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Remote work and employee psychological well-being during the COVID-19 pandemic: a scoping review

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Abstract

The COVID-19 pandemic resulted in the implementation of large scale remote working arrangements in organisations. Organisations were forced to implement remote working arrangements to remain operational during the lockdowns. During this period, there was widespread fear and anxiety about the virus. People were concerned for their health, the health of their loved ones and their job security, as some businesses closed down during the early stages of the pandemic (Carracedo et al., 2021). This, and a number of other issues, affected people's psychological well-being (Fiorillo & Gorwood, 2020). The present study seeks to examine the relationship between remote working and employee psychological well-being during the COVID-19 pandemic. More specifically, it aims to do so by reviewing existing literature by means of a scoping review. Arksey and O'Malley's (2005) five-stage research strategy for conducting a scoping review was used to review the existing literature. The study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Moher et al., 2009) protocol and checklist of items to improve the reporting of the scoping review and to limit bias. The theoretical frameworks that have been used to understand the relationship between the two variables in pre-pandemic literature are the Job Demands-Resources model (Bakker & Demerouti, 2007), Psychological Capital (Youssef-Morgan & Luthans, 2013) and the Conservation of Resources theory (Hobfoll, 1989). One of the research questions in the scoping review aims to establish whether the same theoretical frameworks were used to examine the psychological well-being of remote working employees during the pandemic and whether research outcomes developed these theories further. The study also seeks to determine whether the same research methods were used to study the relationship during the pandemic, and to establish which variables were included in the studies. 20 relevant studies were identified, selected and reviewed for this scoping review. A potential benefit of the study is to identify findings in extant research that have implications for remote and hybrid work in the future, and to identify gaps in the research.

Keywords: remote work, COVID-19 pandemic, psychological well-being

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CHAPTER 1: CONTEXT OF THE STUDY

1.1. Introduction

The sudden outbreak of the COVID-19 pandemic necessitated the growth of remote working as a new working arrangement. During the nationwide and global lockdown, many organisations were forced to shift towards remote working. Remote working is a working arrangement that enables employees to perform job tasks from any location out of office (Robertson et al., 2012). Remote working is not a new concept and is believed to have begun in the 1970s in the United States (US) (Katz, 1987). Many scholars have explored the topic of remote working and the relationship between remote working and performance (Elshaiekh et al., 2018), efficiency (Maghlaperidze et al., 2021), productivity (Jalagat & Jalagat, 2019) and well-being (Xiao et al., 2021) before and during the pandemic. A scoping review explored the relationship between remote working/ e-working/ teleworking and employee psychological well-being. This study aims to provide insight into the psychological consequences of remote working for employees working remotely during the COVID-19 pandemic.

Three key theoretical frameworks, the Job Demands-Resources model (ten Brummelhuis & Bakker, 2012), Psychological Capital (Youssef-Morgan & Luthans, 2013) and the Conservation of Resources (Hobfoll, 1989), have been identified by scholars in trying to understand the relationship between remote work and psychological well-being before the pandemic. These frameworks place emphasis on building strength and reservoirs of resources to cope with challenges. Psychological well-being is a critical component of building strength and resources in psychological research (Vaillant, 2007). To understand the relationship between remote working and psychological well-being, it is important that we understand how psychological well-being is often conceptualised in psychological research. In psychological research, researchers take two main approaches to defining psychological well-being; Hedonic and Eudaimonic well-being (Carruthers & Hood, 2004). Hedonic well-being is concerned with subjective well-being, happiness, pleasure and the absence of pain. It refers to happiness most broadly, characterisising it by the presence of "positive emotions versus negative emotions and with satisfaction in various domains of life" (Fava & Ruini, 2003, p. 47). Coping and adaptation are also associated with hedonic well-being (Carruthers & Hood, 2004). Diener and Lucas (1999) argue that coping strategies such as optimism, active problem-solving and spirituality are also associated with subjective (hedonic) well-being. These are referred to as

personal resources in the Job Demands-Resources model (Bakker & Demerouti, 2007). Studies conducted before the pandemic (Golden, 2006; Kemp, 2013; Sardeshmukh et al., 2012), as shown in the theoretical framework section of this paper, show that these personal resources are necessary for remote working employees to cope when working remotely before the pandemic because they contribute to one's psychological well-being. For instance, optimism is closely related to one's psychological well-being because the more optimistic an individual is, the lower their likelihood of developing depression and anxiety (Buchanan & Seligman, 1995).

Eudemonic well-being is concerned with the individual achieving self-realisation and fulfilling their potential (Ryff, 2014). The eudemonic approach to psychological well-being is characterised by individual autonomy, personal growth, self-acceptance and environmental mastery (Ryff & Singer, 2008). Eudaimonic well-being is also concerned with an individual's sense of belongingness and positive interpersonal relationships (Ryff & Singer, 2008). This may tie in with the organisational factors that come into play when working remotely, such as support from managers (Bentley et al., 2016a), team functioning (van Mierlo et al., 2001) and social isolation (Meseguer de Pedro et al., 2021). Eudaimonic approaches to psychological well-being are congruent with the six areas of psychological well-being identified in Ryff's (1989) Scales of Psychological Well-Being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance.

In the context of this study, psychological well-being will be referred to in the broader sense of the term. It will include the sum of these factors and characteristics of Hedonic and Eudaimonic approaches to well-being, as well as studies that used Ryff's (1989) Scale of Psychological well-being. The factors of psychological well-being include autonomy, environmental mastery, absence of negative mood, belongingness, positive relations with others, and other factors such as loneliness, stress, anxiety and depression. This allows for a more comprehensive review of research regarding remote work and psychological well-being during the COVID-19 pandemic.

1.2. Rationale

The COVID-19 pandemic has forced organisations to adapt in a variety of ways to ensure their survival. This adaptation has included strategies such as retrenchment (Kesa, 2020) and

remote-working (Franken et al., 2021). During the strict lockdowns of 2020/2021, many employees were, by law, not permitted to go to physical workspaces for periods of time in various countries. Healthcare workers and other essential service employees were among the few in the population who could leave their homes and go into workspaces. The COVID-19 pandemic led to a decline in the health of the general population (Holtz, 2021), increased unemployment rates (Statistics South Africa (Stats SA), 2020) and hunger (Hart et al., 2022), as many people lost their jobs and were unable to provide for their families.

The COVID-19 pandemic poses unique operational challenges to South African organisations due to the emergence of new health and safety protocols that must be adhered to (Dua et al., 2020). One of the many ways that organisations did this was to shift toward remote working, whereby employees are able to work in their homes without coming into the office. However, many organisations still faced similar challenges posed by the pandemic, which led to employees at risk of salary cuts, loss of income, liquidation and retrenchment (Kesa, 2020), all of which could potentially impact employees' psychological well-being. With rapid changes occurring during this period and with high levels of uncertainty, people are likely to have varying responses to these current events. Organisations must be mindful of the impact that remote working can have on their employees amid the COVID-19 pandemic because employees make up an organisation. If employees are negatively affected, business outcomes will surely be affected as well (Gamal & Mohamed, 2012; Neufeld & Fang, 2005).

An individual's psychological well-being is a critical component of both their personal and work-life (Robertson et al., 2012), which means that we should pay attention to it. It influences how employees experience work (Rathi, 2009), their organisational behaviour (Chang & Nguyen, 2011) and the team's morale (van Mierlo et al., 2001). Conceptually thinking about remote working and psychological well-being in the context of the pandemic can help us understand employees' needs, which enables us to gain an understanding of employees' remote working experiences. It can also be valuable in determining and, establishing structures that can be put in place to support employees and organisations during remote working that has been necessitated by the pandemic and in the future. Organisational psychologists and human resource managers must facilitate strategies that account for the transformation of organisational norms brought about by the COVID-19 pandemic in such a way that they benefit

all concerned stakeholders. Thus, employee psychological well-being must be managed because it affects employees and consequently, the organisation.

The way that employees experience remote working during a pandemic may be starkly different from remote working before the pandemic. For instance, during the pandemic, curfews were put in place, schools were closed, and leisure activities were limited to those that one could participate in within their own home (Heiberg & Winning, 2020). People were forced to stay indoors, and parents had to take on the role of nanny and teacher because schools were closed, and people were isolated. This may have led to social isolation, distance from their support networks, and a blur in the line between the Work-Life interface. Moreover, some people may have been forced to quarantine in small homes with large families and were perhaps unable to get away to work effectively under those conditions (Rafique et al., 2022). Furthermore, the pressure of having to quickly learn how to use applications such as Zoom and Microsoft Teams (Karl et al., 2022), as well as dealing with the impersonal nature of these applications, may have caused further stress and social isolation (Chai & Park, 2022; Williams, 2021). The sum of these factors could influence employees' psychological well-being when working remotely during the COVID-19 pandemic.

This study aims to examine the nature of research that has, thus far, been conducted to explore the relationship between remote working and employees' psychological well-being during the Covid-19 pandemic through a scoping review. It further aims to summarise and analyse the findings of these studies and aims to identify the gaps in the existing literature. This will allow the researcher to point future research in the right direction for further studies, as future literature should seek to contribute new knowledge to existing studies.

The aims will be achieved through a scoping review. A scoping review is a systematic approach to identifying, organising, and summarising research literature on a specific topic (Arksey & O'Malley, 2005). It is a preliminary step in conducting a comprehensive review of the existing evidence. According to Levac et al. (2010), scoping reviews aim to provide a broad overview of the available research, identify key concepts, sources, and gaps in knowledge, and inform future research directions. Unlike systematic reviews that focus on answering a specific research question, scoping reviews adopt a more exploratory and inclusive approach, considering a wider range of study designs, methodologies, and sources (Arksey & O'Malley, 2005). The process involves systematically searching multiple databases, screening and

selecting relevant studies, extracting and synthesising data, and presenting the findings descriptively and narratively. Scoping reviews are particularly valuable in areas with limited research or when the scope of a topic is broad and diverse, facilitating the identification of key themes, evidence gaps, and areas for further investigation.

This scoping review will begin by reviewing pre-pandemic literature, identifying the theoretical framework that will inform and underpin the study, and identifying the research objectives/aims and questions of the study. The methodology is outlined, and the recommended methodological framework outlined by Arksey and O'Malleys (2005) for conducting scoping reviews is used to identify, scope and review the literature investigating the relationship between remote work and psychological well-being during the pandemic. The results section follows, whereby the research questions are answered, and research objectives are met. This will be followed by a discussion section in which the findings are described, analysed, interpreted and put into context. An implications section follows, which will identify the practical and theoretical implications of the study. This is followed by a section which more explicitly identifies the gaps in the literature and makes recommendations for future research, so as to fill those gaps. This is followed by a section that discusses the limitations of the study and ends with some concluding remarks.

CHAPTER 2: LITERATURE REVIEW

As previously stated, remote working is not a new phenomenon and has been around for a long time (Mann & Holdsworth, 2003). A variety of studies were conducted to examine the relationship between remote work and psychological well-being before the pandemic. Consequently, various research methods were used to understand this relationship. Organisational variables, individual and socio-demographic variables were included. This section will discuss some of the literature examining remote work and psychological well-being before the pandemic; the variables included, and the gaps identified. These studies were selected by searching for relevant studies on remote work and employees' psychological well-being through Google Scholar and looking at systematic reviews. Only relevant studies conducted before the COVID-19 pandemic were included in the literature review below. This literature review will begin by reviewing literature that examined the relationship between remote work and psychological well-being before the pandemic before identifying the research methods and variables that were included in the studies.

2.1. Remote work and employee psychological well-being before the pandemic

Some research was conducted to explore the relationship between remote-working and psychological well-being before the COVID-19 pandemic; however, these studies produced mixed results.

A mixed methods study by Eddleston and Mulki (2017) showed that remote workers experienced more stress due to increased work-family conflict. The findings of the study showed that remote-working employees found it difficult to disengage from work. The study indicated that the negative effect of stress as a result of increased work-family conflict was significantly greater for women than it was for men. Another study by Windeler et al. (2017) found that remote-working employees experienced higher levels of work exhaustion than non-remote employees. The study conducted by Eddleston and Mulki (2017) was a mixed-methods study. Semi-structured interviews and questionnaires were used to obtain data from the studyin the study. The qualitative study validated the results of the quantitative study, which improved the reliability and robustness of the study. The sample sizes were adequate for both methods, with the qualitative study including 52 employees and the quantitative study including 299 employees, which improved the generalisability of the findings.

Grant et al. (2013) conducted a qualitative study that used semi-structured interviews to explore the impact that remote working had on work-life balance, job effectiveness and employee well-being. The study found that well-being was negatively influenced by remote working. The study proposes that these outcomes result from over-working and lack of recuperation time from remote working. Participants in the study also reported blurring lines between work and home life as they began to work much longer hours throughout the day. They reported feeling over-worked and exhausted, which they stated had an impact on their well-being. A small sample size of 11 employees was included in this study. Thus, the representativeness of the sample and the generalisability of the findings for this study may be limited.

A more recent quantitative study (Filardi et al., 2020) conducted before the COVID-19 pandemic and only published during the pandemic found a positive relationship between remote working and outcomes of work-life balance, flexibility and quality of life. The study concluded that remote working had desirable outcomes for individual well-being and included reports of improved quality of life, improved safety when working remotely, and reduced commute-related stress. However, Filardi et al. (2020) warned that other outcomes might adversely impact employees' psychological well-being. Negative psychological outcomes that were found in the study included isolation, depression and demotivation. The study was conducted through the administration of a questionnaire and included only 98 respondents. The generalisability of the results to the general population is limited due to the small sample size.

The studies by Anderson et al. (2015), Eddleston and Mulki (2017) and Windeler et al. (2017) were conducted in the United States (US), and the study by Grant et al. (2013) was conducted in the United Kingdom (UK). This limits its applicability to the South African context because these countries are developed, western, industrialised countries in the global north, while South Africa is a developing country in the global south, with the highest level of socio-economic inequality across the globe (Freedom House, 2022). The resources that South African remote workers may have access to might be significantly different from the resources that remote workers from western, developed and industrialised countries such as the US and the UK may have. The conditions in which remote working takes place might also be significantly different. Thus, these studies' findings may be limited in their applicability to the South African context. The study by Filardi et al. (2020) was conducted in Brazil. The results of the study may be slightly more applicable to the South African context because like South Africa, Brazil is also

a developing country with high socio-economic inequalities; however, the small sample size still limits the generalisability of the results.

2.2. Research methods used in remote work and psychological well-being studies

A variety of research methods were used in pre-pandemic literature on remote work and psychological well-being. A majority of the studies were quantitative and cross-sectional (Anderson et al., 2015; Bentley et al., 2016a; Filardi et al., 2020; Giménez-Nadal et al., 2019; Sardeshmukh et al., 2012; Windeler et al., 2017) while fewer studies utilised qualitative methods (Grant et al., 2013; Tietze & Nadin, 2011). Even fewerstudies used mixed methods (Eddleston & Mulki, 2017). Few longitudinal studies were identified. Longitudinal studies would have helped researchers follow remote workers in real-time to determine if there were any changes in remote experiences across time. Quantitative studies administered surveys to participants, and qualitative studies utilised questionnaires and semi-structured interviews. The mixed-methods study by Eddleston and Mulki (2017) conducted semi-structured interviews and administered a questionnaire.

2.3. Organisational and group variables influencing the relationship between remote work and employee psychological well-being

Pre-Covid-19 pandemic research identified several organisational and group factors that influence the impact of working remotely on psychological well-being. These include organisational variables such as organisational support (Bentley et al., 2016; Neufeld & Fang, 2005) and group variables such as managerial support, social isolation (Bentley et al., 2016; Grant et al., 2013), communication, and colleague support (Cooper & Kurland, 2002).

A quantitative study by Bentley et al. (2016) examined the relationship between remote working employees' well-being and organisation support. A mixed-methods study by Neufeld and Fang (2005) used semi-structured interviews to qualitatively explore the individual, social and situational factors related to productivity in remote work. The results of the study indicated

that increased organisational and managerial support for remote working employees significantly reduced psychological strain for the remote workers.

In the Bentley et al. (2016) study, social isolation was a mediator in the relationship between organisational social support and remote working employees' well-being and was positively related to psychological strain. In their study, social isolation referred to remote workers' isolation from colleagues, teams and managers who rely on technology for task delegation from managers and collaboration on tasks with co-workers. Grant et al. (2013) also found that communication and support from colleagues and supervisors moderated the relationship between remote working and psychological well-being, adding that both factors work together to balance and positively influence psychological well-being. Previous research also indicates that social isolation when working remotely can produce adverse psychological and job outcomes (Cooper & Kurland, 2002; Pérez et al., 2002). Cooper & Kurland (2002) found that remote working had the potential to increase professional isolation and impede professional development. The study by Bentley et al. (2016) utilised a representative sample of 804 remote workers across various sectors, increasing the results' validity and generalisability.

Pre-pandemic literature (Bentley et al., 2016; Cooper & Kurland, 2002; Grant et al., 2013; Neufeld & Fang, 2005) included a number of organisational factors such as supervisor and managerial support and social isolation from colleagues. However, one of the gaps identified is that little pre-pandemic research considered other organisational and group variables such as organisational culture, climate, policies, leadership, team functioning and team-building, training and development, and creativity.

2.4. Individual and socio-demographic variables in relation to psychological well-being during pre-pandemic remote working

Pre-Covid-19 pandemic research identified few individual and socio-demographic factors influencing remote working employees' psychological well-being. Individual and demographic factors include variables such as age, race, gender, aspects of personality, marital status, economic status and number and age of children. Variables that were included in pre-pandemic literature were gender (Eddleston & Mulki, 2017; Giménez-Nadal et al., 2019) and aspects of personality (Anderson et al., 2015).

Some studies have examined gender differences in well-being when remote working. Windeler et al., (2017) examined the moderating effect of remote working on interpersonal and external interactions on work exhaustion. The researchers examined employees before and after implementing a formal remote working initiative. Males were found to have reported higher levels of work exhaustion after the remote working had begun. The study also compared remote working employees to employees that were still working in the offices. In this study, females reported higher levels of work exhaustion when compared to those who continued working in the office. The study utilised a small sample size (n = 51) for the first part of their study; however, this is appropriate because a cohort study was conducted over a period of four months. The second part of their study included 258 employees, which is an adequate sample size.

In a study by Eddleston and Mulki (2017), remote-working employees reported higher levels of job stress that were mediated by work-family conflict. The relationship between remote working and job stress was moderated by gender. Women reported higher levels of job stress due to the increase in work-family conflict as they struggled to disengage from work. On the other hand, men experienced higher work-family conflict due to the spillover of work into the family domain.

Another study by Giménez-Nadal et al. (2019) examined the physical and mental health outcomes of remote working by gender. Men reported lower stress and tiredness levels compared to those who continued commuting to work. At the same time, no statistically significant differences were found between remote-working women and those who were not remote working. In contrast, a study by Song and Gao (2020) reported that remote-working fathers experienced higher stress levels while remote-working mothers experienced lower levels of happiness. A large, representative sample of 2471 respondents was included in the study by Giménez-Nadal et al. (2019), which significantly improves the validity and generalisability of the results. However, the study was conducted in the US, thereby limiting the results' applicability to South Africa. The manner in which gender roles in South Africa may play a moderating role in the relationship between remote work during the pandemic and employee psychological well-being may be different from how it does in a developing country as socio-economic inequalities and traditional gender roles might influence the strength or nature of the relationship. South African women may also have other stressors due to cultural responsibilities and the possible fear of losing their jobs in an already struggling economy.

One study included aspects of personality (Anderson et al., 2015) in trying to understand the relationship between remote work and well-being. The individual differences that moderated this relationship were openness to experience, rumination, sensation seeking, and social connectedness outside of work. It was reported that individual levels of openness to experience positively moderated the relationship between teleworking and positive affect. The study found that those who were more likely to ruminate had negative psychological outcomes such as fear and anxiety. The study also found that remote workers who were more socially connected had more positive psychological outcomes, such as enthusiasm, alertness and happiness, than those who were not.

Studies showed that remote work might increase work hours and workload (Towers et al., 2006) and role ambiguity (Stephens & Szajna, 1998). Some contextual variables were included in the studies. For instance, studies showed that longer work hours and high workload were associated with poorer social support (Sardeshmukh et al., 2012), organisational/managerial support (Lautsch et al., 2009; Neufeld & Fang, 2005; Sardeshmukh et al., 2012) and feedback (Gamal & Mohamed, 2012), which are critical components for remote working employees' psychological well-being (Bentley et al., 2016).

Studies indicate that remote work has positive and negative outcomes on psychological well-being, such as increased stress levels (Kazekami, 2020) and improved well-being (Tietze & Nadin, 2011). Gender appears to be the most researched individual variable among pre-pandemic literature (Eddleston & Mulki, 2017; Giménez-Nadal et al., 2019; Windeler et al., 2017. At the time of writing, no pre-pandemic literature was found on other organisational variables such as organisational policies, culture, climate and leadership. No pre-pandemic literature was found to include socio-demographic variables such as the number of children, economic status, income level etc.

In sum, it is essential to note that remote working during the COVID-19 pandemic may produce very different results from remote working before the pandemic because organisations had to shift to remote working to remain operational, and many were not prepared for it (Franken et al., 2021). It also took place when many countries were experiencing lockdowns during various periods of time, when there was little knowledge about the nature of the virus (Nature, 2021). The present scoping review reviewed literature based on data collected during the pandemic to evaluate the relationship between remote working and employees' psychological well-being.

The findings were also compared with pre-pandemic literature. The study aims to provide insight into the consequences of remote working on employees' psychological well-being during the COVID-19 pandemic. This study identified the implications for future research, organisations, individuals and remote work management.

2.5. Theoretical Framework

Theoretical frameworks are critical in a study as they form the anchor and foundation upon which a study is developed (Jaccard & Jacoby, 2009). It establishes the perspective from which the researcher will interpret the data (Jaccard & Jacoby, 2009); thereby providing the study with direction. It enables others to understand key concepts and contribute new knowledge from the findings of the study by either building on or disproving an existing theory (Jaccard & Jacoby, 2009). Review of previous pre-pandemic literature indicated that studies identified three key theoretical frameworks to better understand the connection between remote working employees' psychological well-being and remote working before the pandemic; the Job Demands-Resources model (Bakker & Demerouti, 2007), Psychological capital (Youssef-Morgan & Luthans, 2013) and the Conservation of Resources theory (Hobfoll, 1989). This chapter will explore the theoretical frameworks that have been used in pre-pandemic literature; the same will form the foundation of this study.

2.5.1. Job Demands-Resources model

The Job Demands-Resources model was used as a theoretical framework to understand the contextual and personal factors that may influence remote working employees' psychological well-being (Nakrošienė et al., 2019; Sardeshmukh et al., 2012; Shevchuk et al., 2018).

At the heart of the Job Demands-Resources model is the assumption that job characteristics can be categorised by contextual (job) demands and resources, while personal resources categorise individual characteristics (Bakker & Demerouti, 2007). The model assumes that stress or burnout develops when job demands (workload, cognitive, psychical or emotional) are high and job resources (social support, autonomy, development opportunities and feedback) are low. Schaufeli and Taris (2014, p. 296) state job demands are "those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and psychological costs". Job resources and personal resources buffer the negative impact of high job demands

on psychological well-being (Bakker & Demerouti, 2007). Often, when job demands and high and job and personal resources are low, employees struggle to meet job demands. Psychological well-being is negatively affected when job demands supersede job and personal resources.

In several previous studies, this framework has been used to identify and understand the job demands that might affect remote workers' psychological well-being (Nakrošienė et al., 2019; Sardeshmukh et al., 2012; Shevchuk et al., 2018). Sardeshmukh et al. (2012) argue that remote working significantly changes the nature of an employee's job demands and resources. Sardeshmukh et al. (2012) also state that job demands are not inherently harmful; however, exhaustion may occur when more effort is required to meet job demands. They argue that remote working increases the psychological distance between employees and their managers or teams. Consequently, autonomy, feedback and social support reflect the relationship between job resources and remote working and the impact that they may have on well-being, such as psychological withdrawal (Sardeshmukh et al., 2012; Shevchuk et al., 2018).

Nakrošienė et al. (2019) also used the Job Demands-Resources model to link remote working factors with remote working outcomes. They characterised the job demands by "physical workload, time pressure, recipient contract, physical environment, shift work" and job resources as "feedback, rewards, job control, participation, job security, supervisor's support" (Nakrošienė et al., 2019, p. 90). As a result, higher job demands lead to negative health and job outcomes, while higher job resources lead to positive health and work outcomes.

ten Brummelhuis and Bakker's (2012) Work-Home Resources Model (Figure 3) can also be used to supplement some of the personal and contextual resources and demands in the Job Demands-Resources model. For instance, contextual resources such as autonomy and feedback and personal psychological resources such as self-efficacy and resilience may buffer the negative impact of remote work on psychological well-being.

