From Human Doing to Human Being – The Metacognitive Model for Well-Being Resilience in the Workplace.

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ABSTRACT

This exploratory study aspires to contribute to the discussions on well-being resilience in the workplace by proposing a novel model as a means of exploring core metacognitive factors involved as individuals develop a better skillset for cultivating well-being resilience. The concept of well-being resilience in the workplace aims to draw attention to the significance of the mastery of being present, defined as being self-aware, self-reflective and insightful, as the key to maintaining well-being and mental fitness.

To cultivate well-being resilience, a metacognitive ability is important for directing and regulating cognitive processes and strategies, and leads towards nurturing states of self-awareness, self-reflection and insightfulness.

The value of the development of reliable measures of self-reflection and insight for researchers and practitioners sits with the means to assess metacognitive processes such as psychological mindedness, self-reflection and insight (Grant, 2001). It supports the well-being resilience in the workplace based on cultivating "being" (reflection) next to "doing" (action).

In this research study, a set of sources on the concepts of well-being, resilience, well-being interventions and metacognition acted as foundations for introducing a method of an experimental study consisting of a survey, a self-reflective task and a questionnaire distributed to a small sample of UK employees and yet to be distributed to a large sample of employees from several UK organisations, as part of further research recommendations. The mixed method aimed to provide a thorough insight into metacognitive ability and its relatedness to well-being resilience in the workplace.

This paper offers views on the value of metacognition to the ability to develop and cultivate states of self-awareness, self-reflection and insightfulness leading to well-being resilience. It was noticed that individuals with high levels of well-being are more productive at work and are more likely to contribute to their communities (Frey and Stutzer, 2002; Tov and Diener, 2008).

This exploration employs an interdisciplinary approach to understanding the value of metacognition to workplace mental fitness. This investigation builds upon Batha and Carroll's (2007) call for further research on extending metacognition to various domains. The discussed study (Batha and Carroll, 2007) looked into the importance of metacognition and the relationship between metacognition and decision-making.

The originality of this study is in the employment of metacognitive skills in the workplace, well-being and resilience, that unearths the interdisciplinarity of metacognition. This investigation uncovers the value of the science of "being" and the art of "being well" that support resilience in the workplace.

Keywords: Metacognition, Resilience, Wellbeing, Workplace, Intervention, Well-being model

INTRODUCTION

The presence of challenges in daily lives is not a distant concept. The needs for adaptability skills to adverse circumstances, for building, maintaining and nurturing confidence in self-reflection and self-awareness as strategic steps towards metacognitive abilities and for achieving a better life balance and professional satisfaction are just a few factors that can support addressing mental well-being challenges identified in the UK workplace.

According to recent research conducted by Deloitte (2022), prevailing workplace mental health issues cost UK employers £56 billion annually in absenteeism (absences caused by mental health-related sickness), turnover of employees, and presenteeism (ill employees are working when they are not supposed to or are working beyond their contracted hours).

The impact of working environment and conditions on mental well-being of individuals can be vast as well as the impact of individuals' well-being on the workplace and its productivity.

Some symptoms that are associated with mental well-being including sleep issues, fatigue, irritability and worry, do not fall into a category leading to a diagnosis of a mental fitness, however, such problems affect one sixth of the working age population of the United Kingdom (Lelliott, et al., 2008) and exhibit high probability to impair an individual's ability to function at work well.

One in six employees will be experiencing some problems related to stress, anxiety or depression (Singleton et al., 2001). According to Waddell and Burton (2006), working has a positive effect on mental and physical fitness, whereas unemployment contributes to health deterioration, social isolation and a decline in quality of life (Black, 2008).

Those experiencing mental health issues are often exposed to some levels of rejection by society or environments they operate within followed by ostracisation and discrimination. Such forms of stigmatisation related to mental health problems are the top health conditions leading to such behaviours, outran only by HIV/AIDS (Roeloffs et al., 2003). Even though the Royal College of Psychiatrists created a dedicated five-year campaign in the UK to tackle the challenge of stigma, the problem exists and is one of the greatest challenges experienced by individuals experiencing mental well-being issues (Lelliott et al., 2008).

It remains unchanged that mental well-being is critical to work that is central to self-identity and the way individuals interact with local communities, and society. It also contributes to financial freedom which is the core factor that allows one to participate in life, engage with communities and be a valued member of society (Lelliot et al., 2008).

Evidence, showing that many healthcare professionals are unaware of the fact that working positively impacts physical and mental wellness, uncovered insights confirming that for two-thirds (64%) of the surveyed medical practitioners the concept of physical and mental health advantages was distant (DWP, 2007). Research reveals that oftentimes the most common solutions offered to individuals suffering from poor mental well-being include issuing sick notes or prescribing antidepressants by their GPs as local access to such psychological interventions as cognitive behavioural therapy (CBT) or other talking therapies that, according to Seymour and Grove's research, can support employees in remaining at work (2005), is poor (Hairon, 2006).

According to research conducted by Sainsbury Centre for Mental Health, the understanding of the importance of mental health at the workplace is weak as in approximately only 3% of companies an occupational health service (OH) exists (2009).

Report data published by the Office for National Statistics (2016) suggest that pre-COVID over 11% of lost working days were assigned to mental health conditions such as stress, anxiety and depression, whereas post-pandemic evidence shows that even though respiratory conditions have overtaken mental health conditions (8.3%), the latter remains the top five reasons for sickness absence (7.9%), outran by minor illnesses, musculoskeletal and other problems (ONS, 2022).

In 2019 the Mental Health at Work Commitment initiative was launched in the UK to nurture the recommended standards and best guidance for various organisations. The growing numbers of member employers who signed the commitment show that in 2,500+ organisations 4,5 million employees experience some kinds of implemented changes in policy, practice and culture to provide the necessary support for individuals on levels concerning mental well-being (Mind, 2023; Mental Health At Work, 2023). Up until 2021, the Mind Workplace Wellbeing Index was continuously reporting on a steady increase of organisational initiatives encouraging openness on mental health and wellbeing and providing relevant support. The recent report prepared by the Mind charity, looking at data 2021-22, observed "well-being fatigue" indicating a decrease in the importance of mental health and well-being matters on strategic agendas. The causes of the reduced initiatives and support tools available to employees as well as promoting mental well-being could be directly associated with the post-pandemic recession and cost-of-living crisis, reported Mind (2023).

This paper reports on the implementation of a novel metacognitive model as the proposal of an intervention dedicated to supporting individuals in developing skills and behaviours leading to well-being resilience in the workplace and contributing to lowering rates of minor mental well-being occurrences associated with stress, anxiety and depression in the workplace. This metacognitive model aims to direct the self-awareness of one's thoughts, feelings, emotions and behaviours towards an understanding of one's thoughts, feelings, emotions and behaviours, and being able to self-reflect on such states that are central to the process of purposeful self-regulation enabling to monitor, evaluate one's thoughts and emotions and guiding them towards desired states of behaviour change (Grant, 2001; Grant et al., 2002). The value of the intervention proposal is directly related to research evidence acknowledging high levels of well-being as leading factors to work productivity and happiness as well as contributing to engaging in local communities (Frey and Stutzer, 2002; Tov and Diener, 2008). Therefore the proposal of an intervention discussed in this paper aims to offer two-fold support, firstly, to individuals in a form of a simple tool that has the potential to develop a set of skills leading to reaching and maintaining subjective well-being that for many people is an ultimate goal (Frey and Stutzer, 2002) and, secondly, to organisations, to address the issue of mental health in the workplace and to increase work productivity and happiness recognised as direct contributors to workplace well-being and resilience.

The structure of this study follows a logical order of research steps starting with an interdisciplinary discussion on the concepts of well-being and resilience and how both phenomena exist concerning the workplace; next, several well-being interventions are introduced to understand their status in practice. The subsequent part concentrates on the journey from "doing well" at workplace to "being well" at workplace and outside of it. After that, the concept of metacognition and the connection between metacognition and well-being are discussed. The final parts inaugurate the intervention proposal, the metacognitive model for well-being resilience and put it into practice by surveying a portfolio of employees. After presenting research findings, the significance of the study and the future direction are explored.

The concept of well-being

The concept of well-being, due to its interdisciplinary nature, has been vastly covered in the literature through a plethora of approaches to its understanding. The multifaceted character of well-being provides rich foundations to diverse disciplines and their understanding of the discussed phenomenon. For

economists, managers, and politicians the concept of well-being is the indication of job markets, growth per capita and prosperity. Medical professionals discuss well-being matters in labs, through tests or during hospital stays. For social scientists, the quality of life, access to education and other social subjects inform about the well-being level or status. Psychiatrists examine mental disorders whereas psychologists analyse the impact of traumas or stress factors on individuals when well-being takes the central point in their discussions. For philosophers and ethics thinkers, beliefs and values look at well-being through the lens of their perspectives (Halbreich, 2022).

