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Reconceptualising Psychological Well-Being as A Catalyst for Health Workforce Development, Organisational Resilience, And Sustainable Health Systems: A Theory-Building Bibliometric Analysis

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ABSTRACT:

Purpose: The study views Psychological Well-being (PWB) as the capability of an organization that can be built into a system beyond the mental health of the individuals. As a result, PWB would act as a driver/motivator for the development of health work and services, as well as the development of organizational capability, flexibility, and the establishment of health systems that can be sustained over time. Most bibliometric studies are content-driven and analyze the trends in publications and the thematic clusters of published studies. Contrary to that, the objective of this study is to construct the intellectual steps of PWB studies from a theory perspective and to construct an integrated theory to place psychological well-being at the starting point of building post-capacity health care organizations. This study analyzes the development of a resilient workforce and flexible organization, as well as sustainable health systems, based on psychological well-being.

Design/methodology/approach: The study advocates theory building through bibliometric studies. The target population of the bibliometric study included publications from the years 2020 to 2025. A total of 3,813 publications were sampled. Publications were obtained from Scopus sub-databases through a bibliometric study with a particular focus on psychological well-being and general health-related studies. Data and meta-data were processed with Microsoft Excel and VOSviewer. A literature study was conducted for the analysis of the growth of publications, key authors, key journals, key institutions, key countries, key sponsors, citation structures, and research collaboration networks. Co-authorship and keyword co-occurrence, bibliographic coupling, and co-citation analysis were also employed to study the emerging research domains.

Findings: Between 2020 and 2025, there was a marked increase in research studies on the psychological component of well-being, likely due to increased awareness of the element's significance within healthcare systems. The United States, China, the United Kingdom, India and Turkey were the most prominent countries, and the National Institutes of Health, the National Natural Science Foundation of China, and the National Institute on Aging were active research funding agencies. Network studies indicated that research communities were beginning to cover the concepts of mental health, resilience, burnout, and healthcare workers, as well as the quality of life, well-being, and sustainability in the

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workplace and organizations. The bibliographic coupling and co-citation analyses illustrated that the research was beginning to include a variety of concepts beyond clinical and psychological, including organizational behavior, workforce management, public health, and healthcare management and health policy. With the knowledge from the various domains, this study attempts to define psychological well-being as a mental state of resilience and strength that empowers a flexible and sustainable health system.

Originality/value: This study adds to the understanding of psychological well-being by placing it as a strategic capability for healthcare systems, moving away from limited individual constructs. Integrative theory-building bibliometrics is rare. Typically, bibliometrics describe patterns of research and publications. This study creates an explanatory theory-building bibliometrics model for the interrelationship of psychological well-being, health workforce development, organizational resilience, and sustainable health systems. The model demonstrates the relationship of psychological well-being to resilient healthcare systems and sustainable systems in the context of the foundational capability. The study provides healthcare leaders and policymakers practical ways to incorporate employee well-being into workforce planning, organizational resilience, and health system sustainability. The findings build a robust theoretical basis for the future empirical study of the psychological well-being of employees in the healthcare system in the determination of sustainable and resilient system integration.

1. INTRODUCTION

Psychological well-being (PWB) has become one of the most rapidly developing areas of study for professionals in the field of health care because of its impact on workforce productivity and health system sustainability. Positive psychology traditionally viewed PWB as a collection of traits such as positive emotions, satisfaction with life, purpose, self-control, positive relationships, and personal development (Ryff, 1989; Ryff & Keyes, 1995). More recent studies have expanded this framework and identified as elements of psychological well-being the quality of the engagement and commitment of employees, innovation and resilience, and the quality of services from a health care perspective (Dodge et al., 2012; Lomas et al., 2021; WHO, 2022). There is a growing awareness that psychologically healthy professionals in the healthcare field are a critical strategic resource for improving the performance of health care organizations and the practice of public health.

The effects of the COVID-19 pandemic completely reshaped the study of PWB and illustrated the psychological trauma, burnout, anxiety, depression, and exhaustion that healthcare workers experienced on a global scale (Shanafelt et al., 2020; Søvold et al., 2021; Greenberg et al., 2020). Healthcare systems were expected to continue delivering high-quality health care services while addressing temporary staff shortages, increased workloads, and developing new operational methods for applying care. The focus on PWB began to shift from being primarily a concern for the welfare of the employee to being a strategic concern of the organization that directly impacted the retention, resilience, and productivity of the workforce, and the continuity of health care services (West et al., 2020; Hall et al., 2022; WHO, 2023). These circumstances have invigorated interdisciplinary research that integrates psychology, public health, and other fields.

Recently, governments and international organizations have started acknowledging that balance is needed when creating sustainable healthcare systems. That balance includes psychological health and workforce resilience. Sustainable Development Goal 3 highlights the promotion of healthy lives and well-being for all. Within healthcare workforce strategies, promoting employee well-being is recognized as a critical element to developing sustainable healthcare systems that are adaptable to future emergencies (United Nations, 2015; WHO, 2022; OECD, 2023). Healthcare organizations that have high psychological well-being experience improvements in safety of healthcare, workforce resilience, and increased adaptability (West et al., 2020; Hall et al., 2022; Salanova et al., 2021). Instead of viewing psychological well-being as an individual outcome, these models allow for the consideration of psychological well-being as a strategic capability of the organization.

Psychological well-being relates to the Resource-Based View (Barney, 1991), Positive Organizational Scholarship (Cameron et al., 2003), Conservation of Resources Theory (Hobfoll, 1989; Hobfoll et al., 2018), Job Demands–Resources Model (Bakker &

Demerouti, 2017), and resilience theory in organizations (Duchek, 2020) in varying degrees. In all of these models, psychological resources provide the means for individuals and organizations to obtain, maintain, and mobilize the capacity to effectively deal with the challenges posed by a dynamic and unpredictable external environment. Psychological well-being is a strategically valuable resource in healthcare that extends workforce capability, resilience, and the competitive advantage of the organization (Luthans et al., 2007; Bakker & Demerouti, 2017; Duchek, 2020).

Even with the substantial rise in interest for research regarding psychological well-being, the available studies continue to be scattered among various fields, including psychology, psychiatry, nursing, occupational health, public health, healthcare management, and organisational studies. The majority of studies have focused on the relationships of psychological well-being separately, such as the relationship between psychological well-being and burnout, job satisfaction, mental health, or resilience, and quality of life, and have not situated these relationships within the broader framework of an organisational capability (Diener et al., 2018; Galderisi et al., 2015; Keyes, 2007). In addition, the majority of previous bibliometric studies have focused on the measurement of academic activities and have limited their focus to describing trends in publications, leading authors and studies, citation analysis, and networks of keywords. These bibliometric studies have failed to integrate the theory concerning psychological well-being and its relationship to the development of the workforce and the creation of resilient organisations and sustainable systems of healthcare (Donthu et al., 2021; Aria & Cuccurullo, 2017; Zupic & Čater, 2015).

The theoretical constructs have identified a clear gap for a theory-building bibliometric study that seeks to integrate an organisational capability. Science mapping can be an appropriate method for locating the frontiers of research within a fast growing field (Donthu et al., 2021; Cobo et al., 2011; Aria & Cuccurullo, 2017). Rather than treating bibliometric analysis as a purely descriptive method, theory-building bibliometrics allows the construction of explanatory models that clarify how a body of research evolves and describes the relationships that may exist among different research domains that are clustered together (Zupic & Čater, 2015; Aria et al., 2022).

This study reshapes psychological well-being and considers its role as a strategic capability in the context of health system development, organizational resilience, and sustainable health systems. By analyzing 3,813 Scopus publications from the 2020-2025 period, this study uses bibliometrics and traces the development of psychological well-being by citing, analyzing co-authorship networks, and using keyword analysis and bibliographic and co-citation coupling. This study also aims to formulate the Integrated Psychological Well-being Strategic Capability Framework. Psychological well-being is framed as the primary capability of organizations that drive the development of health personnel, improve organizational resilience, and contribute to the sustainable functioning of health systems. By expanding psychological well-being from the individual level, this study intends to add value in theory and practice to the fields of health care and the management of organizational and personnel resilience in the context of sustainable health systems.

1.1. Problem Statement

The decade-long growth in psychological well-being research, especially after the COVID-19 pandemic, has been focused on the multi-layered impacts of COVID-19: the mental health of healthcare workers, the strength of the healthcare workforce, and the sustainability of the healthcare system. The COVID-19 pandemic put extreme pressure on healthcare systems and resulted in healthcare workers experiencing unprecedented levels of stress, emotional exhaustion, burnout, anxiety, depression, and fatigue. These challenges were caused by an overwhelming demand on the healthcare system and a lack of resources (Shanafelt et al., 2020; Greenberg et al., 2020; Søvold et al., 2021). Although governments and healthcare organizations have made significant investments in supporting the well-being of employees, most of the literature still frames psychological well-being as an individual psychological outcome. This is inconsistent with the understanding of psychological well-being as an organizational capability that has the potential to transform healthcare (WHO, 2022; Hall et al., 2022). Thus, the role of psychological well-being in increasing the strength of healthcare systems and organizations is still poorly understood.

The research on psychological well-being is scattered and uncoordinated. It is found across psychology, psychiatry, nursing, occupational health, and other fields. These fragmented studies represent significant, yet narrow, contributions on psychological well-being, including burnout, job satisfaction, employee engagement, quality of life, emotional intelligence, resilience, and work-life balance, among others (Diener et al., 2018; Keyes, 2007; Galderisi et al., 2015). This fragmentation has restricted the development of integrated, cohesive, and coordinated approaches to understanding psychological well-being and its impacts

on the capability of a workforce, on the resilience of an organization, and on the sustainability of healthcare. Consequently, there is a large gap in the body of theory to support the fast-growing body of empirical research.

Moreover, today's healthcare systems find themselves in environments defined by rapid, potentially unstoppable, technological evolutions and demographic changes, coupled with workforce shortages, funding limitations, climate-related health impacts, and multiple public health emergencies. The combination of these challenges pushes healthcare organizations to build the adaptive capacities to learn more quickly, utilize a more flexible workforce, share and transfer knowledge, and sustain resilience within the organization (Duchek, 2020; OECD, 2023; WHO, 2023). However, psychological well-being is infrequently identified as a strategic resource of these adaptive capacities within an organization. Instead, it is most often viewed as the outcome of organizational interventions and is seldom considered the (psychological) capability necessary for the sustained resilience and performance of healthcare organizations.

Another major constraint is the inadequate connection of psychological well-being and the development of the health workforce. Past research has shown that healthy and psychologically strong healthcare professionals are more motivated, more committed to the organization, more cooperative, perform better and more efficiently and have a lessened desire to leave their work (Bakker & Demerouti, 2017; West et al., 2020; Salanova et al., 2021). However, these associations are most often viewed in a vacuum, generating a lack of more comprehensive capability framework through psychological well-being, workforce resilience, and sustainable health systems. Therefore, the existing body of work provides insufficient theoretical grounding for health system development and workforce well-being integration within national health policies.

From a methodological perspective, previous bibliometric studies of psychological well-being have primarily employed descriptive analyses regarding the growth of publications, citations, and authors; leading countries and influencing journals; and keyword counts (Donthu et al., 2021; Aria & Cuccurullo, 2017; Zupic & Čater, 2015). While these studies have successfully mapp ed the field's intellectual footprint, they have largely been concerned with descriptive science mapping. Existing bibliometric studies explain very little on the collective contribution of emerging research clusters of psychological well-being as a strategic organizational capability. Similar to the previous point, they also do not explain the interconnected knowledge areas, and how they might construct an integrated theoretical framework. Therefore, the theoretical extension of bibliometric studies remains limited.