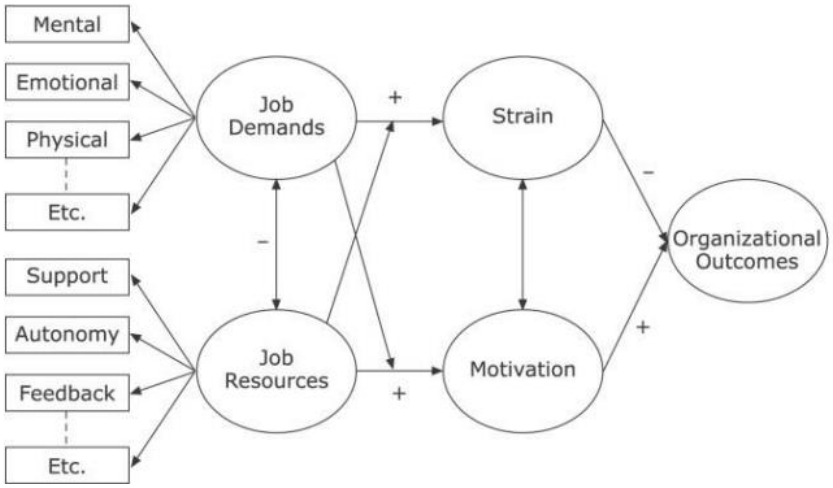

Figure 1. Job Demands-Resources model (Bakker & Demerouti, 2007)

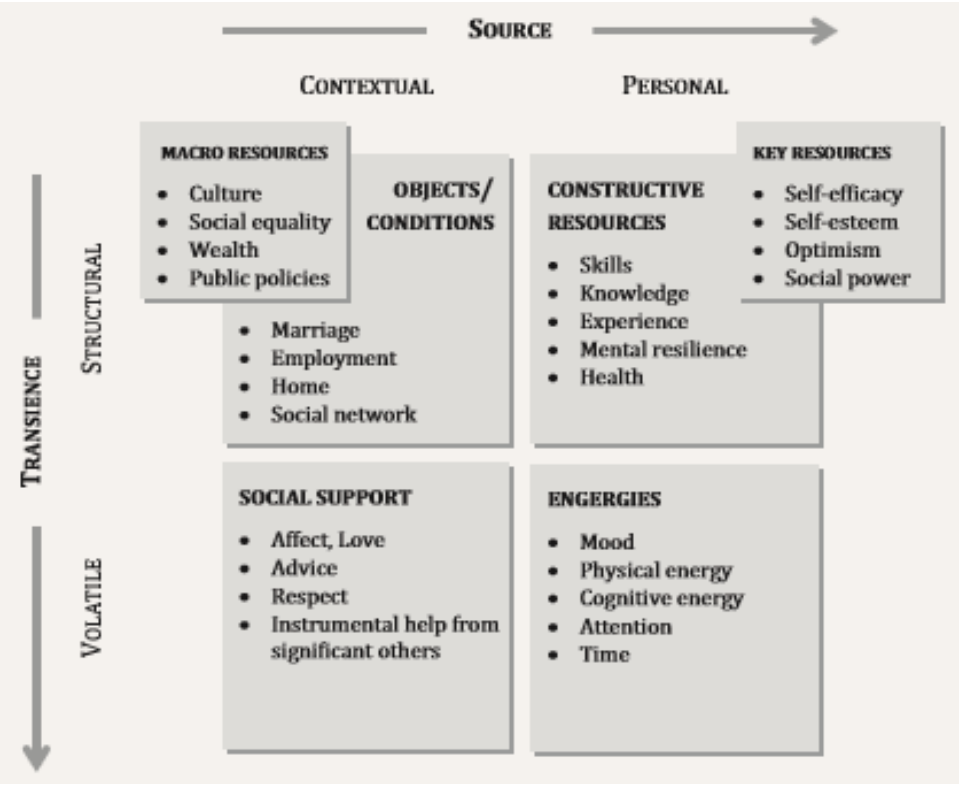

Figure 2. Work-Home Resources Model (ten Brummelhuis & Bakker, 2012)

Contextual demands	Overload	Working overtime, many household chores, urgent care tasks
	Physical	Lifting weights, care for the elderly, care for young children
	Emotional	Dealing with an angry customer, conflicts at home, disappointments
	Cognitive	Writing a report, coordination of household and care tasks, multitasking
Contextual resources	Social support	Advice from co-workers, understanding, love, respect from a friend
	Autonomy	Control over work design, planning leisure time, allocating home tasks
	Opportunities for development	New tasks at work, attending courses, participating in sports, hobbies
	Feedback	Supervisor evaluation, open communication at home, reflection with friends
Personal resources	Physical	Health, physical energy, vigor, sleep
	Psychological	Optimism, self-efficacy, focus, mental resilience
	Affective	Mood, fulfillment, empathy, gratefulness
	Intellectual	Skills, perspectives, knowledge, experience
	Capital	Time, money
Outcomes	Production	Meeting deadlines, service quality, completing tasks, quality of care tasks
	Behavioral	Absenteeism, turnover, availability at home, providing a secure home
	Attitudinal	Satisfaction, commitment, well-being, relationship quality

Figure 3. Overview of the components of the Work-Home Resources Model (ten Brummelhuis & Bakker, 2012)

2.5.2. Conservation of Resources Theory

In tandem with the Job Demands-Resources model (Bakker & Demerouti, 2007) and the theory of Psychological Capital (Youssef-Morgan & Luthans, 2013) is the Conservation of Resources theory (Hobfoll, 1989) which was often alluded to when studies mentioned personal resources. The Conservation of Resources theory is a theory that was developed by Hobfoll (1989) to help us understand the concept of stress. In essence, the theory describes the drive that individuals have to maintain current resources and pursue new resources.

Hobfoll (1989) argues that psychological stress occurs when there was a threat of a loss of resources, when there is an actual loss of resources and when resources are not replenished after spending those resources. According to this theory, resources are concerned with things that individuals value, such as a particular state, condition or object. The Conservation of Resources theory argues that that loss of resources leads to psychological stress. In the context of remote work, this theory has aided scholars in understanding how remote working may influence psychological well-being.

Golden (2006) understood the context of remote working through the lens of the Conservation of Resources theory. Golden (2006) argued that the change in a remote worker's working location had two main implications for personal resources. Firstly, working remotely and at a distance from others may allow individuals to better manage and choose their interactions, thus conserving their psychological energy (resources) and avoiding depletion. The Conservation

of Resources theory posits that people are motivated to maintain, protect and continue to build resources such as energy and time (Hobfoll, 1989) such that when the individual is faced with a challenge or threat, they are prepared to meet those challenges (Lee & Ashforth, 1996). Secondly, remote workers conserve their psychological energy when they do not commute to work, which also assists in aiding the acquisition of other kinds of resources" (Hobfoll, 1989, p. 517). Conserved resources such as time and energy can then be allocated to leisure activities (Guimaraes & Dallow, 1999), which then reduces work-family conflict (Duxbury et al., 1998), enhances work-life balance (Sullivan, 2012) and provide an opportunity to replenish one's resources. Therefore, according to Golden (2006), remote working provides employees with more 'stress resistance capacity' (Hobfoll, 1989), thereby affording employees more control over job interactions. This, in turn, can have positive psychological outcomes for individuals and desirable organisational outcomes for organisations when managed correctly.

2.5.3. Psychological well-being: Psychological capital as a personal resource

A number of studies (Kemp, 2013; Meseguer de Pedro et al., 2021; Silva & Simões, 2022) used the theory of psychological capital to conceptualise psychological well-being when remote-working.

Psychological capital can be considered adjacent to the theory of the Conservation of Resources. The Conservation of Resources theory defines resources as "those objects, personal characteristics, conditions, or energies that are valued in their own right, or that are valued because of the act as conduits to the achievement of protection of valued resources" (Hobfoll, 2001, p. 339). At the heart of the Conservation of Resources Theory is the idea that individuals are attempting to obtain, foster, and retain the resources that they require; therefore, more resources are desirable to the individual, particularly in psychologically stressful situations (Hobfoll, 2001).

Studies have shown that Psychological Capital and the Conservation of Resources theory can go hand in hand (Siu, 2013; Vîrgă et al., 2020). Psychological capital has been proven to be a critical resource for coping with stress (Rabenu et al., 2017) and burnout (Vîrgă et al., 2020). Psychological capital identifies four main resources, optimism, resilience, hope, and self-efficacy (Youssef-Morgan & Luthans, 2013). Psychological capital is defined by Hughes (2008, p. 47) as the combination of all these features that can be "measured, developed and effectively managed" to better employee performance. It describes an individual's confidence

to face challenges (self-efficacy), to make internal, stable attributions to positive events (optimism) (Kemp, 2013), to expect positive results (hope) (Silva & Simões, 2022), and to recover from adversity and come back stronger from it (resilience) (Meseguer de Pedro et al., 2021). All four components are essential for remote-working employees to have during the pandemic; however, resilience seems most appropriate for the context of the coronavirus pandemic. As businesses have suffered significant losses, some employees have also suffered great financial losses, fear of retrenchment, salary cuts, the breaking up of teams and impacted team functioning (van Mierlo et al., 2001). Employees have likely had to become resilient in the face of adversity and adapt to change to survive these losses.

Within the theory of psychological capital, resiliency is described as the "tendency to recover from adversity or depressing process and allows people to optimistically look at the overwhelming situations" Fedai (2015, p. 246). It refers to an individual's endurance, tolerance, and flexibility to adapt when obstacles arise; to bounce back, and keep up with unprecedented changes in life. Masten (2001) argues that resiliency has three key components. The first component is the asset factors that can increase levels of personal resiliency. In the context of this study, these key asset factors refer to the contextual (job) and personal resources, according to the Job Demands-Resources model, that alleviate the adverse psychological effects of remote working on employees. The second component is the risk factors that lower resiliency reveals, which in this study refer to the individual's contextual (job) demands. The third component is the influence processes that may occur, which in this study refer to any other moderating factors that may influence the individuals' psychological well-being.

In essence, while psychological capital is useful in stressful situations (Kemp, 2013), the continuous use of personal resources to face challenges may cause resource deterioration (Gist & Lubin, 2013; Masten, 2001). Thus, the researcher argues that when employees work remotely during the COVID-19 pandemic, they may need to tap into their psychological resources to overcome challenges and achieve objectives. However, if personal resources are not adequate to cope with challenges, resources may become depleted, and psychological well-being may begin to deteriorate (Hobfoll, 2001).

Theoretical frameworks play a crucial role in interpreting research findings, explaining observed patterns or relationships, and relating the findings back to the underlying theoretical constructs or concepts. Additionally, they enhance the internal consistency and coherence of the research process by grounding the study in established theories or conceptual frameworks

(Jaccard & Jacoby, 2009). In the present dissertation, three theoretical frameworks were employed: the Job Demands-Resources model (Bakker & Demerouti, 2007), Psychological capital (Youssef-Morgan & Luthans, 2013), and the Conservation of Resources theory (Hobfoll, 1989).

These frameworks provide a theoretical lens through which the research data can be analysed and interpreted. The Job Demands-Resources model offers insights into the influence of job demands and resources on employee well-being and performance. Psychological capital focuses on positive psychological capacities and their impact on employee attitudes and behaviours. The Conservation of Resources theory elucidates the role of resource gains and losses in predicting stress and resilience in individuals. By grounding the study in these theoretical frameworks, the study aims to comprehensively understand the dynamics and relationships among variables while aligning with established theories and enhancing the validity and reliability of the research.

2.6. Research Objectives/ Aims

The aim of this scoping review is to map the broader psychological experiences of remote-working employees during COVID-19. It seeks to explore existing literature and seeks to examine factors that influence the psychological well-being of remote-working employees during the COVID-19 pandemic, from 2020 to June 2022, at the time of writing. Notably, this scoping review aims to identify gaps in existing literature.

2.7. Research Questions

This review was guided by the following questions:

1. What is known from the existing literature about the relationship between remote work and employee psychological well-being during the COVID-19 pandemic?
2. What are the characteristics of the included studies? (What research methods have been used?)
3. What variables have been included in the studies, and what were the research findings?

4. What gaps are there in existing research regarding the relationship between remote work and employee well-being?
5. What are the implications for future remote work and hybrid work for organisations, individuals and future research?

CHAPTER 3: METHODOLOGY

This chapter outlines the methodology for the scoping review. It describes the research design, review procedure, examines the ethical considerations and considers the reflexivity, rigour and trustworthiness of the study.

3.1. Research design

The research design for this study is a scoping review. A scoping review allows the researcher to 'scope' the literature on a certain area and allows them to "identify key concepts; gaps in the research; and types and sources of evidence to inform practice, policymaking, and research" (Daudt et al., 2013, p. 8). Moreover, the researcher chooses to use a scoping review for this study because the researcher seeks to identify, evaluate, compare, contrast and summarise the findings of existing studies about remote working and employee well-being during the COVID-19 pandemic. The scoping review will make the findings more accessible to researchers, organisational psychologists, human resource managers, executives and other stakeholders and decision-makers.

3. Review procedure

The study utilised the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) (Moher et al., 2009) protocol to conduct the scoping review. The PRISMA method intends to promote accountability, transparency and integrity of the completed review (Moher et al., 2009). The researcher also utilised/used the standardised PRISMA checklist (Appendix A) to ensure that each standard of the scoping review is met, ensuring the study's reliability. The 27-item checklist is a step-by-step guideline as to how the analysis should be conducted, which outlines the structure of the review. The PRISMA checklist for reviewing literature is used to protect against bias by limiting the researcher from being selective in the reporting of outcomes, which researcher report is an increasing problem in clinical research and reviews (Dwan et al., 2013). Most critically, the scoping review adhered to the five stages of the framework for conducting a scoping review that is outlined by Arksey and O'Malley (2005).

Stage 1: Identifying the Research Question

A scoping review is not likely to address very specific research questions (Arksey & O'Malley, 2005). The broader research question for this study is '*What is known from the existing*

literature about the relationship between remote work and employee psychological well-being during the Covid-19 pandemic?' In trying to determine what factors of psychological well-being are going to be included in the term 'psychological well-being', the researcher has decided to maintain a wide approach to psychological well-being to ensure that a breadth of coverage of studies is produced. The researcher determined what parameters to set on large quantities of studies once they had fully identified the volume and scope of the studies in the field.

Stage 2: Identifying Relevant Studies

The primary studies were published, and peer-reviewed studies that are/were suitable for answering the research questions. Studies were identified by looking for research evidence in electronic databases, reference lists and sifting through relevant journals. Articles from 2020 to June 2022, at the time of writing, were considered because lockdowns and forced remote working due to the COVID-19 pandemic began in 2020. Articles published in languages other than English were excluded because the researcher did not have the resources (cost and time) required to translate the articles. The search strategy for finding articles through electronic databases was developed from the research question. The search terms are included in the table below (Table 1). Relevant studies were also identified by looking at the reference lists of the studies found through electronic databases to ensure that those studies were also included in the study.

Table 1

Search Terms

Search terms
Teleworking-; Remote working-; e-working-; smart working- and psychological well-being; COVID-19; pandemic
Working from home during the COVID-19 pandemic
Impact of remote working-; teleworking-; e-working-; smart working- on psychological well-being; stress, loneliness, burnout, isolation
Relationship between remote-working-; e-working-; teleworking-; smart working- on psychological well-being

Stage 3: Study Selection

The search strategy produced a large number of studies, both relevant and irrelevant. Thus, it was necessary to include eligibility criteria to eliminate studies that did not address the research questions.

In addition, in the methods section of the PRISMA protocol, the researcher includes information about the eligibility criteria (Moher et al., 2009). The researcher must identify the inclusion and exclusion criteria for the study, including information about the years considered, the context, language, research type, and publication status. The following table (Table 2) illustrates the inclusion and exclusion criteria for the study. 20 studies have been included in the study.

Table 2

Eligibility Criteria

	Inclusion Criteria	**Exclusion Criteria**
Population	Remote working employees within an organisation (Employees over 16 years of age) Employees at any occupational level	Non-remote working employees and unemployed samples
Context	Remote working during the COVID-19 pandemic Articles based on data collected during the Covid-19 pandemic from 2020 – current (June 2022)	Articles based on pre-pandemic data
Outcomes	Psychological outcomes	Other outcomes (i.e. physical well-being)
Study Design	Empirical, empirical and technical report, quantitative and/or qualitative	Reviews, books, theoretical papers, opinion pieces

Other criteria	Peer-reviewed, journal-published articles Technical and empirical reports published by reputable and reliable state and global organisations Articles published in the English language	Non-peer reviewed journals, unpublished articles, grey literature (e.g., unpublished theses and dissertations)

The researcher applied the eligibility criteria to each study to determine whether it should be included in the final sample. This study also intends to equitably include databases from around the globe, with attention predominantly focused on psychology, psychology as a scientific discipline, human resource management, business management, well-being, and health. The included databases and the reasons for inclusion are listed in Table 3. The researcher read the full articles, as per Arksey and O'Malley's (2005) recommendation, to make a fully informed and final decision as to which studies should be included in the study. Appendix B shows the flow diagram of the study selection process, and the number of studies include and excluded at each stage.

Table 3

Databases Searched and reasons for inclusion

Database	Reason for inclusion
BMC Public Health	General and mental health literature
British University in Egypt (BUE) Scholar	BUE Research literature
Cambridge University Press	Global multidisciplinary literature
Emerald Insight	Global multidisciplinary literature
Gale Academic OneFile	Global multidisciplinary literature

Journal of Medical Internet Research Publications (JMIRx Med)	Global eHealth journal
National Centre for Biotechnology Information (NCBI)	Global science and health related global literature
Multidisciplinary Digital Publishing Institute (MDPI)	Global multidisciplinary literature
PubMed	Biomedical and life sciences literature
Research Gate	Global multidisciplinary literature
Science Direct	Global multidisciplinary literature
Social Science Research Network **(**SSRN)	Global multidisciplinary literature
Taylor and Francis Online	Global multidisciplinary literature
Wiley Online Library	Global multidisciplinary literature

Stage 4: Charting the Data

This stage involves 'charting' critical information that has been identified from the primary research reports that are included in the study. A data charting form was made by use of a Microsoft Excel (Microsoft 365, 2022) spreadsheet (Appendix C). Recorded information consisted of the author(s) names, the country in which the study took place, the aim of the study, the methodology used, variables included in the studies, sample size, sampling strategy, theoretical frameworks used and critical/relevant outcomes/results. This data formed the basis of the analysis.

A 'descriptive analytical' method outlined by Arksey and O'Malley (2005) was used. It is the process whereby the researcher applies one analytical framework to all of the primary research reports included in the study, collecting information from each article. Quantitative research findings were transformed into one format; textual data. As Lizarondo et al. (2017) suggest, it is much less complex to transform quantitative data into textual data than it is to transform qualitative data into numeric data. The quantitative data was analysed using a narrative review (Arksey & O'Malley, 2005). Once the data underwent a transformation and became comparable, the researcher analysed the qualitative and transformed quantitative data using Thomas and Harden's (2008) thematic analysis method.

Risk of bias

The risk of bias across studies in cumulative evidence was minimised by the inclusion of articles published in a variety of journals and databases, as seen in the database table above (Table 1). This significantly limits publication bias. To further limit bias, the scoping review method by Arksey and O'Malley (2005) ensured that the reporting process had clarity and transparency. This will allow readers to identify any bias in reporting that the researcher may not have identified.

4. Ethical considerations

All research articles and reports included in this scoping review are readily available in public journals and websites. Thus, there were no special ethical considerations for this study. However, an application was made to the Human Research Ethics Committee for ethics clearance and permission was granted to conduct the study (Appendix D).

5. Reflexivity, rigour and trustworthiness

Scoping reviews are not immune to the potential of bias that is present in quantitative and qualitative research (Tricco et al., 2016). Thus, researchers must try to accurately represent data while minimising bias to the smallest degree. While the researcher cannot eliminate investigator bias, the researcher attempted to minimise it by keeping the research process transparent throughout. To improve reflexivity, the researcher consulted more knowledgeable parties (the supervisor) for guidance and direction throughout the process to verify the logic of their decisions.

The scoping review process discussed in the methodology section also assisted the researcher in improving methodological rigour and transparency, as the entire process was meticulously tracked. External parties will be able to review all the steps taken in the study and report any bias that has not been identified. The researcher utilised a personal reflexive research journal to ensure that they remained conscious of any otherwise unconscious biases, feelings, and personal judgements that they presented during the process.

6. FINDINGS

This chapter will address the research questions and objectives by consolidating the results of the studies in the sample of included studies. Three main thematic areas were identified: (1) What is known from the existing literature about the relationship between remote work and employee psychological well-being during the COVID-19 pandemic? (2) what are the characteristics of the studies conducted in this area, and (3) variables included in studies of the relationship between remote work and psychological well-being?

The Table below (Table 4) presents and summarises the studies related to each core concept that emerged, reporting for each study the authors, year of publication, title of the study, editorial location, design of the study, theoretical framework uses, description of the sample tyle, size and sampling strategy, the variables included and the findings of the studies.

Table 4

Summary of Included Studies

Author/ Year	Title	Country	Design	Theoretical Approach	Sample Size/Type/Strategy	Variables included	Main Findings
Bergefurt et al., (2022)	The influence of distractions of the home-work environment on mental health during the COVID-19 pandemic	Netherlands	Quantitative	Developed a conceptual model	271 knowledge workers of a corporate real estate team in a large technology company Convenience sampling	Personal characteristics (Task complexity, gender, age, number of children, household composition, personality, task complexity), physical workspace characteristics (size of the workspace, colours, temperature, workspace cleanliness, noise, shared/private workspace, size of desk, adjustability of chair) Mental health (sleep quality, stress, depressive symptoms, exhaustion, disengagement, hedonic tone, tense arousal, fatigue, concentration, well-being, productivity)	Employees were distracted by noise and when having a small , and those with a dedicated workroom were less distracted. Distractions mediated most relationships between home-workspace characteristics and mental health, while personal characteristics influenced mental health directly (except the 'gender', 'age' and 'having a shared/private workspace'). Employees who performed more complex tasks were happier (i.e. hedonic tone). Having two or more children increased home-workspace distractions, which resulted in increased stress levels among remote workers. During the path analysis, the 'gender', 'age' and 'having a shared/private workspace' variables were deleted because they were not significantly related to any other variables. Employees with neurotic personality traits were more stressed.
De Sio et al. (2021)	Telework and its effects on mental health during the COVID-19 lockdown	Italy	Quantitative	Subjective well-being (inferred from study and scale)	384 Remote workers in Italy Convenience sampling	Gender, age, education level (high school, graduation, post-graduation), professional field (employee, director, freelance), working shift (flexible, available 24h, ordinary), job demands during pandemic (higher, lower, unchanged), higher or lower participation in	Psychological distress was associated with educational level and habits. Poor well-being was associated with higher job demands, lifestyle and habits variables. There was a higher prevalence of psychological distress in those who suffered from loneliness, with flexible working shifts, with higher job demands, among those with higher educational levels and those who changed their eating habits either way (increased/decreased food consumption).

						videoconferences then before, cohabitant during lockdown (alone, partner, family, friend/roommates), feeling sheltered at home, loneliness, feeling comfortable at home, smoking habits, change in eating habits (food and alcohol consumption), psychological well-being, well-being	There were no significant differences in the psychological distress scores between males and females and among those who lived alone, with a partner, family or a friend/roommate.
Escudero-Castillo et al. (2021)	Furloughs, Teleworking and Other Work Situations during the COVID-19 Lockdown: Impact on Mental Well-Being	Spain	Quantitative		1050 remote workers in Spain	Occupational group, age, gender, educational level, income, marital status, M^2 per capita, work experience, economic sector, number of children, Gender, education level (low, medium, high), income (low, medium, high), marital status (married, separated, single, widow/er), occupational group (directors and managers, scientific and intellectual professionals, support professionals, accounting and administrative employees, catering, protection and sellers; other lower-skilled workers), minors, number of people confined in household,	Remote workers experienced lower self-perceived well-being after the lockdown as compared to those still working in the same location throughout the COVID-19 crisis. Women reported lower self-perceived well-being compared to men, which may be related to gender roles and differences in households. Managers, directors and senior officials were at higher risk of poorer psychological well-being than those with administrative and secretarial occupations. Younger people were at a higher risk of worse psychological well-being. Higher income was associated with better psychological well-being for men, while higher levels of income were associated with worse psychological well-being among women. There were no significant differences in the psychological well-being of those with medium and high levels of education. Employees with more work experience had better psychological well-being than those with less. Living with minors was found to negatively affect women's psychological well-being while it positively affected men’s

						m^2 per capita, work experience, economic sector (primary, secondary, tertiary)	psychological well-being. Psychological well-being improved as the number of people in the household increased. Single people had better psychological well-being and confinement than married people.
Franken et al. (2021)	Forced flexibility and remote working: opportunities and challenges in the new normal	Australia	Qualitative	Conservation of Resources Theory, Job Demands-Resources Model	15 remote workers employed in professional and field-work areas of the resources sector in Australia	Themes: Technology, work-life balance, work-life conflict, stress, physical workspace, workload and productivity, team relationships	Participants reported feeling overwhelmed and stressed. Many participants reported that the competing priorities, distracting home environment, unsuitable workspace, increased job demands, external distractions (i.e. noise from neighbours) and personal and professional isolation did not allow them to successfully manage the work-life boundary challenges. This often led to increased work hours, further demands and stress. Some stated that external distractions and the imbalance between the work-life interface resulted in a negative impact on employees' well-being. Some reported experiencing stress of having to share home-work spaces with other family members.
(Hernández et al., 2021)		United Kingdom	Mixed methods		184 remote workers in the UK	Occupation, number of children, pre-existing mental health diagnosis, sedentarism Lifestyle changes (diet, exercise, smoking, alcohol consumption, and socialisation), distress, number of children in household, gender,	Lifestyle changes (diet, exercise, smoking, alcohol consumption, and socialisation) were associated with an increase in well-being. Among those without a previous mental health diagnosis, researchers found moderate (76/137, 55.5%) and severe (17/137, 12.4%) rates of psychological distress, which were much higher than those reported in large pre-pandemic studies. The study also found that those who engaged in more sedentary behaviour had poorer mental health than those who did not.

						Themes: fear of losing job (job insecurity), better work/life balance, children	Respondents who reported having teaching and pastoral occupations recorded worse psychological well-being. Participants reported an overall fear of losing their jobs and failing to be productive should they struggle to adjust to working remotely. There were no significant differences in the mental health of adults living in households with children. A participant with a child at home off nursery school said that working remotely had a "dramatic impact" on her mental health as she struggled to shift from "mum mode to work mode" (Hernández et al., 2021, p. 10). Respondents with a previous mental health diagnosis reported significantly worse mental health
(Jamal et al., 2021)	Work during COVID-19: assessing the influence of job demands and resources on practical and psychological outcomes for employees	India	Quantitative	Job Demands-Resources model	371 IT company employees from the National Capital Region (NCR) of India	Job demands (workload pressure, task interdependence, professional isolation and family interference), job resources (autonomy and schedule, flexibility, sufficient technological resources, technical support, technical training and experience), strain (work exhaustion), work-life balance, stress, job satisfaction, strain, work-life balance, stress, productivity and performance, job satisfaction	More job demands lead to higher levels of stress. Workload pressure, task interdependence, professional isolation and family interference were associated with increased stress. For all the job demands, work exhaustion (strain) was found to partially mediate the influence of job demands on stress.