According to the World Health Organisation (WHO), established by the United Nations (UN) after World War II, the concept of mental well-being is synonymous with mental health and it "enables people to cope with the stresses of life, realise their abilities, learn well and work well, and contribute to their community" (WHO, 2023). Further, the World Health Organisation defines well-being as "a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic and environmental conditions. Well-being encompasses quality of life and the ability of people and societies to contribute to the world with a sense of meaning and purpose. Focusing on well-being supports the tracking of the equitable distribution of resources, overall thriving and sustainability. A society's well-being can be determined by the extent to which it is resilient, builds capacity for action, and is prepared to transcend challenges" (WHO, 2021).

Halbreich (2022) extracted several components of optimum well-being, including physical and emotional facets, daily functionality, as well as financial and social. Physical and mental health are related to age, gender and the impact of the environment; it is a balanced state that allows optimal functioning and adaptation to change (Halbreich, 2022). Daily existence consists of states of sleeping and awakening, and related qualities and quantities of both which contribute to productivity and satisfaction. Financial status is often perceived by many as a sign of income well-being that impacts life quality. Social interactions, particularly, close family and communities, positively impact life expectancy and overall well-being due to connections and support.

From understanding well-being as a special case of attitude (Guttman and Levy, 1982), an assumption that well-being would prevail when pathology was absent (Huppert and So, 2013) through to Keyes' term of flourishing to describe high levels of well-being conceptualised through positive relationships, purpose in life, self-acceptance, social contribution, integration, growth, acceptance and coherence, autonomy, personal growth, environmental mastery, and life satisfaction (2002), there is a growing body of work related to the concept of well-being. It is also considered a positive outcome that is meaningful for people and many sectors of society because it tells us that people perceive that their lives are going well (Centres for Disease Control and Prevention, 2023). It relates to opinions on life satisfaction and a diverse spectrum of feelings including depression and joy (Diener, Scollon and Lucas, 2009; Frey and Stutzer, 2002). Well-being includes the presence of positive emotions and moods, such as contentment and happiness, the absence of negative emotions (depression, anxiety), satisfaction with life, fulfilment and positive functioning (Frey and Stutzer, 2009; Andrews and Withey, 1976; Diener, 2000; Ryff and Keyes, 1995).

This investigation adapts the approach of well-being as an interdisciplinary term related to "being well" and relevant to the state of happiness recognised as a fundamental human right (UN, 2012) to achieving life satisfaction. The study builds upon the 10th Global Conference on Health Promotion organised by the World Health Organisation in December 2021, when for the first time well-being was the key theme of a conference, and the core aim of promoting well-being was to create such conditions that would improve individual and collective quality of life (WHO, 2021). A novel metacognitive model to enable individuals and organisations to practise self-awareness and self-reflection and build resilience generates vast opportunities for further inquiry into the potential use of the proposed model to nurture well-being resilience in the workplace and outside of it.

Understanding resilience

Even though the concept of resilience is familiar to many, there is no evidence that a universal definition has been agreed upon following over 50 years of active research. Due to its multidimensional character depending on cultural settings, individual circumstances, age, and context resilience has attracted many descriptive understandings, including "personal qualities that enable one to thrive in the face of adversity" and overcoming hardship (Connor and Davidson, 2003, p. 76), a supportive tool to bettering coping mechanisms with life challenges (Etherton et al., 2022). Some research studies focused on the relationship between resilience and performance in academia (Allan et al., 2014; Kotze and Kleynhans, 2013), life satisfaction (Abolghasemi and Varaniyab, 2010) and well-being (Burns et al., 2011; He at al., 2013).

According to the American Psychological Association, resilience is defined as "the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioural flexibility and adjustment to external and internal demands" (2023).

Ryff, Singer, Dienberg Love, and Essex (1998) understood resilience, through the prism of their examinations of the ageing population, as the capacity to maintain or recover high well-being in the face of life adversity.

Understanding resilience through a historical retrospective of its philosophical origins informs that no pure description can be found. However, some early works of Plato, Aristoteles and Stoics deliver a diversity of approaches towards defining resilience. From the Platonian individual's striving for ideals despite failures, an ability to "preserve the aspiration for the ideal in being" (Bolotinikova, 2021), through the Aristotelian entelechy interpreted as an active act of resilience that contains a goal in itself such as thinking, happiness; in opposition to an activity whose aim is other than itself such as speaking, walking (Aristotle, 1984) to the stoic appreciation of tranquillity and freedom, and a need for controlling one's actions and understanding the impact of one's reactions on the world and one's life, Epictetus reminded that "any man who worries about the future or torments himself with various worries and fears about things that do not depend on him" (2003) while Seneca emphasised that "a (happy) life is possible, if, first, a man constantly possesses a sound mind" (2003, p. 45).

Resilience as a subject of a growing number of debates around the scientific table attracts the attention of many researchers because of its interdisciplinary character. Due to the rising scale of change that can be observed in the world and requires mechanisms or behaviours that would direct human response to ever-present challenges, many disciplines discuss resilience concerning their interests. Rose (2004) researched economic resilience as adaptive responses of individuals and communities that enable to avoid some losses. According to Holling (1973) and Perrings (2001), it is the ability or capacity of a system to absorb damage or loss that defines resilience, and it is viewed as a wider concept of sustainability, the ability to absorb stress.

From natural disasters, pandemics, and wars to the growing popularity of virtual reality, various forms of artificial intelligence and personal challenges that accompany human existence, the understanding of resilience and its impact on the condition of well-being and the quality of life are pivotal. Therefore, the search for adequate responses to facing life trials is important and relevant to preserving human well-being. For this study, the understanding of well-being resilience is synonymous not with the absence of illness related to mental well-being but with the presence of wellness and interventions that would preserve its state of balance. This biopsychosocial approach to understanding and nurturing the well-being of individuals in the workplace and outside of it is grounded in a wide body of research that has documented the impact of stressful life occurrences and chronic environmental challenges in altering vulnerability to diseases that affect individuals (McEwen, 1998).

In this study, the importance of resilience is examined through the prism of the workplace to enhance resilience in the workplace by introducing a metacognition model that could offer valuable support toward responding to challenges associated with workplace mental well-being matters.

Resilience in the workplace

The phenomenon of resilience is important in today's volatile environment, and it helps to identify the various mechanisms that enable employees to handle challenges and adversity while maintaining their focus on well-being. The vast interest of scholars and practitioners in the concept of resilience in the workplace proves its importance and the dynamic nature of resilience shown in the burgeoning body of work (Linennluecke, 2017; Wiliams, Gruber, Sutcliffe, Shepherd and Zhao, 2017; Kossek and Perrigino, 2016; Britt, Shen, Sinclair, Grossman and Klieger, 2016; Kuntz, Malinen and Naswall, 2017; Robertson, Cooper, Sarkar and Curran, 2015; Luthans, 2002; King, Newman and Luthans, 2016; Sutcliffe and Vogus, 2003; Rees, C.S., Breen, L.J., Cusack, L. and Hegney, D., 2015; Hartman, Weiss, Newman and Hoegl, 2020).

The concept of resilience in the workplace is often associated with adaptability achieved by a set of skills to build and maintain balance despite adverse circumstances. Luthar, Cicchetti, and Becker (2000) defined resilience in the workplace as a "dynamic process encompassing positive adaptation within the context of significant adversity" (p.543).

Masten (2001) distinguished two components within resilience, the experience of adversity and positive adaptation. Resilience in the workplace does not take a unified static form of a phenomenon that is evoked by a diverse range of experiences and can happen to individuals. Resilience in the workplace exists on individual and group levels. The individual-level resilience relates to a personality of individuals, a developable capability or a process (Kossek and Perrigino, 2016; Richardson, 2002; Hartman, Weiss, Newman and Hoegl, 2020); it is a set of personal characteristics (Wanberg and Banas, 2000). Luthans (2002) pointed out that individual resilience can be developed through adequate training.

To deliver an integrative approach to understanding and improving resilience, the process view of resilience (Hartman, Weiss, Newman and Hoegl, 2020) is adapted by this study to consider resilience as a dynamic phenomenon that can be developed, trained, adjusted and continuously improved. Various approaches to measuring individual resilience have been introduced to the scientific discussion and even though this study does not plan to measure it, it is valuable to provide an overview of resilience measures developed for the workplace context (Image 1).