Another research gap is the lack of an integrated conceptual model of psychological well-being and health workforce capability, organizational resilience and sustainable health systems. There has been somewhat of an increase in the literature regarding the importance of each of these areas; however, the linkage of the ideas in a unified organizational capability has been largely unexplored (Luth ans et al., 2007; Duchek, 2020; WHO, 2022). In the absence of this, health care organizations may continue to implement well-being initiatives for staff that improve welfare, but do not increase organizational resilience and the sustainability of health care in the long run.

Consequently, it is essential to develop a theory-building bibliometric study that advances from description of science mapping to a level of conceptual integration. This study aims to reconstruct psychological well-being as a core strategic capability that influences health workforce psychological well-being, organizational resilience, and the development of sustainable health systems. This aims to address a significant theoretical gap and provide health care leaders and policymakers an integrated approach to incorporate psychological well-being into workforce development as part of health system reform and reconfiguration.

2. LITERATURE REVIEW

2.1. Psychological Well-being: From Individual Health to Strategic Organisational Capability

Psychological well-being (PWB) has been viewed as a multi-faceted construct for optimal psychological functioning. Elements include self-acceptance, autonomy, and mastery of one's environment (Ryff, 1989; Ryff & Keyes, 1995). Traditional studies focused on individual psychological well-being and correlated it to happiness, satisfaction with life, positive/negative emotions, and mental health. In the assessment of healthcare practitioners, research has been interested in the stress, burnout, anxiety, depression, and quality of life (Diener et al., 2018; Keyes, 2007; Galderisi et al., 2015). While these studies on the psychological health of employees have proliferated, they still treat psychological well-being as a personal characteristic and do not consider it as an organizational capability to influence the performance of the healthcare system.

In organisational psychology and healthcare management, recent innovations build on previous models and theorize that psychological well-being is a resource that builds and motivates employees and improves behaviors and attitudes that are adaptive, innovative, and collaborative, all of which are important for the health of an organization (Bakker & Demerouti, 2017; Luthans et al., 2007; Salanova et al., 2021). These innovations are manifestations of positive organisational scholarship and rest on the idea that psychological resources create a positive atmosphere in which employees are healthier, more motivated, resilient, and able to help the organization build competitive advantages (Cameron et al., 2003; Luthans et al., 2007). In healthcare organizations, psychological well-being is recognized as a driver of employee turnover and is considered important for safety, quality, and for service and organizational learning, especially in times of uncertainty and constant change (Hall et al., 2022; WHO, 2022).

The COVID-19 pandemic acted as a catalyst for this shift in thinking by showing that all of the systems and efforts to make healthcare resilient in the face of a crisis are ineffective if the psychological health of the workforce is not prioritized and protected. The pandemic illustrated that while the majority of healthcare workers were under extreme psychological and physical stress, they were continuing to perform time-critical functions. There was a stronger emphasis on psychological support and protection in the workplace and an observed positive correlation with lower burnout, stress, and a consistent higher level of patient care (West et al., 2020; Hall et al., 2022). The overall evidence supports the thinking that psychological well-being should be considered an important strategic capability and not just the outcome of an employee welfare program.

From a strategic management standpoint, this developing conception corresponds with the Resource-Based View (RBV). It contends that the core of sustainable corporate success is the combination of resources that are valuable, rare, hard to imitate, and are embedded in the organization (Barney, 1991). Psychological well-being is an intangible resource of the organization that increases the cognitive, emotional, and behavioral dimensions of employees and improves the adaptive and resilient nature of the organization. Unlike financial or physical resources and infrastructure, psychological well-being fosters knowledge, and enhances problem-solving and innovative thinking, as well as learning, all of which are becoming increasingly critical in modern healthcare systems (Bakker & Demerouti, 2017; Duchek, 2020). Therefore, rather than merely being an indicator of employees' mental health, psychological well-being should be considered a foundational strategic capability that assists and drives organizational transformation.

This broader understanding also aligns with Conservation of Resources (COR) Theory. It explains that to cope with environmental demands and to operate successfully in the long run, individuals and organizations seek to gain, preserve, and enhance valuable psychological resources (Hobfoll, 1989; Hobfoll et al., 2018). In a healthcare organization, psychological well-being enables employees to maintain their motivation, recover from setbacks, and adapt to new work challenges. In an organization, the summation of such psychological resources builds greater resilience and enhances the adaptive capacity of the organization along with the improvement of the quality of the decisions made. Thus, psychological well-being is a resource of the organization that improves adaptability and resilience, and is relevant at all organizational levels.

As far as theoretical frameworks are concerned, the existing literature tends to examine psychological well-being from disjointed angles focusing on the diminishment of burnout, the management of workplace stress, or the enhancement of employee satisfaction. Having considered the limited attention devoted to the understanding of psychological well-being as a strategic tool for the development of a health workforce, the resilience of organizations, and the sustainability of health systems, the above-mentioned fragmentation has inhibited the theoretical integration and the construction of comprehensive organizational capability models that articulate the wider strategic importance of psychological well-being in health care systems. Therefore, this study goes further than the existing literature and provides a new perspective on psychological well-being as the primary strategic capability from which the resilient healthcare workforces and the sustainable health systems and adaptable organizations are progressively developed.

2.2. Health Workforce Development

Health Workforce Development (HWD) helps organizations and governments improve the quality of care, strengthen the capacity of the organization and make health systems more sustainable. The World Health Organization (WHO, 2022) describes health workforce development as the process of attracting, developing, supporting and retaining qualified health workers who have the ability to provide safe, effective and equitable patient-centered health care. The development of health workforce incorporates the continuous professional development, and development of the workforce's leadership and psychological

capacity, and interdisciplinary collaboration, digital skills, and resilience to deal with complex health workforce environments (WHO, 2023; OECD, 2023). For this reason, the development of health workforce has shifted from the traditional function of managing human resources to the strategic capability of the organization that affects the performance of the healing and sustaining of the system.

Rapid changes in the health care system have resulted in an increased demand in what health care workers can do. In addition to having clinical skills, health care workers must be flexible, have the ability to make decisions cooperatively, have emotional intelligence, be innovative, and be resilient to changing demands in health care (Frenk et al., 2022; Aiken et al., 2021). Health workforce shortages and global health crises have forced health care organizations to invest more in developing the workforce's capability beyond the basic and technical skills (WHO, 2022; OECD, 2023). As a result, workforce development has become a priority dynamic process in health care organizations to improve the capabilities and skills of the workforce.

In view of these changes, psychological well-being is becoming a vital element for purposeful workforce development. Employees with enhanced psychological well-being are more likely to demonstrate higher levels of intrinsic motivation, learning, creativity, healthy working relationships, and commitment to the organization (Bakker and Demerouti, 2017; Luthans et al., 2007; Salanova et al., 2021). Psychological resources are fundamental to developing the health workforce and sustaining the desired levels of professional development, learning, and group cohesion, as well as the ability to adapt to new circumstances. On the other hand, the deteriorating effects of psychological distress, including burnout and emotional exhaustion, will diminish the learning and increase absenteeism, employee turnover, and dysfunction within the organization (Shanafelt et al., 2020; West et al., 2020). From the perspective of workforce development, promoting psychological well-being of employees is a necessary condition.

The Job Demands–Resources (JD-R) Model gives a more accurate representation of what has been described above. It states that employees are able to perform at their best when sufficient organizational resources are able to meet the demands of the workplace (Bakker and Demerouti, 2017). In the case of most health care organizations, psychological well-being is a personal and organizational resource that allows employees to cope with the demands of the workplace, while remaining motivated, and engaged with the opportunity to learn. Organizations are likely to develop a supportable health care workforce that sustains an improvement in the performance of the organization by investing in supportive leaders, positive workplace environments, recognition of employees, mentoring and psychological support (Schaufeli, 2017; Hall et al., 2022). Thus, the continuous development of the psychological, cognitive, and behavioral resources of employees in order to attain sustained organizational excellence should be a core focus of workforce development, alongside the enhancement of technical skills.

Recent research shows the importance of having psychologically healthy healthcare professionals in the context of creating organizational knowledge, as well as having an innovative workforce and one that collaborates across disciplines. Having stronger psychological well-being means that healthcare professionals are more inclined to share their knowledge, take part in learning endeavors, and join in on quality enhancement and service innovation initiatives (Salanova et al., 2021; Lomas et al., 2021). These improvements allow organizations to take advantage of the experiences and practices of their healthcare workers and encourages the incorporation of practices and improvement to healthcare and other organizational processes. Psychological well-being serves the indirect purpose of improving the collaborative culture of the organization and the workforce itself by providing enhancements to professional engagement and collaborative culture.

Even with growing acknowledgement of the above, research into the psychological well-being and development of the healthcare workforce and the linked concepts has been relatively underdeveloped. Development of the healthcare workforce has focused on building competency frameworks and teaching and developing leadership, as well as workforce planning, recruitment, and retention strategies. Psychological well-being research has focused primarily on the alleviation of stress, burnout, and employee mental health (Frenk et al., 2022; WHO, 2022). There has not been much effort focused on merging these areas into a singular framework in which psychological well-being is considered the foundational capability for workforce development. Because the concepts have been separated, the conceptualization of organizational capability that focuses on sustainable performance in health care has been limited.

This study, therefore, conceptualises psychological well-being as the foundation for the first organisational capability, health workforce development. Rather than viewing workforce development solely as a human resource function, the proposed framework locates workforce development as the organisational function through which psychologically healthy employees

gain, assimilate, and put to work knowledge, skills, and leadership and teamwork capacities that improve the organisation's flexibility. For this reason, the framework understands psychological well-being as the human foundation for the development of health workforce. It enables health care organisations to develop workforce that is professional, adaptable, resilient, and able to promote organisational and health systems resilience.

2.3. Organisational Resilience

There has been increased recognition of the importance of organisational resilience within the healthcare industry as a strategic capability that enables the organisation to absorb disruption and continue to provide core healthcare services. Initial research on resilience focused on the management of disasters and emergency preparedness. Nowadays, organisational resilience is conceptualised as a dynamic capability that can be mobilised to manage environmental turbulence and change and the occurrence of unexpected disruptive events (Duchek, 2020; Lengnick-Hall et al., 2011) . The growing number of pandemics, demographic changes, systematic disruption of healthcare technologies, workforce shortages, limited funding, and increasing public demand for faster, better, and cheaper healthcare services are making it increasingly difficult to achieve organisational resilience. The WHO (2023) and OECD (2023) have stated that resilience must be regarded as more than the ability to recover from disruption. It is the capability to ensure the ongoing sustainability of the organisation and sustain high quality, long-standing healthcare services.

Healthcare organisations exist in an unpredictable and highly interdependent environment. Most other industries have the luxury of stopping service while they adjust to challenges. This is not true for the healthcare industry. It requires adaptive structures with the capacity to change and the flexibility to adjust leadership, and concerns collaborative decision-making and knowledge sharing. Healthcare systems with a high degree of organisational resilience are able to meet the diverse needs of clients while ensuring the quality and safety of healthcare services.

Of the many factors that contribute to an organization's resilience, human capital takes the lead as a crucial element of an organization's asset base. Employees with a robust sense of psychological well-being can manage work-related stress (Luthans et al. 2007; Bakker & Demerouti 2017). They can deal with uncertainty and disruption in the workplace and continue to perform at the highest level. The psychological well-being of employees also adds to cognitive flexibility and emotional control, which in turn makes organizations more resilient. Therefore, crisis resilience of healthcare organizations can be attributed to the psychological health of the employees and their ability to maintain the services of the health organization during difficult times. (West et al. 2020; Hall et al. 2020).