(Kapoor et al., 2021)	Perceived stress and psychological well-being of working mothers during COVID-19: a mediated moderated roles of teleworking and resilience	India	Quantitative	Conservation of Resources Theory, Ryff and Keyes' six factor model of Working mothers in India psychological well-being	326 working mothers in India	Age, tenure, number of children, perceived stress, resilience, psychological well-being	Resilience was a significant moderator for the remote work-well-being relationship; thus, resilience was essential for preserving psychological well-being. Perceived stress was negatively associated with psychological well-being.
(Mostafa, 2021)		Egypt	Quantitative, Explanatory Research Design/Cross-sectional		318 remote workers in different sectors in Egypt	employee perception of remote working, psychological well-being, emotional exhaustion, work-life integration	This study found that remote work has positive psychological outcomes for remote working employees. Employees' perception of remote working has a significant positive effect on psychological well-being. The research results showed that remote working is associated with better individual health as a result of flexibility, technology and communication tools which also allow employees to connect with others, thereby reducing the feeling of loneliness.
(Parham & Rauf, 2020)	The Effect of Remote Working on Employees Well-being and Work-Life Integration during Pandemic in Egypt	The Netherlands	Qualitative		122 academics working at Higher Education Institutions across different countries (and continents)	Themes: stress and anxiety	The study indicates that there are both positive and negative effects of forced remote work on employees' well-being. Some participants reported experiencing increased stress and anxiety.
(Platts et al., 2022)	Enforced home-working under lockdown and its impact	United Kingdom	Quantitative		623 Private, public and third-sector organisations operating in the United Kingdom	Quality of leadership, age, gender, diagnosed mental health status (pre-diagnosed mental health condition),	Low leadership quality was associated with stress and depressive symptoms. Leadership quality was found to be especially important for the psychological well-being outcomes for younger age groups. Women had

	on employee well-being: a cross-sectional study					social support (colleagues and supervisor), working overtime, number of dependents, pre-existing mental health diagnosis	significantly higher levels of stress and depressive symptoms. Across both genders, those aged 25–44 years had significantly higher stress levels compared to those aged 45+ years and those in the 16-24 age group. Depressive symptoms decreased with age. The number of dependants did not impact depressive symptoms; however, stress was found to be higher for those with two dependants. Employees who reported a diagnosed mental health condition had significantly higher stress and depressive symptoms than those who did not. Worse psychological health was associated with regularly working overtime.
(Prasad et al., 2020)	Organisational Climate, Opportunities, Challenges and Psychological Well-being of The Remote Working Employees During Covid-19 Pandemic: A General Linear Model Approach With Reference To Information Technology Industry In Hyderabad	India	Quantitative	Ryff and Keyes' six factor model of psychological well-being	400 Employees in IT and E-Commerce industry in India	Organisational policies, organisational climate, communication, peers/teamwork, gender, age, occupational stress, psychological well-being factors (environmental mastery, personal growth, positive relations, self-acceptance, autonomy, purpose of life), job satisfaction,	Organisational climate and policies positively influenced psychological well-being (all six factors of Ryff's scale, with the exception of self-acceptance for organisational policies). Communication with others positively influenced psychological well-being, and teamwork did not significantly influence psychological well-being. There were no significant gender differences in factors affecting the psychological well-being of employees, and there were also no significant age differences.

(Prasad, 2022)	Occupational Stress and Psychological Well-being predictors of Faculty Performance Virtual during Covid-19 Pandemic: A Case Study with reference to Higher Academic Faculty in Hyderabad City	India	Quantitative	Ryff and Keyes' six factor model of psychological well-being	400 Higher education faculty in India	Psychological well-being factors (Environment Mastery, Positive Growth, Positive Relations, Self-Acceptance, Autonomy, Purpose of Life,) workload, role conflict, physiological factors,	Remote work and workload were associated with higher stress levels in faculty. Teachers with less experience in virtual teaching had more stress than experienced faculty. Autonomy to the faculty and purpose of teaching positively influenced the psychological well-being of the faculty.
(Sato et al., 2020)	Working from home and lifestyle changes associated with risk of depression during the COVID-19 pandemic: An observational study of health app (CALO mama) users	Japan	Quantitative		2846 users of the health app CALO mama	Gender, age, work hours,	The findings revealed a negative association between working remotely and depressive symptoms. Anxiety and stress symptoms among female employees were higher than among males.
(Shimura et al., 2021)	Remote Work Decreases Psychological and	Japan	Quantitative		3123 office workers from 23 tertiary industries	Gender, age, social support, job stressors (job stressors consisted of quantitative job	Remote work is associated with positive psychological outcomes and decreased psychological and stress responses when controlling confounding factors such

	Physical Stress Responses, but Full-Remote Work Increases Presenteeism					overload, qualitative job overload, physical demands, job control, skill utilisation, interpersonal conflict, poor physical environment, job suitability, and meaningfulness of work), sleep,	as job stressors, social support, and sleep status. There was a weak and unstable statistical significance before adjusting for these factors, indicating the importance of controlling them. A decrease in social support was associated with worsening stress reactions.
(Straus et al., 2022)	Remote workers' well-being, perceived productivity, and engagement: which resources should HRM improve during COVID-19? A longitudinal diary study	Austria	Quantitative, Longitudinal	Events Systems Theory and Transactional Stress Theory/Transactional Theory of Stress and Coping	2222 from the first data collection stage; 1268 from the second stage. Remote workers in various organisations in various fields in Austria	Organisation communication, social support (leader, colleagues), personal resources (self-goal setting, self-efficacy, home-office experience), external resources (equipment at home), organisational job resources: work-related resources (job security, job latitude, communication during COVID-19) and social resources (leader autonomy support, supervisor support, colleague support), age, gender	Well-being decreased less when remote workers had high self-efficacy and social support resources at Time 1 (the beginning of the crisis). The results also showed that an improvement in resources from Time 1 to Time 2 was associated with a reduced decline in well-being. Men were found to be slightly more satisfied than women when working remotely. Younger remote workers showed lower levels of well-being, regardless of their organisational job resources. Previous remote work experience was found to be influential in reducing employees' decline in well-being.
(Sutarto et al., 2021)	Work from home: Indonesian employees' mental well-being and productivity during the	Indonesia	Quantitative	Three-factor model	472 remote workers in Indonesia	Gender, age, marital status, number of children, education, workspace, work experience, nature of organisation, depression, anxiety, stress	The prevalence of depression was 18.4%, anxiety 46.4% and stress 13.1% (77.9% overall). Gender, age, education level, job experiences, marital status, number of children and nature of the organisation and workspace were associated with the employees' psychological health. Employees who worked in private/other institutions experienced more overall

	COVID-19 pandemic						psychological distress (higher depression, anxiety and stress scores) compared to those who are employed by public or state organisations. Anxiety and stress symptoms among female employees were higher than among males; however, depression scores were not significantly different. Younger employees felt more depression, anxiety and stress than their older counterparts. Remote-working employees who graduated high school reported higher anxiety levels than those with postgraduate degrees. Respondents who have been working for less than five years experienced higher psychological distress scores than those having more than 20 years of work experience. Employees with 10-20 years of experience reported significantly higher levels of stress than those with more than 20 years of experience. Remote workers who did not have children were more likely to report less overall psychological health as compared to those with children. No significant differences were found between those with either 1-3 children or more than 3 children. Single respondents were more likely to report less psychological health (higher depression, anxiety and stress scores) as compared to those who were married or divorced/widowed.
(Toscano & Zappalà, 2020)	Social Isolation and Stress as Predictors of Productivity Perception and	Italy	Quantitative	Job Demands-Resources Model	265 remote workers in Italy	Social isolation, stress, remote work and productivity, remote work satisfaction, COVID-19 concern	Social isolation from colleagues was positively associated with stress. Age and education were not related to any construct.

	Remote Work Satisfaction during the COVID-19 Pandemic: The Role of Concern about the Virus in a Moderated Double Mediation						
(Wang et al., 2021)		China	Mixed Methods	Job Demands-Resources model (to a smaller extent), Developed a theoretical framework	39 (qualitative) and 522 (quantitative) Remote workers employed in a wide range of industries (e.g., education, IT, media, finance, etc.) and occupations (e.g., managers, teachers, designers, etc.). 39 employees from Chinese population (15 of them were from Beijing).	Procrastination, loneliness, work-home interference, job autonomy, social support, workload, emotional exhaustion, life satisfaction, self-perceived performance, communication effectiveness, procrastination, severity of COVID-19, social support, monitoring, self-discipline, social support	Results showed that virtual work characteristics can improve remote working employees' well-being. Social support and job autonomy act as job resources and assist employees in dealing with challenges when working remotely. Workload, however, was found to increase remote workers' work-home interference and negatively influence employee well-being. Having children was not associated with psychological outcomes. Themes: The following remote work challenges were reported to be associated with poorer well-being: ineffective communication, procrastination, work-home interference, loneliness, workload, and loss of social support. Personal traits such as self-discipline and virtual work characteristics such as job autonomy and increased social support were reported to be associated with better well-being.
(Xiao et al., 2021)		United States of America	Quantitative		998 Remote workers in California (47.3%), other states in the U.S (35.8%)	Lifestyle and home environment (physical	Decreased overall mental well-being when working remotely were associated with physical exercise, food intake, communication with co-workers, children at

					and countries outside of the U.S. (6.4%), with the remaining 10.5% of respondents preferring not to answer	exercise, overall food intake, junk food intake, number and age of dependents), occupational environment (distractions, work hours, communication with co-workers, presence of others in workspace), home office environment (visual, thermal, air, noise, workstation), income,	home, distractions while working, adjusted work hours, workstation set-up and satisfaction with workspace indoor environmental factors. Improved mental well-being was similarly predicted by increased physical exercise, increased communication with co-workers, and decreased junk food intake, along with being positively affected by having an infant in the home and negatively affected by increased distractions while working. Female remote workers reported having new issues in two or more mental health categories more frequently than males. Reduced mental well-being and increased mental health issues were found among employees who reported increased work hours. Higher workload was not associated with new mental health issues. A 50k to 100k salary range was predictive of higher mental well-being. Improved mental well-being was positively influenced by having an infant in the home but was also associated with the reporting of one new mental health issue.

(Yang et al., 2022)	Shadow of cyber ostracism over remote environment: Implication on remote work challenges, virtual work environment and employee mental well-being during a COVID-19 pandemic	Pakistan	Quantitative	Belongingness theory	303 Private sector employees in Pakistan	Sex, age, education, race, marital status, self-rated health, chronic diseases, Ineffective communication, cyber ostracism, procrastination, employee mental well-being, work-home interference, employee online work engagement	Workplace cyber ostracism has a positive and significant influence on employee mental well-being. Cyber ostracism had a negative influence on employee mental well-being. Loneliness, ineffective communication, procrastination, and work-home interference positively and significantly mediate the relationship between workplace cyber ostracism and employee mental well-being.

(*Note*: Greyed cells indicate where theoretical approaches/frameworks were not included in studies)

4.1. What is known from the existing literature about the relationship between remote work and employee psychological well-being during the COVID-19 pandemic?

Studies examining the relationship between remote work and employee psychological well-being during the COVID-19 pandemic have yielded variable results.

Some studies (Franken et al., 2021; Mostafa, 2021; Prasad, 2022; Sato et al., 2020; Shimura et al., 2021) have found that remote working has positive psychological outcomes for remote working employees. A study conducted by Mostafa (2021) found a strong positive relationship between remote working and psychological well-being. Employees' perceptions of remote working positively affected their psychological well-being. Thus, respondents experienced good psychological health when working remotely. The findings of this study are validated by those of Franken et al.'s (2021) qualitative study, which revealed that some participants felt that working remotely was good for "helping people's mental health" (p. 1140) as a result of increased "flexibility". Also consistent with the finding that remote work increases employee well-being is a study by Sato et al. (2020), which found a negative association between working remotely and depressive symptoms.

In contrast, the longitudinal study by Straus et al. (2022) also found that remote working faculty's psychological well-being decreased during the first eleven months of the pandemic. However, the study found that an improvement in resources (personal, external, and organisational (work-related and social) job resources) from the first to the second measurement was associated with a reduced decline in well-being. In another study examining the psychological well-being of remote working faculty, Prasad (2022) measured psychological well-being using Ryff and Keyes' (1995) scale consisting of six factors: environmental mastery, positive growth, positive relations, self-acceptance, autonomy, and purpose of life. The results indicate that autonomy and the purpose of life are statistically significantly influencing the psychological well-being of the faculty in higher education. In other words, the autonomy of the faculty and purpose of teaching will positively influence the psychological well-being of the remote-working faculty.

These studies contradicted the findings of other studies (Ekpanyaskul & Padungtod, 2021; Escudero-Castillo et al., 2021; Kapoor et al., 2021; Parham & Rauf, 2020; Xiao et al., 2021), which exposed adverse psychological outcomes for remote workers. Parham and Rauf (2020), found that remote working faculty had mostly complaints about their neglected well-being. Respondents reported increased levels of stress and anxiety as a result of time management and spending large quantities of time working on computers. Additionally, participants reported a lack of social interaction with colleagues and students as the reason for their unhappiness when working remotely. Further demonstrating the negative impacts of remote working on their mental health, faculty members reported experiencing "increased stress and anxiety" as a result of forced remote working (Parham & Rauf, 2020, p. 394). The respondent further expressed that technical issues, internet interruptions, and time management when preparing the lectures with new materials suitable for online teaching were the primary causes for their high-stress levels and anxiety.

Shimura et al. (2021) also found that the frequency of remote work had a significant negative association with the worsening of psychological stress responses when controlling for confounding factors such as job stressors, social support, and sleep status as personal intervening factors. This study showed a weak and unstable statistical significance before adjusting for these factors, thus, demonstrating the importance of controlling them.

Kapoor et al.'s (2021) study of working mothers exposed a positive association between perceived stress and remote working and a negative association between remote working and psychological well-being. Additionally, an inverse association was found between perceived stress and psychological well-being. Remote working also acted as a mediator between perceived stress and psychological well-being.

Xiao et al. (2021) examined how many respondents in their study reported any new mental health issues arising since they started working remotely. The findings revealed that 73.6% of participants reported new mental health issues arising since they started working remotely. Most (55.1%) of the respondents reported experiencing two or more new mental health issues, while one new mental health issue was reported by 18.5%, and no new issues were reported by 26.4% of respondents.

High moderate (55%) and severe (12%) rates of psychological distress were observed in respondents without a mental health diagnosis in the study by Hernández et al. (2021), even when compared to large samples previously observed before the COVID-19 pandemic (Prochaska et al., 2012) and following disasters (Kunii et al., 2016). Similarly, Escudero-Castillo et al. (2021) found that remote-working employees had lower self-perceived well-being following the lockdown as compared to people who continued with usual presence-based jobs in the workplace.

Hernández et al.'s (2021) mixed methods study reflected mixed feelings and attitudes toward remote working. In the supplementary analysis (qualitative half), participants reported adverse mental health consequences of remote working. One participant stated that "[…] everything had to change overnight and that takes time to get right! It has been exhausting, mentally exhausting. I miss the little breaks, walking to a meeting, popping into the coffee shop" (Hernández et al., 2021, p. 11). Another participant said, "I find it hard to mark work online and am fed up of [sic] looking at a computer screen (Hernández et al., 2021, p. 11). A participant in Parham and Rauf's (2020, p. 394) study stated that when working remotely, "excessive screen time leads to tiredness and low efficiency". On the other hand, some participants in another qualitative study (Hernández et al., 2021) reported positive psychological health outcomes. For instance, a participant said, "I have still found some elements of lockdown beneficial, particularly in the slower pace of life, which has made me think that I may want to keep some aspects of my new routine to improve my mental health when things go back to "normal" (Hernández et al., 2021, p. 12).

In sum, this theme demonstrates that remote working has had both benefits and disadvantages for how remote workers perceive their psychological well-being.

7. What are the characteristics of the included studies?

This section will evaluate the characteristics of the included studies in the sample. This will begin by establishing which research methods were used and will identify the editorial locations of the studies. Thereafter, the types of samples will be evaluated, and the sampling strategies will be

identified. The ranges of samples sizes were also included, as well as the identification of the theoretical frameworks that were used to support the studies.

Table 5

Characteristics of Studies

Author/ Year	**Country**	**Design**	**Theoretical Approach**	**Sample Size/Type/Strategy**
Bergefurt et al., (2022)	Netherlands	Quantitative	Developed a conceptual model	271 knowledge workers of a corporate real estate team in a large technology company Convenience sampling
De Sio et al. (2021)	Italy	Quantitative	Subjective well-being (inferred from study and scale)	384 Remote workers in Italy Convenience sampling
Escudero-Castillo et al. (2021)	Spain	Quantitative		1050 remote workers in Spain Non-random sampling, quota sampling

Franken et al. (2021)	Australia	Qualitative	Conservation of Resources Theory, Job Demands-Resources Model	15 remote workers employed in professional and field-work areas of the resources sector in Australia Convenience sampling
(Hernández et al., 2021)	United Kingdom	Mixed methods		184 remote workers in the UK Convenience sampling
(Jamal et al., 2021)	India	Quantitative	Job Demands-Resources model	371 IT company employees from the National Capital Region (NCR) of India Convenience sampling
(Kapoor et al., 2021)	India	Quantitative	Conservation of Resources Theory, Ryff and Keyes' six factor model of Working mothers in India psychological well-being	326 working mothers in India

(Mostafa, 2021)	Egypt	Quantitative, Explanatory Research Design/Cross-sectional		318 remote workers in different sectors in Egypt Snowball sampling
(Parham & Rauf, 2020)	The Netherlands	Qualitative		122 academics working at Higher Education Institutions across different countries (and continents) A convenience sampling procedure followed by a snowball-sampling technique were used.
(Platts et al., 2022)	United Kingdom	Quantitative		623 Private, public and third sector organisations operating in the United Kingdom Convenience sampling
(Prasad et al., 2020)	India	Quantitative	Ryff and Keyes' six factor model of psychological well-being	400 Employees in IT and E-Commerce industry in India
(Prasad, 2022)	India	Quantitative	Ryff and Keyes' six factor model	400 Higher education faculty in India Convenience sampling

			of psychological well-being	
(Sato et al., 2020)	Japan	Quantitative		2846 users of the health app CALO mama Purposive sampling
(Shimura et al., 2021)	Japan	Quantitative		3123 office workers from 23 tertiary industries Convenience sampling
(Straus et al., 2022)	Austria	Quantitative, Longitudinal	Events Systems Theory and Transactional Stress Theory/Transactional Theory of Stress and Coping	2222 from first data collection stage; 1268 from second stage. Remote workers in various organisations in various fields in Austria Convenience sampling
(Sutarto et al., 2021)	Indonesia	Quantitative	Three-factor model	472 remote workers in Indonesia Convenience snowball sampling
(Toscano & Zappalà, 2020)	Italy	Quantitative	Job Demands-Resources Model	265 remote workers in Italy

				Convenience sampling
(Wang et al., 2021)	China	Mixed Methods	Job Demands-Resources model (to a smaller extent), Developed a theoretical framework	39 (qualitative) and 522 (quantitative) Remote workers employed in a wide range of industries (e.g., education, IT, media, finance, etc.) and occupations (e.g., managers, teachers, designers, etc.). 39 employees from Chinese population (15 of them were from Beijing).
(Xiao et al., 2021)	United States of America	Quantitative		998 Remote workers in California (47.3%), other states in the U.S (35.8%) and countries outside of the U.S. (6.4%), with the remaining 10.5% of respondents preferring not to answer Snowball sampling
(Yang et al., 2022)	Pakistan	Quantitative	Belongingness theory	303 Private sector employees in Pakistan Convenience sampling

7.2.1. What research methods were used?

Of the 20 included studies, 16 were quantitative studies (Bergefurt et al., 2022; De Sio et al., 2021; Escudero-Castillo et al., 2021; Jamal et al., 2021; Kapoor et al., 2021; Mostafa, 2021; Platts et al., 2022; Prasad, 2022; Prasad et al., 2020; Sato et al., 2020; Shimura et al., 2021; Sutarto et al., 2021; Toscano & Zappalà, 2020; Wang et al., 2021a; Xiao et al., 2021; Yang et al., 2022). Two were qualitative studies (Franken et al., 2021; Parham & Rauf, 2020), and two were mixed methods studies (Hernández et al., 2021; Wang et al., 2021). Among the quantitative studies, 16 were cross-sectional, one was exploratory (Xiao et al., 2021), and one was a longitudinal (Straus et al., 2022). The qualitative studies employed thematic analysis (Parham & Rauf, 2020) and Yin's (2013) qualitative analysis method (Franken et al., 2021) for data analysis.

7.2.3. What were the editorial locations of the studies?

Three studies were conducted in India (Jamal et al., 2021; Kapoor et al., 2021; Prasad, 2022; Prasad et al., 2020). Two were conducted in Italy (De Sio et al., 2021; Toscano & Zappalà, 2020), Japan (Sato et al., 2020; Shimura et al., 2021), the Netherlands (Bergefurt et al., 2022; Parham & Rauf, 2020) and the United Kingdom (Hernández et al., 2021; Platts et al., 2022). One was conducted in Australia (Franken et al., 2021), China (Wang et al., 2021), Austria (Straus et al., 2022), and Egypt (Mostafa, 2021), while some originated from Indonesia (Sutarto et al., 2021), Pakistan (Yang et al., 2022), Spain (Escudero-Castillo et al., 2021) and the United States of America (Xiao et al., 2021).

7.2.4. What samples have been included and excluded?

Some studies included specific sample groups (Jamal et al., 2021; Kapoor et al., 2021; Parham & Rauf, 2020; Prasad, 2022; Prasad et al., 2020; Sato et al., 2020).

Primary sector (extraction), secondary sector (manufacturing), and essential workers (such as doctors, police officers, and powerplant workers) were primarily excluded from the study as their jobs typically involve presence-based tasks involving the use of equipment, machinery, and handling and moving objects, which do not allow for remote work (Lund et al., 2020). This included employees in healthcare, emergency services, food and agriculture, energy, water, etc. Thus, it was predominantly tertiary jobs (i.e. educators, lawyers and accountants) that were

included in the study as these employees are predominantly able to work remotely. Employees who were not working remotely were excluded.

Prasad et al. (2020) included only employees in India's IT and E-Commerce industry. Jamal et al. (2021) also included IT company employees from the National Capital Region (NCR) of India. Sample sizes of 400 and 371 respondents respectively were used. The findings of these studies may be limited in their generalisability across other occupations. IT employees might have become accustomed to excessive digital screen use and technostress before the pandemic and likely experienced a smoother adjustment to using and relying on ICTs (information and communications technologies).

Bergefurt et al.'s (2022) sample included knowledge workers of a corporate real estate team in a large technology company. Caution should be taken regarding the representativeness of the findings in the study, as middle-aged males dominated the sample.

Kapoor et al.'s (2021) study included only a sample of working mothers in India. Three hundred twenty-six respondents were included in the study, which is a fair sample size considering the population of the study. However, the results cannot be generalised to the overall population of remote workers in India (i.e., men or women without children).

Sato et al.'s (2020) sample explicitly included users of the health application CALO mama, a smartphone application that can register daily diet, exercise, and sleep quality (Nakata et al., 2022). This may limit the generalisabilty of results to the general population as the study is at risk of selection bias as the application might attract a certain type/group of people such as those that are health conscious or on a health journey.

Parham and Rauf (2020) looked specifically at academics working at higher education institutions (HEIs) across different countries (and continents). This expands the generalisability of results to academics across various countries and continents, although they did not specify which countries were explicitly included. Prasad (2022) also included remote workers in HEIs, focusing specifically on India. Parham and Rauf (2020) used quite a large sample size (122 participants) for a qualitative study. This is more than adequate for a qualitative study; however, it must be taken into consideration that the sample included participants across various continents. The study (Parham & Rauf, 2020) included participants from Asia (Iran, Iraq, India, Pakistan, UAE, Turkey), Europe (The Netherlands, Germany, Georgia, Greece, France, Finland, UK, Denmark, Slovenia, Sweden, Hungary), America (United States), Africa (Rwanda, South Africa) and Australia (Australia). The authors (Parham & Rauf, 2020) did not

state how many participants were included from each country. Thus, little can be said regarding the generalisability of the results in this regard, as there may have been an under- or over-representation of participants in one country or continent.

Yang et al. (2022) included a sample of remote workers only in the private sector in Pakistan. This limits the generalizability of the results of those employed only in the private sector and excludes whole groups of people in the public sector. The sample size (n = 303) is adequate and representative of all remote workers in the private sector in Pakistan.

Xiao et al.'s (2021) study included respondents from various countries. However, responses were primarily received from individuals working in California (47.3%), with additional responses received from 39 other states in the U.S. (35.8%) and countries outside of the U.S. (6.4%). The remaining 10.5% of respondents preferred not to answer from where they responded to the survey. The application and generalisability of the findings may be limited across different states and countries as the stay-at-home orders were likely imposed at different times. This might affect remote workers' experiences of remote work at different stages of the lockdown, as one participant may have endured the lockdown for a more extended period of time than another. For instance, data was collected from April 24, 2020, to June 11, 2020. Zhang and Warner (2020) state that California was the first to impose the lockdown order on 19 March 2020. It was followed by other states, with South Carolina being the last state to impose a lockdown order during the first wave of the pandemic on 7 April 2020. Eight states were reported to have never imposed a stay-at-home order. This could have affected the way that respondents responded to the survey. However, the names of the states and countries in which participants responded were not provided to the reader; thus, little can be said about the generalisability of the findings in this regard.

The sample type in Sutarto et al. (2021) and Franken et al. (2021) was not specified. This limits the generalisability of the results as little information is provided regarding the sample group or population. On the other hand, respondents in the remaining studies (De Sio et al., 2021; Escudero-Castillo et al., 2021; Franken et al., 2021; Hernández et al., 2021; Mostafa, 2021; Platts et al., 2022; Shimura et al., 2021; Straus et al., 2022; Toscano & Zappalà, 2020; Wang et al., 2021; Xiao et al., 2021) represented a wide range of occupations in their respective countries. This improves the representativeness and generalisability of the findings in the respective countries. However, occupational groups were not representative of all occupational categories and could not be representative of all the jobs within each category.

There are limitations to the generalizability of findings across the globe as the conditions of remote work faced in one country may not be the same as those faced in another. For instance, in poorer developing countries, remote work experiences in the Global South may be different from those in the Global North, which is characterised by richer and more developed countries. The resources available to those in the global north may differ from those available to people in the global South. For instance, South Africa is a developing nation in the Global South. The country is embattled by an energy crisis that leaves much of the population without electricity during cycles of load-shedding. A study by Banderker (2022) found that load-shedding among employees in South African small micro and medium enterprises was associated with stress and anxiety. Working remotely during the COVID-19 pandemic while experiencing load-shedding could also influence psychological well-being, potentially exacerbating negative psychological outcomes. This demonstrates the importance of understanding the potential differences between remote work in the Global South and the Global North.

7.2.5. What sampling methods have been used?

Most studies (Bergefurt et al., 2022; De Sio et al., 2021; Franken et al., 2021; Hernández et al., 2021; Jamal et al., 2021; Kapoor et al., 2021; Platts et al., 2022; Prasad, 2022; Shimura et al., 2021; Straus et al., 2022; Sutarto et al., 2021; Toscano & Zappalà, 2020; Yang et al., 2022) made use of a convenience sampling method. Parham and Rauf (2020) utilised a convenience sampling method followed by a snowball sampling technique. Two studies used snowball sampling techniques for their studies (Mostafa, 2021; Xiao et al., 2021). Escudero-Castillo et al. (2021) utilised quota sampling for their study. It was inferred from the study that Sato et al. (2020) and Wang et al. (2021) used convenience or purposive sampling methods to recruit niche samples on demand.