Authors	*Scale Name*	*# of Items*	*Validation****	*Underlying Conceptualisation and Focus*	*Examples of Usage in Research on Resilience in the Workplace****
Noe et al. (1990)	Career Resilience (subscale of career motivation)	13 items	Construct (ConV; DisV)	Rationale: career resilience as work-related ability Focus: adaption to and coping with changing or negative work situations Context: specific for work careers	
Wagnild and Young (1993)	Resilience Scale (RS)	25 items	Construct (EFA) Criterion (PredV)	Rationale: resilience as stable, positive personal characteristic Focus: (1) personal competence; (2) acceptance of self and life Context: no work focus	Parker et al. (2015) Rice and Liu (2016) (14 items) Sommer et al. (2016) (17 items)
London (1993)	Career Resilience (subscale of career motivation)	7 items	Construct (EFA)	Rationale: career resilience as a trait-like characteristic Focus: maintenance or persistence in career with focus on feelings and attitudes Context: specific for work careers	
Carson and Bedeian (1994)	Career Resilience (subscale of career commitment scale)	4 items	Construct (EFA; ConV; DisV) Criterion (PredV)	Rationale: career resilience as work-related ability Focus: maintenance or persistence in career with focus on attitudes and behaviours Context: specific for work careers	Carless and Bernath (2007) Green et al. (2011) Lyons et al. (2015)
Block and Kremen (1996)	Ego-Resiliency Scale (ER89)	14 items	Construct (ConV; DisV)	Rationale: resilience as a generalised, characterological individual quality Focus: ability to change from and also return to the individual's characteristics level of ego-control Context: no work focus	Shin et al. (2012) van Erp et al. (2015) (4 items) Youssef and Luthans (2007)

Grzeda and Prince (1997)	Career Resilience (subscale of career motivation)	14 items	Construct (EFA; ConV; DisV)	Rationale: career resilience as work-related ability Focus: maintenance or persistence in career with focus on feelings, attitudes and behaviours Context: specific for work careers	
Gowan et al. (2000)	Career Resilience [based on Waterman Jr, Waterman, & Collard, (1994)]	8 items	Not validated	Rationale: career resilience as a personal quality Focus: (1) flexibility; (2) creativeness; (3) self-reliance; (4) ambition; (5) desire to learn new things; (6) future career plans; (7) confidence; (8) career ownership Context: specific for work careers	
Lounsbury and Gibson (2000)	Emotional Resilience	15 items	Construct (ConV; DisV) Criterion (PredV; IncrV)	Rationale: emotional resilience as personality trait (conceptualised as the inverse of neuroticism) Focus: overall level of adjustment Context: work focus, but items not specific for work contexts	Lounsbury et al. (2003) (6 items) Lounsbury et al. (2007)
Wanberg and Banas (2000)		19 items	Usage of validated scales	Rationale: personal resilience as personal characteristic Focus: (1) self-esteem; (2) perceived control; (3) optimism Context: no work focus	
Reivich and Shatté (2002)	Resilience Factor Inventory (RFI)	60 items	Construct (EFA; CFA) Criterion (PredV)	Rationale: resilience as maleable personal state Focus: (1) emotion regulation; (2) impulse control; (3) causal analysis; (4) self-efficacy; (5) realistic optimism; (6) empathy; (7) reaching out Context: specific for work contexts	Harker et al. (2016)

Authors	*Scale Name*	*# of Items*	*Validation***	*Underlying Conceptualisation and Focus*	*Examples of Usage in Research on Resilience in the Workplace****
Connor and Davidson (2003)	Connor-Davidson Resilience Scale (CD-RISC)	25 items	Construct (EFA; ConV; DisV)	Rationale: resilience as modifiable ability Focus: (1) personal competence, high standards, and tenacity; (2) trust in one's instincts, tolerance of negative affect, and strengthening effects of stress; (3) positive acceptance of change, and secure relationships; (4) control; (5) spiritual influences Context: no work focus	Gabriel et al. (2011) Guo et al. (2017) Hudgins (2016)
Sinclair and Wallston (2004)	Brief Resilient Coping Scale (BRCS)	4 items	Construct (EFA; ConV; DisV) Criterion (PredV)	Rationale: resilience as positive coping behaviour Focus: active coping and growth Context: no work focus	Bullough et al. (2014) Mache et al. (2014) Shoss et al. (2018)
Ferris et al. (2005)	Personal Resilience	6 items	Not validated	Rationale: resilience as capacity for successful adaptation Focus: (1) nutrition; (2) physical activity; (3) leisure time; (4) personal relationships; (5) social networks; (6) commitment to change Context: no work focus	
Ferris et al. (2005)	Job Resilience	9 items	Not validated	Rationale: job resilience as the perception of job conditions Focus: (1) supervisor relationships; (2) peer relationships; (3) career opportunities; (4) company support; (5) rewards; (6) job definition; (7) physical environment; (8) decision making/control; (9) job security Context: specific for work contexts	

Authors	*Scale Name*	*# of Items*	*Validation***	*Underlying Conceptualisation and Focus*	*Examples of Usage in Research on Resilience in the Workplace****
Smith et al. (2008)	Brief Resilience Scale (BRS)	6 items	Construct (EFA, ConV) Criterion (PredV)	Rationale: resilience as a person ability to bounce back or recover from stress Focus: bouncing back from setbacks and recovery from them Context: no work focus	Crane and Searle (2016) Shoss et al. (2018)
Li et al. (2012)		6 items	Construct (CFA; DisV)	Rationale: emotional resilience as recovery from negative emotions Focus: quick recovery from negative and chaotic emotions Context: no work focus	
Lee et al. (2013)	Intrapersonal Resilience	58 items	Usage of validated scales	Rationale: intrapersonal resilience as personality trait Focus: (1) agreeableness; (2) conscientiousness; (3) extraversion; (4) emotional stability; (5) positive affect; (6) mastery Context: no work focus	
Lee et al. (2013)	Interpersonal Resilience [based on Sherbourne and Stewart (1991)]	19 items	Usage of validated scales	Rationale: interpersonal resilience as various forms of social support Focus: (1) affectionate support; (2) emotional/ informational support; (3) positive social interaction; (4) tangible support Context: no work focus	

Harland et al. (2005)		4 items	Construct (EFA)	Rationale: resilience as the degree to which a person grows and develops as a result of challenging experience Focus: learning and growth outcome orientation Context: no work focus	
Luthans et al. (2007b)	Resilience Scale [sub-scale of the PsyCap question-naire; adapted from Wagnild and Young (1993)]	6 items	Validated in Luthans et al. (2007a) Construct (CFA; ConV; DisV) Criterion (PredV)	Rationale: resilience as maleable, positive psychological state Focus: handling challenges at work and recovery from them Context: specific for work contexts	Jung and Yoon (2015) (4 items) Martinez-Corts et al. (2015) (3 items) Verleysen et al. (2015) (3 items)
Oginska-Bulik and Juczynski (2008)	Resiliency Assessment Scale	25 items	Construct (CFA; ConV; DisV)	Rationale: resiliency as a personal trait, which promotes coping Focus: (1) determination and persistence in actions; (2) openness to new experiences and a sense of humour; (3) competencies to cope and tolerance of a negative affect; (4) tolerance of failures and treating life as a challenge; (5) optimistic life attitude and ability to mobilise in difficult situations Context: no work focus	Ogińska-Bulik and Kobylarczyk (2015)
Authors	*Scale Name*	*# of Items*	*Validation*,***	*Underlying Conceptualisation and Focus*	*Examples of Usage in Research on Resilience in the Workplace****
McLarnon and Rothstein (2013)	Workplace Resilience Inventory (WRI)	60 items	Construct (EFA; CFA) Criterion (PredV; IncrV)	Rationale: workplace resilience as a skill that could be taught, practiced, and developed Focus: (1) initial responses; (2) affective personal characteristics; (3) behavioural personal characteristics; (4) cognitive personal characteristics; (5) opportunities, supports, and resources (6) affective self-regulatory processes; (7) behavioural self-regulatory processes; (8) cognitive self-regulatory processes Conext: specific for work contexts	
Stephens et al. (2013)	[based on Caza and Bagozzi (2010)]	5 items	Construct (CFA)	Rationale: employee resilience as the extent to which they easily recover from negative events and regard those events as opportunities to grow and learn Focus: handling challenges at work and recover and grow from them Context: specific for work contexts	De Clercq and Belausteguigoitia (2017)
Winwood et al. (2013)	Resilience at Work Scale (RAW scale)	20 items	Construct (EFA; CFA); Criterion (PredV)	Rationale: workplace resilience as a skill that could be taught, practised, and developed Focus: (1) living authentically, (2) finding one's calling; (3) maintaining perspective; (4) managing stress; (5) interacting cooperatively; (6) staying healthy; (7) building networks Context: specific for work contexts	Malik and Garg (2017)
Wei and Taormina (2014)		40 items	Construct (ConV) Criterion (PredV)	Rationale: resilience as personal quality Focus: (1) determination; (2) endurance; (3) adaptability; (4) recuperability Context: no work focus	
Näswall et al. (2015)	Employee Resilience Scale (EmpRes)	9 items	Construct (EFA)	Rationale: resilience as an adaptable employee capability, facilitated and supported by the organisation Focus: employee behaviour to utilise resources to continually adapt and flourish at work Context: specific for work contexts	Kuntz et al. (2017)
Mallak and Yildiz (2016)	Workplace Resilience Instrument (WRI)	20 items	Construct (EFA; CFA; ConV)	Rationale: workplace resilience as individual's ability to return to an original (or improved) condition after a stressful situation Focus: (1) active problem-solving; (2) team efficacy; (3) confident sense-making; (4) bricolage Context: specific for work contexts	
Meneghel et al. (2016a)		9 items	Construct (EFA; CFA)	Rationale: resilience as work-related ability Focus: bounce back, resist illness, adapt to stress, or thrive in the face of work-related adversity Context: specific for work contexts	
Braun et al. (2017)		6 items	Construct (EFA) Criterion (PredV)	Rationale: resilience as cognitive (e.g., framing), emotional, or behavioural adjustment to stress Focus: emotional and psychological transition related to change, responding effectively to either mitigate stress caused by the change, or manage or reduce increased stress Context: specific for work contexts	
Todt et al. (2018)	Innovator Resilience Potential (IRP)	18 items	Based on validated scales Construct (CFA; ConV; DisV) Criterion (IncrV)	Rationale: innovator resilience potential as innovators' predisposition to maintain their innovative performance after a setback like an innovation project termination Focus: (1) self-efficacy; (2) outcome expectancy; (3) optimism; (4) organisation-based self-esteem; (5) hope; (6) risk propensity Context: specific for innovation work contexts	