The development of the health workforce builds the resilience of an organization even more by improving the skills and the leadership and teamwork for the health workforce to adapt to effective changes in the organization. Lifelong learning and continuous professional development of health workers offer numerous benefits to both the workers and the organization. They help update and maintain health workers' clinical and technical skills, enhance their ability to manage health-related emergencies and effectively collaborate with other professionals, and help organizations improve their responsiveness to health-related changes (WHO 2022; Frenk et al. 2022). Moreover, development of the workforce helps organizations to learn and memorize the knowledge gained from previous disruptions (Salanova et al. 2021). Thus, workforce development builds resilient capacities of organizations.

Within healthcare systems, the Dynamic Capabilities perspective describes a useful theory for integrating all aspects of resilience. TEECe (2007) opines sustainable performance is the outcome of the ability or capacity of firms to identify alterations in the environment, exploit or act on changes, and then restructure the firm's resources in a manner that will bring the firm an advantage in the changing or altered environment. The development of the healthcare workforce in combination with the psychological wellbeing of the workforce forms active capability and strengthens the resilience of the healthcare organization and ensures the continuous provision of healthcare services or strengthens the resilience of the organization and ensures the continuous provision of health services (Duchek, 2020). In addition, organizational resilience is the outcome of the combined effort of human and organizational capability, undertaken with a clear purpose and meaning, rather than a spontaneous act to a disruption.

An increasing number of studies indicate that resilient healthcare organizations have lower employee turnover, higher employee engagement and patient safety, greater innovation and improved overall organizational performance (Barasa et al, 2018; Hall et al, 2022; WHO 2023). These organizations are characterized by the presence of supportive leadership, safe workplaces, and a

culture of lifelong learning, which, along with psychologic and professional capacity rehabilitation after operational challenges, allow employees to maintain performance and adapt to workplace challenges. Findings of these studies indicate that resilience is structurally relevant but has a greater focus on the workforce.

While there is an increasing body of scholarship on the intersections between psychological well-being, workforce development, and organisational resilience, these studies tend to analyse them as separate phenomena. Studies on organisational resilience focus on governance, leadership, operational flexibility, and learning, and do not acknowledge psychological well-being as the strategic capability that drives the development of resilience (Lengnick-Hall et al., 2011; Duchek, 2020). On the other hand, most studies on workforce development focus on training and building competencies, and do not consider how adaptable organisations are due to their psychologically healthy employees. This has not only kept the fields siloed, but has also created a fragmentation of theory where the integration of these complementary areas of research has been stunted.

This research therefore, has sought to conceptualise organisational resilience as the second strategic organisational capability that stems from the development of the health workforce. Organisational resilience represents the organisational incorporation of the combined psychological and workforce capabilities, and serves as the vital link between workforce development and the sustainability of health systems.

2.4. Sustainable Health Systems

As the pressures of rapid changing demographics, increased public health spending, climate health, new technologies, public health emergencies, and workforce crises become more disparate, the concept of sustainable health systems has gained more relevance. When considering the viability and sustainability of health systems, the emphasis was primarily on fiscal and financial dimensions, and the efficient use of resources. Today the WHO and OECD acknowledge that sustainability is a multidimensional capability that consists of economic efficiency, stability of the workforce, resilience of the organization, environmental sustainability, equity, quality, and continuous improvement of health services (WHO, 2023; OECD, 2023). Thus, sustainable health systems are those that are able to deliver high quality health care services on the longest time span, while being responsive to the social and external contextual changing demands.

According to WHO (2022), sustainable health systems are those that have a competent, healthy, committed and resilient workforce. Sustainable health systems put the health care worker especially the committed and competent health care workers, in the centre of system performance. When there are health care crises characterized by the exodus, burnout, and distress of health care workers, the sustainability of health care services is threatened because the crises hinder work performance, increase turnover, diminish the organizational learning, and ultimately impact care negatively (West et al, 2020; Hall et al, 2022). Because of this, the sustainable health care services crisis is also a sustainable health care services workforce crisis.

Recent healthcare reforms have shown that sustainable health systems require adaptable organizations instead of ones that undergo periodic restructuring. Healthcare organizations need to be responsive to newly emergent diseases, innovations in technology, and shifts in patients' demands, along with changes in the digital and regulatory landscapes. All of this needs to be achieved while maintaining efficiency in their operations and quality of care (OECD, 2023; Frenk et al., 2022). The adaptability required depends on the establishment of resilient organizations and competent health care personnel who have not only the technical skills but also the psychological skills to deal with the challenges of the new and the unknown, and who are willing to learn and work in teams in the midst of diversity (Duchek, 2020; WHO, 2023). Hence, the capability of the workforce and the resilience of organizations have become integral to health care systems that are sustainable.

From a systems point of view, sustainability is the cumulative result of interdependent organizational capabilities. It is not the result of singular organizational efforts. The psychological well-being of employees results in the further development of the health workforce through the professional training, learning, and sharing of skills that are enhanced and promoted (Bakker & Demerouti, 2017; Luthans et al., 2007). Subsequently, a capable and psychologically healthy workforce fosters resilience within organizations, thus enabling healthcare organizations to proactively anticipate and effectively deal with periodic disruptions and crises, while successfully maintaining operational continuity within a climate of perpetual change (Barasa et al., 2018; Duchek, 2020). Within the context of sustainable health systems, resilience of organizations is needed to maintain the consistent quality of care, workforce stability, safety of patients, and effectiveness of operations and institutions. The interconnected nature of these relationships illustrates that the sustainability of health systems results from the cumulative organizational capabilities and not the outcome of deploying financial or technological resources.

The argument is further supported by the Dynamic Capabilities perspective, which states that long-term organisational sustainability hinges on the organisation's ability to adapt to changes within its environment by continuously renewing and reconfiguring its resources (Teece, 2007). On the other hand, in the case of healthcare organisations, the psychological well-being of employees represents the primary element of a human resource that supports the continuous development of organisational capabilities, while health workforce development increases professional and organisational learning capabilities. Collectively, these capabilities foster organisational resilience within healthcare organisations and enable them to maintain performance in the face of increasing and unpredictable challenges within the environment. Hence, sustainable health systems are a product of the ongoing interaction between the human, organisational, and strategic capabilities, as opposed to the fixed organisational frameworks and one-off policy measures.

Recent studies on healthcare have started to support this capability-oriented approach. Healthcare organisations with higher workforce well-being and professional development, resilient leadership, and a collaborative organisational culture, report superior patient outcomes and service, higher employee retention and enhanced innovation with improved operational continuity even in the face of crises (West et al., 2020; Salanova et al., 2021; Hall et al., 2022). Findings indicate that investing in the psychological well-being of employees enhances organisation functioning while positively affecting the health of employees and making the healthcare system more sustainable.

While advancements have been made, current literature is still inconsistent. Those who study sustainable health systems separate the issues of financing, health care policy, digital technologies, governance reforms, and service delivery models. Research on psychological well-being concentrates on employee mental health and work-related outcomes (WHO, 2022; OECD, 2023). Research is even more scarce regarding the theories on psychological well-being and sustainable health systems. This research gap constrains healthcare leaders' and policymakers' ability to develop cohesive workforce plans. These plans would strengthen employee well-being, organizational resilience, and system sustainability.

This study, therefore, continues to develop the theories of sustainable health systems. It assumes sustainable health systems are the end result of an organization achieving a high level of capability after being developed in stages. This study assumes that psychological well-being is the strategic capability that strengthens the health workforce and, as a result, increases the resilience of the organization and the sustainability of health systems. This study argues that psychological well-being, workplace resilience, and sustainability are the strategic points of focus for accomplishing a single organizational goal, rather than serving as separate organizational objectives. This perspective builds on health care management theories and shows that focusing on psychological well-being strengthens the organization and makes the healthcare system and services sustainable.

3. METHODOLOGY

3.1. Research Design

This study used a theory-building bibliometric research design to investigate the evolving nature of psychological well-being research and the role of psychological well-being in current healthcare systems. Most bibliometric studies focus on the description of research output (publications and their citations) and collaboration networks. This study goes beyond the bibliometric analysis and uses science mapping to develop a conceptual framework to illustrate the interconnections of Psychological Well-being, Health Workforce Development, Organisational Resilience, and Sustainable Health Systems. Consequently, this study places bibliometric analysis in the context of development of organisational theory, rather than a descriptive analytical tool.

The theory-building bibliometric analysis constructs the intellectual and conceptual structures of a scientific discipline, and explores the dynamics of knowledge through the analysis of the networks of published works, citation networks, and the evolution of research themes (Zupic & Čater, 2015; Aria & Cuccurullo, 2017; Donthu et al., 2021). This analysis assumes a holistic view of bibliometric data and does not regard bibliometric data as isolated, unrelated, or abstracted statistics. This study presents the Integrated Psychological Well-being Strategic Capability Framework. This study argues that psychological well-being is the foundational organisational capability that (i) drives the development of health workforce; (ii) cultivates organisational resilience; and (iii) strengthens sustainable health systems.

The study used outcome measurements across a number of dimensions. For instance, bibliometric analysis of publication volume, citations, prolific authors, institutions, countries, funding, and journals was one of the main components of the research. Descriptive science findings were supplemented by mapping analysis of co-authorships, keyword co-occurrences,

bibliographic couplings, and co-citations. The combination of the various methods used for the study provided a detailed description of the structural and conceptual changes pertaining to psychological well-being and the design of the new framework for the capability organization.

3.2. Data Source and Search Strategy

The only data source used in this study was the Scopus database, as it is one of the largest databases of available peer-reviewed literature within the disciplines of psychology, medicine, public health, health care management, the social sciences, and organizational studies. Scopus has a large database of citations, and high-quality indexing and offers an extensive range of bibliometric data, making it a suitable database for bibliometrics and science mapping investigations. (Baas et al., 2020; Aria & Cuccurullo, 2017; Donthu et al., 2021).

The search strategy captures emerging trends in psychological well-being research from 2020 to 2025. This focuses on research that has rapidly expanded after the COVID-19 pandemic and after global concerns for healthcare workforce well-being and the resilience and sustainability of health systems. The search was conducted in the TITLE-ABS-KEY field with the most important search term "Psychological Well-being". The first Scopus search resulted in 146,856 records. After the first refinement, based on title, abstract, and keywords, this number was decreased to 34,327. After that, to ensure that the records were relevant and related to this research, the search was restricted to records that included the search term in the article title. This resulted in a total of 3,813 publications and ensured that the records were published in peer-reviewed journals.

The bibliographic dataset was downloaded on July 29, 2026, to maintain consistency throughout the analysis. Limiting the search to article titles improved focus. This ensured that psychological well-being was the primary focus of the article and not a secondary or supporting concept. This title restriction resulted in refinement of bibliometric analyses and decreased the strategic ambiguity of the dataset.

3.3. Bibliometric Analysis

This involved two complementary steps: bibliometric performance and science mapping analysis. The former examined the productivity and impact of research on psychological well-being through the analysis of publications characteristics, annual publication trends, document types, the most cited publications, the leading publication sources, and the most active fields, authors, institutions, countries, and funding sponsors. All these indicators portray the growth and distribution of the research field and the participation of institutions and the research field's intellectual impact.

