to avoid telework issues like social isolation and loneliness.

Finally, the stress-reducing effect of telework is particularly valid for employees who believe that telework will not lead to social isolation. To exploit the potential of telework for the period after the COVID-19 pandemic, it is important for managers and organizations to cultivate positive beliefs about telework among their workforce, to emphasize the benefits of telework for employees, and to establish an effective virtual work climate (Adamovic et al., 2021; Bentley et al., 2016).

6.2. Practical implications

This study has important implications for organizations that allow or plan to allow their employees to work from home. Understanding how employees' cultural values influence their beliefs toward telework may help these organizations to implement telework arrangements more effectively. First, it seems to be more likely that telework arrangements will be more successful when employees have low power distance and high individualism orientations. These employees tend to have more positive attitudes to telework and may welcome it as an opportunity to increase their work effectiveness. In contrast, organizations need to be particularly concerned about providing more support to teleworkers with high power distance and low individualism orientations who tend to have negative beliefs about telework. Only by addressing and changing these negative beliefs will organizations enable the beneficial effects of telework on well-being for these employees. This will also be beneficial to the long-term realization of organizational benefits like connecting and enabling effective knowledge and information exchanges among high-performing employees from different cities and countries, as well as reducing real estate and corporate travel costs (Beham et al., 2015).

Based on the study's results, the beneficial effects of telework on job stress can be strengthened by transforming employees' beliefs about telework. From an organizational perspective, to improve employees' beliefs about telework, organizations can offer training to employees to improve their informational and communication technology skills (Bartelt & Dennis, 2014; Lal & Dwivedi, 2009) and their work-home boundary management (Benlian, 2020; Cousins & Robey, 2015; Lal & Dwivedi, 2010; Park, Fritz, & Jex, 2011). This training could also include strategies about how employees can still engage in effective information and knowledge exchanges with their managers and coworkers. Organizations can further create online communication or social media networks for teleworkers (e.g., Workplace from Facebook), enabling teleworkers to keep up to date with important organizational developments.

From a management perspective, managers can schedule regular online team meetings and catchups with employees to reduce the likelihood of social isolation. Managers can further provide clear guidance, job description, and rules to teleworkers. Working from home often increases job autonomy, but too much autonomy can be a stressful experience when it increases the employee's workload and makes the

work too complex and demanding (Langfred, 2007). It is therefore important for employees to have clear goals and expectations (Adamovic et al., 2020). These leadership behaviors should improve employees' beliefs about telework. From an individual employee perspective, social isolation can be avoided by using mobile technology in a more effective way to be socially present (Lal & Dwivedi, 2009; Sharma et al., 2020) or by scheduling regular online meetings or online coffee or after-work drink catchups with coworkers and managers (Gao & Sai, 2020).

Finally, the study provides important implications for the future of work after the COVID-19 pandemic (Chamakiotis et al., 2021). Although many employees must work from home during the COVID-19 pandemic, most employees prefer a hybrid work mode, whereby they work only a few days per week from home and a few days from their office (Feitosa & Salas, 2020; Gratton, 2021a, 2021b). To be well prepared for the post-COVID-19 period and to help employees to be productive in their hybrid work mode, the current study suggests that organizations need to encourage employees to work from home and increase their beliefs about the advantages of teleworking. This can be done by providing appropriate technology equipment and infrastructure for telework, information and communication technology training to teleworkers, attractive career opportunities for teleworkers, explicit support for telework arrangements from top management, and a collaborative work culture, in which employees encourage each other to work from home (Adamovic et al., 2021; Chamakiotis et al., 2021).