Construct Validation: EFA (exploratory factor analysis); CFA (confirmatory factor analysis); ConV (convergent validity); DisV (discriminant validity)
Criterion Validation: PredV (predictive validity); IncrV (incremental validity)
*Construct validation: We categorised validation procedures as construct validation in case authors showed that the measurement instrument was related (or not related) to variables/constructs that are known to be related (convergent validity) [or that are known to be not related (discriminant validity)] to the construct. Also, we categorised any forms of factor analysis as construct validation. The abbreviations are explained above.
**Criterion validation: We categorised validation procedures as criterion validation in case authors showed that the measurement construct was related to a predicted outcome or could explain more variance than existent measurement instruments of the same construct. The abbreviations are explained above.
***If a shortened scale was used (not the original), the number of items used in the shortened scale version is given in parentheses.

Image 1. Overview on measurement instruments developed/used to measure individual resilience in the workplace. Adapted from Hartmann et al. (2020, p. 920-7).

The spectrum of measurements for individual resilience in the workplace, developed over the last couple of decades, offers a wide range of approaches, however, there is no consensus from researchers on the most precise or adequate results that can be achieved by using any of the discussed measurement instruments (Image 1).

Hartman et al. (2020) commented that due to the diversity of conceptualisations of resilience, it is not possible to favour one instrument over others. However, considering the burgeoning body of work on the concept of individual resilience, it is paramount to acknowledge the value of the measurement instruments that can shed some new light on individual resilience in the workplace such as pinpointing the individuals' potential to be resilient while facing potential adversity, or measuring if individuals have been resilience in specific circumstances.

To better understand the dynamic nature of resilience, it is essential to acknowledge a group resilience next to its individual equivalent. Even though the development of knowledge around this collective phenomenon is not mature, it offers some worth-mentioning thoughts such as viewing team resilience as an isomorphic representation of individual resilience (West et al., 2009), as a result of composition (Kozlowski and Klein, 2000), as an outcome of dynamic team characteristics depending on context, inputs and processes and team members' interactions (Marks, Mathieu, and Zaccaro, 2001).

Similarly, to individual resilience, group phenomenon can be measured. Looking back to the research conducted in the late 90s of the last century, several instruments have been developed and empirically tested (Image 2).

Authors	*Scale Name*	*# of Items*	*Validation*/***	*Underlying Conceptualisation and Focus*	*Examples of Usage in Research on Resilience in the Workplace****
Block and Kremen (1996)	Ego-Resiliency Scale (ER89)	14 items	Validated for individual level: Construct (ConV; DisV)	Rationale: resilience as a generalised, characterological individual quality Focus: ability to change from and also return to the individual's characteristics level of ego-control Context: no work focus	Yang et al., (2015) (5 items)
Luthans et al. (2007b)	Resilience Scale [sub-scale of the PsyCap question-naire; adapted from Wagnild and Young (1993)]	6 items	Validated for individual level in Luthans et al. (2007a)	Rationale: resilience as maleable, positive psychological state Focus: handling challenges at work and recovery from them Context: specific for the work context	West et al. (2009) [with referent shift]
Salanova et al. (2012)	Team Resilience [subscale of HEalthy and Resilient Organization (HERO) Scale]	7 items	Validation of overarching HERO Scale	Rationale: team resilience as a team capacity Focus: attitudes and behaviours [based on Mallak (1998)] Context: specific for the work context	Meneghel et al. (2016c) Meneghel, Martínez, et al. (2016b)
Carmeli et al. (2013)		6 items	Construct (EFA) Based on validated scales	Rationale: team resilience as team's beliefs and capacities Focus: (1) team-efficacious beliefs; (2) team-adaptive capacity Context: specific for the work context	
Stephens et al. (2013)		3 items	Construct (EFA)	Rationale: team resilience as a team capacity Focus: coping with difficult situations Context: specific for the work context	
Oeij (2017)	Team Innovation Resilience Behavior Scale (IRB) [based on the Safety Organizing Scale by Vogus and Sutcliffe (2007)]	18 items	Based on a validated scale	Rationale: team resilience as a team behaviour Focus: (1) preoccupation with failure; (2) reluctance to simplify; (3) sensitivity to operations; (4) commitment to resilience; (5) deference to expertise Context: specific for the work context	Oeij et al. (2017)

Construct Validation: EFA (exploratory factor analysis); CFA (confirmatory factor analysis); ConV (convergent validity); DisV (discriminant validity)
Criterion Validation: PredV (predictive validity); IncrV (incremental validity)
*Construct validation: We categorised validation procedures as construct validation in case authors showed that the measurement instrument was related (or not related) to variables/constructs that are known to be related (convergent validity) [or that are known to be not related (discriminant validity)] to the construct. Also, we categorised any forms of factor analysis as construct validation. The abbreviations are explained above.
**Criterion validation: We categorised validation procedures as criterion validation in case authors showed that the measurement construct was related to a predicted outcome or could explain more variance than existent measurement instruments of the same construct. The abbreviations are explained above.
***If a shortened scale was used (not the original), the number of items used in the shortened scale version is given in parentheses.

Image 2. Overview on measurement instruments developed/used to measure team resilience in the workplace. Adapted from Hartmann et al. (2020, p. 939-40).

The existing research on team resilience brings valuable insights and approaches on how to measure resilience within a group. Block and Kremen (1996) proposed an ego-resiliency scale, however, it did not apply to the workplace context, whereas Luthans et al. (2007) looked at resilience as something positive and easily influenced. As this study aims to introduce a novel model to support shaping individuals' well-being resilience in the workplace, the view of Luthans et al. (2007) on resilience as a positive psychological state that allows handling challenges and recovering from them is adapted.

In this study, the understanding of resilience is discussed in connection to its relatedness to developing a better knowledge of the factors that impact resilience and contribute to better coping mechanisms that can be learnt by individuals to support their workplace well-being. Psychological resilience has been defined as a set of personal abilities to recover, rebound, bounce back, adjust or thrive following misfortune, change or adversity (Garcia-Dia et al., 2013). The nature of psychological resilience can be complex, dynamic and multi-dimensional (Waugh and Koster, 2014), therefore it is essential to acknowledge that many inter and intrapersonal as well as environmental factors can influence the levels of resilience. Psychological resilience and its connection with well-being are critical elements in designing interventions that can improve the psychological resilience of employees working in settings that expose them to high levels of adversity and challenges.

Realising the importance of unavoidable workforce stressors, whether in an acute or chronic form, to which at some point employees will be exposed, Rees et al. (2015) proposed an individual workforce resilience model (Image 3).

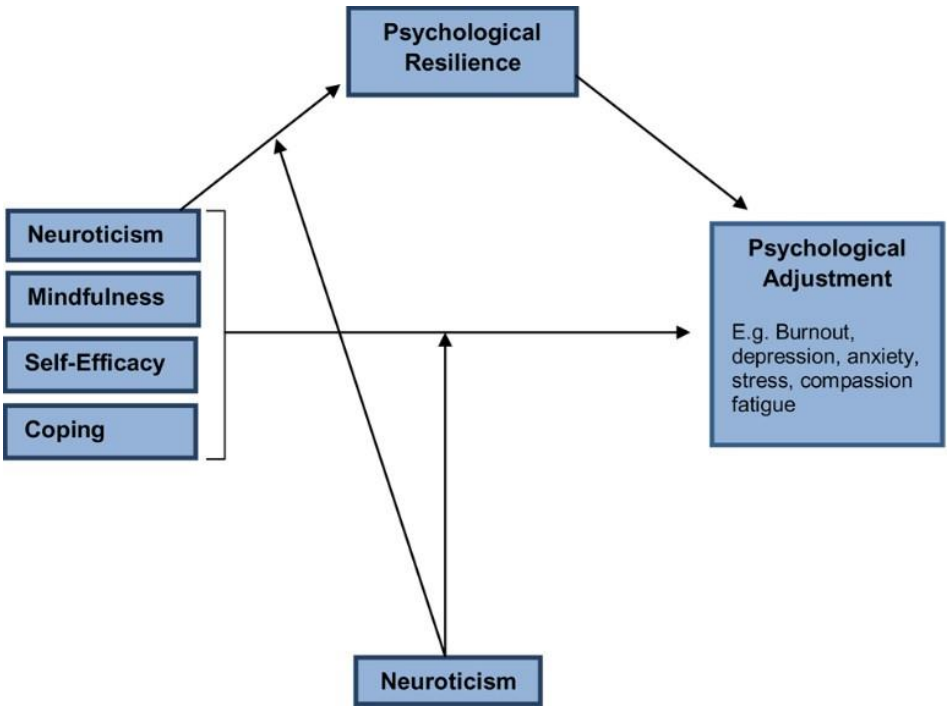

Image 3. The model of individual workforce resilience. Adapted from Rees et al. (2015, p. 4).