On the other hand, the study (De Sio et al., 2021) utilised convenience sampling, as the survey was published on one of the authors' personal websites and was sent to a mailing list of employees belonging to an association of Italian professionals. Therefore, the study is at risk of selection bias as the author’s site visitors might attract a particular profile of volunteers to participate in the study who may be inclined to report one way, which could skew the results. Although it is not clear which association’s mailing list was used, selection bias could have also played a role in influencing results. As a result, the researchers may have missed all the

cases of those who do not visit the co-author's site or those who are not members of the association. Thus, the sample and target population may differ significantly, limiting the researchers' ability to generalise their findings.

Non-probability sampling methods dominated this sample of studies. Although non-probability sampling is cost-effective and allows researchers to obtain data quickly, it does not allow us to determine whether the sample is representative of the general population (Berndt, 2020; Sharma, 2017). This affects the generalisability of the findings. Nevertheless, one must be cognisant of the rising costs of probability sampling data collection, which has caused many researchers to use less expensive non-probability methods (Wiśniowski et al., 2020). This may contributed to researchers' decisions to utilise non-probability sampling methods.

7.2.6. What were the ranges in sample size?

Varying sample sizes have been included in the studies. Sample size ranged from 15 (Franken et al., 2021) to 3123 (Shimura et al., 2021). More specifically, among the quantitative studies, sample size ranged between 265 (Toscano & Zappalà, 2020) and 3123 (Shimura et al., 2021) respondents. One mixed methods study included 184 participants (Hernández et al., 2021), and the other mixed methods study (Wang et al., 2021) included 39 participants for the qualitative part and 522 for the quantitative half. The two qualitative studies included 15 (Franken et al., 2021) and 122 (Parham & Rauf, 2020) participants.

Larger sample sizes found in the studies (Escudero-Castillo et al., 2021; Platts et al., 2022, 2022; Sato et al., 2020; Shimura et al., 2021; Straus et al., 2022; Wang et al., 2021; Xiao et al., 2021) provide more reliable results. The sample also tends to represent the general population better, improving the results' generalisability.

7.3. What theoretical frameworks have been used?

Many studies in the included sample did not provide a theoretical framework to support their studies (De Sio et al., 2021; Escudero-Castillo et al., 2021; Hernández et al., 2021; Mostafa, 2021; Parham & Rauf, 2020; Platts et al., 2022; Sato et al., 2020; Shimura et al., 2021; Xiao et al., 2021). This indicates a gap in the research. Other researchers included a theoretical framework to support their studies. Psychological well-being was defined and conceptualised

in various ways in the studies. However, subjective and eudaimonic well-being can be used as an overarching theoretical framework to understand some of the conceptualisations of the complex phenomenon (Keyes & Waterman, 2003; Ryff & Keyes, 1995; Steptoe et al., 2015). Many of the studies that were included reflected this and proved this statement true.

Kapoor et al. (2021) used subjective well-being to conceptualise psychological well-being. In addition, Kapoor et al. (2021), Prasad (2022), and Prasad et al. (2020) used Ryff & Keyes' (1995) dimensions of psychological well-being to inform their studies to include experiences of happiness as well as individual and development and self-potential. Kapoor et al. (2021) used these theories to investigate the mediating role of remote work and resilience in the relationship between perceived stress and the psychological well-being of working mothers in India during the pandemic.

Franken et al. (2021), De Sio et al. (2021), and Kapoor et al. (2021), however, used the Conservation of Resources Model (Hobfoll, 1989) to inform their study. The theory allowed the researchers to investigate the gains and losses which impacted remote workers' well-being during the COVID-19 pandemic.

The Job-Demands Resources model (Bakker & Demerouti, 2007) was used by Jamal et al. (2021), Toscano and Zappalà (2020) and Wang et al. (2021) to inform their studies. It assisted them in their efforts to assess the influence of job demands and resources on the psychological outcomes for remote working employees during the pandemic.

The longitudinal study by (Straus et al., 2022) used two main theories to form the basis of their study. The researchers used the Event System Theory (EST) (Morgeson et al., 2015) and the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984) to understand how the COVID-19 crisis impacts remote workers' well-being. EST (Morgeson et al., 2015) is of the view that organisations are systems that do not exist in isolation and are influenced by external factors (D. Katz & Kahn, 1966). Throwing the Transactional Theory of Stress and Coping proposed by Lazarus and Folkman (1984) into the context of the pandemic demonstrates that these external factors/events can be viewed as harmless or threatening and stressful. These theories helped the researchers clearly define the research problem, thereby providing a critical foundation upon which to conduct the study to validate or disprove a phenomenon.

Sutarto et al. (2021) adapted the Three-factor model of the relationship between stress and productivity (Donald et al., 2005) in their study. The model traditionally includes individual work stressors, physical and psychological stress outcomes and employees' productivity.

However, their adapted version emphasised specifically the direct effect of the psychological distress on self-rated work performance.

Yang et al. (2022) used the Belonginess theory as the basis of their study; and to provide empirical evidence on the relationship between cyber ostracism (exclusion of others in virtual spaces) and mental well-being. According to the belongingness theory, is an employee is treated negatively in a virtual workplace (cyber ostracism), the result will likely be poorer individual's mental health (i.e. increases stress, anxiety, depression levels).

From the study, it was interpreted and inferred that De Sio et al. (2021), along with other researchers' studies (Hernández et al., 2021; Platts et al., 2022; Sato et al., 2020; Shimura et al., 2021; Sutarto et al., 2021) used subjective well-being as a theoretical framework to support their study. It was also inferred that Bergefurt et al. (2022) and Hernández et al.'s (2021) studies were partly informed by subjective/hedonic well-being.

7.4. What variables have been included in the studies, and what were the research findings?

This section will detail the organisational, group, job, individual and external variables that were included in the research findings, along with the associated outcomes.

Table 6

Variables Included and Summary of Findings

Author/ Year	**Title**	**Variables included**	**Main Findings**
Bergefurt et al., (2022)	The influence of distractions of the home-work environment on mental health during the COVID-19 pandemic	Personal characteristics (Task complexity, gender, age, number of children, household composition, personality, task complexity), physical workspace characteristics (size of workspace, colours, temperature, workspace cleanliness, noise, shared/private workspace, size of desk, adjustability of chair) Mental health (sleep quality, stress, depressive symptoms, exhaustion, disengagement, hedonic tone, tense arousal, fatigue, concentration, well-being, productivity)	Employees were distracted by noise and when having a small desk. Those with a dedicated workroom were less distracted. Distractions mediated most relationships between home-workspace characteristics and mental health, while personal characteristics influenced mental health directly (except the 'gender', 'age' and 'having a shared/private workspace') Employees who performed more complex tasks were happier (i.e. hedonic tone). Having two or more children increased home-workspace distractions, which resulted in

			increased stress levels amongst remote workers. During the path analysis, the 'gender', 'age' and 'having a shared/private workspace' variables were deleted because they were not significantly related to any other variables. Employees with neurotic personality traits were more stressed.
De Sio et al. (2021)	Telework and its effects on mental health during the COVID-19 lockdown	Gender, age, education level (high school, graduation, post-graduation), professional field (employee, director, freelance), working shift (flexible, available 24h, ordinary), job demands during pandemic (higher, lower, unchanged), higher or lower participation in videoconferences then before, cohabitant during lockdown (alone, partner, family, friend/roommates), feeling sheltered at home, loneliness, feeling comfortable at home, smoking habits, change in eating habits (food and alcohol consumption), psychological well-being, well-being	Psychological distress was associated with educational level and habits. Poor well-being was associated with a higher job demands, lifestyle and habits variables. There was a higher prevalence of psychological distress in those who suffered from loneliness, with flexible working shifts, with higher job demands, among those with higher educational levels and those who changed their eating habits either way (increased/decreased food consumption).

			There were no significant differences in the psychological distress scores between males and females and among those who lived alone, with a partner, family or a friend/roommate.
Escudero-Castillo et al. (2021)	Furloughs, Teleworking and Other Work Situations during the COVID-19 Lockdown: Impact on Mental Well-Being	Occupational group, age, gender, educational level, income, marital status, M^2 per capita, work experience, economic sector, number of children, Gender, education level (low, medium, high), income income (low, medium, high), marital status (married, separated, single, widow/er), occupational group (directors and managers, scientific and intellectual professionals, support professionals, accounting and administrative employees, catering, protection and sellers; other lower-skilled workers), minors, number of people confined in household, m^2 per capita, work experience, economic sector (primary, secondary, tertiary)	Remote workers experienced lower self-perceived well-being after lockdown as compared to those still working in the same location throughout the COVID-19 crisis. Women reported lower self-perceived well-being compared to men, which may be related to gender roles and differences in households. Managers, directors and senior officials were at higher risk of poorer psychological well-being as compared those who had administrative and secretarial occupations. Younger people were at a higher risk of worse psychological well-being. Higher income was associated with better psychological well-being for men while among women, higher levels of income was associated with worse psychological well-being. There were no

			significant differences in the psychological well-being of those with medium and high levels of education. Employees with more work experience had better psychological well-being than those with less. Living with minors was found to negatively affect the psychological well-being of women while it positively affected men's psychological well-being. Psychological well-being improved as the number of people in the household increased. Single people had better psychological well-being and confinement than married people.
Franken et al. (2021)	Forced flexibility and remote working: opportunities and challenges in the new normal	Themes: Technology, work-life balance, work-life conflict, stress, physical workspace, workload and productivity, team relationships	Participants reported feeling overwhelmed and stressed. Many participants reported that the competing priorities, distracting home environment, unsuitable workspace, increased job demands, external distractions (i.e. noise from neighbours) and personal and professional isolation did not allow them to successfully manage the work-life boundary

			challenges, which often led to increased work hours, further demands and stress. Some stated that external distractions as well as the imbalance between the work-life interface resulted in negate impact on employees' well-being. Some reported experiencing stress of having to share home-work spaces with other family members.
(Hernández et al., 2021)		Occupation, number of children, pre-existing mental health diagnosis, sedentarism Lifestyle changes (diet, exercise, smoking, alcohol consumption, and socialisation), distress, number of children in household, gender, Themes: fear of losing job (job insecurity), better work/life balance, children	Lifestyle changes (diet, exercise, smoking, alcohol consumption, and socialisation) were associated with an increase in well-being. Among those without a previous mental health diagnosis, researchers found moderate (76/137, 55.5%) and severe (17/137, 12.4%) rates of psychological distress, which were much higher than those reported in large pre-pandemic studies. The study also found that those engaged in more sedentary behaviour had poorer mental health than those who did not.

			Respondents who reported having teaching and pastoral occupations recorded worse psychological well-being. Participants reported an overall fear of losing their jobs and of failing to be productive should they struggle to adjust to working remotely. There were no significant differences in the mental health of adults living in households with children. A participant with a child at home off nursery school said that working remotely had a "dramatic impact" on her mental health as she struggled to shift from "mum mode to work mode" (Hernández et al., 2021, p. 10). respondents with a previous mental health diagnosis reported significantly worse mental health
(Jamal et al., 2021)	Work during COVID-19: assessing the influence of job demands and resources on practical and	Job demands (workload pressure, task interdependence, professional isolation and family interference), job resources (autonomy and schedule, flexibility,	More job demands lead to higher levels of stress. Workload pressure, task interdependence, professional isolation and family interference were associated with

	psychological outcomes for employees	sufficient technological resources, technical support, technical training and experience), strain (work exhaustion), work life balance, stress, job satisfaction, strain, work-life balance, stress, productivity and performance, job satisfaction	increased stress. For all the job demands, work exhaustion (strain) was found to partially mediate the influence of job demands on stress.
(Kapoor et al., 2021)	Perceived stress and psychological well-being of working mothers during COVID-19: a mediated moderated roles of teleworking and resilience	Age, tenure, number of children, perceived stress, resilience, psychological well-being	Resilience was a significant moderator for the remote work-well-being; thus, resilience was important for preserving psychological well-being. Perceived stress was negatively associated with psychological well-being.
(Mostafa, 2021)		employee perception of remote working, psychological wellbeing, emotional exhaustion, work-life integration	This study found that remote work has positive psychological outcomes for remote working employees. There is a significant positive effect of employees' perception of remote working on psychological wellbeing and work-life integration. The research results showed that remote working is associated with better individual health as a result of flexibility, technology and communication tools which

			also allow employees to connect with others; thereby reducing the feeling of loneliness.
(Parham & Rauf, 2020)	The Effect of Remote Working on Employees Wellbeing and Work-Life Integration during Pandemic in Egypt	Themes: stress and anxiety	The study indicates that there are both positive and negative effects of forced remote work on employees' well-being. Some participants reported experiencing increased stress and anxiety.
(Platts et al., 2022)	Enforced home-working under lockdown and its impact on employee wellbeing: a cross-sectional study	Quality of leadership, age, gender, diagnosed mental health status (pre-diagnosed mental health condition), social support (colleagues and supervisor), working overtime, number of dependants, pre-existing mental health diagnosis	Low leadership quality was associated with stress and depressive symptoms. Leadership quality was found to be especially important for the psychological well-being outcomes for younger age groups. Women had significantly higher levels of stress and depressive symptoms. Across both genders, those aged 25–44 years had significantly higher stress compared to those aged 45+ years and those in the 16-24 age group. Depressive symptoms decreased with age. The number of dependants did not impact depressive symptoms; however, stress was found to be higher for those with two dependants. employees who reported a diagnosed mental health condition had

			significantly higher stress and depressive symptoms than those who did not. Worse psychological health was associated with regularly working overtime.
(Prasad et al., 2020)	Organisational Climate, Opportunities, Challenges and Psychological Wellbeing of The Remote Working Employees During Covid-19 Pandemic: A General Linear Model Approach With Reference To Information Technology Industry In Hyderabad	Organisational policies, organisational climate, communication, peers/teamwork, gender, age, occupational stress, psychological well-being factors (environmental mastery, personal growth, positive relations, self-acceptance, autonomy, purpose of life), job satisfaction,	Organisational climate and policies positively influenced psychological well-being (all six factors of Ryff's scale, with the exception of self-acceptance for organisational policies). Communication with others positively influenced psychological well-being. Teamwork did not significantly influence psychological well-being. There were no significant gender differences in factors affecting the psychological well-being of employees. There were also no significant age differences.
(Prasad, 2022)	Occupational Stress and Psychological Wellbeing predictors of Faculty Performance Virtual during Covid-19 Pandemic: A Case Study with reference to	Psychological well-being factors (Environment Mastery, Positive Growth, Positive Relations, Self-Acceptance, Autonomy, Purpose of Life,) workload, role conflict, physiological factors,	Remote working and workload were statistically significant and were associated with higher stress levels in faculty. Teachers with less experience in virtual teaching had more stress than experienced faculty. Autonomy to the faculty and purpose of

	Higher Academic Faculty in Hyderabad City		teaching had a positive effect on the psychological well-being of the faculty.
(Sato et al., 2020)	Working from home and lifestyle changes associated with risk of depression during the COVID-19 pandemic: An observational study of health app (CALO mama) users	Gender, age, work hours,	The findings revealed a negative association between working remotely and depressive symptoms. Anxiety and stress symptoms among female employees were higher than among males.
(Shimura et al., 2021)	Remote Work Decreases Psychological and Physical Stress Responses, but Full-Remote Work Increases Presenteeism	Gender, age, social support, job stressors (job stressors consisted of quantitative job overload, qualitative job overload, physical demands, job control, skill utilization, interpersonal conflict, poor physical environment, job suitability, and meaningfulness of work), sleep,	Remote work is associated with positive psychological outcomes and decreased psychological and stress responses when controlling the confounding factors such as job stressors, social support, and sleep status. There was a weak and unstable statistical significance before adjusting for these factors, indicating the importance of controlling them. A decrease in social support was associated with worsening of sleep were associated with worsening stress reactions.

(Straus et al., 2022)	Remote workers' well-being, perceived productivity, and engagement: which resources should HRM improve during COVID-19? A longitudinal diary study	Organisation communication, social support (leader, colleagues), personal resources (self-goal setting, self-efficacy, home-office experience), external resources (equipment at home), organisational job resources: work-related resources (job security, job latitude, communication during COVID-19) and social resources (leader autonomy support, supervisor support, colleague support), age, gender	Well-being decreased less when remote workers has high resources of self-efficacy and social support at Time 1 (beginning of crisis). The results also showed that an improvement in resources from Time 1 to Time 2 was associated with a reduced decline in well-being. Men were found to be slightly more satisfied than women when working remotely. Younger remote workers showed lower levels of well-being, regardless of their organisational job resources. Previous remote work experience was found to be influential in reducing employees' decline in well-being.
(Sutarto et al., 2021)	Work from home: Indonesian employees' mental well-being and productivity during the COVID-19 pandemic	Gender, age, marital status, number of children, education, workspace, work experience, nature of organisation, depression, anxiety, stress	The prevalence of depression was 18.4%, anxiety 46.4% and stress 13.1% (77.9% overall). Gender, age, education level, job experiences, marital status, number of children and nature of the organisation and workspace were associated with the employees' psychological health. Employees who worked in private/other institutions experienced more overall psychological distress (higher depression, anxiety and stress scores) as

			compared to those who are employed by public or state organisations. Anxiety and stress symptoms among female employees were higher than among males, however, depression scores were not significantly different. Younger employees felt more depression, anxiety and stress than their older counterparts. Remote-working employees who graduated high school reported higher anxiety levels than those with postgraduate degrees. Respondents who have been working less than five years experienced higher psychological distress scores than those having more than 20 years of work experience. Employees with 10-20 years of experience reported significantly higher levels of stress than those with more than 20 years of experience. Remote workers who did not have children were more likely to report less overall psychological health as compared to those with children. No significant differences were found between those with either 1-3 children or more than 3 children. Single respondents were more likely

			to report less psychological health (higher depression, anxiety and stress scores) as compared to those who were married or divorced/widowed.
(Toscano & Zappalà, 2020)	Social Isolation and Stress as Predictors of Productivity Perception and Remote Work Satisfaction during the COVID-19 Pandemic: The Role of Concern about the Virus in a Moderated Double Mediation	Social isolation, stress, remote work and productivity, remote work satisfaction, COVID-19 concern	Social isolation from colleagues was positively associated with stress. Age and education were not related to any construct.
(Wang et al., 2021)		Procrastination, loneliness, work-home interference, job autonomy, social support, workload, emotional exhaustion, life satisfaction, self-perceived performance, communication effectiveness, procrastination, severity of COVID-19, social support, monitoring, self-discipline, social support	Results showed that virtual work characteristics can be, and are, a powerful vehicle for improving remote working employees' well-being. Social support and job autonomy, act as job resources and assist employees with dealing with challenges when working remotely. Workload, however, was found to increase remote workers' work-home interference, and thereby negatively associated with employee well-being. Having children

			was not associated with psychological outcomes. Themes: The following remote work challenges were reported to be associated with poorer well-being: ineffective communication, procrastination, work-home interference, loneliness, workload, loss of social support. Personal traits such as self-discipline and virtual work characteristics such as job autonomy and increased social support were reported to be associated with better wellbeing.
(Xiao et al., 2021)		Lifestyle and home environment (physical exercise, overall food intake, junk food intake, number and age of dependents), occupational environment (distractions, work hours, communication with co-workers, presence of others in workspace), home office environment (visual, thermal, air, noise, workstation), income,	Decreased overall mental well-being when working remotely were associated with physical exercise, food intake, communication with coworkers, children at home, distractions while working, adjusted work hours, workstation set-up and satisfaction with workspace indoor environmental factors. Improved mental well-being was similarly predicted by increased physical exercise, increased communication with coworkers, and

			decreased junk food intake, along with being positively affected by having an infant in the home and negatively affected by increased distractions while working. Female remote workers reported having new issues in two or more mental health categories more frequently than males. Reduced mental well-being and increased mental health issues were found among employees who reported increased work hours. Higher workload was not associated with new mental health issues. A 50k to 100k salary range was predictive of higher mental well-being. Improved mental well-being was positively influenced by having an infant in the home but was also associated with the reporting of one new mental health issue.
(Yang et al., 2022)	Shadow of cyber ostracism over remote environment: Implication on remote work challenges, virtual work	Sex, age, education, race, marital status, self-rated health, chronic diseases, Ineffective communication, cyber ostracism, procrastination, employee mental well-being,	Workplace cyber ostracism has a positive and significant influence on employee mental well-being. Cyber ostracism had a negative influence on employee mental well-being.

	environment and employee mental well-being during a COVID-19 pandemic	work-home interference, employee online work engagement	Loneliness, ineffective communication, procrastination, and work-home interference positively and significantly mediate the relationship between workplace cyber ostracism and employee mental well-being.

7.4.3. What organisational variables are related to the well-being of remote working employees during the Covid-19 pandemic?

Three studies included organisational variables in their studies, such as organisation communication (Straus et al., 2022), organisational policies and organisational climate (Prasad et al., 2020), as well as leadership (Platts et al., 2022).

Straus et al. (2022) found that being satisfied with the organisation's communication during COVID-19 mitigated the decline in well-being. Prasad et al. (2020) also included organisational policies and climate variables in their study. Organisational policies and climate were found to positively influence the psychological well-being of remote-working employees. Organisational climate was found to be statistically significant and influencing all the six factors of psychological well-being, according to Ryff's (1989) scale (environmental mastery, positive growth, positive relations, self-acceptance, autonomy and purpose of life). Likewise, organisational policies were found to be influencing five factors of psychological well-being, with the exception self-acceptance.

Platts et al.'s (2022) study was the only one found to include quality of leadership as a variable at the time of writing. Quality of leadership was found to be a significant negative predictor of stress for both men and women. The 25–44 age group experienced the highest mean stress levels, where the leadership quality was low. The findings also showed that the group with two or more dependants who could not exert control over breaks experienced the highest levels of stress where the quality of leadership was high.

7.4.4. What group-level variables are related to the well-being of remote working employees during the Covid-19 pandemic?

Communication with colleagues and leaders/Peers/Support

Xiao et al. (2021) investigated how occupational factors affect the mental well-being of remote working employees during the COVID-19 pandemic. The study showed that improved mental well-being was predicted by increased communication with co-workers. Similarly, Straus et al. (2022), in their study, included social support as a COVID-19 work-related resource. The investigated social resources include leader autonomy support, supervisor support, and colleague support. Well-being decreased less when remote workers indicated high resources of social support from colleagues. However, social support from leaders and leader autonomy

support was not significantly associated with mental well-being. Two other studies (Mostafa, 2021; Wang et al., 2021) found communication to influence employees' psychological well-being positively. Another study (Yang et al., 2022) revealed that ineffective communication mediated the relationship between workplace cyber ostracism and employee mental well-being, in which ineffective communication was associated with poorer psychological well-being.

Regarding peers, Prasad et al. (2020) found that working in a team (teamwork) did not significantly influence the psychological well-being of employees.

7.4.5. What job variables are related to the well-being of remote working employees during the Covid-19 pandemic?

A number of job-related variables were included in the studies. This included job characteristics such as job latitude and security (Straus et al., 2022) and task complexity (Bergefurt et al., 2022), occupation (De Sio et al., 2021; Escudero-Castillo et al., 2021; Hernández et al., 2021; Sutarto et al., 2021), work hours (De Sio et al., 2021; Xiao et al., 2021), job demands and workload (De Sio et al., 2021; Jamal et al., 2021; Prasad, 2022; Xiao et al., 2021).

Characteristics of the job

Straus et al. (2022) investigated the changes in well-being between two time measurements based on job latitude and job security. Job latitude is concerned with the freedom that an employee has to control and organise their work (Frese & Zapf, 1994). High job latitude/increased scope for action and job security were associated with a reduced decline in well-being. Similarly, participants of a mixed methods study (Hernández et al., 2021) also reported an overall fear of losing their jobs.

Task complexity is a variable that was also investigated by Bergefurt et al. (2022) and was subjectively measured using the Perceived Task Complexity Scale developed by Maynard and Hakel (1997). The findings of the study showed that employees who performed more complex tasks were happier (i.e., hedonic tone).

Occupation

Four studies included occupational factors as variables (De Sio et al., 2021; Escudero-Castillo et al., 2021; Hernández et al., 2021; Sutarto et al., 2021).

De Sio et al. (2021) examined whether any significant differences existed in the psychological distress scores across different professional fields (employee, director, and freelancer). No significant differences were found. In contrast, Escudero-Castillo et al. (2021) found that managers, directors, and senior officials were at higher risk of poorer psychological well-being than those with administrative and secretarial occupations.

Sutarto et al. (2021) examined whether there would be any differences in the depression, anxiety, and stress scores between employees working in private/other institutions versus those working in public/state organisations. The results of the study revealed that employees who worked in private/other institutions experienced more overall psychological distress (higher depression, anxiety, and stress scores) than those employed by public or state organisations.

Interestingly, respondents in the study conducted by Hernández et al. (2021) found that those who held teaching and pastoral occupations reported feeling more tired, stressed, and anxious.

Work hours

Interestingly, a study by De Sio et al. (2021) found that employees with flexible working shifts reported higher psychological distress than those with ordinary work hours or those who were available 24/7. Xiao et al. (2021) found that reduced mental well-being and increased mental health issues were noted for employees who reported increased work hours and who needed to adjust work hours around others compared to those who did not.

Job demands and workload

Five studies considered job demands in their studies (De Sio et al., 2021; Franken et al., 2021; Jamal et al., 2021; Prasad, 2022; Xiao et al., 2021). One study (Jamal et al., 2021) revealed that job demands, namely workload pressure, task interdependence, professional isolation, and family interference in work, positively influence stress. Thus, increased job demands are associated with higher levels of stress. For all the job demands, work exhaustion (strain) was found to partially mediate the influence of job demands on stress. Prasad (2022) also found that workload was statistically associated with higher stress levels. These findings match those

found in the De Sio et al. (2021) study, which showed that employees with higher job demands had a larger prevalence of psychological distress than employees with lower job demands. On the other hand, Xiao et al. (2021) found that higher workloads were not associated with new mental health issues. De Sio et al. (2021) also investigated the role of the frequency of video conferences on psychological well-being. They did not find any significant differences in psychological distress scores between employees who engaged more or less in video conferences than they had before the pandemic.

7.4.6. What individual variables are related to the well-being of remote working employees during the Covid-19 pandemic?

Among the sample of included articles, some studies included gender (Bergefurt et al., 2022; De Sio et al., 2021; Escudero-Castillo et al., 2021; Platts et al., 2022; Prasad et al., 2020; Sato et al., 2020; Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021) and age (Bergefurt et al., 2022; Escudero-Castillo et al., 2021; Platts et al., 2022; Prasad et al., 2020; Shimura et al., 2021; Straus et al., 2022; Sutarto et al., 2021) as variables. Some of the studies included additional individual variables such as income (Escudero-Castillo et al., 2021; Xiao et al., 2021), education (De Sio et al., 2021; Escudero-Castillo et al., 2021; Sutarto et al., 2021), work experience (Escudero-Castillo et al., 2021; Straus et al., 2022; Sutarto et al., 2021), number of children (Bergefurt et al., 2022; Escudero-Castillo et al., 2021; Hernández et al., 2021; Platts et al., 2022; Sutarto et al., 2021; Xiao et al., 2021), household composition (Bergefurt et al., 2022; De Sio et al., 2021; Xiao et al., 2021), marital status (Escudero-Castillo et al., 2021; Sutarto et al., 2021), personality (Bergefurt et al., 2022), personal resources (Kapoor et al., 2021; Straus et al., 2022), pre-existing mental health diagnosis (Hernández et al., 2021; Platts et al., 2022; Xiao et al., 2021). Some studies also included loneliness (De Sio et al., 2021; Toscano & Zappalà, 2020; Wang et al., 2021; Yang et al., 2022), lifestyle factors (physical exercise, food and dietary change, alcohol consumption, smoking, and sedentarism) (De Sio et al., 2021; Hernández et al., 2021; Xiao et al., 2021).