This was followed by science mapping analysis using the VOSviewer program to portray the intellectual and conceptual structures of psychological well-being research (Van Eck & Waltman, 2010). Four complementary analyses were performed. The analysis of authors' countries' co-authorships illustrated patterns of international scientific collaboration and the flow of knowledge. The analysis of the co-occurrence of research keywords illustrated the forefront of research, the dominant research themes, and the emerging research frontiers. The bibliographic coupling analysis illustrated the research conceptual frameworks and the emerging research clusters and the co-citation analysis illustrated the foundational authors and references of the field of psychological well-being research.

Unlike most bibliometric studies that examine these analyses individually, this study, for the first time, combined the results of all four science mapping approaches to explain the intellectual growth of psychological well-being research. The integration of publication performance, collaboration networks, conceptual themes, and citation frameworks provided the basis for the development of a comprehensive organizational capability framework.

3.4. Development of the Integrated Psychological Well-being Strategic Capability Framework

The last step in this study was the application of bibliometric evidence to develop an integrated theory-building framework. In this case, rather than treating the bibliometric findings as discrete descriptive results, themes that appeared to be repeatedly emerging in analysis of keyword co-occurrence, bibliographic coupling, co-authorship, and co-citation were integrated as part of the strategic capability of the organization. Through this method, the identification of consistent relationships amongst the elements that seek to progressively support the construct that develops the theory of the research of psychological well-being was made possible.

The framework being developed sees Psychological Well-being as the primary strategic capability for healthcare organizations. It further argues that healthcare workers who are psychologically well are better able to acquire new skills, undertake lifelong learning, and further develop the Health Workforce. Improved workforce capability, in turn, enhances Organisational Resilience through increased flexibility and improved teamwork and preparedness of the organization to face challenging times and crises. The combined effect of all these capabilities of the organization will realize Sustainable Health Systems that are characterized by a sustainable workforce, quality and innovative services, patient-focused services, and continuous improvement in the performance of the organization.

The Integrated Psychological Well-being Strategic Capability Framework therefore goes beyond traditional bibliometric reporting, as it provides a theoretically robust framework for explaining the transformation of psychological well-being, from an individual psychological construct to a strategic organizational capability. Moreover, it integrates the disparate streams of literature and capability pathways and becomes the first theoretical basis for future studies to empirically assess psychological well-being and its nexus to workforce sustainability, organizational resilience, and sustainable health systems.

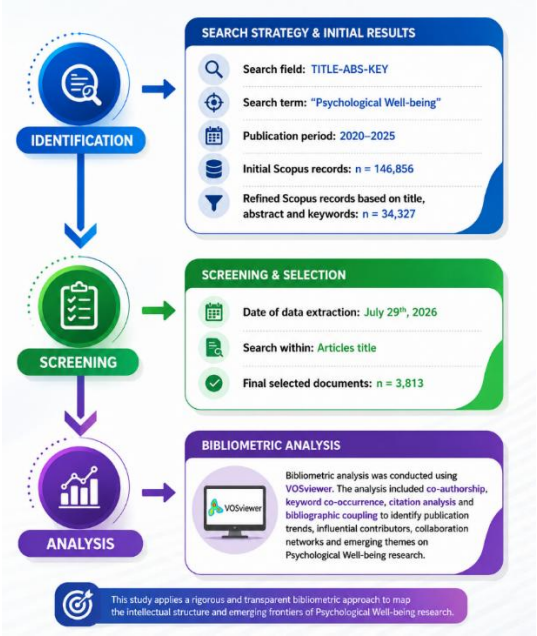

Figure 1. Flow Diagram of the Search Strategy

4. RESULTS AND ANALYSIS

4.1. Publication Characteristics of Psychological Well-being Research

Figures 2-4 illustrate how published psychological well-being research, covering 2020–2025, is indexed by Scopus. These figures collectively address maturity, disciplinary scope, and the publication 'map' by showing the distribution of document types, leading sources of publication, and subject area. From these findings, we understand that research in psychological well-being is established and interdisciplinary and is becoming more important in healthcare, psychology, public health, and the organizational sciences.

Figure 2 shows that research in psychological well-being is overwhelmingly dominated by research in journals (3,309; 86.8 %), followed by research in the form of reviews (169; 4.4 %), book chapters (103; 2.7 %), and conference papers (91; 2.4 %). The predominance of research reported in peer-reviewed journals shows that the field is dedicated to reporting original empirical research, while the predominance of reviews shows that the field is dedicated to reporting its knowledge and directions of research.

Figure 3 shows that psychological well-being research is published predominantly in high-impact, interdisciplinary journals. In the leading journals, Frontiers in Psychology has 118 publications, followed by the International Journal of Environmental Research and Public Health (104), Current Psychology (64), BMC Psychology (40), and Healthcare (38). The variety in the

leading journals shows that research in psychological well-being has expanded beyond the discipline of psychology into public health, healthcare management, the behavioral sciences, and interdisciplinary research.

Figure 4 confirms the research field's interdisciplinary nature. Medicine is the largest subject area at 1,528 publications (40.1%). Psychology and Social Sciences follow with 1,374 (36.1%) and 1,184 (31.0%) publications, respectively. Nursing (10.6%) and Business, Management and Accounting (7.1%), along with the Arts and Humanities (6.5%), Health Professions (5.4%), Environmental Science (5.4%), and Computer Science (4.7%), make significant contributions. The range of research fields points to the fact that psychological well-being has expanded from a psychological concept to a multidisciplinary research area supporting the design and implementation of health care systems, management of workforce and organizational behavior, and sustainable health systems.

Figures 2-4 show that psychological well-being research has advanced to a highly developed level. The prevalence of research published in peer-reviewed journals, the focus of research in journals that are internationally recognized, and the wide participation of different disciplines, suggest that there is growing recognition of psychological well-being as a core organizational capability that has far-reaching consequences for the development of the health workforce and health system sustainability, organizational resilience, and health system sustainability.

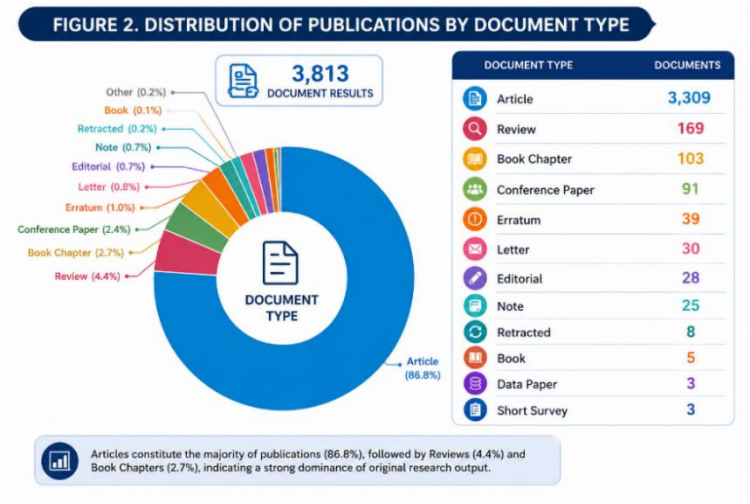

Figure 2. Distribution of Publications by Document Type
Source: Scopus database, Elsevier (2026)

Figure 3. Leading Publication Sources on Psychological Well-being Research
Source: Scopus database, Elsevier (2026)

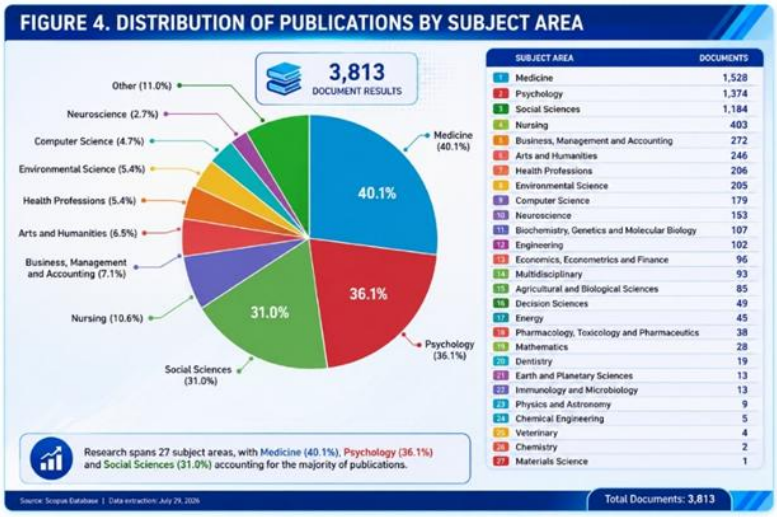

Figure 4. Distribution of Publications by Subject Area
Source: Scopus database, Elsevier (2026)

4.2. Annual Publication Trends on Psychological Well-being Research (2020–2025)

Figure 5 shows the yearly variations for the Wellbeing and Psychology-related publications in Scopus found for the years 2020–2025. The results show that during the study period there was the sustained development of scientific production. This represents the increased international interest in psychological wellbeing as a crucial area of investigation for the health professions, psychology, public health and for studies of organizations. The sustained increase of publications represents the growing scholarly interest in psychological wellbeing as a key factor for the performance of individuals, organizations and health systems.

The amount of publications started to rise from 436 documents in 2020 to 511 documents in 2021, reaching 596 publications in 2022 and 2023. Although the publication output remained stable in these years, the research activity increased sharply in the years that followed, reaching 752 in 2024, and then 922 publications in 2025. This sustained increase shows that Psychological Wellbeing has turned into a mature and rapidly growing field of research, from which multidisciplinary communities of research are focusing on.

It is expected that the research activity in 2024 and 2025 will undergo a considerable increase due to growing international interests in the mental health of health care workers, the resilience of work forces, the wellbeing of employees, the prevention of burnout, the sustainability of organizations, and the resilience of health care systems. The experience of the COVID-19 pandemic reinforced the critical importance of psychological wellbeing, and also shifted the scholarly focus from the mental health of individuals to the mental health of work organizations and the development of sustained workforces. More recent studies have effectively turned psychological wellbeing into a strategic resource for organizations. Examples include the wellbeing of workforces, the resilience of organizations, the quality of health care, and health care systems that are sustainable.

On the whole, the reviewed trends in publications indicate that the research on psychological well-being has entered an advanced phase of rapid intellectual evolution. Rather than being confined to a psychological construct, the research now increasingly involves healthcare management, organisational behaviour, leadership, workforce development, and the sustainability of health systems. With new trends in research, there is robust bibliometric evidence advocating for the reconceptualisation of psychological well-being as an essential strategic capability that develops health workforce sustainability, enhances organisational resilience, and promotes the sustainability of health systems.

Figure 5. Annual Publication Trends on Psychological Well-being Research, 2020–2025
Source: Scopus database, Elsevier (2026)

4.3. Most Productive Authors on Psychological Well-being Research

The ten most productive authors on the research of psychological well-being from 2020 to 2025 are shown in Figure 6. The publication data reveal positive findings for the research community, showing that there are multiple authors who are leading this research topic. There is no evidence for research publication monopolies. The research is multi-disciplinary and collaborative in nature. Thus, the research pulls from multiple areas such as psychology, medicine, public health, organizational behavior, occupational health, and health care management. A similar conclusion has been reached in some early bibliometric studies on the topic of the psychological well-being that is rapidly diversifying and growing.

From the data, the most prolific author is Kubzansky, L. D. with 13 publications and Urzúa, A. with 9. Boehm, J. K., Derakhshan, A., Krok, D., and Zarzycka, B. published 8 papers each and Amonoo, H. L., Chen, W., and Volkova, E. N. published 7 papers. Castelnuovo, G. rounded up the top 10 with 6 publications. These research publications show that there are many authors leading on the topic globally, and that there are many authors continually participating in this research.