This framework proposed by Rees et al. (2015) focuses on intrapersonal elements of individuals' behaviours and reactions in the workplace. The key components, neuroticism, mindfulness, self-efficacy and coping can be viewed as adjustments followed by adverse events, for instance, stressful negotiation meetings or anxiety caused by specific workplace occurrences. While the model does not act as an exhaustive guide on workplace resilience, it points out the importance of intrapersonal characteristics that determine psychological adjustments and impact resilience in the workplace. For instance, the self-efficacy of an

individual confronted with a stressor impacts the way the situation will be approached and managed; if an individual with a low self-belief in their ability is about to address a challenge, he/she might be prone to passive coping such as withdrawal or avoidance, whereas an individual with high self-efficacy is likely to seek some active coping mechanisms such as social support or solving a problem.

Another component of Rees et al. (2015) model, mindfulness presents the significance of the ability to de-centre from events and respond flexibly to negative thoughts and emotions. The vast body of work on the connections between low mindfulness and stress disorders delivers important insights on a metacognitive state and its ability to evoke de-centralisation from an experience in an individual, controlled and positive way that allows gaining more perspective while avoiding reactive responses and inflexible thinking (Teasdale, 1999; Fennell, 2004; Roemer et al., 2009; Arch and Craske, 2010; Garland, 2007).

The mention of metacognition as a contributor to nurturing resilience and well-being is essential and lays solid foundations for a metacognitive model as a framework for workplace well-being resilience that is proposed in further segments of this study.

Well-being in the workplace

The concept of well-being is interdisciplinary and multi-dimensional as it depends on the context it relates to, including events, states, and phenomena. In this study, well-being is investigated at a two-fold level, individual and organisational, meaning that employees can achieve and maintain well-being on individual levels so they can better contribute to work that would nurture an organisational level of their employer's well-being. This research paper aims to propose a metacognitive model for well-being resilience in the workplace. The value of this framework is long-lasting as improved levels of employees' well-being impact life and work satisfaction. To enhance and clarify the essence of this novel model, it is important to acknowledge the phenomenon of well-being in the workplace.

Shah and Marks (2004) discussed well-being as an individual experience of happiness or contentment "being fulfilled, and making a contribution to the community" (p.2), whereas other studies perceived it as the quality of life (WHO, 1997), mental health (Svane et al., 2019), life satisfaction (Diener et al., 1995), hedonic experience (Ryff and Singer, 2006) and subjective state of well-being (Diener and Suh, 1997). Alagaraja (2020) pointed out the two-directional impact of well-being observed when the experience of being well impacts not only employees on an individual level but also their positive contribution and involvement in the workplace are enhanced. It is vital to acknowledge the multi-dimensional character of well-being in the workplace that can be experienced on several levels, mental, physical and social (Alagaraja, 2020). To harness the potential of employees, it is essential to address all dimensions of well-being such as finding meaning and purpose in the work, being able to socially interact with their peers as well as, as pointed out by Anttonen and Rasanene (2009), providing a safe and healthy working environment that can support employees in flourishing and experiencing well-being.

Employee well-being is critical for personal wellness that presents itself in the form of positive emotions and moods, contentment, life satisfaction, fulfilment and the absence of depression or anxiety (Andrews and Withey, 1976) as well as in the context of their work where workplace wellness nurtures physical, emotional and economic balance. The high impact of employee well-being on their performance and the wellness of an organisation is recognised and acknowledged by many organisations as well-being is the responsibility of organisations towards their employees (Deloitte, 2021). However, many institutions continue to push the topic of well-being to the bottom of their strategic agendas, particularly in the post-pandemic reality characterised by uncertainty and ambiguity, the rising cost of living and ever-growing numbers of employees' chronic depression and mental health challenges.

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Doing well in the context of this paper represents the state when employee productivity is of the highest importance for organisations to generate financial and operational wellness in the workplace. Krekel, Ward and DeNeve (2019) discussed the impact of employee well-being on their performance in the workplace and the organisational growth under the circumstance that it is correctly addressed. A positive correlation has been found between employees' satisfaction at their workplace and their productivity indicating that higher well-being levels at work correspond with profitability levels of business units (Krekel, Ward and DeNeve, 2019).

The organisational productivity and economic growth that are assigned to the state of *doing well* have a large impact on employers' well-being, however, this desired state to be achieved needs employees who will be able to achieve their individual states of *being well* before contributing to meaningful work and efficient performance. A growing body of evidence about the workplace shows that employee well-being is critical to commitment, satisfaction, and performance (Clifton and Harter, 2021). According to research conducted amongst US and UK employers, chronic stress is prevalent in the workplace with a staggering 94% of employees admitting feeling stressed due to many factors and often pushed to undertake radical steps as a result of that including leaving a job, searching for a new job or more health-related such as inability to sleep or losing temper (Image 4) (Hansen, 2021).

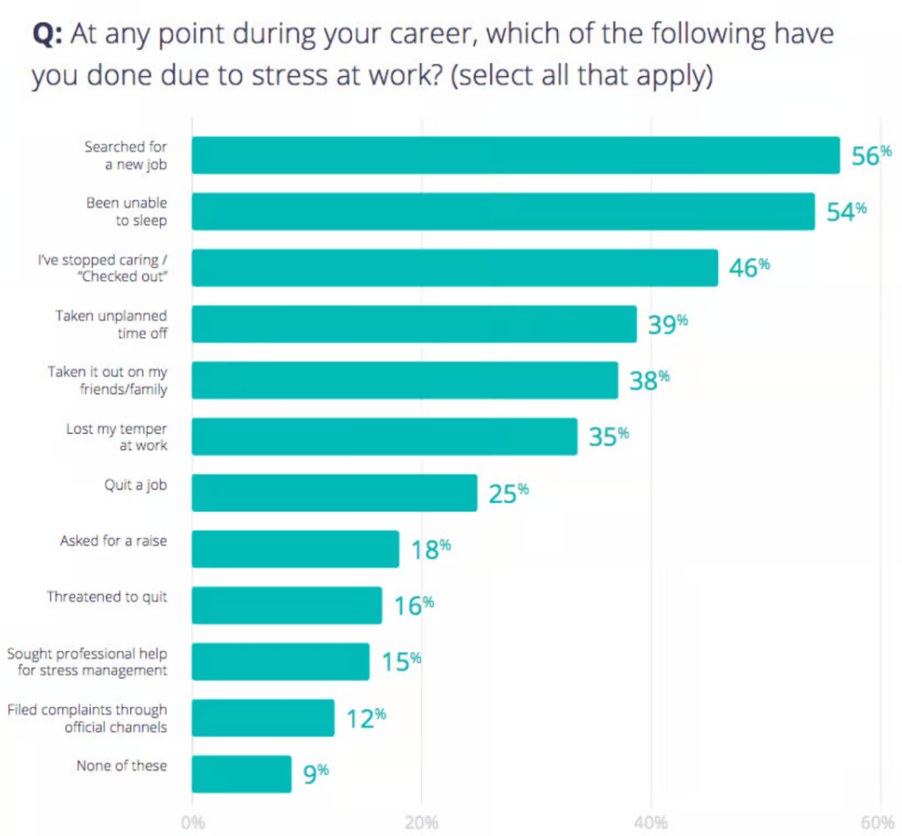

Image 4. A question of survey conducted amongst US and UK employers presenting common reactions to stressful workplace conditions. Adapted from Hansen (2021).

This paper's call for prioritising *being well* instead of *doing well* represents an intangible return to the roots of well-being, the human-centred orientation where the individual and his/her context are understood with an empathy, an individual's needs are identified, an intervention as a solution to needs is made available to try to address challenges, and, finally, an outcome is evaluated to identify successes and failures. Before a novel metacognitive model for workplace resilience well-being is introduced, it is important to understand workplace well-being interventions.