Gender

Eight quantitative studies reported on the relationship between gender and psychological well-being. Escudero-Castillo and colleagues (2021) found worse effects on women's self-perceived well-being than men's. Similar results were found in a study by Platts et al. (2022), who also

found that women had significantly higher stress levels and depressive symptoms. In other studies (Sato et al., 2020; Sutarto et al., 2021), the anxiety and stress symptoms among female employees were higher than among males. However, regarding depression scores, there were no significant differences between males and females (Sutarto et al., 2021). Straus et al. (2022) found men to be slightly more satisfied than women when working remotely.

Conversely, a study by Prasad et al. (2020) found no significant gender differences in factors affecting the psychological well-being of employees in the IT sector. Gender was also included in the study by Bergefurt et al. (2022); however, during the path analysis, the variable was deleted because it was not significantly related to any other variable. Another study (De Sio et al., 2021) found that the prevalence of psychological distress in females compared to males was not statistically significant. However, mental well-being was found to be directly impacted by gender in a study by Xiao et al. (2021). Female respondents reported having new issues in two or more mental health categories more frequently than males.

Age

Six studies included age as a variable. In a study by Sutarto et al. (2021), age was split into three categories, 18-35, 36-55, and >55. The study revealed that younger employees felt more depression, anxiety, and stress than their older counterparts. For depression, anxiety, and stress, the 18-34 group had higher scores than both the 35-54 and >55 groups, and the 35-54 group had higher scores than the >55 age group. The findings of another study (Platts et al., 2022) revealed that across both genders, those aged 25–44 years had significantly higher stress compared to those aged 45+ years and those in the 16-24 age group. Depressive symptoms decreased with age, with those aged 16–24 reporting the highest levels and those aged 45+ years reporting lower levels than all other age groups. The study by Straus et al. (2022) showed that younger remote workers showed lower levels of well-being, regardless of their organisational job resources. Similarly, Escudero-Castillo et al. (2021) found that younger people had worse psychological well-being when working remotely during the COVID-19 pandemic. On the other hand, a study by Prasad et al. (2020) found no significant age differences in factors affecting the psychological well-being of employees in the IT sector. Bergefurt et al. (2022) also included age as a variable in their study; however, during the path analysis, the variable was deleted because it was not significantly related to any other variable.

Income

Only two studies (Escudero-Castillo et al., 2021; Xiao et al., 2021) linked income to the psychological well-being of remote working employees during the COVID-19 pandemic.

During the pandemic, Xiao et al. (2021) found that income level directly influenced mental well-being. Amongst the annual income level categories of 50k to 100k, 100k to 150k, and more than 150k, only an annual income of 50k to 100k compared to less than 50k per year was associated with a significant outcome. More specifically, a 50k to 100k salary range was predictive of higher mental well-being. In Escudero-Castillo et al.'s (2021) study, higher income was associated with better psychological well-being among men, while among women, higher income levels were associated with worse psychological well-being.

Education Level

Only three studies (De Sio et al., 2021; Escudero-Castillo et al., 2021; Sutarto et al., 2021) linked education level with the psychological well-being of remote working employees during the COVID-19 pandemic.

Sutarto et al. (2021) found no significant differences in depression scores across the education levels (high school, three-year college, undergraduate, and postgraduate). However, significant differences were found in the anxiety and stress scores across the education levels. Remote-working employees who graduated high school reported higher anxiety levels than those with postgraduate degrees. Employees with a three-year college degree had higher anxiety and stress but not depression levels compared to the lower (high school) or higher (undergraduate and postgraduate degree) education levels.

Escudero-Castillo et al. (2021) did not find any significant difference in the psychological well-being of those with medium and high levels of education. Conversely, De Sio et al.'s (2021) study revealed that remote workers with higher educational levels reported higher psychological distress. In this regard, psychological distress in post-graduates was higher than in graduates and those with high-school diplomas. In addition, graduates' psychological distress was worse than remote workers with high-school diplomas/certificates.

Work Experience

Sutarto et al. (2021) examined whether job experience would significantly influence the mental well-being of remote working employees during the COVID-19 pandemic. The results showed that respondents who have been working less than five years experienced higher psychological distress (higher depression, anxiety, and stress scores) than those having more than 20 years of work experience. Employees with 10-20 years of experience reported significantly higher stress levels than those with more than 20 years of experience. On the other hand, Escudero-Castillo et al. (2021) found that employees with more work experience had better psychological well-being than those with less. Straus et al. (2022) also found that previous remote work experience was found to be influential in reducing employees' decline in well-being.

Number of children

Bergefurt et al. (2022) measured the number of children in three categories; no children, one child, and two or more children. The results of the study indicated that having more than two children increased home-workspace distractions while working from home. Additionally, employees with more than two children were less likely to have a dedicated workroom at home. Therefore, they were more distracted in their work as they were more likely to experience home-workspace distractions. Such distractions increased stress, and negative feelings (i.e. low-spirited and sad), which are concerned with hedonic well-being.

Platts et al. (2022) found that the number of dependants did not impact depressive symptoms; however, stress was higher for those with two dependants.

Xiao et al. (2021) found that having an infant in the home positively influenced mental well-being. However, despite having an infant at home predicting better overall mental well-being, having an infant was associated with reporting one new mental health issue. In the study by Escudero-Castillo et al. (2021), however, living with minors was found to negatively affect women's psychological well-being while it positively affected men's psychological well-being.

Hernández et al. (2021) found no significant differences in the mental health of adults living in households with children. However, in the supplementary analysis, the qualitative part of the study, a participant with a three-year-old reported that having her child at home and off nursery school had a "dramatic impact" on her mental health as she struggled to shift from "mum mode to work mode" (Hernández et al., 2021, p. 10). This participant also reported "feeling as though I'm not achieving anything along with feeling mum guilt for not being with my son"

(Hernández et al., 2021, p. 10). Having a child at home when working remotely during the COVID-19 pandemic negatively influenced the participant's mental health.

Sutarto et al. (2021) found that remote workers who did not have children were more likely to report lower overall psychological health compared to those with children, as they consistently had higher depression, anxiety and stress scores compared to those with 1-3 and more than 3 children. No significant differences were found in the depression, anxiety and stress scores of those with either 1-3 children or more than 3 children.

Household composition and shared workspace

De Sio et al. (2021) found no significant differences in the psychological distress scores among those who lived alone, with a partner, family or a friend/roommates. There was, however, a larger prevalence of psychological distress among remote workers who did not "feel sheltered in their home" compared to those who did. On the other hand, Escudero-Castillo et al. (2021) found that living alone was associated with worse psychological well-being. It was also found that living alone negatively influenced women's psychological well-being more than men's. Psychological well-being improved as the number of people in the household increased.

Xiao et al. (2021) found that the average mental well-being status of remote workers who had someone else present in the same workspace while working remotely was slightly but significantly lower than those who indicated that they had a solitary work environment. During the path analysis in Bergefurt et al.'s (2022) study, the variable 'having a shared/private workspace' was deleted as it was not significantly associated with other variables.

Marital status

Sutarto et al. (2021) and Escudero-Castillo et al. (2021) had the only studies in the sample to include marital status as a variable. Sutarto et al. (2021) found that single respondents were more likely to report less psychological health (higher depression, anxiety and stress scores) compared to those who were married or divorced/widowed. Additionally, divorced/widowed respondents reported lower stress scores compared to their married counterparts. There were no significant differences in the depression and anxiety scores between married and divorced/widowed respondents. Escudero-Castillo and colleagues (2021) found that marital

status influenced the psychological well-being of remote workers. Single people had better psychological well-being in confinement than married people.

Personality

Bergefurt et al. (2022) was the only study to include personality traits as a variable. During the path analysis, personality trait variables ‘conscientiousness’ and ‘extraversion’ were deleted because they were not significantly related to any other variable. However, Bergefurt et al. (2022) found that remote-working employees with neurotic personality traits had significantly higher stress levels.

Self-Goal Setting, Self-Efficacy and Resilience

Straus et al. (2022) included self-goal setting and self-efficacy in their longitudinal study. The findings showed that well-being decreased less when remote workers indicated high self-efficacy at the beginning of the pandemic. Thus, self-efficacy as a personal resource was shown to prevent the decline in well-being. Self-goal setting was not associated with changes in well-being.

Kapoor et al.'s (2021) study showed that the interaction between working remotely and resilience was significant in predicting better psychological well-being. The indirect effect of perceived stress on psychological well-being was weaker for mothers who reported high resilience levels. Thus, resilience acted as a moderator in the relationship between working remotely and psychological well-being. Resilience was important for preserving psychological well-being.

Pre-existing mental health diagnosis

Hernández et al. (2021) considered the possible effect of remote work on the psychological well-being of those with a mental health diagnosis. Unsurprisingly, respondents with a previous mental health diagnosis reported significantly worse mental health. Of those with pre-existing mental health diagnoses (45/184), 80% of the respondents had K6 scores ≥5, indicating moderate distress, and 22.2% had K6 scores ≥13, indicating severe distress.

Congruent to the findings in the study conducted by Hernández et al. (2021), Platts et al. (2022) also found that employees who reported having a pre-diagnosed mental health condition had significantly higher stress levels and depressive symptoms than those who did not. Those with an existing mental health condition who occasionally or always worked overtime had the highest depression scores.

Loneliness

Loneliness is "a psychological pain of perceived relational deficiencies in the workplace" (Wright & Silard, 2020, p. 5). Loneliness also relates to Ryff's (1989) positive relations, which he stated are essential for psychological well-being. It must be noted that Ryff (1989) says positive relations are essential for psychological well-being, not merely the presence of relations. Therefore, positive relations with others must be present.

Regarding employees' psychological well-being, loneliness was included in four studies (De Sio et al., 2021; Toscano & Zappalà, 2020; Wang et al., 2021; Yang et al., 2022) examining the psychological well-being of remote-working employees. In the quantitative half of a mixed study (Wang et al., 2021), ten participants out of 39 indicated loneliness as a challenge. For instance, one participant stated that although individuals can connect with colleagues through information and communications technologies (ICTs), conversations with colleagues were more work-related and task-focused. They could not meet their psychological needs for belongingness or relatedness. Another participant was not fulfilled with the quality of online social interactions as a result of restrictions regarding "intimacy" and "closeness" (Wang et al., 2021, p. 25), and this relates to the theme of loneliness. However, the quantitative part of the study demonstrates that online social interactions are "not necessarily sufficient for reducing" loneliness (Wang et al., 2021). In the same study, other critical virtual work characteristics and variables, such as social support and job autonomy, were negatively related to loneliness during remote work. Similarly, There was a higher prevalence in those who suffered from loneliness in De Sio et al.'s (2021) study.

Toscano & Zappalà (2020) also found loneliness to be a critical factor, as social isolation caused by the lack of face-to-face interaction with colleagues was positively associated with stress. Similarly, the study by De Sio et al. (2021) revealed a larger prevalence of psychological distress in those who suffered from loneliness than in those who did not or 'sometimes' did.

Yang et al. (2022) included cyber ostracism in their study. Yang et al.'s (2022) define cyber ostracism in alignment with the definition provided by (Niu et al., 2018), who state that the word ‘cyber ostracism’ signifies a similar concept of being left out in the herds of people in a virtual workplace. During this Covid-19 period, communication was mostly done through teleconferencing (Tuzovic & Kabadayi, 2020).

Yang et al. (2022) found that cyber ostracism negatively influenced employees’ mental well-being. Loneliness was found to significantly mediate the relationship between workplace cyber ostracism and employee mental well-being. Yang et al. (2022) found ineffective communication and work-home interference to positively mediate the relationship between workplace cyber ostracism and employee mental well-being. This suggests that ineffective communication and work-home interference are associated with cyber ostracism, which is also associated with poorer employee mental well-being. Procrastination was found to have a positive and significant indirect mediating effect on the relationship between workplace cyber ostracism and employee mental well-being.

Lifestyle (physical exercise, food and dietary change, alcohol consumption and sedentarism)

De Sio et al. (2021) found that psychological distress was higher in remote workers who changed their eating habits either way. Most of the sample (57.39%) changed eating habits, with 44.50% having increased their food intake. Xiao et al. (2021) investigated how lifestyle changes when working remotely influenced employees’ mental well-being. As expected, improved mental well-being was predicted by increased physical exercise and decreased overall food intake and decreased junk food intake.

Unlike most studies, De Sio et al. (2021) also investigated alcohol consumption as a lifestyle habit. The study found no significant differences in the psychological distress scores between remote workers that increased their alcohol consumption and those that did not.

One mixed methods study (Hernández et al., 2021) included sedentarism as a variable. The quantitative part of the study found that remote workers who spent more time sitting (sedentarism) were in worse mental health condition//had worse mental health.

7.5. What external variables are related to the well-being of remote working employees during the Covid-19 pandemic?

Home environment and workspace

Home environment and workspace characteristics were included as variables in five studies (Bergefurt et al., 2022; Franken et al., 2021; Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021). Three studies also included distractions as a variable (Bergefurt et al., 2022; Franken et al., 2021; Xiao et al., 2021).

A study by Bergefurt et al. (2022) adapted physical workspace characteristics which influence workspace distractions identified by Kim and de Dear (2012) to make up the home-work characteristics in their study. These factors included temperature, noise level, amount of space, visual privacy, adjustability of furniture, colours, and workspace cleanliness. All characteristics except for colours and noise level were deleted as they were not significantly related to any other variable. Remote workers with blue or green wall colours were found to be more stressed; however, these colours also increased their happiness and satisfaction levels (i.e. hedonic tone, associated with hedonic psychological well-being). High noise levels negatively influenced employees' well-being.

Franken et al.'s (2021) study reported that having an unsuitable workspace increased job demands and stress. Xiao et al. (2021) investigated how home environment and workspace/home-office environments influence employees' mental well-being when working remotely during the COVID-19 pandemic. Xiao et al. (2021) investigated which indoor environmental quality (IEQ) factors visual environment (e.g. averages across ratings of natural lighting, electric lighting, and glare), thermal environment (average of ratings for indoor temperature and humidity), and air quality and noise, which remained as individual factors. Overall, satisfaction with IEQ factors (visual environment, thermal environment, air quality and noise) was positively associated with mental well-being. These factors are essential for the mental health of remote working employees as higher satisfaction with all workspace IEQ factors reduced the chance of respondents reporting new mental health issues. In essence, higher satisfaction with workspace (IEQ) factors was important for the mental health of remote workers (Xiao et al., 2021).

Straus et al. (2022) showed that enhanced ergonomic standards during the pandemic were important for reducing employees' decline in well-being from the first to the second time measurement when working remotely during the COVID-19 pandemic. Respondents who had a dedicated room for their work activities and those who reported having a good workstation set-up had fewer new mental health issues. Similarly, Sutarto et al. (2021) found that employees

with no dedicated workspaces reported higher depression, anxiety and stress scores. In Xiao et al. (2021), a small but statistically significant difference was noted in the mental well-being of individuals who reported having (higher well-being) versus not having (lower well-being) a good workstation set-up. The same was found among remote workers who reported knowing (higher well-being) versus not knowing (lower well-being) how to adjust their workstation. Conversely, Straus et al. (2022) found that a lack of knowledge for adjusting the workstation was not associated with any new mental health issues. In sum, the findings show that having a dedicated workspace was associated with better psychological well-being (Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021).

Distractions

Distractions were included as a variable of interest in four studies (Bergefurt et al., 2022; Franken et al., 2021; Hernández et al., 2021; Xiao et al., 2021). Increased distractions while working was associated with decreased mental well-being (Xiao et al., 2021). Congruently, in the study by Bergefurt et al. (2022), as a result of distractions, employees rated their stress levels to be higher and indicated reduced hedonic tone (hedonic well-being). Those with a dedicated workroom were less distracted. Additionally, the path analysis showed that remote workers were distracted by noise and having small desks. Franken et al.'s (2021) study found that external distractions (i.e. noise from neighbours) among participants led to increased stress levels. In Hernández et al.'s (2021, p. 11) supplementary analysis, a participant stated, “Yet I believe I am near to cracking trying to do a full day’s work with the distraction of the virus is really difficult”. This suggests that the COVID-19 pandemic/virus itself was experienced as a distraction.

Various organisational, group, job, individual and external variables were included in the studies. Although some of the findings were mixed, it is evident that some studies took multiple variables into consideration in an effort to better understand the relationship between remote work and psychological well-being.

CHAPTER 5: DISCUSSION

Conceptually thinking about remote working and psychological well-being in the context of the pandemic can help us understand employees' needs, which enables us to gain an understanding of employees' remote working experiences. It can also be valuable in determining and, establishing structures that can be put in place to support employees and organisations during remote working that has been necessitated by the pandemic and in the future.

This scoping review adhered to the PRISMA guidelines (Arksey & O'Malley, 2005) to map the broader psychological experiences of remote-working employees during the COVID-19 pandemic. A total of 20 studies (2 mixed methods, 1 longitudinal, and 2 qualitative) fulfilled all of the eligibility criteria for inclusion in the final sample. Findings suggest that remote work research has investigated various psychological outcomes in a balanced manner; however, the findings were inconsistent. Various gaps were identified, which points to the need for further research to bridge these gaps.

The findings of studies revealed that there were mixed results in examining the relationship between remote work and employees' psychological well-being. Some studies (Franken et al., 2021; Mostafa, 2021; Prasad, 2022; Sato et al., 2020; Shimura et al., 2021; Straus et al., 2022) have shown that working remotely has benefits for employees' overall well-being. Remote work is often associated with increased autonomy and flexibility, which may reduce the feeling of work overload and job stress (Gajendran & Harrison, 2007). The qualitative study by Franken et al. (2021) showed that remote working employees felt that working remotely was good for their mental health as it provided them with increased flexibility. Prasad (2022) also found that increased autonomy positively influenced the psychological well-being of remote-working faculty. These findings are validated by a previous pre-pandemic study (Filardi et al., 2020) which found a positive relationship between remote and individual well-being and reports of improved quality of life when employees had more flexibility. Previous literature (Vleeshouwers et al., 2019) suggests that the work-life balance may enhance employees' psychological well-being, and flexibility may contribute to this balance. The CoR theory (Hobfoll, 1989) indicates that a loss of resources can lead to psychological stress. Golden (2006) argued that the change in a remote worker's working location could have implications for one's personal resources. Golden (2006) argued that remote workers conserve their psychological energy when they do not commute to work, which allows them to acquire other

resources. Critically conserved resources such as time and energy can be allocated to leisure activities (Guimaraes & Dallow, 1999), allowing the individual to replenish their resources, thereby improving their psychological well-being.

Interestingly, however, the study by De Sio et al. (2021) found that employees with flexible working shifts experienced more psychological distress than those with ordinary work hours. A possible explanation for this is that remote work could blur the line between home and work (Büchler et al., 2020), which can overshadow the autonomy and flexibility from which remote workers would have ordinarily benefitted. Flexibility in remote work could create an "always-on culture" (Derks et al., 2015), which can have detrimental effects on remote working employees' psychological well-being (Büchler et al., 2020). The pre-pandemic study by Eddleston and Mulki (2017) found that remote-working employees found it difficult to disengage from work, which led to increased stress levels. Participants in the qualitative study by Grant et al. (2013) also reported the blurring of lines between work and home life as they began to work much longer hours throughout the day, which negatively influenced their psychological well-being. Nevertheless, Job Demands-Resources (Bakker & Demerouti, 2007) and CoR (Hobfoll, 1989) theory suggest that when managed correctly, flexibility can be a valuable resource which can allow employees to allocate their time and energy to other activities which help them replenish their resources, such as leisure activities. This in turn improves their psychological well-being (Guimaraes & Dallow, 1999).

On the other hand, remote work can negatively impact psychological well-being. Parham and Rauf (2020) found that in some faculty, remote work was associated with increased stress and anxiety levels due to time management and the much time spent working on computers. One respondent further expressed that technical issues, internet interruptions and time management when preparing the lectures with new materials suitable for online teaching were the primary causes for their high-stress levels and anxiety. Through the lens of the Job Demands-Resources model (Bakker & Demerouti, 2007), lecturers likely had to prepare lectures in a new format very quickly, drastically increasing their workload and pressure on their time and energy resources. The emergency of remote work did not provide them with an adjustment period, a 'trial run' or much time to shift their methods of delivery and ways of work. They were forced to very quickly prepare themselves for the shift, which increased their job demands and workload. High job demands (increased workload) strain employees by depleting mental resources (Bakker & Demerouti, 2007). It is also possible that remote workers struggled with

time management due to the overlap of work and home responsibilities when working remotely, as previous literature (Dolce et al., 2020) suggests.

The shift to remote work was neither voluntary, nor a phased approach, and this forced change negatively influenced some remote workers' psychological well-being. In the study by Parham and Rauf (2020), remote workers reported experiencing increased stress and anxiety levels due to forced remote working. The voluntariness, or lack thereof, of the shift to remote work is a critical factor to consider as change management theory (Kotter, 2012; Kotter & Cohen, 2012; McHugh, 1997) suggests that forced change in organisations can cause influence negative psychological outcomes and resistance. The studies in this sample did not actively investigate this; however, future studies should take this into consideration.

Xiao et al.'s (2021) study revealed that 73.6% of participants reported new mental health issues arising since they started working remotely during the pandemic. Most (55.1%) respondents reported experiencing two or more new mental health issues. Escudero-Castillo et al. (2021) also found that remote-working employees had lower self-perceived well-being following the lockdown than people who continued with usual presence-based jobs in the workplace. A possible reason is that those who continued going to work may have experienced a sense of normalcy or 'business and usual', as opposed to those forced to work from home. Additionally, presence-based jobs could have allowed employees to have engaged in more social interaction with their colleagues. On the other hand, remote workers during the COVID-19 pandemic lockdowns had no physical separation between work and leisure, and both were in the same location. Working remotely makes it easier to have meetings or work on projects at all hours. Moreover, some remote workers do not have isolated workspaces; that is, a particular place that is conducive for working. This can cause the employees and those around them to forget that they are working, leading to distractions, which have been shown to increase stress levels (Leroy, 2009; Zijlstra et al., 1999). Additionally, socialising with other colleagues could have become more of a challenge, as previous literature suggests of remote work (Bentley et al., 2016; Cooper & Kurland, 2002; Grant et al., 2013).

Spending copious amounts of time working on computers and dealing with technical issues and internet interruptions was also reported as a source of increased levels of stress and anxiety (Parham & Rauf, 2020). In the study by Hernández et al. (2021), another participant reported that they were "fed up of [sic] looking at a computer screen" (Hernández et al., 2021, p. 11). Increased stress could have resulted from digital fatigue and technostress when working

remotely. Digital fatigue is a form of mental exhaustion following prolonged use of digital screens or tools (Chiparausha, 2022). Technostress is described as an individual's inability to healthily cope or deal with information and communications technologies (ICTs) (Ayyagari et al., 2011). Technostress and digital fatigue might be responsible for the increased stress levels in individuals using ICTs for prolonged periods of time as ICTs create new learning and work demands for the remote worker. JDR (Bakker & Demerouti, 2007) and CoR (Hobfoll, 1989) theory help us understand these findings as literature (S. Kim & Christensen, 2017) suggests that the use of ICTs requires the use of more personal resources to meet the demands of the technologies.

Three studies included organisational variables in their studies; organisation communication (Straus et al., 2022), organisational policies and organisational climate (Prasad et al., 2020), as well as leadership (Platts et al., 2022). Straus et al. (2022) found that being satisfied with the organisation's communication during COVID-19 reduced the decrease in well-being. During a period of fear and uncertainty about the future, employees could have relied on their organisations to keep them in the loop. Communication may have eased remote workers' anxieties and insecurities, thereby reducing psychological strain. In addition, previous literature (Bentley et al., 2016; Cooper & Kurland, 2002; Grant et al., 2013) suggests that communication could have improved organisational social support, which could have reduced psychological strain.

In Prasad et al. (2020), organisational climate was found to positively influence all six psychological well-being factors, according to Ryff's (1989) scale, while organisational policies influenced all but self-acceptance. Literature (Kim et al., 2019; Nayani et al., 2018) has shown that a positive organisational climate can support employees' psychological well-being by demonstrating concern and support for remote working employees' occupational health and safety (Nayani et al., 2018). Thus, a positive organisational climate and policies might act as resources that can mitigate the loss of resources (Hobfoll, 1989; Nayani et al., 2018) and support employees' psychological well-being from the perspective of the Job Demands-Resources model (Bakker & Demerouti, 2007). Only one study (Prasad et al., 2020) included organisational climate and policies as variables. Additionally, pre-pandemic literature (Bentley et al., 2016; Neufeld & Fang, 2005) included organisational support as a variable in their studies while the studies in this sample did not. This signifies a gap in the literature.

Platts et al. (2022) was the only study found to include the quality of leadership as a variable at the time of writing. Quality of leadership played a crucial role in moderating psychological wellbeing outcomes in remote workers. Leadership quality was especially important for the psychological well-being outcomes of younger age groups. The 25–44 age group experienced the highest mean stress levels, with low leadership quality. This outcome is supported by previous literature (Fernet et al., 2015; Ingusci et al., 2021; Magnavita et al., 2021), which shows that poor leadership quality is associated with adverse psychological well-being outcomes such as stress, anxiety and depression. The young adults were the age group most influenced by the quality of leadership, which also suggests that young adults may find more value in leadership quality, particularly when working remotely during the COVID-19 pandemic, during their most influential career development years. Perhaps they looked towards their leaders more for guidance and support during a period of uncertainty. Although the findings in this study suggest that quality of leadership is a job resource that can act as a buffer against negative psychological outcomes, it can also act as a demand or stressor.

The findings also showed that where the leadership quality was high, the group with the highest stress levels had two or more dependants and was less able to exert control over breaks. This can be explained by (Fernet et al., 2015) who argued that high quality leadership can act as both a job resource and demand. Perhaps high-quality leadership could have caused this group to "generate internal pressure (e.g. sense of obligation), as (Fernet et al., 2015, p. 27) suggests, to meet their job demands, so as to not disappoint their leaders; however, meeting these demands may have been especially difficult for those having more than one dependent at home that required their attention as well. This may have put further strain on their resources.