Top scholars explore many topics and areas, such as positive psychology, mental and emotional well-being, and resilience. They also explore chronic illness and the management thereof, quality of life, occupational health, and health workforce well-being. Psychological well-being research demonstrates that the field has advanced beyond traditional clinical and psychological theories to include mental health and well-being, the capability of an organization, and the sustainability and resilience of a workforce and health systems. This research has intellectual pluralism, which aids in the development of multidisciplinary health care research and its application to developing workforce strategies and health systems that are resilient and sustainable.

The productivity pattern in Figure 6 shows that psychological well-being has become a well-known research area globally and that its research community is active. This research area is characterized by widespread intellectual leadership, as opposed to a single research community, and is pluralist and collaborative. This research community is a fundamental starting point for the further evolution of theory on psychological well-being as a strategic organizational capability that addresses health workforce development, resilience of organizations, and health systems that are sustainable.

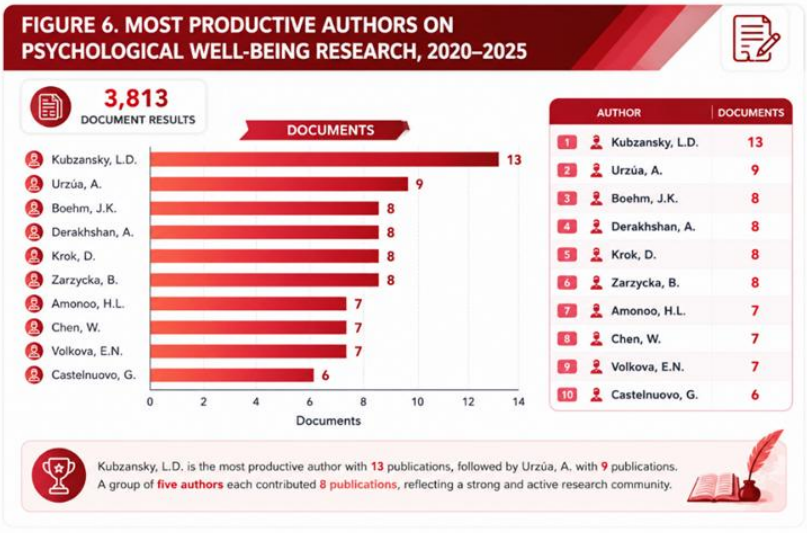

Figure 6. Most Productive Authors on Psychological Well-being Research, 2020–2025
Source: Scopus database, Elsevier (2026)

4.4. Productive Institutions and Global Scientific Output on Psychological Well-being Research (2020–2025)

Figures 7 and 8 show the distribution of psychological well-being research published between 2020 and 2025, both institutionally and geographically. Combined, they show the research capability and institutional leadership that help understand psychological well-being. The analysis shows that research on psychological well-being is supported by many internationally recognized universities and extensive cross-national research, demonstrating its significance as an interdisciplinary area of research.

According to Figure 7, the Chinese University of Hong Kong is the leading institution with 40 publications, followed by The Hong Kong Polytechnic University (32), Harvard Medical School (28), and the National University of Singapore (28). Other top institutions include Università Cattolica del Sacro Cuore (24), The University of Hong Kong (23), University College London (23), Universiti Malaya (23), Universiti Sains Malaysia (22), and the University of Michigan, Ann Arbor (22). Asia, Europe, and North America are well represented, which indicates that research on psychological well-being is globally recognized as an emerging priority and is supported by research and health care infrastructures.

The global nature of the field is shown even more in Figure 8. In total, the US has the highest number of publications, constituting 663 total US publications, and is followed by China (393), India (244), the United Kingdom (241), Turkey (234), Italy (221), Spain (217), Iran (186), Australia (156), and Canada (154). The distribution data shows that the research of psychological well-being is no longer concentrated in a small number of Western countries, but has expanded significantly to include research from Asia, Europe, the Middle East, and Oceania, and most importantly reflects the growing global consideration and awareness of mental health and well-being of workforces, and the sustainability of mental health services and care.

Figures 7 and 8 taken together illustrate the extensive globalisation of research on psychological well-being. Given the concentration of institutional productivity and the broad geographic distribution of research, the field of research on psychological well-being has been characterised by a high level of global collaboration that exceeds research boundaries and national boundaries. Given the concentration of top-ranked institutions and the diversity of countries, research on psychological well-being has been recognised more and more as a critical capability of an organisation that focuses on the development of a health workforce and resilience, and the sustainability of health systems.

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Figure 7. Most Productive Institutions on Psychological Well-being Research, 2020–2025
Source: Scopus database, Elsevier (2026)

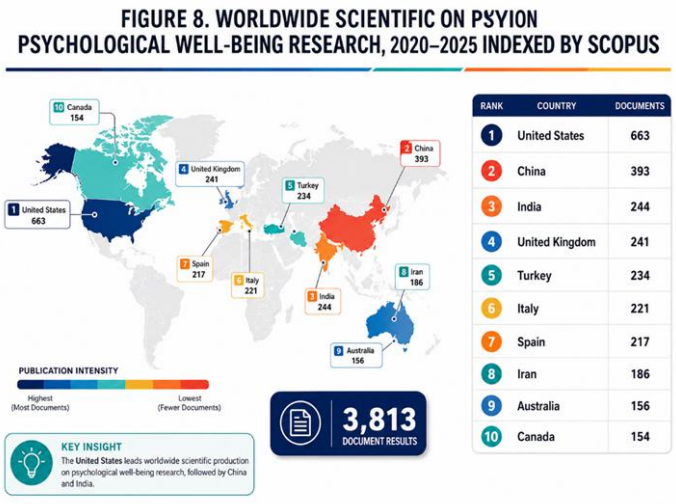

Figure 8. Worldwide Scientific Production on Psychological Well-being Research, 2020–2025 Indexed by Scopus

4.5. Research Support and Influential Publications

Research Support is shown in Figure 9 and presented in Figure 10. Between 2020 and 2025, how well psychological well-being conceptualizations interlinked internationally is captured through the well-cited, influential publications. Funding and influential research are powerful indicators showing the priority status of psychological well-being research worldwide and its impact on global health and social care policies.

In Figure 9, the National Institutes of Health is the top funding agency with 60 funded publications, followed by the National Natural Science Foundation of China (52), the National Institute on Aging (41), the European Commission (29), and the Social Sciences and Humanities Research Council of Canada (23). Also listed are the National Office for Philosophy and Social Sciences (22), the National Research Foundation of Korea (22), the Japan Society for the Promotion of Science (21), the Fundamental Research Funds for the Central Universities (20), and the Eunice Kennedy Shriver National Institute of Child Health and Human Development (19). The funding distribution across North America, Europe, and Asia indicates a high level of international interest in psychological well-being research and its strategic importance in relation to population health and the health and social care workforce's sustainability.

In Figure 10, the intellectual legacy of the field is reflected in the highly cited works. Citations for the article *The Global State of Mental Health in the Year of COVID-19*, which is published in JAMA, amount to 892, making it the leading work. The citations of the other studies in the list of the most highly cited works focused on the relation of physical activity and mental health, the relation of loneliness and mental health during COVID-19, the global picture of depression and anxiety, mental health of health care personnel, and the impact of the pandemic on psychology. Most of the works listed were published in 2020. This is a reflection of the intense and rapid research that was conducted around the world about the COVID-19 pandemic and its impact on mental health.

Figures 9 and 10 combined show that there has been a lot of international investment in research on psychological well-being and that this research has been complemented by significant scientific contributions and published in the premier medical and public health journals. The combination of solid investments and significant research shows that psychological well-being is no longer a conventional mental health issue, but a strategic area of inquiry addressing healthcare policy, human resource planning, and the design of health systems and structures. This further supports the idea that psychological well-being is the foundational element of resilient healthcare systems and health systems that sustain ongoing services.

Figure 9. Most Active Funding Sponsors on Psychological Well-being Research, 2020–2025
Source: Scopus database, Elsevier (2026)

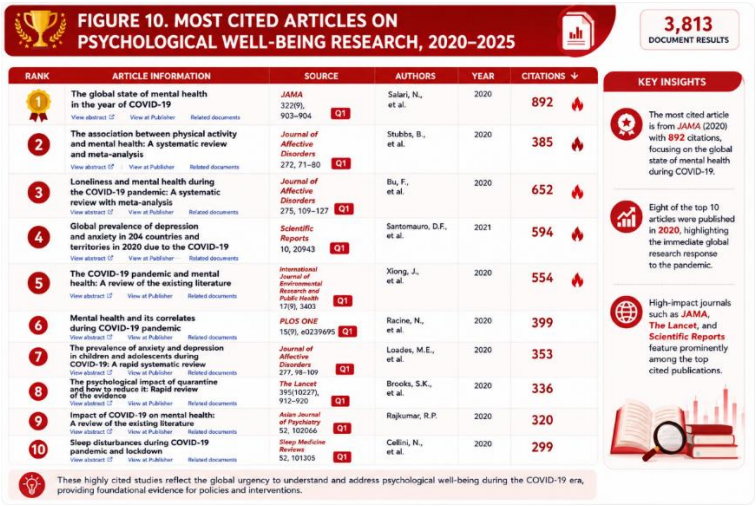

Figure 10: Most Cited Articles on Psychological Well-being Research, 2020–2025
Source: Scopus database, Elsevier (2026)

4.6. Country Co-authorship Analysis

Figure 11 shows the country co-authorship network for psychological well-being from 2020 to 2025. The visualization shows country collaboration networks. The size of nodes is representation of total publications. Edges are representation of collaboration. Groups of color are clusters for country research collaboration. This network shows the psychological well-being research network is collaboration intensive and is globally significant to research in the various disciplines of healthcare, psychology, and public and organizational research.

In the collaboration network, the node for the United States has the highest degree of centrality, meaning in this network the United States collaborated with the most countries and functioned as the most important research node. The network shows that the United States collaborated with most of the countries in North America, Europe, Asia, and the Middle East, and Latin America. The research collaboration network also shows the United States collaborated the most with the United Kingdom, China, India, Australia, Spain, Iran, and Canada. Other collaboration centers in this network were the United Kingdom, China, Spain, Italy, Iran, and India and they connected neighboring countries.

The network shows many collaboration clusters. Within these are research communities that are linked both geographically and academically. Within Europe, strong collaborative partnerships center on the UK, Italy, and Spain. In Asia, collaboration is centered on China, India, and Malaysia, as well as other neighboring countries. In the Middle East, clusters are driven by Saudi Arabia and Iran. Latin America has an interconnected cluster that includes Brazil, Chile, Peru, Colombia, Mexico, and Argentina. South Africa, Nigeria, and Egypt, as well as several emerging research contributors from Africa, also help to diversify the research. This emphasizes the global nature of the research in the psychological well-being field.

The country co-authorship network shows that collaborative research in psychological well-being is now an advanced and international field. Isolated, national research is not the dominant focus of research in this area. It is collaborative, cross-border research that focuses on the extent to which cross-country research provides and develops innovative methodologies for different research areas. The international collaboration that has grown in this area is indicative of the shared, international concerns that relate to mental health, the well-being of the health-care workforce, organizational resilience, and sustainable health systems. The co-authorship network is compelling evidence of the area of research in psychological well-being. It is an area of research that has the potential to support sustainable health-care systems and determine organizational capability in different health care domains.