Well-being interventions

Anxiety, depression, and chronic stress are the representatives of mental challenges that affect the adult working population. From absenteeism, withdrawn attitudes, mood swings, and eating and sleeping disorders to increased risks of unemployment and suicide, these are some of the results of experiencing prolonged episodes of stress in the workplace accompanied by an inability to successfully apply management techniques.

Some of the mental health conditions result in frequent sickness absences and overall, a very low level of mental well-being. According to research, the UK cost to employers associated with mental health reaches £33-42 billion, whereas 300,000 employees with long-term mental health problems lose their source of income annually and circa 15% of employees have some level of mental health challenges related to workplace (Stevenson and Farmer, 2017). In addition to that, Stevenson and Farmer's study shared further data on costs associated with poor mental well-being, to Government it is between £24-27 billion and to the economy between £77-99 billion annually (2017).

Many mental health problems are preventable and treatable by individuals under the condition that some forms of interventions are accessible. There is a convincing body of evidence stating that digital mental health interventions in the workplace are effective and deliver promising results. In a research study by Carolan, Harris and Cavanagh (2017), a large review of available occupational digital interventions dedicated to well-being provided evidence that such interventions can improve the well-being of employees while positively affecting work productivity. It was observed that successful results with greater engagement can be brought by designing such well-being interventions that are no longer than 6-7 weeks, involving employees through email and text messages and using some persuasive technology such as self-monitoring and tailoring (Carolan et al., 2017).

Access to occupational well-being interventions can be challenging for smaller organisations or start-up businesses which oftentimes have very limited budgets dedicated to spending related to health at the workplace. Considering that mental health-related sickness is the greatest cause of absence in the UK workplace with digits rising annually by around 5% (Stevenson and Farmer, 2017), an increase in presenteeism, which is defined as working despite the fact of being ill, and alarming data on employees willing to leave their jobs in search for a new one due to poor mental health, access to mental well-being interventions should be simplified. As a matter of employees' rights at the workplace, the recognition and control of stress at work are covered by the Health and Safety at Work Act. Employers, despite their size, can improve the well-being of their workforce by acting on work-related stress to meet a framework of core standards, developed in 2017 by Lord Stevenson and Paul Farmer who were commissioned to review employers' support of mental health, as part of their mental health practice (HSE, 2023).

Preventing and managing stress are the core skills that impact the presence of well-being or absence of it. Prevention of stress can be understood as the alteration of risk factors that can be harmful to employees' well-being, whereas management of stress is associated with bettering skills of employees that allow them to cope with stressors as well as overall stress management behaviours (Armaou, Konstantinidis, and Blake, 2020). Employers to maintain the well-being of their organisations have the responsibility to recognise stress-generating factors and act accordingly to prevent unwanted events leading to health-damaging conditions. Simultaneously, the responsibility for *being well* is equally placed on employees as adult individuals, therefore the rise of the need for individual-level stress management interventions that can support coping skills' development amongst employees and are linked to organisational-level outcomes such as productivity, job satisfaction and absenteeism, is apparent.

With the rise of the popularity of digitalisation of educational programmes, organisations have access to a

diverse range of interventions that can reduce or prevent employee stress which is often the main destructive cause impacting well-being. Murphy and Sauter's (2003) research focused on a US perspective on stress-related issues as well as work-life programmes offered to employees, discussed that "workshops and training in stress management, such as relaxation and cognitive-behavioural skills, and courses on time management, conflict resolution, and other performance enhancement skills" can beneficially address some workforce challenges and stressors (p.154).

From doing well to being well – a philosophically psychological perspective

Well-being, the state of *being well*, is the central piece of ethics, philosophy and positive psychology; from desire theory, hedonism, an objective list theory, and utilitarianism to welfarism, the perfectionist theory and the happiness theory of well-being, this topic has been taken to centre stage of science as well as public and private sectors. Governments debate over the status of well-being in the workplace, carefully analysing statistical data to understand better the status quo of mental health and find solutions to address risks of its' poor condition. Researchers collect and analyse data on the most recent findings answering some urgent questions on the success rates of interventions, stress-causing factors, and behaviours promoting personal and organisational welfare.

In search of efficient solutions and optimal answers, there is a need for a basic understanding of the concept of well-being from various perspectives. For this study, well-being is examined from a novel two-fold, philosophically psychological, perspective which places an individual as well as an organisation (workplace) in the centre of its interest. This proposed view relates to human-centred and life-centred designs that refer to interaction design processes. The emergence of human-centred design was evoked by the non-acknowledgement of the importance of humans as end-users of a design process (Cooper, 1999). Human-centred designers have managed to successfully address those challenges, placing individuals at the central focus of the process of designing products or solutions (Owens, 2019) that would satisfy their needs and desires. However, with these human-centred design practices the presence of risk factors creating unintended consequences, damaging global systems and exposing humans to poor well-being have started emerging.

Borthwick, Tomitsch, and Gaughwin (2022) observed the changing relationships between people and the environment caused by the industrial revolution. With the array of solutions and adoption of human-centred design principles with people being placed at the centre of the design process, the life-centred design has been neglected. Those short-term gains for businesses as well as individuals drew away the importance of acknowledging global problems, the status of the planet's well-being and global impact as well as the wellness of future generations.

Therefore, in this research, *being well* is studied from a perspective of, firstly, an individual, with a human-centred focus, to understand better interventions that support individual needs and desires, and secondly, an organisation, with a life-centred focus, to explore and encourage more sustainable behaviours that contribute to better future and holistic well-being. This two-fold perspective is rooted in understanding the philosophical and psychological fundamentals of well-being.

The concept of *being well* has been the centre point of philosophical and psychological discussions. To better understand the proposal of human and life-centre design principles to support an introduction of an intervention in the form of the metacognitive model for well-being that aims to encourage workplace resilience, the scholarship of philosophically psychological foundations of *well-being* is salient.

Well-being in psychology is often studied from the perspective of happiness and subjective well-being to understand how different individuals perceive *being well*, *feeling well*, and *flourishing* in alignment with positive psychology. To understand an individual perspective on the concept of *being well* and its

importance, it is instrumental to acknowledge the multi-level relationship between subjective well-being and quality of life, human progress, mental health, life satisfaction and work fulfilment. Subjective well-being has several interrelated building elements, positive effect, negative effect and life satisfaction (Diener, 1984; Busseri & Sadava, 2011; Tov & Diener, 2013) which form the tripartite model of subjective well-being (Busseri & Sadava, 2011).

Quality of life is central to experiencing overall well-being and it is often associated with feelings of joy, contentment, and hope (Skevington & Böhnke, 2018; Moore, 2019).

Human progress indicators, subjective well-being (SWB) and gross domestic product (GDP), present a concerning level of disparity when it comes to understanding how economic growth impacts individuals' well-being. In the study conducted by Easterlin (2019), it is noticeable the bold contrast between increasing GDP levels per person and decreasing SWB and life satisfaction levels. The imbalance might be caused by the nature of the discussed indicators, with SWB's focus on individuals' dimensions of life whereas GDP's attention to the output of goods produced. GDP alone is an important element that contributes to life satisfaction as it impacts the economic situation, but it cannot be treated as a standalone, adequate measurement of life quality and satisfaction (Diener, Tay, & Oishi, 2013).

Next to life quality and human progress, another impactful relationship is formed, between well-being and mental health. This critical dynamic has gained a lot of interest among which Abdel-Khalek and Lester (2013) argued that the presence of positive psychological symptoms accompanied by the absence of negative ones constituted mental health. This rather basic understanding lacks the acknowledgement of life contentment or joy and happiness, therefore by expanding the definition of mental health, individuals and populations can be better understood (Keyes, 2006).

To better understand the philosophical foundations of well-being, it is essential to acknowledge Seligman's (2002) authentic happiness theory which comprises three different types of happiness, pleasures, engagement and meaningful life, the subjective feeling of being well falls into a life of pleasures category in the hedonistic sense of experience. The other two components of authentic happiness, an engagement which relates to happiness in the sense of the desire theory that focuses on getting what one wants (Griffin, 1986; Seligman & Royzman, 2003) and meaningfulness which is about happiness in the sense of the objective list theory that focuses on truly valuable things such as career, health, freedom (Nussbaum, 1992; Sen, 1985; Seligman & Royzman, 2003). The principles of Seligman's (2003) authentic happiness are derived from the philosophical foundations lied by hedonism, famously initiated by Socrates and Protagoras in the Platonic dialogue, *Protagoras* (Plato 1976 [C4 BCE], 351b–c) and further nurtured by Jeremy Bentham's utilitarianism, who stated that *pain* and *pleasure* are the mankind's forces placed upon him/her by nature (Bentham 1789 [1996]); the theory of desire which can be perceived as the fulfilment of individuals' desires, is mainly associated with welfare economics where, for economists, the satisfaction of human's desires equals his/her well-being and consequently the development of some approaches to auditing the preference-satisfaction value using money emerged (Stanford Encyclopedia of Philosophy, 2021); and objective list theory, which postulates that items that are not associated with immediate pleasurable feeling or desire-satisfaction constitute well-being, those can include friendship, health or knowledge (Aristotle, 2000) and career accomplishments, and perfecting human nature (Hurka, 1993).