6.3. Limitations and future research

The study explained and tested the hypotheses at the individual level because the study's focus was on the effects of telework on individual job stress and how these effects are influenced by individual beliefs and values. Nevertheless, future research can build on this study and collect enough responses from employees in different countries to aggregate individual level data to the country level. This would allow a replication of the study at the country level. Another possibility for future research is to integrate the organizational level of analysis by including organizational variables like organizational virtual work climate (Adamovic et al., 2021), organizational support (Bentley et al., 2016), or management culture (Kurland & Cooper, 2002; Peters et al., 2016). It could be that employees have more positive attitudes about telework when they work in supportive organizations that have empowering managers and an effective virtual work climate. Such organizational context could also make it more likely that telework will help employees to reduce their job stress. Another avenue for future research is to integrate an employee's household composition (e.g., number of young children) to analyze whether employees with caring responsibilities experience more job stress because of telework. Future research could also examine additional outcomes of telework, such as job satisfaction, organizational commitment, and job performance (Carr, Schmidt, Ford, & DeShon, 2003; Parker et al., 2003). Another future research avenue is to explore predictors of telework like the need for autonomy, task-technology fit, and role clarity.

Furthermore, the study focused on social isolation because it is an important negative consequence of telework (Bentley et al., 2016; Lal & Dwivedi, 2009). To expand this research, future research can integrate the two additional dimensions of isolation that are called professional and physical isolation (Bartel et al., 2012; Cooper & Kurland, 2002) and compare the results with the current study's results regarding telework and social isolation. Although all three dimensions refer to isolation, the different effects of telework could be observed for professional and physical isolation. If an organization supports employees in their telework arrangements and adapts the promotion requirements for teleworkers, no dysfunctional career effects need to emerge for teleworkers (Adamovic et al., 2021), indicating low professional isolation (Kurland & Cooper, 2002). Regarding physical isolation, home-based telework is likely to cause physical isolation. However, different telework modes like working from neighborhood work offices (whose popularity

strongly increased before the COVID-19 pandemic) and client sites do not need to lead to physical isolation (Bartel et al., 2012).

Employees were asked to report on the variables of the research model. To address common method variance, the study had three surveys for the participants that were separated by three months (Podsakoff et al., 2012). The study further analyzed telework as an objective predictor of job stress. Employees reported the percentage that they work from home relative to their total work time. This objective and numeric measure reduces the risk of common method variance. This measure also had a different question format than the other measures, further reducing the likelihood of common method variance (Podsakoff et al., 2012). The study further found a significant interaction effect, indicating that common method variance is unlikely to exist in our study (Siemsen, Roth, & Oliveira, 2010). As the study analyzed individual values, beliefs, and stress, self-report measures were required for these variables (Brannick, Chan, Conway, Lance, & Spector, 2010). Employees are the most appropriate source for measuring their values and beliefs. Nevertheless, future research can expand our study by using ethnographic approaches (e.g., Bartel et al., 2012; Cooper & Kurland, 2002; Sharma et al., 2020; Waizenegger, McKenna, Cai, & Bendz, 2020) to provide additional insight into the effects of telework on job stress and to reduce a potential issue related to employees' perceptions.

Finally, the study focused on employees who were spending at least 20% of their total work time working from home. The reason was that 20% was used as a cut-off value by prior research (e.g., Hartig et al., 2007) and would represent one day per week for a full-time employee who works five days per week. This allowed analysis and comparison of the influence of beliefs about telework on the relationship between an employee's telework time and an employee's job stress level. Future research can build on this study and compare the findings with employees who spend less than 20% of their total work time working from home.

7. Conclusion

As a result of the increasing importance of telework due to the COVID-19 pandemic and other societal and organizational developments like the globalization of business, expensive office space, or lack of office space in large cities, this study investigated whether the effects of telework on job stress are universally effective. The findings provide evidence against the universality of telework effectiveness. First, employees' beliefs about telework strongly vary in dependence on their power distance and individualism orientations. Second, spending more time working from home only reduces job stress when employees do not believe that telework will lead to social isolation. These findings will help organizations that ask employees to work from home and that employ workers with different cultural backgrounds.

CRediT authorship contribution statement

Author: Mladen Adamovic As this is a single authored paper, Mladen Adamovic was responsible for all sections of the manuscript, conducted the data collection and data analysis, acquired the funding, and managed the research project.

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