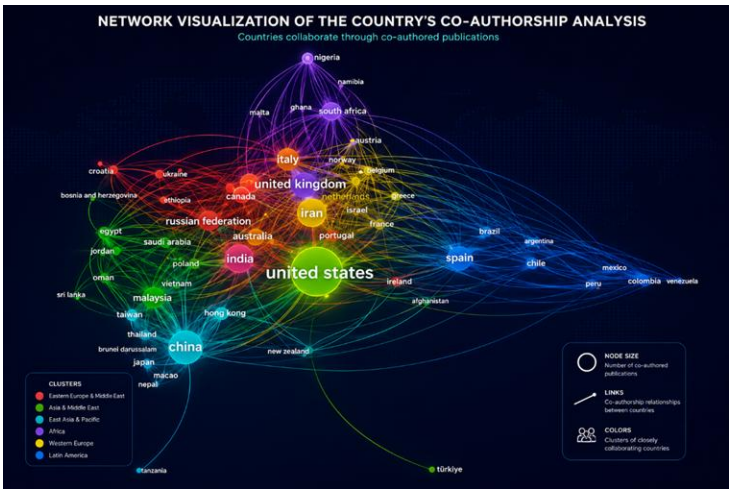

Figure 11. Network Visualization of the Country's Co-authorship Analysis
Source: Generated by the author(s) using VOSviewer (van Eck & Waltman, 2014)

4.7. Keyword Co-occurrence Analysis

Between 2020-2025, the research conducted on psychological well-being has resulted in the creation of a keyword co-occurrence network which can be seen in Figure 12. This network is designed to identify the relationships of commonly used author keywords to show the arrangement of this specific field of study. In the network, size of a node indicates the used frequency, the strength and thickness of a link indicates the level of keyword co-occurrence, while colors identify conceptual clusters or

groups of research themes. The network is divided into six thematic clusters, showcasing the diverse and fast growing field of psychological well-being study.

The co-occurrence network includes keywords that represent a wide range of research topics. The keyword "psychological well-being" is the largest keyword and is located in the central position of the co-occurrence network. Hence, it appears to be the most important and overarching keyword. Other associated keywords that appear directly related or connected to psychological well-being are well-being, depression, anxiety, stress, quality of life, mental health, resilience, self-efficacy, and mindfulness. The relationships of psychological well-being and the above mentioned keywords seem to indicate significant interrelationships of concepts of psychological well-being and the fields of healthcare, behavioral sciences, public health, organizational research and health promotion.

From the network, six themes become apparent. One of those is mental health and psychological outcomes. This includes depression, anxiety, quality of life, and cognitive constructs, as well as clinical practice and patient-centred care. The second of those themes is positive psychology and positive psychological resources. This includes well-being, resilience, and the management of stress and coping, as well as self-efficacy, mindfulness, and spirituality, as well as job satisfaction and emotional well-being. The thematic cluster with children, adolescents, and social development and family constructs, shows the emerging focus on psychological well-being throughout the life course. The next theme is clinical and medical constructs, this includes physical activity, chronic illness, and aging, as well as COVID-19 and global health. The fifth theme includes lifestyle and behavioral risk determinants, as well as obesity, sleep, and metabolic health. The last cluster includes the evolution of methods, including longitudinal and cross-sectional studies, systematic reviews, and improved methods of analysis.

These clusters reinforce that the concept of psychological well-being has become integrative. It includes personal health, the provision of health care, the well-being of the workforce, and behavioral and public health. Recent studies primarily focus on psychological well-being and resilience, as well as the capability of an organization, preventive health care, and the development of a sustainable health system. The focus on resilience, as well as the management of stress and coping, self-efficacy, and well-being in the workplace, reflects that there is a significant shift in the understanding of psychological well-being as an organizational resource.

Overall, the keyword co-occurrence network depicts the progressive intellectual development of psychological well-being research. This development shifts the predominant perspective from clinical and psychological to multidisciplinary strategic capability. The integration of mental health, workforce well-being and resilience, relational healthcare, and organisational themes provides a solid foundation of Integrated Psychological Well-being Strategic Capability Framework. This framework portrays psychological well-being as the primary organisational capability that strengthens the development of health workforces, improves organisational resilience, and constitutes sustainable health systems.

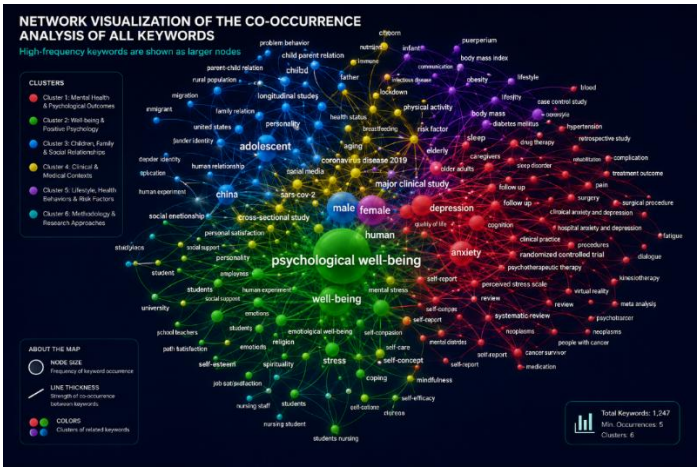

Figure 12. Network Visualization of the Co-occurrence Analysis of the All Keywords
Source: Generated by the author(s) using VOSviewer (van Eck & Waltman, 2014)

4.8. Bibliographic Coupling Analysis of the Sources

Figure 13 shows the bibliographic coupling network of publication sources for psychological well-being research from 2020–2025. Bibliographic coupling determines the conceptual similarity of journals by considering cited references. In the network, sources that cite the same references will be closer together. The analysis shows six journal clusters that are interconnected, highlighting the integrated and multidisciplinary nature of psychological well-being research.

Centrally located in the network are the International Journal of Environmental Research and Public Health, Frontiers in Psychology, and PLOS ONE. These journals are located in prominent positions in the network due to their strong linking bibliographics and extensive linking bibliographics to other journals. These journals are knowledge hubs that connect psychology, public health, medicine, and various health sciences and research disciplines. Their placement in the network illustrates their significance to the advancement of research in psychological well-being from various disciplines.

Within the network, six journal clusters are evident. One of these clusters is dedicated to public, mental, and psychological health research, while another is dedicated to psychology, behavioral research, and applied psychology. Other clusters are dedicated to research on health and science related to community and family, environmental and occupational health, nursing, medicine, education, and the interdisciplinary social sciences. While clusters are dedicated to a specific research area, the high degree of interconnection shows that research on psychological well-being is integrated across sciences and is not limited to specific disciplines.

The close bibliographic ties among prior studies show that research on psychological well-being is increasingly published based on the same research foundations and priorities. The integration of psychology with medicine and other branches of health research and studies of well-being and resilience in the workplace, and in the sustainable development environment, reflect a shift in the understanding of psychological well-being from an individual mental health outcome to a systems perspective of health care, workforce, and organizational sustainability and resilience.

The bibliographic coupling analysis indicates that the primary publication sources exhibit high levels of convergence in research. The network of journals shows that psychological well-being is increasingly connected with other un-integrated research disciplines, such as health care, management, organizational performance, public health, and sustainability. This integration of multiple disciplines provides additional theoretical evidence to support the redefinition of psychological well-being as the primary strategic capability for sustaining operational health workforces and resilient health systems.

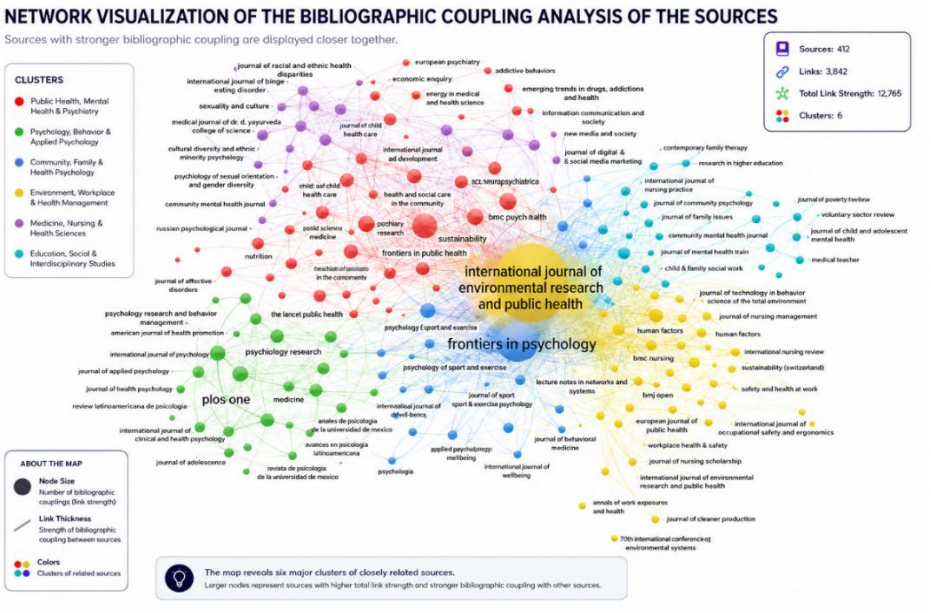

Figure 13. Network Visualization of the Bibliographic Coupling Analysis of the Sources
Source: Generated by the author(s) using VOSviewer (van Eck & Waltman, 2014)

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4.9. Co-citation Analysis of the Cited References and Authors

Figures 14 and 15 show the co-citation networks for referenced citations and author citations for psychological research in the area of well-being for the years 2020 to 2025. Co-citation is a technique for analyzing the co-occurrence of referenced names and cited authors. It is useful to determine the co-citation patterns and conceptual cores of a research domain. The co-citation patterns of cited references and authors reveal the major components of research theories, while the co-citation clusters represent the major research paradigms and philosophies relating to contemporary psychological well-being research.

Co-citation for referenced citations in Figure 14 reveals six related intellectual clusters. There is a clear focus on a number of foundational theories in publications pertaining to the empirical and theoretical study of psychological well-being. These core cited publications cover topics in psychological well-being, life satisfaction and happiness; stress, coping, resilience, and positive psychology; self-determination and self-efficacy; behavioral health and psychological measurement, among others. The current clusters reveal that contemporary psychological well-being research is integrative and draws from many theoretical and conceptual frameworks, and not a single or dominant framework. In recent years, the focus on resilience, emotional regulation and positive functioning within a broader mental health system has informed the evolving practice and research in well-being.

Figure 15 sheds light on the authors that established the basis for the research in psychological well-being. It looks at the network and identifies Deci, E.L., Ryan, R.M., Lyubomirsky, S., Fredrickson, B.L., Hayes, A.F., Cohen, S., Kubzansky, L.D., and other global researchers. The clusters represent different psychological domains. The networks demonstrate integration in the various levels of research.

Figures 14 and 15 collectively state the research in psychological well-being has a broad base and advanced intellectually. The co-citation networks begin with the classical psychological theories but have expanded to [illegible] in organizational resilience, workforce development, health promotion, and sustainable health care. Mindsets in these frameworks allow for the definition of psychological well-being as the organizational capability of well-being that stimulates health workforce development and organizational resilience within health systems.