Life satisfaction and subjective experience of *being well* form an important relationship. According to Veenhoven (2012) the terms happiness, well-being and quality of life can be used interchangeably, his study distinguished *life satisfaction* as a *life-as-a-whole* that is synonymous with happiness and represents the utilitarian meaning of a sum of pleasures and pains representing balance over time and lasting experience. For Veenhoven (2012) *life-satisfaction* portrayed overall happiness and contentment, whereas introduced by Dieter (1984) term subjective well-being (SWB) indicated "good mental functioning and then denotes the meaning of life-ability" (p.6). For this study, Veenhoven's (2012) meaning of *being well* is acknowledged as

an essential representative of the importance of well-being and its impact on "good mental functioning" (p.6) that relates to individuals' performance in workplace settings and beyond.

Having discussed the philosophically psychological heritage of the concept of being well, it is now necessary to understand the relationship between cognition and well-being.

Cognition and well-being alliance

Veenhoven (2012) while discussing the term life-satisfaction and its connection with happiness, he pointed out that the cognitive element of overall happiness can be perceived as life contentment, therefore cognition within the analysis of well-being plays a role in the rational realisation or acknowledgement of the status. This mindful appraisal of life is characteristic to only humans and oftentimes automatically performed as a cognitive comparison of past experiences and present reality as well as future desired states. Those evaluations performed by human consciousness are salient as they can be measured, recalled or adjusted by an individual (Veenhoven, 2012). Cognitive abilities and being well are necessary elements for the development of individuals in a healthy way that nurtures active engagement with the surroundings through learning, interacting, remembering and reasoning (Der et al., 2009; Feinstein & Bynner, 2004).

The subjective experience of *being well* is the enjoyment of life and conscious evaluations of situations coupled with reflections on experiences and events that accompany one's life. Humans are equipped with the ability to appraise situations effectively and evaluate events that happen in their living realities. Veenhoven (2012) noticed that intuitive affective appraisal and cognitively guided evaluation are the sources of information that provide foundations for human evaluations. Therefore, humans are capable to evaluate their lives in different ways depending on the object of interest, for instance, if it represents something tangible it might evoke immediate emotions of desire, hunger or thirst, or if it is something intangible such as marriage, relationship, career, an opinion will be likely formed based on a richer repertoire of experiences.

The relationship between cognition and well-being can be perceived as intuitive due to its underlying intangible connectivity based on the human experience. Happiness, often synonymous with well-being or life quality, is something that is subjectively experienced and evaluated. Its meaning varies depending on the individual's perception as well as context. Veenhoven (2012) distinguished four life qualities (Image 5) based on the diversity of subjective understanding.

	Outer qualities	*Inner qualities*
Life chances	**Livability of environment**	**Life-ability of the person**
Life results	**Utility of life**	**Satisfaction with life**

Image 5. Four qualities of life. Adapted from Veenhoven (2012).

Firstly, *livability*, which is not synonymous with well-being but a precondition, is an outcome of interventions consciously undertaken by individuals (Veenhoven, 2012, p.2). Secondly, *life-ability* can be understood as self-actualisation and living skills that ensure positive health, energy and resilience resulting in *being well*. Thirdly, *utility* represents values that are more than life itself, they are the moral spine of actions and choices made by individuals and society, leading to *virtuous living* that expresses *true well-being*

. And fourthly, *life satisfaction*, the internal state of life, the subjective well-being that is consciously evaluated by individuals by intuition (emotions) and cognitions (comparison) depending on context.

Life satisfaction represents the cognitive element of subjective well-being and denotes individuals' evaluation of their own lives (Simsek, 2008, p. 506). The discussion around the psychological strengths of humans is central to positive psychology with its primary goal to unearth actions, behaviours and activities that lead to being well. It is important to acknowledge that the subjective well-being (SWB) approach to being well with a primary aim in life satisfaction, absence of negative affect, and emotional well-being has its competitor in psychological well-being (PWB) that strives for meaning, growth and direction (Simsek, 2008).

Simsek (2008) asserted that the emotional level of subjective well-being is associated with individual goals and projects, leading to personal growth, meaning, and self-actualisation. The cognitive element of SWB is interconnected with affective dimensions in life judgment concerning personal goals and this evaluation acts as a unifying platform for understanding emotional well-being as one "containing personal goals and projects" (Simsek, 2008, p. 506). This concept of ontological well-being (OWB), introduced by Simsek (2008), sees personal goals and projects as contributors to achieving the state of well-being, and life itself is a primary goal for cognitive and emotional dimensions of well-being with time acknowledged as the entire lifetime of humans.

This intuitively sensed connection between cognition and well-being is of a dynamic character as there is evidence that a positive sense of well-being might contribute to health and such moderators as exercise and depression influence the association between cognition and positive well-being (Allerhand, Gale, and Deary, 2014).

For this research, the cognition and well-being relationship is understood through Simsek's (2008) ontological lens of life as a goal and project towards well-being as a result of human intervention. Veenhovenian concept of livability denotes those conditions nurturing well-being, happiness, or quality of life and gives meaning to conscious choices and judgments that lead to decisions driven by individual evaluations (2008). To support interventions that would benefit human well-being in the workplace, a novel metacognitive model is proposed in the next chapters.

The metacognition and the nexus between well-being and metacognition

Having discussed how cognition and well-being are related to each other and play a major role in supporting the life journey perceived as a goal accompanied by conscious decisions and individual evaluations, this section thoroughly addresses the concept of metacognition. The understanding of metacognition is pertinent to the appreciation of the model that is introduced as an intervention proposal for well-being resilience in the succeeding segments.

"Metacognition is considered one of humans' most sophisticated cognitive capacities", according to the Cambridge Dictionary (Cambridge University Press & Assessment, 2023). It is an "awareness or analysis of one's own learning or thinking processes" (Merriam-Webster, 2023) and can be referred to as the knowledge and regulation of the cognitive processes of an individual (Jia, Li, and Cao, 2019).

According to Flavell (1979), the concept of metacognition relates to knowledge and experiences or regulations, whereas metacognitive knowledge relates to cognitively acquired knowledge that can take control of cognitive processes, and can be categorised as person variabilities knowledge, task variabilities knowledge and strategy knowledge; whereas metacognitive experiences represent sequential processes that can control cognitive activities and attain a cognitive goal, and usually involve some planning, adjusting, analysing results (Livingston, 2003). Flavell's (1979) understanding of metacognition is "cognition about cognitive phenomena" (p.909). Some other scholars provided alternative descriptions, "awareness and

management of one's own thought" (Kuhn & Dean, 2004, p.270), "the monitoring and control of thought" (Martinez, 2006, p.696), "the knowledge and control children have over their own thinking and learning activities" (Cross & Paris, 1988, p.131), "awareness of one's own thinking" (Hennessey, 1999, p.3).

There is a very thin line between understanding the differences and similarities of cognition and metacognition. Studying cognition, it is widely accepted that the reference is made to thinking and understanding by processing information or other happenings. Referring to metacognition, it can be viewed as "thinking about thinking" and often includes some acknowledgement of meeting a goal or lack of it (Livingston, 2003). Strategies, and activities that support meeting a cognitive goal are described as cognitive, whereas those that ensure the achievement of a specific goal are metacognitive. A vast body of research, due to the active involvement of cognitive processes in controlling, planning and monitoring own thinking and response, links metacognition to intelligence (Borkowski et al., 1987; Brown, 1987; Livingston, 2003; Sternberg, 1984). Those strategic processes that enable controlling cognitive and metacognitive processes, described by Sternberg (1984, 1986) as metacomponents, involve executive functions such as planning, problem-solving and monitoring, and are intertwined with intelligence.

Metacognition or the ability to control self-regulating cognitive processes, understood as metcomponents (Sternberg, 1984, 1986) is, on many occasions, an effortless and intrinsic task for an intelligent individual, however, it can be improved by bettering self-regulating cognitive activities (Livingston, 2003). In studies conducted by education psychologists, it was discovered that the factor that distinguishes successful students from those less successful ones was the cognitive processes involved in learning and the awareness of those learning processes, in other words, the metacognitive processes (Livingston, 2003).

The understanding of metacognition and the importance of metacomponets act as salient points that contribute to developing a functional model for nurturing well-being and resilience where metacognition takes a central role toward more sustainable development of human and economic well-being.

According to Varshney and Barbey's (2021) research, some scientific interventions designed to enhance metacognitive awareness can elevate collective intelligence, social problem-solving, and global well-being. The study emphasises the critical role of promoting public well-being in nurturing its individual counterpart (Varshney & Barbey, 2021). Additionally, as presented in the United Nations 2030 Agenda and the Sustainable Development Goals (SDGs), an interconnected roadmap of linking social, environmental, and economic dynamics and the interconnectedness of human and ecosystem well-being is critical to promote sustainable development (Fioramonti et al., 2019; Varshney & Barbey, 2021).