Organisational factors are likely to influence employees' psychological well-being significantly (Nayani et al., 2018). Studies did not pay adequate attention to leadership, organisational culture, climate, policies, support, and safety climate, as these have previously been shown to influence employees' psychological well-being (Bentley et al., 2016; Grant et al., 2013; Nayani et al., 2018). Future research should investigate the influence of these factors.

When working remotely, some remote workers may have received less social support than they ordinarily would have. During the early stages of the pandemic, lockdown rules and regulations forced people to stay at home and only leave their homes when absolutely necessary (Onyeaka et al., 2021). This meant that people could not see their family members, relatives and friends

as often as they ordinarily might have, which may have led to social isolation and distance from their support networks, as suggested by the literature in this review (Parham & Rauf, 2020; Prasad et al., 2020; Shimura et al., 2021; Straus et al., 2022; Toscano & Zappalà, 2020; Wang et al., 2021; Xiao et al., 2021; Yang et al., 2022). Furthermore, the pressure of having to quickly learn how to use applications such as Zoom and Microsoft Teams (Karl et al., 2022), as well as trying to navigate the impersonal nature of these applications, may have caused further stress and social isolation (Chai & Park, 2022; Williams, 2021). As the Work-Home resources model (ten Brummelhuis & Bakker, 2012) suggests, a lack of social support resulted in poorer psychological well-being among remote workers (Prasad et al., 2020; Straus et al., 2022; Wang et al., 2021; Xiao et al., 2021; Yang et al., 2022).

Some studies in the sample (Parham & Rauf, 2020; Shimura et al., 2021; Straus et al., 2022; Toscano & Zappalà, 2020; Xiao et al., 2021; Yang et al., 2022) found that increased social support and effective communication was associated with the better psychological well-being. Participants in another study in the sample (Wang et al., 2021) reported a lack of fulfilment of psychological needs for belongingness or relatedness despite the use of ICTs, and others reported a lack of "intimacy" and "closeness" (Wang et al., 2021, p. 25) in remote work. Similarly, a pre-pandemic study (Anderson et al., 2015) found that more socially connected individuals had more positive psychological well-being outcomes than those who were not.

Pre-pandemic literature demonstrates that communication with colleagues can be an instrumental source of social support (Bentley et al., 2016; Grant et al., 2013; Olsen et al., 2018) and that social isolation when working remotely can produce adverse psychological and job outcomes (Cooper & Kurland, 2002; Pérez et al., 2002). Building a social network with colleagues may become more challenging when working remotely (Grant et al., 2013) as quality social interactions with others become few and far between (Hill et al., 1998). Social support acts as a personal resource as it helps employees navigate challenging situations (Kossek et al., 2011), such as working remotely during the COVID-19 pandemic. It reduces the feeling of loneliness, which is associated with adverse psychological outcomes such as anxiety, depression, stress and other psychological disorders (De Moortel et al., 2017; Ozcelik & Barsade, 2018; Yaakobi, 2021). Studies in the past cautioned about the lack of communication and social support during remote work as it can negatively influence employees' psychological well-being (Bentley et al., 201a; Hill et al., 1998; Olszewski & Mokhtarian, 1994).

Yang et al. (2022) had the only study to include cyber ostracism as a variable. Cyber ostracism influenced employees' mental well-being negatively. This finding is validated by a previous study (Heithaus et al., 2017) which also revealed a negative relationship between cyber ostracism and employee mental well-being. Cyber ostracism is especially relevant in our increasingly digital world, with the emergence of virtual workplaces where most communications involve ICTs. Cyber ostracism makes it difficult to communicate effectively and connect with others. Belonging and inclusion are critical factors for well-being (Clifton & Webster, 2017), and the feeling of loneliness and rejection could cause employees to feel stressed (Foy et al., 2019). With the continued use of these technologies, employees remain at risk of feeling left out until practices are adapted to ensure that all employees feel included. However, employers and managers must make online work more comfortable for employees and treat all employees equally to prevent cyber ostracism (Anjum et al., 2021; Qian et al., 2017). The concept of 'out of sight, out of mind' can occur, which can threaten employees' access to social support from colleagues. In sum, remote workers who receive more social support will suffer less loneliness as their psychological needs for belonging and inclusion would have been met (Bavik et al., 2020). Moreover, the more high-quality interactions/communications people have with others, the less lonely they are likely to feel, and the better their psychological well-being will be (Kossek et al., 2011; Ozcelik & Barsade, 2018).

Employees who performed more complex tasks were happier (i.e. hedonic tone) than those who performed less complex tasks (Bergefurt et al., 2022). This is supported by a previous study (Chung-Yan, 2010) which found the same result. Because the sample consisted of knowledge workers who would ordinarily complete complex tasks, the complex tasks could have been found to be engaging as opposed to challenging and demanding (Roskams et al., 2019; Zijlstra et al., 1999). This suggests that they experienced psychological meaningfulness when working remotely, which can be linked with one of Ryff's (1989) factors of psychological well-being, purpose in life, which enhances psychological well-being.

When job demands are high, and job and personal resources are low, employees may experience negative psychological outcomes (Bakker & Demerouti, 2007; Bilotta et al., 2021). This is validated by the findings in this review which found that high workload (Jamal et al., 2021; Prasad, 2022) and other job demands such as workload pressure, task interdependence,

professional isolation and family interference in work (Jamal et al., 2021) were associated with poorer psychological well-being. Pre-pandemic literature (Bentley et al., 2016; Lautsch et al., 2009; Neufeld & Fang, 2005; Sardeshmukh et al., 2012) demonstrates that an increase in work hours and workload (demands) is associated with poorer psychological well-being. Thus, psychological well-being is negatively affected when job demands supersede job and personal resources (Bakker & Demerouti, 2007; Hobfoll, 2001).

It was found that private sector employees experienced poorer psychological well-being compared to those who are employed by public or state organisations (Sutarto et al., 2021). This is likely because public sector employees tend to have better job security (Saputra, 2018) which was a big matter of concern for employees during the pandemic (Carracedo et al., 2021).

Three studies (Bergefurt et al., 2022; De Sio et al., 2021; Prasad et al., 2020) found no significant gender differences in factors affecting the psychological well-being of remote working employees. However, generally, studies in this sample found that women suffered worse psychological well-being as compared to men (Escudero-Castillo et al., 2021; Platts et al., 2022; Sato et al., 2020; Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021). Women suffered higher stress levels, burnout and depressive symptoms than their male counterparts when working remotely during the COVID-19 pandemic. Pre-pandemic literature (Eddleston & Mulki, 2017; Giménez-Nadal et al., 2019) also found that women reported higher stress levels when working remotely. As a result of gender stereotyping and traditional gender roles, women face various challenges in trying to balance their work and family responsibilities (Wenham et al., 2020). Women are still largely responsible for childcare and household duties (Wishart et al., 2019), making for an uneven household workload distribution. Although men tried to support their female partners with chores around the house, women are still often positioned as primary parents (Wall & Arnold, 2007) as they are often primarily responsible for carrying multiple roles such as being the family cook, nurse, housemaid and tutor. Playing multiple roles at once can quickly deplete one's resources and cause stress (Wenham et al., 2020) as resources must be stretched to meet demands. Additionally, women working from home likely experienced more distractions as children often tend to go to 'Mom' in a time of need (Wall & Arnold, 2007). This could have restricted working mothers from focusing on their work, and further blurred the lines between home and work as a result of the overlap of the responsibilities. Thus, women likely suffered a greater resource loss because of greater environmental demands, causing greater psychological distress as compared to their male counterparts.

Generally, the studies in the sample (Escudero-Castillo et al., 2021; Platts et al., 2022; Straus et al., 2022; Sutarto et al., 2021) revealed that younger remote workers had lower levels of psychological well-being compared to those in older age groups as stress and depressive symptoms were found to be decreasing with age. Young adults are likely just starting off in their careers and are looking to develop their careers. As such, the COVID-19 pandemic likely brought about unforeseeable changes, challenges and uncertainties regarding their work. Research (Ipsen et al., 2021; Mental Health Foundation, 2020; Office for National Statistics, 2021) suggests young adults' psychological well-being are more concerned about job insecurity/uncertainty and financial insecurity than older people are. Working remotely during the COVID-19 pandemic likely brought about fears and insecurities that negatively affected younger employees' psychological well-being more than more senior employees.

Only two studies (Escudero-Castillo et al., 2021; Xiao et al., 2021) included income as a variable. Overall, a higher income was predictive of high psychological well-being. Another study (Martinez-Bravo & Sanz, 2021) has shown that a higher income is associated with better psychological well-being. A reason for this could be that employees with lower income often have job and financial insecurity, which was aggrevated by the COVID-19 pandemic as people lost income and jobs (International Labour Organisation, 2020). This can lead to negative psychological outcomes such as stress and depression (Wilson et al., 2020). Thus, income could be a resource (ten Brummelhuis & Bakker, 2012) that can buffer the negative impact of working remotely during the COVID-19 pandemic.

Escudero-Castillo et al. (2021) found that remote workers with a three-year college had the worst psychological well-being, followed by those with lower and higher education levels. In contrast, De Sio et al.'s (2021) study revealed that remote workers with higher educational levels reported higher psychological distress. A trend could not be established from the findings; however, the results contrast those of other studies (Glenn & Weaver, 1981; Megatsari et al., 2020), which found that lower education levels were linked to worse psychological well-being. However, De Sio et al.'s (2021) findings align with Belo et al.'s (2020), who found that a higher level of education was associated with better psychological well-being. A potential explanation for this could be that those with lower education may have an adaptive attitude which allows them to adapt to the situation to make themselves useful. Thus, if they were to lose their jobs, they could probably try to find another field/job to pursue as they are likely less confined to a role based on their qualifications. However, those with higher education levels might be more established in a particular field/role, and the uncertainty

that the pandemic brought about could have contributed to the stress they may have felt regarding their future.

Only two studies (Escudero-Castillo et al., 2021; Sutarto et al., 2021) included work experience as a variable in their studies. The findings showed that those with more work experience had better psychological well-being than those with less. One possible reason for this is that a more extended period of employment is usually associated with better social support and working responsibility, which support and improve psychological well-being (Yang et al., 2022). Additionally, those with more work experience likely have more job stability and are less likely to become unemployed than those with less work experience. In this instance, more work experience is likely a resource. Thus, better social support, working responsibility and job security are possible reasons why people with more experience have better psychological well-being. Straus et al. (2022) found that previous remote work experience was important for reducing the decline in employees' psychological well-being.

Two studies (Bergefurt et al., 2022; Platts et al., 2022) found that levels of stress were higher in those who had two children/dependents, with Bergefurt et al. (2022) finding that having two or more children increased home-workspace distractions, which resulted in increased stress levels amongst remote workers. Sutarto et al. (2021) found that those without children had worse psychological well-being than those with children. This finding is surprising as a previous study revealed that work–life conflict increased amongst employees with children due to further role integration during the pandemic (Schieman et al., 2021). Work-life conflict is a stressor that is associated with negative psychological well-being outcomes and is known to deplete resources (Foy et al., 2019). It can arise if employees must work from home while looking after their children. Thus, we might expect psychological well-being to be higher in those without children. However, a study by Rodríguez-Rey et al. (2020) showed that having children acted as a buffer against adverse psychological well-being amongst the general population in Spain.

Escudero-Castillo et al. (2021) found that living with minors negatively affected women's psychological well-being while it positively affected men's psychological well-being. A female participant in Hernández et al.'s (2021) study also expressed that having her child home and off school during the lockdown dramatically impacted her mental health, owing to the blurred lines between work and home; "mum mode to work mode" (Hernández et al., 2021, p. 10). This could be because of the generally uneven distribution of childcare and household

responsibilities (Wall & Arnold, 2007; Wenham et al., 2020; Wishart et al., 2019), which require more personal resources on behalf of the women.

De Sio et al. (2021) found that there was no difference in psychological well-being among those who lived alone, with a partner, family or a friend/roommates. However, Escudero-Castillo et al. (2021) found that living alone was associated with worse psychological well-being. This might be because living with others gives the remote worker direct access to social support, which is associated with better psychological well-being f.

The findings regarding marital status were inconsistent in the two studies that included it as a variable (Escudero-Castillo et al., 2021; Sutarto et al., 2021). While one study (Sutarto et al., 2021) found that single people had worse psychological well-being compared to their married and divorced counterparts, the other study (Escudero-Castillo et al., 2021) found that single people had better psychological well-being than their married counterparts. Lack of social support and companionship might explain why some experienced worse psychological well-being (Yang et al., 2022) and more space to oneself during confinement/lockdown might explain why some had better psychological well-being, as more space per capita is associated with better psychological well-being (Hu & Coulter, 2017).

Bergefurt et al. (2022) was the only study to include personality traits as a variable. Conscientiousness and extraversion were deleted in the path analysis because they were not significantly related to any other variable; however, those with neurotic personality traits were more stressed than those without. The findings were surprising because we might expect conscientious people to have better psychological well-being when working remotely as they are very organised and tend to work well independently (Trautwein et al., 2009). We might also expect extroverted people's psychological well-being to suffer when working remotely as a result of reduced direct social support and communication with others (Hakulinen et al., 2015; Shokrkon & Nicoladis, 2021). The findings regarding neuroticism were unsurprising as sudden and stressful events, such as the shift to remote work, can adversely influence employees' psychological well-being. Pre-pandemic literature (Kotov et al., 2010; Otonari et al., 2012) has shown that neurotic personality types tend to have worse mental health when compared to extroverted people. In addition, neurotic people tend to feel more anxious and insecure when responding to stressors, which leaves them more vulnerable to adverse outcomes of stressful situations (such as the pandemic) (Otonari et al., 2012). This predisposes them to negative psychological well-being outcomes such as psychological distress, depressive symptoms,

anxiety (Costa & McCrae, 1992; Hakulinen et al., 2015; Kotov et al., 2010) and lower subjective well-being (Diener et al., 1999). When working remotely during the COVID-19 pandemic, the psychological well-being of people with neurotic personality types is likely to suffer due to the threat of disease and social restrictions (Liu et al., 2021). Thus, those with neurotic personality traits are likely to deplete more of their psychological resources compared to those without these traits. Only one pre-pandemic study was found to include personality as a variable (Anderson et al., 2015). The study found that personality traits such as openness to experience, rumination, sensation seeking, and social connectedness outside of work moderated the relationship between remote work and psychological well-being.

The studies showed that psychological well-being suffered less when remote workers reported high self-efficacy (Straus et al., 2022) and resilience (Kapoor et al., 2021). Following a hurricane in Florida, USA, self-efficacy was to be associated with lower levels of distress (Benight et al., 1999). Self-efficacy often develops when one believes in their ability to overcome stressful challenges after having done so in the past (Bandura, 1977). Thus, self-efficacy might be a useful resource (Benight et al., 1999) which helps remote workers master challenges ushered in by the COVID-19 pandemic by buffering the negative influence of the COVID-19 pandemic on employees' psychological well-being. Resilience is concerned with being able to bounce back from challenging situations and adapt well to stressful situations (Singh & Srivastava, 2021). It is comprised of core competencies such as flexibility and problem-solving (Fletcher & Sarkar, 2013). CoR theory (Hobfoll, 1989) suggests that resilience is a resource which can reduce the negative psychological well-being outcomes among remote workers. Therefore, both self-efficacy and resilience are personal resources associated with a reduced decline in psychological well-being.

Having a pre-existing mental health diagnosis was associated with worse psychological well-being when compared to those who did not (Hernández et al., 2021; Platts et al., 2022). Meeting the demands of day-to-day life tends to be more difficult for people with mental health diagnoses (Atkinson et al., 1997; Orley et al., 1998). They must use more personal resources to meet their work and life demands. The unprecedented challenges of the COVID-19 pandemic were already tough for most to navigate; thus, having to navigate that along with a mental health diagnosis could have further depleted remote workers' resources as they tried to meet job and life demands.

A change in eating habits (more and less) was associated with the prevalence of distress (De Sio et al., 2021). As predicted Xiao et al. (2021) found that poor psychological well-being was associated with increased overall food and junk food intake and decreased physical exercise.

Previous studies have shown that eating unhealthy foods, increase in food intake (Ansari et al., 2014), and less physical exercise (Chekroud et al., 2018) are associated with stress and depressive symptoms. While decreased psychological well-being can be predicted by eating habits (Ansari et al., 2014), it is probable that poor psychological well-being (i.e. stress or anxiety) due to the pandemic or other remote work factors contributed to increased snacking or cravings for junk food and less exercise. The lack of exercise could have also been influenced by the lockdown restrictions, which prohibited people from going to the gym, prohibited walks/jogs outside the confines of one's own home. Additionally, some people may have lost the motivation to exercise. Thus, healthy lifestyle choices such as healthy eating habits and exercise can contribute to one's psychological well-being and help buffer adverse psychological well-being outcomes.

Bergefurt et al. (2022) found that people with blue or green walls were more stressed in comparison with others. High noise levels were negatively associated with psychological well-being. The relationship between blue/green wall colours and stress starkly contrasts with previous research, in which blue and green were associated with peace, better attentiveness and comfort (Mehta & Zhu, 2009). High noise levels are considered a distraction responsible for reducing psychological well-being (Banbury & Berry, 2005; Di Blasio et al., 2019; Oseland & Hodsman, 2018). Temperature, amount of space, visual privacy, adjustability of furniture, and workspace cleanliness were not associated with any other variable in the study. However, Xiao et al. (2021) found that all indoor environmental factors (visual and thermal environment, air quality and noise) positively correlated with mental well-being. Xiao et al.'s (2021) findings align with those of previous studies (Hu & Coulter, 2017; Ildiri et al., 2022; J. Kim & de Dear, 2013; Marquardt et al., 2002; Varjo et al., 2015) which show that these factors can significantly influence employees' psychological well-being

A dedicated workspace was associated with better psychological well-being (Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021). Having a dedicated workspace minimises the possibility of encountering distractions and interruptions (Hua et al., 2011), which are associated with poorer psychological well-being (Oseland & Hodsman, 2018). A previous European survey (Messenger et al., 2019) found that more than 50% of the respondents did not

pay any attention to ergonomics when working remotely. The unfortunate reality is that not all remote workers have access to dedicated workspaces when working remotely. They often have to share workspaces with other people and children living in the home. In addition, they are likely to work from various locations around the house such as sofas, kitchen counters, dining tables and beds (Thompson, 2020). The lack of a dedicated working space can increase discomfort in unsatisfactory indoor environmental conditions, negatively influencing employees' psychological well-being (Kim & de Dear, 2013).

Increased distractions while working remotely was associated with decreased psychological well-being (Bergefurt et al., 2022; Hernández et al., 2021, 2021; Xiao et al., 2021). Distractions can adversely influence remote workers' psychological well-being as distractions pull employees' attention away from their primary tasks. This creates a conflict in attention as attention is distributed (Sanders et al., 1978), and employees lose some control over their work, requiring employees to utlise more coping strategies (Keller et al., 2020). Consequently, employees then utilise more cognitive resources to complete their job tasks (Leroy, 2009), thereby causing an increase stress levels (Zijlstra et al., 1999). Ford et al. (2021) suggest that remote workers should experience fewer distractions at home as their colleagues cannot distract them; however, they are not immune to distractions as they share their workspace with other household members. This can cause the employees and those around them to forget that they are working, leading to distractions, which have been shown to increase stress levels (Leroy, 2009; Zijlstra et al., 1999). Thus, remote workers require more cognitive and psychological resources to navigate distractions, which can lead to poorer psychological well-being.

The CoR theory (Hobfoll, 1989) suggests that a loss of resources can lead to psychological stress. Golden (2006) argued that the change in a remote worker's working location could have negative implications for one's personal resources. Golden (2006) argued that remote workers conserve their psychological energy when they do not commute to work, which allows them to acquire other resources. Critically conserved resources such as time and energy can be allocated to leisure activities (Guimaraes & Dallow, 1999), which allows the individual to replenish their resources, consequently improving their psychological well-being.

Implications

This chapter will address the research question alluding to the implications for future remote work and hybrid work for organisations, individuals and future research. Drawing on evidence from the current scoping review, various theoretical and practical implications have been identified to assist with enabling remote work conditions conducive to enhancing employee psychological well-being.

Regarding theoretical implications, this study provides key insights and recommendations for future research in this area. The present review contributes to the theoretical discussion of remote and employee psychological well-being during the COVID-19 pandemic by scoping existing literature to map the broader psychological experiences of remote-working employees during COVID-19. It also identifies knowledge gaps which point future research in the right direction to bridge these gaps and develop new knowledge for future remote work and hybrid work for organisations, individuals and future research.

A number of practical implications were also identified. Organisational climate and organisational policies positively influenced remote workers' psychological well-being (Prasad et al., 2020). This review provides managers and organisations with valuable insights to restructure their office and remote work policies and to develop an organisational health and safety climate to support remote working employees' psychological well-being.

Platts et al.'s (2022) study found that quality leadership played a crucial role in moderating psychological well-being outcomes in remote workers. Organisations need to update their leadership training, including content on 'virtual' leadership, which focuses on influencing, managing and empowering virtual teams in the future of work.

To address gender inequalities (Escudero-Castillo et al., 2021; Platts et al., 2022; Sato et al., 2020; Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021), organisational policies should be adapted to support working mothers by offering flexible work hours.

However, generally, studies in this sample found that women suffered worse psychological well-being as compared to men (Escudero-Castillo et al., 2021; Platts et al., 2022; Sato et al., 2020; Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021).

Having a pre-existing mental health diagnosis was associated with worse psychological well-being when compared to those who did not (Hernández et al., 2021; Platts et al., 2022). the findings of the study show that there is a need for increased awareness of mental health

challenges among remote workers. Thus, for employees with mental health issues, organisational psychologists and human resource practitioners should advocate for increased accessibility of psychological well-being and mental health resources for remote working employees.

A lack of social support resulted in poorer psychological well-being among remote workers (Prasad et al., 2020; Straus et al., 2022; Wang et al., 2021; Xiao et al., 2021; Yang et al., 2022). Human resource practitioners and managers can make use of videoconferencing tools, such as Zoom and Microsoft teams, to formally and informally connect employees with other remote workers. Where possible, employers should also provide employees with the option to have in-office workdays, as face-to-face connects with others might improve psychological well-being as opposed to mandating remote work.

Work hours (De Sio et al., 2021; Xiao et al., 2021), high workload and job demands (De Sio et al., 2021; Jamal et al., 2021; Prasad, 2022) were associated with poorer psychological well-being. These key insights provide organisations with an opportunity to develop a remote work code of conduct that governs remote work behaviour. Organisations can encourage employees to respect normal work hours and provide training which helps employees learn how to manage high job demands when working remotely.

Workspace design and having a dedicated workspace were associated with better psychological well-being (Straus et al., 2022; Sutarto et al., 2021; Xiao et al., 2021). Organisations should provide remote workers with high-standard ergonomic furniture and technical equipment to support employees' psychological well-being.

Gaps in literature and recommendations for future research

This chapter will address the research question pertaining to the gaps that were identified in existing research examining the relationship between remote work and employee well-being. Interestingly, none of the studies examined cabin fever as a psychological outcome in remote working employees during the pandemic. Cabin fever is a mental health condition that is customarily understood as the fusion of anxiety, lassitude, depression, boredom, irritability and the feeling of dissatisfaction as a result of confinement or isolation (Crawford, 2021). Considering the unique conditions in which employees had to work (in lockdown), it is unclear why other researchers did not include cabin fever in their studies. This would have given further insight into the psyche of remote workers regarding distress or claustrophobic irritability as a result of staying at home for an indefinite period of time. Although no other studies investigated cabin fever, (Ekpanyaskul & Padungtod, 2021) found that cabin fever was the most prevalent psychological health problem, trumping anxiety from work, loss of concentration and depression.

Secondly, more than half of the studies did not provide a theoretical framework to support their studies. However, a theoretical framework should form the basis of any study so as to provide direction to the study and to contribute new knowledge by building on or disproving an existing theory (Jaccard & Jacoby, 2009)

Thirdly, there was an overpopulation of quantitative studies, and few qualitative and mixed methods studies were conducted. Future research should utilise more qualitative methods to provide further richness to the data to gain further insight into the relationship between remote work and employees' psychological well-being during the pandemic. Mixed methods research should also be conducted to validate the findings in the quantitative halves of the studies, adding to the robustness and richness of the data and the findings. More critically, future studies should employ longitudinal research methods to assess the changes in post-COVID-19 pandemic recovery. This may also allow researchers to test the causal relationships among the variables over time.

Fourthly, future studies should utilise probability sampling methods to improve the sample's representativeness and the findings' generalisability.

Fifthly, only one study (Prasad et al., 2020) included organisational climate and policies as variables in their study. Platts et al.'s (2022) study was the only one to include quality of

leadership as a variable. Few studies in the sample included income level (Escudero-Castillo et al., 2021; Xiao et al., 2021), personality traits (Bergefurt et al., 2022) and cabin fever (Ekpanyaskul & Padungtod, 2021) as variables in their investigations. Some job variables, such as clear roles and control of workspace were not included. Organisational variables such as talent management, a safety climate and training were not considered. External variables such as the economy and load-shedding were also not included. Future research should seek to further include these variables to better understand the influence of these factors on remote workers' psychological well-being during a global health crisis.

Finally, most of the studies were conducted in Europe and other developed countries (the Global North), while fewer studies were conducted in developing countries (the Global South). Future research should aim to fill the knowledge gap in developing countries. Critically, there was an under-representation of studies conducted on the African continent as only one study was conducted in Africa (Mostafa, 2021). Therefore, this review calls for researchers to conduct further research on the relationship between remote work and psychological well-being in African countries. Literature from other continents can be greatly limited in its generalisability to African populations. Researchers in African countries are also called upon to conduct their own research in order to adapt their organisational practices in a way that is suitable for the African context, to meet the African remote worker's needs.

Limitations

This study is not without limitations. The researcher chose not to include articles from non-peer-reviewed journals, unpublished articles and grey literature (e.g., unpublished theses and dissertations). Additionally, the search was restricted to studies published from 2020 to June 2022, at the time of writing. More specifically, this review only included studies conducted during the COVID-19 pandemic. Furthermore, literature published in languages other than English were excluded. This means that additional evidence examining the relationship between remote work and psychological well-being may have been overlooked. Additionally, although the search included 14 databases, it is possible that relevant publications may have been unintentionally excluded if they were published in other databases (i.e. ProQuest and PsycINFO).

Moreover, all quantitative measures were self-report. Thus, there may have been a risk of social desirability bias in responses.

Finally, only studies conducted during the pandemic were included in the sample. Although lockdown regulations have been relaxed (Financial Times, 2022), the implications of the study post-pandemic may be limited. However, it might still be useful to gain an understanding of the relationship between remote work and psychological well-being during a global health crisis, as history has shown that the COVID-19 pandemic is unlikely to be the last.