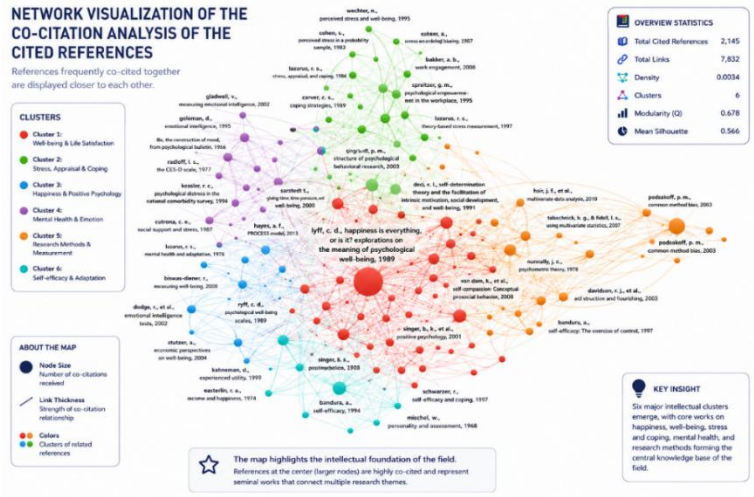

Figure 14. Network Visualization of the Co-citation Analysis of the Cited References
Source: Generated by the author(s) using VOSviewer (van Eck & Waltman, 2014)

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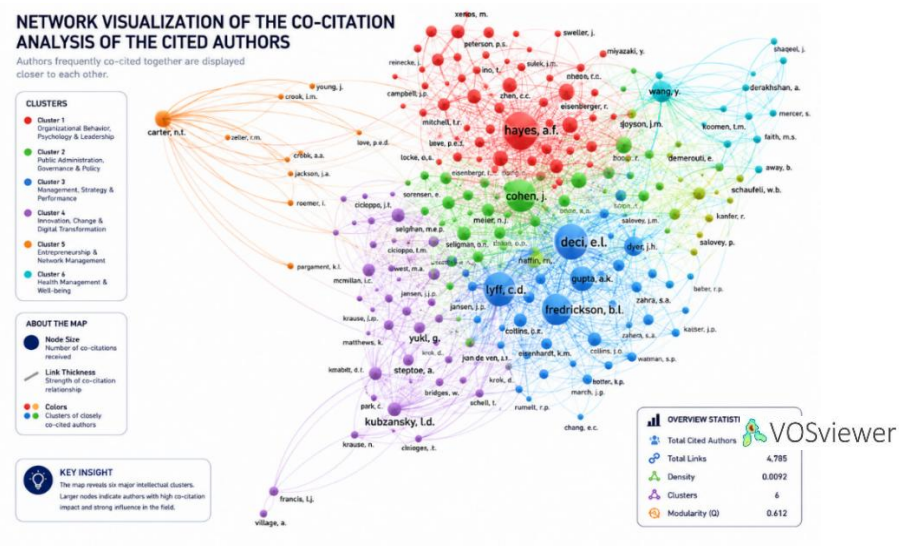

Figure 15. Network Visualization of the Co-citation Analysis of the Cited Authors

5. DISCUSSION

5.1. The Evolution of Psychological Well-being as a Strategic Capability

From the bibliometric findings, it can be inferred that between the years 2020-2025, the field of research on psychological well-being has experienced significant growth in terms of scholarly activity. Earlier studies were more likely to depict psychological well-being as an individual psychological outcome that encompassed happiness, life satisfaction, emotional functioning, and mental health. However, the research outputs, multidisciplinary research fields, developments in keyword co-occurrence networks and bibliographic coupling analyses suggest that the domain gradually has expanded to transgress most of its conventional boundaries. Contemporary research on psychological well-being is no longer confined to clinical psychology. Rather, it has begun to intersect with areas such as medicine, public health, health care management, organizational behavior, occupational health, and even sustainability. This evolution represents an important theoretical development where psychological well-being is no longer conceptualized as an individual psychological state but is viewed as an organizational capability to enhance the performance of the healthcare system and sustain its equilibrium in the

The period of research studied shows an important trend of an increasing focus on mental health across healthcare systems. Research efforts in this regard were largely absent until the COVID-19 pandemic. Now, there is a push to understand mental health, including research on the mental health of workers, burnout, the flexibility of organizations, and the resilience of healthcare systems. Compared to the past, research on mental health did not include organizational issues. This is an emerging trend in research. The mental health of workers is now being linked to the health of organizations, the health of systems (including services), the retention of employees, and the quality of services (Aknin et al., 2022, Prilleltensky et al., 2023; WHO, 2022; Greenberg et al., 2020).

Keyword co-occurrence captures this change in thinking. Concepts like resilience, coping, self-efficacy, and mindfulness all cluster around psychological well-being and create thematic linkages. Rather than existing in isolation, psychological well-being is linked to coping, stress management, and quality of life, as well as the functioning of organizations and the system of healthcare and sustainable development. This shows that psychological well-being is integrated into organizational and healthcare system research, and represents a strategic perspective of the psychological systems of organizations that incorporates employee well-being and the sustainability of a workforce (Luthans et al., 2021; Donaldson et al., 2022; Prilleltensky et al., 2023).

Co-citation analyses show the foundations of psychological well-being have become more multidisciplinary. Positive psychological well-being theories have a foundation based on psychological well-being theories, positive psychology, self-determination theory, stress and coping theory, and resilience. These theories are supplemented by more recent theories based on organizational resilience, workforce capability, and leadership. Psychological well-being has reached a new integrated level of theory. This level incorporates organizational and societal theories. Contemporary psychological well-being theories have

integrated how positive psychological resources contribute to the development of organizational capabilities and promote workforce and healthcare systems improvements (Deci & Ryan, 2008; Fredrickson, 2001; Ryff, 2014; Seligman, 2018).

The combined bibliometric data indicates psychological well-being can be viewed as a strategic organizational capability. Traditionally, psychological well-being was viewed as a positive employee outcome. This study argues psychological well-being is an organizational resource which can promote capability within all healthcare organizations. A greater understanding of this theory suggests that psychologically healthy employees promote organizational adaptive learning, innovation, and the delivery of resilient healthcare. Therefore, psychological well-being should be viewed as an enabler of the capability of the health workforce, alongside organizational resilience and health system sustainability. This study makes a significant contribution to psychological research by extending the current thinking regarding psychological well-being.

5.2. Psychological Well-Being and Health Workforce Development

The bibliometric analysis indicates that psychological well-being is quickly becoming recognized as an important element of health workforce development. The keyword co-occurrence analysis reveals strong conceptual links of psychological well-being, workplace resilience, coping, self-efficacy, job satisfaction, emotional well-being, stress management, and workplace learning. This combination suggests that the current analysis understands workforce capability to be dependent on the psychological state of health professionals. The interdisciplinary distribution of the publications in medicine, psychology, nursing, health professions, business, and social sciences indicates that workforce development is understood beyond the mastery of technical skills to include psychological readiness, self-directed learning, and flexibility. The research indicates that psychologically fit health professionals are ready and capable of acquiring new skills and knowledge, and are prepared to engage in lifelong learning and to adapt to changes in the health care system (Noe, Clarke, & Klein, 2014; Salas et al., 2023; World Health Organization, 2022).

The literature related to the well-being of the healthcare workforce is rapidly growing and highlights shifts taken on a global scale in healthcare systems. Professionals in healthcare are now working in environments characterized by shortages, expanding service demands, disruptions in technology, changes in demographics, and increasingly frequent public health crises. Given these conditions, the traditional healthcare system techniques that focus on the development of professional skills and the training of technicians are now inadequate. As a result, the well-being of healthcare employees has become an immensely important organizational resource that helps sustain healthcare workers' adaptive motivational flexibility and engagement and emotional strength during organizational changes and the sustained disruptive environment of the healthcare system. Thus current data indicate that to maintain a sustainable workforce, the development of the workforce within healthcare organizations should also strengthen the psychological infrastructure of the employees.

The state of the publications shows that the research of psychological wellbeing has moved beyond clinical mental health and embraces the development of capability in an organization. The results of bibliographic coupling and co-citation analysis show a growing connection between positive psychology, organizational behavior, leadership, occupational health, and healthcare management. This shows that psychological wellbeing is more often seen as a precursor to the capability of the workforce, as opposed to an outcome of positive working conditions. Employees with high psychological well-being have a stronger learning orientation and a greater propensity to be creative, better decision makers, more committed to the organization, and more willing to solve problems collaboratively. All of these traits together enhance the capability of the workforce and allow healthcare organizations to meet new and growing challenges while preserving the quality and safety of the services and patients (Seligman, 2018; Donaldson et al., 2022; Luthans et al., 2021).

Psychological well-being is the base of workforce development from a strategic capability perspective. It is a mistake to consider employee well-being a stand-alone human resources initiative. The current results highlight the necessity to incorporate employee well-being into the organization capability development. Health care organizations that give priority to the psychological well-being of employees create an environment that fosters continuous learning, sharing of ideas, innovations and leadership, as well as adjustable performance. Such processes enhance the competences and preparedness of employees. Hence, the professional development of health care employees is more than just the development of technical and clinical skills. It should be viewed as the result of psychologically healthy and resilient employees who have a positive disposition and are in a constructive work environment (Garavan et al., 2020; McLean & Jiantreerangkoo, 2020; Callahan et al., 2021).

The research builds on current theories of workforce development, placing psychological well-being as the main driver of workforce capability development in all healthcare organizations. Most models of workforce development define it in terms of education, competency, and training. Our model suggests that psychological well-being among healthcare employees must be at a high level in order for the training and education initiatives to have a lasting impact on the organization. Employees in that state of well-being are more inclined and better prepared to learn, flexible to change, cooperative, and innovative. This transforms workforce development efforts from a series of training initiatives to a continuously evolving capability of the organization. This is the early phase of the proposed Psychological Well-Being Integrated Strategic Framework Model, where psychological well-being is the initial capability of the healthcare workforce.

5.3. Psychological Well-being and Organisational Resilience

In the analysis of published studies, indicators of psychological well-being show that resilience is one of the most important research themes for studying psychological well-being. Specifically, in the keyword co-occurrence approach, psychological well-being was strongly connected to resilience, stress management, coping, self-efficacy, emotional regulation, and adaptation. These studies reflect the view that psychological well-being is an important resource a healthcare organization has to address the challenges of the unknown and the disruptions in the healthcare field. This is a positive change in thinking, because now we understand that resilient healthcare systems do not depend only on the physical and financial resources or the technologies available to them, but on the psychological resources of the healthcare professionals in the system. These professionals need to be able to manage their performance, recovery from disruptions or stress, and the ability to adapt to the ever-evolving circumstances (Lengnick-Hall et al., 2011; Duchek, 2020; Barasa et al., 2018).

Since the COVID-19 pandemic there has been an unparalleled explosion of research and publications in this field. The experiences of healthcare systems during the COVID-19 pandemic illuminates the operational disruptions many healthcare systems experienced due to staff shortages, burnout, high patient demand on depleting resources, and an ever-evolving, changing environment. This situation demonstrated that the resilience of the healthcare system is wholly dependent on the psychological well-being of its healthcare professionals, particularly those who are the sustainers of healthcare during prolonged uncertain periods. Consequently, the current focus of research and publications is on psychological well-being as a strategic organizational asset and resource that improves the adaptive capacity of the unit, facilitates effective decision-making, improves the collaboration and cohesion of the team, and promotes continuity of the unit during disruptions (World Health Organization, 2022; Greenberg et al., 2020; Shanafelt et al., 2020).

The co-citation analysis indicates that the integration of resilience research and positive psychology, self-determination theory, stress and coping theory, and organizational behavior, is much stronger. Rather than treating resilience as a separate organizational attribute, recent research has the understanding that organizations are resilient if and only if their workforce is comprised of psychologically healthy employees who are confident, optimistic, emotionally stable, resilient, and possess coping skills. Thus, psychological well-being plays the role of a driving factor for healthcare employees to remain motivated, cooperate, manage emotions, and provide high-quality healthcare services even when faced with challenges in the healthcare systems. These psychological attributes of employees cumulatively enhance organizational resilience in terms of learning, adaptability, innovation, and organizational preparedness (Fredrickson, 2001; Deci & Ryan, 2008; Luthans et al., 2021).