The metacognitive model for well-being resilience – the interconnected intervention proposal

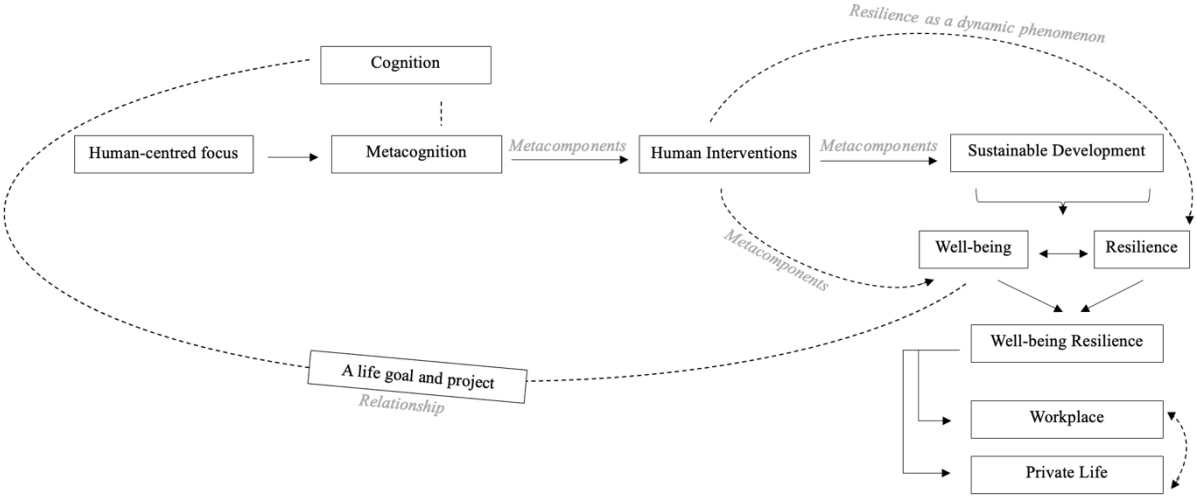

Image 6. A metacognitive model for well-being resilience (an author's own).

A conceptual framework for understanding the interconnectedness of well-being, resilience, metacognition and sustainable development is presented (Image 6). The conceptual model emphasises a simultaneous focus on elements that play critical parts in achieving a balance founded on sustainable development and leads to well-being resilience that finds its beneficial impact in the workplace and private life settings. By such an approach, the model offers a novel understanding of the dynamic nature of resilience and the significance of strategic human interventions that lead toward well-being, which forms a unique relationship with cognition as a life goal and focus. Each component of the model is interconnected through human cognitive activity and the interrelationship is rigorously explained in the synthesis and analysis of other works discussed in the earlier parts of this study. The model suggests it is important to actively utilise human interventions through strategic metacognitive planning and evaluation to fulfil a lifetime goal, well-being that is generated through sustainable development which promotes and nurtures resilience. It is necessary to understand the impact of well-being on resilience and vice versa. It is likely that how we manifest our well-being in private and professional life can impact how we manifest resilience in the workplace and outside of it. It is also essential to acknowledge that some employees may exhibit resilient behaviours more easily than others, and others may find it challenging to navigate through stressful situations. As Alagaraja (2020) rightly observed, in the modern world the level of stress that is placed on employees and the requirement to be agile and adaptive is overwhelming and sometimes cultural differences in stress management behaviours are often neglected. Therefore, adopting this human-centred approach depicted through the proposed intervention model (Image 6) aims to place the criticality of well-being and resilience for the present and future success on both individual (employee) and organisational (institution, organisation) levels.

METHOD

The study has laid foundations in the form of literature-based introductions to the concepts of well-being, resilience, well-being interventions and metacognition so the practical investigations of metacognitive abilities and their relatedness to well-being resilience can be understood better through a scientific lens.

An experimental study consisting of a survey, a self-reflective task and a 10-question questionnaire was distributed to a sample.

Participants

Participants (N=10) were full-time employed professionals in the UK, representing a middle management level of seniority in their organisation. The mean participants‘ age was 44.6 years, 60% were male, and 40% were female.

Procedure

The study consisted of an introductory survey that was administered at the beginning of the research project to collate findings on a basic understanding of well-being resilience and metacognitive abilities. Next, within two days of receiving completed surveys from participants, the sample was presented with a self-reflection task request to monitor their own performance and collect feedback in the form of daily journal entries for a period of one week. Lastly, a closing questionnaire was administered to participants to investigate their self-reflective feedback after the monitoring activity was recorded in daily journal entries. All participants agreed to take part in this study anonymously. The basic equipment such as notebooks and pencils was provided to the sample at the beginning of the study.

RESULTS

The sample of ten professionals completed all requested tasks, an introductory survey, a self-reflective task

of journaling, and a closing questionnaire.

Data from the sample were cleaned and searched for missing points. There were no missing data points as all ten individuals completed fully all tasks; the collected data were ready for analysis.

The experimental study shed some light on the importance of self-awareness and the regularity of self-reflection which appeared to be significant factors contributing to being well and resilient in the workplace. 6 out of 10 professionals confirmed that insightfulness time allows one to take a role of an observer and think about an occurrence in thinking as well as improves learning about own thoughts, analysing them as well as self-questioning thoughts and better planning once realising mistakes and successes. The remaining 4 agreed with the statement that self-reflection is something to consider for the future as due to time constraints there is no efficient space to self-reflect.

This study brings some hopeful future direction towards understanding the potential of metacognitive abilities that could address some existing and future challenges associated with mental well-being in the workplace. Equipping individuals with simple tools that support their response in challenging circumstances can be a powerful next step toward educating new generations and the existing workforce on the importance of well-being to own performance at work and the quality of life.

The results contribute to the literature by providing evidence supporting an overall metacognitive model for well-being resilience and evidence of indirect effects of resilience on outcomes and behaviours through self-directed human intervention.

SIGNIFICANCE AND THE FUTURE DIRECTION

In this research study, a set of sources on the concepts of well-being, resilience, well-being interventions and metacognition acted as foundations for introducing a method of an experimental study consisting of a survey, a self-reflective task and a questionnaire distributed to a small sample of UK employees and yet to be distributed to a large sample of employees from several UK organisations, as part of further research recommendations. The mixed method provided a thorough insight into metacognitive ability and its relatedness to well-being resilience in the workplace.

Future research should continue to examine the role of metacognitive abilities acquired through human interventions to develop a better understanding of well-being resilience effects on subjective well-being and resilience in the workplace and outside of it. Future researchers could examine the frequency of metacognitive activities and their impact on self-perceived well-being and resilient behaviours. As individuals in a variety of settings experience challenging situations, future research could investigate the types of self-reflective metacognitive interventions and their effectiveness in workplace settings and outside of them. Other research questions could be asked by studying wider samples in the UK and Europe as well as Asia and the US which would potentially provide more diverse datasets to further analysis in the direction of similarities and differences across cultures and geographies.

CONCLUSIONS

Research has demonstrated that the value of the development of reliable measures of self-reflection and insight for researchers and practitioners sits with the means to assess metacognitive processes such as psychological mindedness, self-reflection and insight (Grant, 2001). However, prior research has not yet fully explored the practical dimensions of metacognitive abilities that contribute to well-being resilience. The purpose of this study was to introduce a metacognitive model that would present the interconnectedness of well-being and resilience, and present views on the value of metacognition to the ability to develop and

cultivate states of self-awareness, self-reflection and insightfulness leading to well-being resilience. The research focused on the population of working individuals as some research findings demonstrated that individuals with high levels of well-being are more productive at work and are more likely to contribute to their communities (Frey and Stutzer, 2002; Tov and Diener, 2008). Additionally, the sample of working individuals was selected to answer the alarming data informing about workplace mental health issues and their estimated to cost UK employers £56 billion annually (Deloitte, 2022) in absenteeism (absences caused by mental health-related sickness), turnover of employees, and presenteeism (ill employees are working when they are not supposed to or are working beyond their contracted hours).

As research depicted promotion of metacognitive abilities as a supportive tool for developing self-awareness, self-reflection and insightfulness leads to better decision-making performance (Batha and Carroll, 2007) in the workplace and outside of it.

In sum, the results provided evidence supporting a metacognitive model involving human interventions and their impact on well-being and resilience, contributing to mastering the ability of "being present" equally important as being actively engaged in "doing" activities.

Through this investigation, a metacognitive ability has been confirmed as an essential factor for making decisions that are effective and productive on individual and organisational levels.

This study demonstrates that understanding the potential of developing and nurturing metacognitive abilities could offer valuable support toward responding to challenges associated with workplace mental well-being issues.

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