Despite these limitations, the review adhered to the recommended methodological framework outlined by Arksey and O'Malleys (2005) for conducting a scoping reviews.

CHAPTER 6: CONCLUSION

The present scoping review has shed light on the intricate relationship between remote work and psychological well-being during the unprecedented circumstances of the COVID-19 pandemic. Through an extensive examination of existing literature and empirical evidence, several core insights have emerged.

First, the findings of this study have demonstrated the multifaceted nature of the remote work experience and its impact on psychological well-being. There is a lot of variability and heterogeneity among the 20 included studies. It has become evident that remote work can present both challenges and opportunities. On one hand, the flexibility and autonomy associated with remote work have been linked to positive psychological outcomes, such as reduced work-related stress and increased job satisfaction (Jamal et al., 2021; Prasad et al., 2020). On the other hand, the blurring of boundaries between work and personal life, social isolation, and technological challenges have highlighted potential negative effects on mental health, including increased feelings of loneliness (De Sio et al., 2021; Toscano & Zappalà, 2020; Wang et al., 2021; Yang et al., 2022) and stress (Escudero-Castillo et al., 2021; Platts et al., 2022; Xiao et al., 2021). This may be because some studies did not take into consideration other critical confounding factors.

Secondly, some studies (De Sio et al., 2021; Escudero-Castillo et al., 2021; Hernández et al., 2021; Mostafa, 2021; Parham & Rauf, 2020; Platts et al., 2022; Sato et al., 2020; Shimura et al., 2021; Xiao et al., 2021) were not informed by theoretical frameworks which intend to guide the investigation. However, among studies that included a theoretical framework, similar theoretical frameworks, CoR, Job Demands-Resources model, Ryff and Keyes' six-factor model of psychological well-being, Events Systems Theory and Transactional Stress Theory/Transactional Theory of Stress and Coping, Subjective well-being (inferred) were used. Research evidence developed these theories to a certain extent.

Third, this study has demonstrated the importance of various organisational, group, individual, job and home environment and workspace factors in shaping the remote work experience and its influence on psychological well-being. Factors such as autonomy, social support, communication effectiveness, and work-life balance have emerged as crucial determinants of employee well-being in remote work settings. Organisations need to consider these factors and proactively implement strategies and policies to support their remote workforce and promote psychological well-being.

Furthermore, this study has also identified gaps which indicate the need for ongoing research and intervention in this domain. The COVID-19 pandemic has accelerated the adoption of remote work, making it imperative to understand its long-term implications for employee well-being. Future research should examine the mechanisms underlying the remote work-psychological well-being relationship, explore the role of interventions and support systems, and investigate potential disparities in outcomes across different populations. Future research should include studies in the African context. Future studies should also include more potentially mediating and moderating variables, such as cabin fever, personality traits, load-shedding (rolling blackouts) and the national economy. Future studies could include more qualitative, mixed-methods and longitudinal methodologies to diversify the approaches to understanding the complex relationship. Further research gaps and key implications for future research and remote and hybrid work have been identified.

While the findings in this review provide key insights into the relationship between remote work and psychological well-being for researchers and organisations, they must be interpreted cautiously as these studies were conducted across various countries and at different stages of the COVID-19 lockdown in the respective countries. Additionally, poor psychological well-being could have been aggravated by the uncertainty and fear many experienced during the early stages of the COVID-19 pandemic before management and mitigation strategies were implemented. Lockdown regulations have been largely relaxed. As such, we might expect different results today.

This review contributes to the practical and theoretical discussions about remote and employee psychological well-being during a global health crisis. The current scoping review assists researchers with identifying knowledge gaps and points them in the right direction to develop conceptual or theoretical models for further empirical research in this area. More specifically, it underscores the significance of considering employees' psychological well-being when working remotely, particularly during times of crisis. More practically, the findings from this study can inform organisations, policymakers, and individuals in their efforts to optimise the remote work experience, mitigate potential negative consequences, and foster a healthy and productive work environment.

In summary, this study has deepened our understanding of the complex interplay between remote work and psychological well-being during the COVID-19 pandemic. Its insights provide a foundation for future research and practical initiatives aimed at promoting employee

well-being in remote work settings. Ultimately, this study serves as a stepping stone towards enhancing the remote work experience and ensuring the psychological well-being of individuals in the evolving landscape of work.

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REFERENCES

Anderson, A. J., Kaplan, S. A., & Vega, R. P. (2015). The impact of telework on emotional experience: When, and for whom, does telework improve daily affective well-being? *European Journal of Work and Organizational Psychology*, *24*(6), 882–897. https://doi.org/10.1080/1359432X.2014.966086

Ansari, W. E., Adetunji2, H., & Oskrochi, R. (2014). Food and Mental Health: Relationship between Food and Perceived Stress and Depressive Symptoms among University Students in the United Kingdom. *Central European Journal of Public Health*, *22*(2), 90–97. https://doi.org/10.21101/cejph.a3941

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/1364557032000119616

Atkinson, M., Zibin, S., & Chuang, H. (1997). Characterizing quality of life among patients with chronic mental illness: A critical examination of the self-report methodology. *American Journal of Psychiatry*, *154*(1), 99–105. https://doi.org/10.1176/ajp.154.1.99

Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological Antecedents and Implications. *Management Information Systems Quarterly*, *35*(4), 831–858. https://doi.org/10.2307/41409963

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309–328. https://doi.org/10.1108/02683940710733115

Banbury, S., & Berry, D. (2005). Office noise and employee concentration: Identifying causes of disruption and potential improvements. *Ergonomics*, *48*(1), 25–37. https://doi.org/10.1080/00140130412331311390

Banderker, S. I. (2022). The perceived psychosocial and economic impact of load-shedding on employees in selected small micro medium enterprises. *UWCShcolar*, 1–117.

Bandura, A. (1977). Self-Efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). Academic Press. https://www.academia.edu/32386167/Bandura_self_efficacy

Bavik, Y. L., Shaw, J. D., & Wang, X.-H. (Frank). (2020). Social Support: Multidisciplinary Review, Synthesis, and Future Agenda. *Academy of Management Annals*, *14*(2), 726–758. https://doi.org/10.5465/annals.2016.0148

Belo, P., Navarro-Pardo, E., Pocinho, R., Carrana, P., & Margarido, C. (2020). Relationship Between Mental Health and the Education Level in Elderly People: Mediation of Leisure Attitude. *Frontiers in Psychology*, *11*. https://www.frontiersin.org/articles/10.3389/fpsyg.2020.00573

Benight, C. C., Swift, E., Sanger, J., Smith, A., & Zeppelin, D. (1999). Coping Self-Efficacy as a Mediator of Distress Following a Natural Disaster. *Journal of Applied Social Psychology*, *29*(12), 2443–2464. https://doi.org/10.1111/j.1559-1816.1999.tb00120.x

Bentley, T. A., Teo, S. T. T., McLeod, L., Tan, F., Bosua, R., & Gloet, M. (2016a). The role of organisational support in teleworker wellbeing: A socio-technical systems approach. *Applied Ergonomics*, *52*, 207–215. https://doi.org/10.1016/j.apergo.2015.07.019

Bentley, T. A., Teo, S. T. T., McLeod, L., Tan, F., Bosua, R., & Gloet, M. (2016b). The role of organisational support in teleworker wellbeing: A socio-technical systems approach. *Applied Ergonomics*, *52*, 207–215. https://doi.org/10.1016/j.apergo.2015.07.019

Bergefurt, L., Appel-Meulenbroek, R., Maris, C., Arentze, T., Weijs-Perrée, M., & de Kort, Y. (2022). The influence of distractions of the home-work environment on mental health during the COVID-19 pandemic. *Ergonomics*, *0*(0), 1–18. https://doi.org/10.1080/00140139.2022.2053590

Berndt, A. E. (2020). Sampling Methods. *Journal of Human Lactation*, *36*(2), 224–226. https://doi.org/10.1177/0890334420906850

Bilotta, I., Cheng, S., Davenport, M. K., & King, E. (2021). Using the job demands-resources model to understand and address employee well-being during the COVID-19 pandemic. *Industrial and Organizational Psychology*, *14*(1–2), 267–273. https://doi.org/10.1017/iop.2021.43

Buchanan, G. M., & Seligman, M. E. P. (1995). *Explanatory style* (pp. ix, 303). Lawrence Erlbaum Associates, Inc.

Büchler, N., ter Hoeven, C. L., & van Zoonen, W. (2020). Understanding constant connectivity to work: How and for whom is constant connectivity related to employee well-being? *Information and Organization*, *30*(3), 100302. https://doi.org/10.1016/j.infoandorg.2020.100302

Carracedo, P., Puertas, R., & Marti, L. (2021). Research lines on the impact of the COVID-19 pandemic on business. A text mining analysis. *Journal of Business Research*, *132*, 586–593. https://doi.org/10.1016/j.jbusres.2020.11.043

Carruthers, C. P., & Hood, C. D. (2004). The Power of the Positive: Leisure and Well-Being. *Therapeutic Recreation Journal*, 21.

Chai, D. S., & Park, S. (2022). *The increased use of virtual teams during the Covid-19 pandemic: Implications for psychological well-being*. https://www.tandfonline.com/doi/epub/10.1080/13678868.2022.2047250?needAccess=true

Chang, A., & Nguyen, L. T. (2011). The mediating effects of time structure on the relationships between time management behaviour, job satisfaction, and psychological well-being. *Australian Journal of Psychology*, *63*(4), 187–197. https://doi.org/10.1111/j.1742-9536.2011.00008.x

Chekroud, S. R., Gueorguieva, R., Zheutlin, A. B., Paulus, M., Krumholz, H. M., Krystal, J. H., & Chekroud, A. M. (2018). Association between physical exercise and mental health in 1·2 million individuals in the USA between 2011 and 2015: A cross-sectional study. *The Lancet Psychiatry*, *5*(9), 739–746. https://doi.org/10.1016/S2215-0366(18)30227-X

Chiparausha, B. (2022). Digital fatigue: Are librarians at universities in Zimbabwe spared? *Library Philosophy and Practice*.

Chung-Yan, G. A. (2010). The nonlinear effects of job complexity and autonomy on job satisfaction, turnover, and psychological well-being. *Journal of Occupational Health Psychology*, *15*, 237–251. https://doi.org/10.1037/a0019823

Clifton, A., & Webster, G. D. (2017). An Introduction to Social Network Analysis for Personality and Social Psychologists. *Social Psychological and Personality Science*, *8*(4), 442–453. https://doi.org/10.1177/1948550617709114

Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of Organizational Behavior*, *23*(4), 511–532. https://doi.org/10.1002/job.145

Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, *4*, 5–13. https://doi.org/10.1037/1040-3590.4.1.5

Crawford, P. (2021). Editorial Perspective: Cabin fever – the impact of lockdown on children and young people. *Child and Adolescent Mental Health*, *26*(2), 167–168. https://doi.org/10.1111/camh.12458

De Moortel, D., Thévenon, O., De Witte, H., & Vanroelen, C. (2017). Working Hours Mismatch, Macroeconomic Changes, and Mental Well-being in Europe. *Journal of*

Health and Social Behavior, *58*(2), 217–231. https://doi.org/10.1177/0022146517706532

De Sio, S., Cedrone, F., Nieto, H., Lapteva, E., Perri, R., Greco, E., Mucci, N., Pacella, E., & Buomprisco, G. (2021). Telework and its effects on mental health during the COVID-19 lockdown. *European Review for Medical and Pharmacological Sciences*, *25*, 3914–3922. https://doi.org/10.26355/eurrev_202105_25961

Derks, D., van Duin, D., Tims, M., & Bakker, A. B. (2015). Smartphone use and work–home interference: The moderating role of social norms and employee work engagement. *Journal of Occupational and Organizational Psychology*, *88*(1), 155–177. https://doi.org/10.1111/joop.12083

Di Blasio, S., Shtrepi, L., Puglisi, G. E., & Astolfi, A. (2019). A Cross-Sectional Survey on the Impact of Irrelevant Speech Noise on Annoyance, Mental Health and Well-being, Performance and Occupants' Behavior in Shared and Open-Plan Offices. *International Journal of Environmental Research and Public Health*, *16*(2), Article 2. https://doi.org/10.3390/ijerph16020280

Diener, E., & Lucas, R. (1999). Personality and subjective well-being. In N. Schartz, D. Kahneman, & E. Diener (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). Russell Sage Foundation. https://books.google.co.za/books?hl=en&lr=&id=-wIXAwAAQBAJ&oi=fnd&pg=PA213&dq=Diener,+E.,+%26+Lucas,+R.+(1999).+Personality+and+subjective+well-being.+In+D.+Kahneman,+E.+Diener,+%26+N.+Schwartz+(Eds.),+Well-being:+The+foundations+of+hedonic+psychology+(pp.+213-229).+New+York:+Russell+Sage+Foundation&ots=ZquVqagfa3&sig=E74DnQNFtuv8colKD_WESdcH_7U&redir_esc=y#v=onepage&q&f=false

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302. https://doi.org/10.1037/0033-2909.125.2.276

Dolce, V., Vayre, E., Molino, M., & Ghislieri, C. (2020). Far Away, So Close? The Role of Destructive Leadership in the Job Demands–Resources and Recovery Model in Emergency Telework. *Social Sciences*, *9*(11), Article 11. https://doi.org/10.3390/socsci9110196

Donald, I., Taylor, P., Johnson, S., Cooper, C., Cartwright, S., & Robertson, S. (2005). Work environments, stress, and productivity: An examination using ASSET. *International Journal of Stress Management*, *12*(4), 409–423. https://doi.org/10.1037/1072-5245.12.4.409

Dua, A., Mahajan, D., Oyer, L., & Ramaswamy, S. (2020). US small-business recovery after the COVID-19 crisis. *McKinsey & Company*, 8.

Duxbury, L., Higgins, C., & Neufeld, D. (1998). Telework and the balance between work and family: Is telework part of the problem or part of the solution? In *The Virtual Workplace* (pp. 218–255). Idea Group Publishing.

Dwan, K., Gamble, C., Williamson, P. R., Kirkham, J. J., & the Reporting Bias Group. (2013). Systematic Review of the Empirical Evidence of Study Publication Bias and Outcome Reporting Bias—An Updated Review. *PLoS ONE*, *8*(7), e66844. https://doi.org/10.1371/journal.pone.0066844

Eddleston, K. A., & Mulki, J. (2017). Toward Understanding Remote Workers' Management of Work–Family Boundaries: The Complexity of Workplace Embeddedness. *Group & Organization Management*, *42*(3), 346–387. https://doi.org/10.1177/1059601115619548

Ekpanyaskul, C., & Padungtod, C. (2021). Occupational Health Problems and Lifestyle Changes Among Novice Working-From-Home Workers Amid the COVID-19 Pandemic. *Safety and Health at Work*, *12*(3), 384–389. https://doi.org/10.1016/j.shaw.2021.01.010

Elshaiekh, N. E. M., Hassan, Y. A. A., & Abdallah, A. A. A. (2018). The Impacts of Remote Working on Workers Performance. *2018 International Arab Conference on Information Technology (ACIT)*, 1–5. https://doi.org/10.1109/ACIT.2018.8672704

Escudero-Castillo, I., Mato-Díaz, F. J., & Rodriguez-Alvarez, A. (2021). Furloughs, Teleworking and Other Work Situations during the COVID-19 Lockdown: Impact on Mental Well-Being. *International Journal of Environmental Research and Public Health*, *18*(6), Article 6. https://doi.org/10.3390/ijerph18062898

Fava, G. A., & Ruini, C. (2003). Development and characteristics of a well-being enhancing psychotherapeutic strategy: Well-being therapy. *Journal of Behavior Therapy and Experimental Psychiatry*, *34*(1), 45–63. https://doi.org/10.1016/S0005-7916(03)00019-3

Fernet, C., Trépanier, S.-G., Austin, S., Gagné, M., & Forest, J. (2015). Transformational leadership and optimal functioning at work: On the mediating role of employees' perceived job characteristics and motivation. *Work & Stress*, *29*(1), 11–31. https://doi.org/10.1080/02678373.2014.1003998

Filardi, F., Castro, R. M. P. D., & Zanini, M. T. F. (2020). Advantages and disadvantages of teleworking in Brazilian public administration: Analysis of SERPRO and Federal Revenue experiences. *Cadernos EBAPE.BR*, *18*, 28–46. https://doi.org/10.1590/1679-395174605x

Financial Times. (2022, December 23). *Lockdowns compared: Tracking governments' coronavirus responses*. https://ig.ft.com/coronavirus-lockdowns

Fiorillo, A., & Gorwood, P. (2020). The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *European Psychiatry*, *63*(1), e32. https://doi.org/10.1192/j.eurpsy.2020.35

Fletcher, D., & Sarkar, M. (2013). Psychological Resilience. *European Psychologist*, *18*(1), 12–23. https://doi.org/10.1027/1016-9040/a000124

Ford, D., Storey, M. A., Zimmerman, T., Bird, C., Jaffe, S., Maddila, C., Butler, J. L., Houck, B., & Nagappan, N. (2021). A Tale of Two Cities: Software Developers Working from Home during the COVID-19 Pandemic. *ACM Transactions on Software Engineering and Methodology*, *31*(2), 1–37. https://doi.org/doi.org/10.1145/3487567

Foy, T., Dwyer, R. J., Nafarrete, R., Hammoud, M. S. S., & Rockett, P. (2019). Managing job performance, social support and work-life conflict to reduce workplace stress. *International Journal of Productivity and Performance Management*, *68*(6), 1018–1041. https://doi.org/10.1108/IJPPM-03-2017-0061

Franken, E., Bentley, T., Shafaei, A., Farr-Wharton, B., Onnis, L., & Omari, M. (2021a). Forced flexibility and remote working: Opportunities and challenges in the new normal. *Journal of Management & Organization*, *27*(6), 1131–1149. https://doi.org/10.1017/jmo.2021.40

Franken, E., Bentley, T., Shafaei, A., Farr-Wharton, B., Onnis, L., & Omari, M. (2021b). Forced flexibility and remote working: Opportunities and challenges in the new normal. *Journal of Management & Organization*, *27*(6), 1131–1149. https://doi.org/10.1017/jmo.2021.40

Freedom House. (2022). *South Africa: Freedom in the World 2022 Country Report*. Freedom House. https://freedomhouse.org/country/south-africa/freedom-world/2022

Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and*

organizational psychology, Vol. 4, 2nd ed (2nd ed., Vol. 4, pp. 271–340). Consulting Psychologists Press. http://www.evidence-based-entrepreneurship.com/content/publications/152.pdf

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, *92*, 1524–1541. https://doi.org/10.1037/0021-9010.92.6.1524

Gamal, A. M., & Mohamed, E. S. S. (2012). Factors influencing perceived productivity of Egyptian teleworkers: An empirical study. *Measuring Business Excellence*, *16*(2), 3–22. https://doi.org/10.1108/13683041211230285

Giménez-Nadal, J. I., Molina, J. A., & Velilla, J. (2019). Work time and well-being for workers at home: Evidence from the American Time Use Survey. *International Journal of Manpower*, *41*(2), 184–206. https://doi.org/10.1108/IJM-04-2018-0134

Gist, R., & Lubin, B. (2013). *Response to Disaster: Psychosocial, Community, and Ecological Approaches*. Routledge.

Glenn, N. D., & Weaver, C. N. (1981). Education's Effects on Psychological Well-Being. *Public Opinion Quarterly*, *45*(1), 22–39. https://doi.org/10.1086/268632

Golden, T. D. (2006a). Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions. *Journal of Vocational Behavior*, *69*(1), 176–187. https://doi.org/10.1016/j.jvb.2006.02.003

Golden, T. D. (2006b). Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions. *Journal of Vocational Behavior*, *69*(1), 176–187. https://doi.org/10.1016/j.jvb.2006.02.003

Grant, C. A., Wallace, L. M., & Spurgeon, P. C. (2013). An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life

balance. *Employee Relations*, *35*(5), 527–546. https://doi.org/10.1108/ER-08-2012-0059

Guimaraes, T., & Dallow, P. (1999). Empirically testing the benefits, problems, and success factors for telecommuting programmes. *European Journal of Information Systems*, *8*(1), 40–54. https://doi.org/10.1057/palgrave.ejis.3000317

Hakulinen, C., Elovainio, M., Pulkki-Råback, L., Virtanen, M., Kivimäki, M., & Jokela, M. (2015). Personality and Depressive Symptoms: Individual Participant Meta-Analysis of 10 Cohort Studies. *Depression and Anxiety*, *32*(7), 461–470. https://doi.org/10.1002/da.22376

Hart, T. G., Davids, Y. D., Rule, S., Tirivanhu, P., & Mtyingizane, S. (2022). The COVID-19 pandemic reveals an unprecedented rise in hunger: The South African Government was ill-prepared to meet the challenge. *Scientific African*, *16*, e01169. https://doi.org/10.1016/j.sciaf.2022.e01169

Heiberg, T., & Winning, A. (2020, March 23). South Africa to impose 21-day lockdown as coronavirus cases jump. *Reuters*. https://www.reuters.com/article/us-health-coronavirus-safrica-idUSKBN21A1SZ

Heithaus, J. L., Twyman, K. A., & Braddock, B. A. (2017). Ostracism and Peer Victimization in Adolescents With and Without Mental Health Diagnoses in a Public Middle School Setting. *Clinical Pediatrics*, *56*(14), 1301–1311. https://doi.org/10.1177/0009922816682745

Hernández, Y. A. T., Parente, F., Faghy, M. A., Roscoe, C. M. P., & Maratos, F. A. (2021). Influence of the COVID-19 Lockdown on the Physical and Psychosocial Well-being and Work Productivity of Remote Workers: Cross-sectional Correlational Study. *JMIRx Med*, *2*(4), e30708. https://doi.org/10.2196/30708

Hill, E. J., Miller, B. C., Weiner, S. P., & Colihan, J. (1998). Influences of the Virtual Office on Aspects of Work and Work/Life Balance. *Personnel Psychology*, *51*(3), 667–683. https://doi.org/10.1111/j.1744-6570.1998.tb00256.x

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513

Hobfoll, S. E. (2001). The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory. *Applied Psychology*. https://doi.org/10.1111/1464-0597.00062

Holtz, L. (2021, October 12). COVID-19's impact on overall health care services in Africa. *Brookings*. https://www.brookings.edu/blog/africa-in-focus/2021/10/12/covid-19s-impact-on-overall-health-care-services-in-africa/

Hu, Y., & Coulter, R. (2017). Living space and psychological well-being in urban China: Differentiated relationships across socio-economic gradients. *Environment and Planning A: Economy and Space*, *49*(4), 911–929. https://doi.org/10.1177/0308518X16680213

Hua, Y., Loftness, V., Heerwagen, J. H., & Powell, K. E. (2011). *Relationship Between Workplace Spatial Settings and Occupant-Perceived Support for Collaboration—Ying Hua, Vivian Loftness, Judith H. Heerwagen, Kevin M. Powell, 2011*. *43*(6), 807–826. https://doi.org/10.1177/0013916510364465

Hughes, L. W. (2008). *A Correlational Study of the Relationship Between Sense of Humor and Positive Psychological Capacities*. *1*(1), 11.

Ildiri, N., Bazille, H., Lou, Y., Hinkelman, K., Gray, W. A., & Zuo, W. (2022). Impact of WELL certification on occupant satisfaction and perceived health, well-being, and productivity: A multi-office pre- versus post-occupancy evaluation. *Building and Environment*, *224*, 109539. https://doi.org/10.1016/j.buildenv.2022.109539

Ingusci, E., Signore, F., Giancaspro, M. L., Manuti, A., Molino, M., Russo, V., Zito, M., & Cortese, C. G. (2021). Workload, Techno Overload, and Behavioral Stress During COVID-19 Emergency: The Role of Job Crafting in Remote Workers. *Frontiers in Psychology*, *12*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.655148

International Labour Organisation. (2020). *Impact of the COVID-19 crisis on loss of jobs and hours among domestic workers*. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_747961.pdf

Ipsen, C., van Veldhoven, M., Kirchner, K., & Hansen, J. P. (2021). Six Key Advantages and Disadvantages of Working from Home in Europe during COVID-19. *International Journal of Environmental Research and Public Health*, *18*(4), Article 4. https://doi.org/10.3390/ijerph18041826

Jaccard, J., & Jacoby, J. (2009). *Theory Construction and Model-Building Skills: A Practical Guide for Social Scientists* (1st edition). The Guilford Press.

Jalagat, R., & Jalagat, A. (2019). *RATIONALIZING REMOTE WORKING CONCEPT AND ITS IMPLICATIONS ON EMPLOYEE PRODUCTIVITY*. *6*, 95–100.

Jamal, M. T., Anwar, I., Khan, N. A., & Saleem, I. (2021). Work during COVID-19: Assessing the influence of job demands and resources on practical and psychological outcomes for employees. *Asia-Pacific Journal of Business Administration*, *13*(3), 293–319. https://doi.org/10.1108/APJBA-05-2020-0149

Kapoor, V., Yadav, J., Bajpai, L., & Srivastava, S. (2021). Perceived stress and psychological well-being of working mothers during COVID-19: A mediated moderated roles of teleworking and resilience. *Employee Relations: The International Journal*, *43*(6), 1290–1309. https://doi.org/10.1108/ER-05-2020-0244

Karl, K. A., Peluchette, J. V., & Aghakhani, N. (2022). Virtual Work Meetings During the COVID-19 Pandemic: The Good, Bad, and Ugly. *Small Group Research*, *53*(3), 343–365. https://doi.org/10.1177/10464964211015286

Katz, A. I. (1987). The management, control, and evaluation of a telecommuting project: A case study. *Inf. Manag.* https://doi.org/10.1016/0378-7206(87)90055-3

Katz, D., & Kahn, R. L. (1966). *Katz D & Kahn R L. The social psychology of organizations*. John Wiley and Sons.

Keller, A. C., Meier, L. L., Elfering, A., & Semmer, N. K. (2020). Please wait until I am done! Longitudinal effects of work interruptions on employee well-being. *Work & Stress*, *34*(2), 148–167. https://doi.org/10.1080/02678373.2019.1579266

Kemp, F. O. M. (2013). *New Ways of Working and Organizational outcomes: The role of Psychological Capital*. 45.

Keyes, C. L. M., & Waterman, M. B. (2003). Dimensions of well-being and mental health in adulthood. In *Well-being: Positive development across the life course* (pp. 477–497). Lawrence Erlbaum Associates Publishers. https://doi.org/10.4324/9781410607171

Kim, J., & de Dear, R. (2012). Nonlinear relationships between individual IEQ factors and overall workspace satisfaction. *Building and Environment*, *49*, 33–40. https://doi.org/10.1016/j.buildenv.2011.09.022

Kim, J., & de Dear, R. (2013). Workspace satisfaction: The privacy-communication trade-off in open-plan offices. *Journal of Environmental Psychology*, *36*, 18–26. https://doi.org/10.1016/j.jenvp.2013.06.007

Kim, M., Kim, A. C. H., Newman, J. I., Ferris, G. R., & Perrewé, P. L. (2019). The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations. *Sport Management Review*, *22*(1), 108–125. https://doi.org/10.1016/j.smr.2018.04.003

Kim, S., & Christensen, A. (2017). The Dark and Bright Sides of Personal Use of Technology at Work: A Job Demands–Resources Model. *Human Resource Development Review*, *16*, 153448431772543. https://doi.org/10.1177/1534484317725438

Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace Social Support and Work–Family Conflict: A Meta-Analysis Clarifying the Influence of General and Work–Family-Specific Supervisor and Organizational Support. *Personnel Psychology*, *64*(2), 289–313. https://doi.org/10.1111/j.1744-6570.2011.01211.x

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: A meta-analysis. *Psychological Bulletin*, *136*(5), 768–821. https://doi.org/10.1037/a0020327

Kotter, J. P. (2012). *Leading Change*. Harvard Business Review Press.

Kotter, J. P., & Cohen, D. S. (2012). *The Heart of Change: Real-Life Stories of How People Change Their Organizations*. Harvard Business Review Press.

Kunii, Y., Suzuki, Y., Shiga, T., Yabe, H., Yasumura, S., Maeda, M., Niwa, S., Otsuru, A., Mashiko, H., Abe, M., & Survey, M. H. G. of the F. H. M. (2016). Severe Psychological Distress of Evacuees in Evacuation Zone Caused by the Fukushima Daiichi Nuclear Power Plant Accident: The Fukushima Health Management Survey. *PLOS ONE*, *11*(7), e0158821. https://doi.org/10.1371/journal.pone.0158821

Lautsch, B. A., Kossek, E. E., & Eaton, S. C. (2009). Supervisory approaches and paradoxes in managing telecommuting implementation. *Human Relations*, *62*(6), 795–827. https://doi.org/10.1177/0018726709104543

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer Publishing Company.

Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, *81*(2), 123–133. https://doi.org/10.1037/0021-9010.81.2.123

Leroy, S. (2009). Why is it so hard to do my work? The challenge of attention residue when switching between work tasks. *Organizational Behavior and Human Decision Processes*, *109*(2), 168–181. https://doi.org/10.1016/j.obhdp.2009.04.002

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, *5*(1), 69. https://doi.org/10.1186/1748-5908-5-69

Liu, S., Lithopoulos, A., Zhang, C.-Q., Garcia-Barrera, M. A., & Rhodes, R. E. (2021). Personality and perceived stress during COVID-19 pandemic: Testing the mediating role of perceived threat and efficacy. *Personality and Individual Differences*, *168*, 110351. https://doi.org/10.1016/j.paid.2020.110351

Lizarondo, L., Stern, C., Carrier, J., Godfrey, C., Rieger, K., Salmond, S., Apostolo, J., Kirkpatrick, P., & Loveday, H. (2017). *Mixed methods systematic reviews* (E. Aromataris & Z. Munn, Eds.). The Joanna Briggs Institute. https://orca.cardiff.ac.uk/id/eprint/122807/

Lund, S., Madgavkar, A., Manyika, J., & Sven Smit. (2020, November 21). *The future of remote work: An analysis of 2,000 tasks, 800 jobs, and 9 countries*. McKinsey & Company. https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries

Maghlaperidze, E., Kharadze, N., & Kuspliak, H. (2021). Development of Remote Jobs as a Factor to Increase Labor Efficiency. *Journal of Eastern European and Central Asian Research (JEECAR)*, *8*(3), Article 3. https://doi.org/10.15549/jeecar.v8i3.669

Magnavita, N., Tripepi, G., & Chiorri, C. (2021). Telecommuting, Off-Time Work, and Intrusive Leadership in Workers' Well-Being. *International Journal of Environmental Research and Public Health*, *18*(7), Article 7. https://doi.org/10.3390/ijerph18073330

Mann, S., & Holdsworth, L. (2003). The psychological impact of teleworking: Stress, emotions and health. *New Technology, Work and Employment*, *18*(3), 196–211. https://doi.org/10.1111/1468-005X.00121

Marquardt, C. J. G., Veitch, J. A., & Charles, K. E. (2002). Environmental satisfaction with open-plan office furniture design and layout—NRC Publications Archive. *National Research Council Publications Archive*. https://doi.org/10.4224/ 20378656

Martinez-Bravo, M., & Sanz, C. (2021). Inequality and psychological well-being in times of COVID-19: Evidence from Spain. *SERIEs*, *12*(4), 489–548. https://doi.org/10.1007/s13209-021-00255-3

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227–238. https://doi.org/10.1037/0003-066X.56.3.227

Maynard, D. C., & Hakel, M. D. (1997). Effects of Objective and Subjective Task Complexity on Performance. *Human Performance*, *10*(4), 303–330. https://doi.org/10.1207/s15327043hup1004_1

McHugh, M. (1997). The stress factor: Another item for the change management agenda? *Journal of Organizational Change Management*, *10*(4), 345–362. https://doi.org/10.1108/09534819710175866

Megatsari, H., Laksono, A. D., Ibad, M., Herwanto, Y. T., Sarweni, K. P., Geno, R. A. P., & Nugraheni, E. (2020). The community psychosocial burden during the COVID-19 pandemic in Indonesia. *Heliyon*, *6*(10), e05136. https://doi.org/10.1016/j.heliyon.2020.e05136

Mehta, R., & Zhu, R. (Juliet). (2009). Blue or Red? Exploring the Effect of Color on Cognitive Task Performances. *Science*, *323*(5918), 1226–1229. https://doi.org/10.1126/science.1169144

Mental Health Foundation. (2020). *Wave 4 summary: Late May 2020, 2 months into lockdown*. https://www.mentalhealth.org.uk/our-work/research/coronavirus-mental-health-pandemic-study/wave-4-summary

Meseguer de Pedro, M., Fernández-Valera, M. M., García-Izquierdo, M., & Soler Sánchez, M. I. (2021). Burnout, Psychological Capital and Health during COVID-19 Social Isolation: A Longitudinal Analysis. *International Journal of Environmental Research and Public Health*, *18*(3), Article 3. https://doi.org/10.3390/ijerph18031064

Messenger, J., Llave, V. O., Gschwind, L., Boehmer, S., Vermeylen, G., & Wilkens, M. (2019, June 20). *Working anytime, anywhere: The effects on the world of work.* Eurofound. https://www.eurofound.europa.eu/publications/report/2017/working-anytime-anywhere-the-effects-on-the-world-of-work

Microsoft 365. (2022). *Microsoft Excel Spreadsheet Software | Microsoft 365*. https://www.microsoft.com/en-us/microsoft-365/excel

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & for the PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ*, *339*(jul21 1), b2535–b2535. https://doi.org/10.1136/bmj.b2535

Morgeson, F. P., Mitchell, T. R., & Liu, D. (2015). Event system theory: An event-oriented approach to the organizational sciences. *The Academy of Management Review*, *40*, 515–537. https://doi.org/10.5465/amr.2012.0099

Mostafa, B. A. (2021). The Effect of Remote Working on Employees Wellbeing and Work-Life Integration during Pandemic in Egypt. *International Business Research*, *14*(3), 41. https://doi.org/10.5539/ibr.v14n3p41

Nakata, Y., Sasai, H., Gosho, M., Kobayashi, H., Shi, Y., Ohigashi, T., Mizuno, S., Murayama, C., Kobayashi, S., & Sasaki, Y. (2022). A Smartphone Healthcare Application, CALO mama Plus, to Promote Weight Loss: A Randomized Controlled Trial. *Nutrients*, *14*(21), Article 21. https://doi.org/10.3390/nu14214608

Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: Characteristics and outcomes of telework. *International Journal of Manpower*, *40*(1), 87–101. https://doi.org/10.1108/IJM-07-2017-0172

Nature. (2021). COVID research: A year of scientific milestones. *Nature*. https://doi.org/10.1038/d41586-020-00502-w

Nayani, R. J., Nielsen, K., Daniels, K., Donaldson-Feilder, E. J., & Lewis, R. C. (2018). Out of sight and out of mind? A literature review of occupational safety and health leadership and management of distributed workers. *Work & Stress*, *32*(2), 124–146. https://doi.org/10.1080/02678373.2017.1390797

Neufeld, D. J., & Fang, Y. (2005). Individual, social and situational determinants of telecommuter productivity. *Information & Management*, *42*(7), 1037–1049. https://doi.org/10.1016/j.im.2004.12.001

Niu, G.-F., Zhou, Z.-K., Sun, X., Yu, F., Xie, X.-C., Liu, Q.-Q., & Lian, S.-L. (2018). Cyber-ostracism and its relation to depression among Chinese adolescents: The moderating role of optimism. *Personality and Individual Differences*, *123*, 105–109. https://doi.org/10.1016/j.paid.2017.10.032

Office for National Statistics. (2021). *Personal and economic well-being in Great Britain*. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/personalandeconomicwellbeingintheuk/may2021

Olsen, H. M., Brown, W. J., Kolbe-Alexander, T., & Burton, N. W. (2018). Flexible Work: The Impact of a New Policy on Employees' Sedentary Behavior and Physical

Activity. *Journal of Occupational and Environmental Medicine*, *60*(1), 23–28. https://doi.org/10.1097/JOM.0000000000001190

Olszewski, P., & Mokhtarian, P. (1994). Telecommuting frequency and impacts for State of California employees. *Technological Forecasting and Social Change*, *45*(3), 275–286. https://doi.org/10.1016/0040-1625(94)90050-7

Onyeaka, H., Anumudu, C. K., Al-Sharify, Z. T., Egele-Godswill, E., & Mbaegbu, P. (2021). COVID-19 pandemic: A review of the global lockdown and its far-reaching effects. *Science Progress*, *104*(2), 00368504211019854. https://doi.org/10.1177/00368504211019854

Orley, J., Saxena, S., & Herrman, H. (1998). Quality of life and mental illness: Reflections from the perspective of the WHOQOL. *The British Journal of Psychiatry*, *172*(4), 291–293. https://doi.org/10.1192/bjp.172.4.291

Oseland, N., & Hodsman, P. (2018). A psychoacoustical approach to resolving office noise distraction. *Journal of Corporate Real Estate*, *20*(4), 260–280. https://doi.org/10.1108/JCRE-08-2017-0021

Otonari, J., Nagano, J., Morita, M., Budhathoki, S., Tashiro, N., Toyomura, K., Kono, S., Imai, K., Ohnaka, K., & Takayanagi, R. (2012). Neuroticism and extraversion personality traits, health behaviours, and subjective well-being: The Fukuoka Study (Japan). *Quality of Life Research*, *21*(10), 1847–1855. https://doi.org/10.1007/s11136-011-0098-y

Ozcelik, H., & Barsade, S. G. (2018). No Employee an Island: Workplace Loneliness and Job Performance. *Academy of Management Journal*, *61*(6), 2343–2366. https://doi.org/10.5465/amj.2015.1066

Parham, S., & Rauf, M. A. (2020). COVID-19 and obligatory remote working in HEIs: An exploratory study of faculties; work-life balance, well-being and productivity during

the pandemic. *International Journal of Economics, Commerce and Management*, *8*(12), 384–400.

Pérez, M. P., Martínez Sánchez, A., Pilar de Luis Carnicer, M., & José Vela Jiménez, M. (2002). Knowledge tasks and teleworking: A taxonomy model of feasibility adoption. *Journal of Knowledge Management*, *6*(3), 272–284. https://doi.org/10.1108/13673270210434377

Platts, K., Breckon, J., & Marshall, E. (2022). Enforced home-working under lockdown and its impact on employee wellbeing: A cross-sectional study. *BMC Public Health*, *22*(1), 199. https://doi.org/10.1186/s12889-022-12630-1

Prasad, K. D. V. (2022). Occupational Stress and Psychological Wellbeing predictors of Faculty Performance Virtual during Covid-19 Pandemic: A Case Study with reference to Higher Academic Faculty in Hyderabad City. *Journal of Positive School Psychology*, *6*(2), Article 2.

Prasad, K. D. V., Mangipudi, M. R., Vaidya, R., & Muralidhar, B. (2020). *Organizational Climate, Opportunities, Challenges and Psychological Wellbeing of the Remote Working Employees during COVID-19 Pandemic: A General Linear Model Approach with Reference to Information Technology Industry in Hyderabad* (SSRN Scholarly Paper No. 3599799). https://papers.ssrn.com/abstract=3599799

Prochaska, J. J., Sung, H., Max, W., Shi, Y., & Ong, M. (2012). Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. *International Journal of Methods in Psychiatric Research*, *21*(2), 88–97. https://doi.org/10.1002/mpr.1349

Rabenu, E., Yaniv, E., & Elizur, D. (2017). The Relationship between Psychological Capital, Coping with Stress, Well-Being, and Performance. *Current Psychology*, *36*(4), 875–887. https://doi.org/10.1007/s12144-016-9477-4

Rafique, N., Tufaif, F. A., Alhammali, W., Alalwan, R., Aljaroudi, A., AlFaraj, F., Latif, R., Al-Asoom, L. I., Alsunni, A. A., Ghamdi, K. S. A., Salem, A. M., & Yar, T. (2022). The Psychological Impact of COVID-19 on Residents of Saudi Arabia. *Psychology Research and Behavior Management*, *15*, 1221–1234. https://doi.org/10.2147/PRBM.S360772

Rathi, N. (2009). Relationship of Quality of Work Life with Employees' Psychological Well-Being. *International Journal of Business Insights & Transformation*, *3*(1), 52–60.

Robertson, I. T., Jansen Birch, A., & Cooper, C. L. (2012). Job and work attitudes, engagement and employee performance: Where does psychological well-being fit in? *Leadership & Organization Development Journal*, *33*(3), 224–232. https://doi.org/10.1108/01437731211216443

Robertson, M. M., Schleifer, L. M., & Huang, Y. (2012). Examining the macroergonomics and safety factors among teleworkers: Development of a conceptual model. *Work*, *41*, 2611–2615. https://doi.org/10.3233/WOR-2012-1029-2611

Rodríguez-Rey, R., Garrido-Hernansaiz, H., & Collado, S. (2020). Psychological Impact and Associated Factors During the Initial Stage of the Coronavirus (COVID-19) Pandemic Among the General Population in Spain. *Frontiers in Psychology*, *11*. https://www.frontiersin.org/articles/10.3389/fpsyg.2020.01540

Roskams, M., Haynes, B., Lee, P.-J., & Park, S.-H. (2019). Acoustic comfort in open-plan offices: The role of employee characteristics. *Journal of Corporate Real Estate*, *21*(3), 254–270. https://doi.org/10.1108/JCRE-02-2019-0011

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6). https://psycnet.apa.org/buy/1990-12288-001

Ryff, C. D. (2014). Self-realisation and meaning making in the face of adversity: A eudaimonic approach to human resilience. *Journal of Psychology in Africa*, *24*(1), 1–12. https://doi.org/10.1080/14330237.2014.904098

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*, 719–727. https://doi.org/10.1037/0022-3514.69.4.719

Ryff, C. D., & Singer, B. H. (2008). Know Thyself and Become What You Are: A Eudaimonic Approach to Psychological Well-Being. *Journal of Happiness Studies*, *9*(1), 13–39. https://doi.org/10.1007/s10902-006-9019-0

Saputra, M. B. (2018). *Who wants to be an Indonesian civil servant? Almost everyone*. The Diplomat. https://thediplomat.com/2018/10/who-wants-to-be-an-indonesian-civil-servant-almost-everyone/

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

Sato, K., Sakata, R., Murayama, C., Yamaguchi, M., Matsuoka, Y., & Kondo, N. (2020). *Working From Home and Lifestyle Changes Associated With Risk of Depression During the COVID-19 Pandemic: An Observational Study of Health App (CALO Mama) Users* (SSRN Scholarly Paper No. 3661202). https://doi.org/10.2139/ssrn.3661202

Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach* (pp. 43–68). Springer Netherlands. https://doi.org/10.1007/978-94-007-5640-3_4

Schieman, S., Badawy, P. J., A. Milkie, M., & Bierman, A. (2021). Work-Life Conflict During the COVID-19 Pandemic. *Socius*, *7*, 2378023120982856. https://doi.org/10.1177/2378023120982856

Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, *3*(7), 749–752.

Shevchuk, A., Strebkov, D., & Davis, S. N. (2018). Work value orientations and worker well-being in the new economy: Implications of the job demands-resources model among internet freelancers. *International Journal of Sociology and Social Policy*, *38*(9/10), 736–753. https://doi.org/10.1108/IJSSP-01-2018-0006

Shimura, A., Yokoi, K., Ishibashi, Y., Akatsuka, Y., & Inoue, T. (2021). Remote Work Decreases Psychological and Physical Stress Responses, but Full-Remote Work Increases Presenteeism. *Frontiers in Psychology*, *12*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.730969

Shokrkon, A., & Nicoladis, E. (2021). How personality traits of neuroticism and extroversion predict the effects of the COVID-19 on the mental health of Canadians. *PLOS ONE*, *16*(5), e0251097. https://doi.org/10.1371/journal.pone.0251097

Silva, S., & Simões, P. V. (2022). *Psychological capital and telework*. https://repositorio.iscte-iul.pt/handle/10071/25091

Singh, L. B., & Srivastava, S. (2021). Linking workplace ostracism to turnover intention: A moderated mediation approach. *Journal of Hospitality and Tourism Management*, *46*, 244–256. https://doi.org/10.1016/j.jhtm.2020.12.012

Siu, O. L. (2013). Psychological Capital, Work Well-Being, and Work-Life Balance Among Chinese Employees. *Journal of Personnel Psychology*, *12*(4), 170–181. https://doi.org/10.1027/1866-5888/a000092

Song, Y., & Gao, J. (2020). Does telework stress employees out? A study on working at home and subjective well-being for wage/salary workers. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, *21*, 2649–2668. https://doi.org/10.1007/s10902-019-00196-6

Statistics South Africa. (2020). *SA economy sheds 2,2 million jobs in Q2 but unemployment levels drop | Statistics South Africa*. https://www.statssa.gov.za/?p=13633

Stephens, G. K., & Szajna, B. (1998). Perceptions and Expectations: Why People Choose a Telecommuting Work Style. *International Journal of Electronic Commerce*, *3*(1), 70–85. https://doi.org/10.1080/10864415.1998.11518328

Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, *385*(9968), 640–648. https://doi.org/10.1016/S0140-6736(13)61489-0

Straus, E., Uhlig, L., Kühnel, J., & Korunka, C. (2022). Remote workers' well-being, perceived productivity, and engagement: Which resources should HRM improve during COVID-19? A longitudinal diary study. *The International Journal of Human Resource Management*, *0*(0), 1–31. https://doi.org/10.1080/09585192.2022.2075235

Sullivan, C. (2012). Remote Working and Work-Life Balance. In N. P. Reilly, M. J. Sirgy, & C. A. Gorman (Eds.), *Work and Quality of Life: Ethical Practices in Organizations* (pp. 275–290). Springer Netherlands. https://doi.org/10.1007/978-94-007-4059-4_15

Sutarto, A. P., Wardaningsih, S., & Putri, W. H. (2021). Work from home: Indonesian employees' mental well-being and productivity during the COVID-19 pandemic. *International Journal of Workplace Health Management*, *14*(4), 386–408. https://doi.org/10.1108/IJWHM-08-2020-0152

ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist*, *67*(7), 545–556. https://doi.org/10.1037/a0027974

Thompson, C. (2020). *What if working from home goes on ... Forever?* The New York Times Magazine. https://www.nytimes.com/interactive/2020/06/09/magazine/remote-work-covid.html

Tietze, S., & Nadin, S. (2011). The psychological contract and the transition from office-based to home-based work. *Human Resource Management Journal*, *21*(3), 318–334. https://doi.org/10.1111/j.1748-8583.2010.00137.x

Toscano, F., & Zappalà, S. (2020). Social Isolation and Stress as Predictors of Productivity Perception and Remote Work Satisfaction during the COVID-19 Pandemic: The Role of Concern about the Virus in a Moderated Double Mediation. *Sustainability*, *12*(23), Article 23. https://doi.org/10.3390/su12239804

Towers, I., Duxbury, L., Higgins, C., & Thomas, J. (2006). Time thieves and space invaders: Technology, work and the organization. *Journal of Organizational Change Management*, *19*(5), 593–618. https://doi.org/10.1108/09534810610686076

Trautwein, U., Lüdtke, O., Roberts, B. W., Schnyder, I., & Niggli, A. (2009). Different forces, same consequence: Conscientiousness and competence beliefs are independent predictors of academic effort and achievement. *Journal of Personality and Social Psychology*, *97*, 1115–1128. https://doi.org/10.1037/a0017048

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H., Kastner, M., Levac, D., Ng, C., Sharpe, J. P., Wilson, K., Kenny, M., Warren, R., Wilson, C., Stelfox, H. T., & Straus, S. E. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC Medical Research Methodology*, *16*(1), 15. https://doi.org/10.1186/s12874-016-0116-4

Tuzovic, S., & Kabadayi, S. (2020). The influence of social distancing on employee well-being: A conceptual framework and research agenda. *Journal of Service Management*, *32*(2), 145–160. https://doi.org/10.1108/JOSM-05-2020-0140

Vaillant, G. E. (2007). Aging Well. *The American Journal of Geriatric Psychiatry*, *15*(3), 181–183. https://doi.org/10.1097/JGP.0b013e31803190e0

van Mierlo, H., Rutte, C. G., Seinen, B., & Kompier, M. (2001). Autonomous teamwork and psychological well-being. *European Journal of Work and Organizational Psychology*, *10*(3), 291–301. https://doi.org/10.1080/13594320143000681

Varjo, J., Hongisto, V., Haapakangas, A., Maula, H., Koskela, H., & Hyönä, J. (2015). Simultaneous effects of irrelevant speech, temperature and ventilation rate on performance and satisfaction in open-plan offices. *Journal of Environmental Psychology*, *44*, 16–33. https://doi.org/10. 1016/j.jenvp.2015.08.001

Vîrgă, D., Baciu, E.-L., Lazăr, T.-A., & Lupșa, D. (2020). Psychological Capital Protects Social Workers from Burnout and Secondary Traumatic Stress. *Sustainability*, *12*(6), Article 6. https://doi.org/10.3390/su12062246

Vleeshouwers, J., Knardahl, S., & Christensen, J. O. (2019). A prospective study of work–private life conflict and number of pain sites: Moderated mediation by sleep problems and support. *Journal of Behavioral Medicine*, *42*(2), 234–245. https://doi.org/10.1007/s10865-018-9957-0

Wall, G., & Arnold, S. (2007). How Involved Is Involved Fathering?: An Exploration of the Contemporary Culture of Fatherhood. *Gender & Society*, *21*(4), 508–527. https://doi.org/10.1177/0891243207304973

Wang, B., Liu, Y., Qian, J., & Parker, S. (2021a). Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective. *Applied Psychology*, *70*, 16–59. https://doi.org/10.1111/apps.12290

Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021b). Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective. *Applied Psychology*, *70*(1), 16–59. https://doi.org/10.1111/apps.12290

Wenham, C., Smith, J., & Morgan, R. (2020). COVID-19: The gendered impacts of the outbreak. *Lancet*, *395*(10227), 846–848. https://doi.org/10.1016/S0140-6736(20)30526-2

Williams, N. (2021). *Working through COVID-19: 'Zoom' gloom and 'Zoom' fatigue | Occupational Medicine | Oxford Academic*. https://academic.oup.com/occmed/article/71/3/164/6218762?login=true

Wilson, J. M., Lee, J., Fitzgerald, H. N., Oosterhoff, B., Sevi, B., & Shook, N. J. (2020). Job Insecurity and Financial Concern During the COVID-19 Pandemic Are Associated With Worse Mental Health. *Journal of Occupational and Environmental Medicine*, *62*(9), 686. https://doi.org/10.1097/JOM.0000000000001962

Windeler, J., Chudoba, K., & Sundrup, R. (2017). *Getting away from them all: Managing exhaustion from social interaction with telework*. https://doi.org/10.1002/JOB.2176

Wishart, R., Dunatchik, A., Speight, S., & Mayer, M. (2019). *Changing patterns in parental time use in the UK*. NatGen. https://natcen.ac.uk/media/1722408/Parental_time_use_report.pdf

Wiśniowski, A., Sakshaug, J. W., Perez Ruiz, D. A., & Blom, A. G. (2020). Integrating Probability and Nonprobability Samples for Survey Inference. *Journal of Survey Statistics and Methodology*, *8*(1), 120–147. https://doi.org/10.1093/jssam/smz051

Wright, S., & Silard, A. (2020). Unravelling the antecedents of loneliness in the workplace. *Human Relations*, *74*(7), 001872672090601. https://doi.org/10.1177/0018726720906013

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

Yaakobi, E. (2021). Immediate moderating effects of attribution on ostracism distress. *Australian Psychologist*, *56*(3), 193–203. https://doi.org/10.1080/00050067.2020.1829452

Yang, L., Murad, M., Mirza, F., Chaudhary, N. I., & Saeed, M. (2022). Shadow of cyber ostracism over remote environment: Implication on remote work challenges, virtual work environment and employee mental well-being during a Covid-19 pandemic. *Acta Psychologica*, *225*, 103552. https://doi.org/10.1016/j.actpsy.2022.103552

Yin, R. K. (2013). Validity and generalization in future case study evaluations—Robert K. Yin, 2013. *Evaluation*, *19*(3), 321–332. https://doi.org/10.1177/1356389013497081

Youssef-Morgan, C., & Luthans, F. (2013). *Psychological Capital Theory: Toward a Positive Holistic Model* (Vol. 1, pp. 145–166). https://doi.org/10.1108/S2046-410X(2013)0000001009

Zhang, X., & Warner, M. E. (2020). COVID-19 Policy Differences across US States: Shutdowns, Reopening, and Mask Mandates. *International Journal of Environmental Research and Public Health*, *17*(24), Article 24. https://doi.org/10.3390/ijerph17249520

Zijlstra, F. R. H., Roe, R. A., Leonora, A. B., & Krediet, I. (1999). Temporal factors in mental work: Effects of interrupted activities. *Journal of Occupational and Organizational Psychology*, *72*(2), 163–185. https://doi.org/10.1348/096317999166581

APPENDICES

APPENDIX A: PRISMA checklist

(Please see attachment)

APPENDIX B: PRISMA Flow Diagram

(Please see attachments)

APPENDIX C: Spreadsheet of Studies Assessed for Eligibility

(Please see attachment)

APPENDIX D: Ethics Waiver Form

(Please see attachment)