Patterns of global collaboration evidenced in the country co-authorship network shed additional light on this phenomenon. The high degree of collaboration that the United States, China, the United Kingdom, India, Australia, and several European and Asian countries have, indicates that the topic of organizational resilience is of global concern and is not a context-related problem. It is known that the different countries have very different healthcare systems. However, the high level of collaboration in research pertaining to psychological well-being, indicates a growing agreement based on research that the healthcare systems of resilient nations are required to invest in the psychological well being of their workforces. Evidence based research, innovative practices, and policy frameworks have created an integrated model that links psychological well-being to organizational resilience and healthcare sustainability (Donthu et al., 2021; Lim et al., 2022).

Strategically, results indicate that organizational resilience captures the dynamic capability generated through continued psychological investment within the work personnel. Healthcare organizations that foster a psychologically safe employment base positively influence adaptive capacity, learning, innovation, responsiveness to leadership, and preparedness for multiple types of crises. Collectively these capabilities position the organization to foresee potential disruptive challenges, respond to

and recover from negative events, and improve the quality of services offered within the healthcare system. Therefore, in this context, organizational resilience is the cumulative capability of the organization, and emerges when psychological well-being is invested and enhanced through the development of the workforce, which creates a resilient workforce that is able to sustain the healthcare system within a challenging and uncertain environment (Teece, 2018; Duchek, 2020; Barasa et al., 2018).

The current study further develops the resilience literature in healthcare systems by arguing that psychological well-being is the most critical precursor of organizational resilience in this context. While previous studies have portrayed resilience as an outcome of organizational capabilities associated with leadership, governance, infrastructure, and management of crises, from a bibliometric perspective these capabilities are end products of the psychological capital of the healthcare workforce. Employees who maintain psychological well-being are equipped to adapt, collaborate, innovate, solve complex issues with ease, and sustain service delivery, which shifts resilience from a reactive capability in times of crisis to a proactive capability that is strategic in nature. In the proposed Integrated Psychological Well-being Strategic Capability Framework, organizational resilience is the second strategic capability, in the interaction of psychological well-being and health workforce development, that allows the advancement of sustainable health systems.

5.4. Towards Sustainable Health Systems: An Integrated Strategic Capability Perspective

Psychological well-being studies have moved on from focusing on mental health and workforce outcomes primarily. They now include elements related to sustainable health systems. The analyses used (e.g. trends, keywords, bibliographic coupling, etc.) show an increase in the research regarding sustainability, retention, and resilience of the workforce, health care quality, and long-term health care systems. The emerging themes pertain to the adaptive capacity of health care professionals and their psychological resources, rather than the financial, technological, or structural resources available to health care systems. There has been a shift in thinking in the direction that healthy systems of sustained health care rely on psychologically healthy workforces and structurally healthy organizations (World Health Organization, 2022; Frenk et al., 2022; Nundy et al., 2022).

Integrating psychological well-being and workforce development and organisational resilience reveals new ways to build sustainable health systems. Psychological well-being enhances workforce capability through motivation and engagement. A capable workforce promotes organisational resilience by improving flexibility and learning. Healthcare systems are able to sustain the quality of services and adapt to changing population health needs. This shows that the inter-related capabilities of workforce development, resilience, and sustainability, derive from the long-term commitment to improving psychological well-being.

The capability perspective is further supported by the co-citation analysis. There is a greater incorporation of psychological well-being, positive psychology, resilience, and organisational learning in healthcare management. This constitutes a more extensive theoretical structure for sustainable healthcare organisations. There is a trend to move away from isolating the study of employee well-being, organisational resilience or healthcare performance. There is a greater focus on the interconnected capabilities of an organisation and on the effectiveness of healthcare systems. This shows that the advancement of the study of psychological well-being has moved from the individual to the interconnected capabilities of organisations.

The extensive international cooperation seen in the country co-authorship network further illustrates the global importance of this capability pathway. Research institutions in North America, Europe, Asia, Oceania, the Middle East, and Latin America all illustrate the widespread understanding that healthcare systems face common challenges. These challenges include workforce shortages, changing demographics, increasing demand for healthcare, technology challenges and disruptions, and future public health emergencies. While there are many differences in healthcare systems around the world, the bibliometric evidence suggests that there is a growing international understanding that the provision of sustainable healthcare is not possible without maintaining and enhancing the psychological well-being of healthcare workers. Consequently, psychological well-being is recognized as a global, rather than a context-specific, healthcare capability (WHO, 2022; OECD, 2023).

Based on these conclusions, an integrated strategic capability framework is proposed where psychological well-being is the foremost organizational capability and initiates the sequential development of organizational capabilities. Within this framework, psychological well-being provides the psychological resources for the developed Health Workforce Capability that fosters a culture of lifelong learning, and the enhancement of workforce capability strengthens organizational resilience. This allows for collaboration and innovation within an organization, and the development of adaptive capacity and readiness to face a crisis. These capabilities together create Sustainable Health Systems.

This integrated capability pathway is the principal theoretical innovation of this study. Existing literature on psychological well-being, workforce development, organisational resilience, and sustainable health systems tends to consider these concepts in isolation, or as loosely related research areas. In contrast, the bibliometric evidence presented here finds that these concepts are increasingly related in research and that they represent the progressive stages of organisational capability development. Psychological well-being is therefore reconceptualised in this study as the first tier of strategic capability and, when coupled with health workforce capability and organisational resilience, provides the necessary organisational environment to establish sustainable health systems. From this capability focus, psychological well-being research is advanced from a predominately descriptive view of mental health to a unified theoretical framework that supports the long-term sustainability of health care systems in complex and unpredictable environments.

5.5. Proposed Integrated Psychological Well-being Strategic Capability Framework

This study, based on the cited bibliometric evidence, presents the Integrated Psychological Well-being Strategic Capability Framework, an exposition of the progress of psychological well-being research, and its value in relation to strategic placement in the healthcare context. Unlike standard bibliometric studies, which typically conclude with an account of research themes, publication trends, and leading authors, this study integrates bibliometric analysis and the outcome of science mapping, in the form of an integrated capability model for organizations. The model depicts psychological well-being as the primary strategic capability that supports and catalyzes the continuous advancement of organizational capabilities to construct health systems that are sustainable. Thus, this model contributes to current research by advancing a theoretical construct of the transition of psychological well-being from an individual psychological construct to a psychological resource of an organization with a strategic focus.

The model also names Psychological Well-being as the primary organizational capability. This is a consequence of its value as the psychological base from which all healthcare professionals develop the capacity to learn, to sustain motivation, to control emotions, and to make successful adaptations to the diverse challenges of the healthcare system. The bibliometric results consistently show that psychological well-being is linked to resilience, self-efficacy, coping and stress management, organizational learning, and workforce sustainability. These relationships mean that psychologically healthy professionals in healthcare are more likely to possess the qualities required for continuous learning, collaboration, innovation, and optimal performance. Thus, psychological well-being should be considered the primary driver of capability development in healthcare organizations, rather than an outcome of positive workplace conditions.

Health Workforce Development is the second component of the framework. It indicates the capacity of health care organisations to develop the skills, capabilities, and flexibility of their employees. The keyword co-occurrence and co-citation analyses show that psychological and other resources are now integral to workforce development alongside technical and clinical skills. This suggests that workforce development is a broader process that requires sustained investment in the psychological well-being of employees. Psychologically well employees are more engaged in active learning, more committed, and more flexible. Consequently, health care organisations are better able to develop a competent and flexible workforce.

Adding to workforce capability, Organisational Resilience is the third strategic capability in the framework. Resilience of the organisation is a function of the capability of psychologically well and highly competent health care professionals to foresee and embrace change, deal with different levels of disruption while sustaining operational normalcy, and rapidly return to the pre-disruption state. The bibliometric analyses depict the strengthening interconnectedness of resilience, organisational learning, leadership, psychological well-being, and adaptive capability. It illustrates that resilient health care organisations fundamentally rely on the psychological and professional capability of their personnel. Thus, the intersection of psychological well-being and workforce development creates the organisational resilience as a higher order capability.

The Sustainable Health Systems Framework approach conceptualises sustainability in healthcare systems in the following way. The ability of healthcare systems to adapt to ever-changing environments while maintaining a capable workforce, quality services, patient-centered care and system effectiveness is referred to as long-term sustainability. Health Systems Sustainability is the layered result of developing the capabilities of an organization. Increasing the psychological well-being and capability of a workforce, increases the resilience of the organization. The resilience of an organization makes the sustainability of healthcare systems a reality.

The Integrated Psychological Well-Being Strategic Capability Framework provides several new concepts. First, the Framework places psychological well-being within the context of an organization as a capability rather than as an individual psychological outcome. Second, the Framework adds a strategic pathway to integrate research on psychological well-being and the development of health systems and organizational resilience. Third, the Framework shows an example of using bibliometric science as a mapping tool to go beyond simply describing the intellectual structures, but rather to create an organizational theory based on empirical evidence. The Framework also has practical applicability in providing the basis to study and understand the relationships of psychological well-being, workforce capability and organizational resilience in the context of sustainable health systems.

6. CONCLUSION

Using a theory-building bibliometric approach, this study analyzed the progression of psychological well-being research from 2020 to 2025 and attempted to build a bibliometric evidence-based integrated organizational capability framework. Findings indicate that psychological well-being is an emerging multidisciplinary and international collaborative field that continues to flourish, bringing advancements in research all over the world. It also indicates that theories are becoming more integrated. Additionally, analyses of the mapping of sciences show that the contemporary psychological well-being research goes beyond the boundaries of traditional mental health and clinical psychology to incorporate the development of the workforce, organizational resilience, and the research of management in healthcare, leadership, public health, and sustainable health systems.

Also importantly, this study pushes the current literature by introducing the Integrated Psychological Well-being Strategic Capability Framework. This framework places psychological well-being as the foundational capability of the organization that activates Health Workforce Development, strengthens Organizational Resilience, and aids in building Sustainable Health Systems. Rather than viewing psychological well-being as an individual result, the framework illustrates how positive psychological resources can be seen as organizational capability that allows the healthcare organization to create adaptive workforces, maintain organizational performance, and strategically respond to the complex issues that healthcare continuously creates. Using bibliometric performance with science mapping, this study illustrates that bibliometric research is not limited to show the intellectual border of a field, but also aids in structuring new organizational theories. Thus, the framework innovates strong basis for future research, and gives healthcare system leaders and decision makers the tools to improve the system.

Generic Ai Declaration

Everyone listed as a report author has used Generative AI in the following ways.

Generative AI helped the authors in the bibliometric drafting stage of the report as it allows users to write, rephrase, and curate more refined drafts of the results conclusively. The authors wish to clarify in this report that all responses given by ChatGPT were evaluated and revised by each contributor. The authors take full responsibility and accountability for the original and accurate content in the report.

Conflict of Interest Declaration

All authors of this report have stated that there are no conflicts of interests.

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Ethical Approval

Not applicable

Consent to Participate

Not applicable

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Competing Interests

No potential conflict of interest was reported by the authors.

REFERENCES

[1] Aiken, L. H., Sloane, D. M., Ball, J., Bruyneel, L., Rafferty, A. M., & Griffiths, P. (2021). Patient satisfaction with hospital care and nurses in England: An observational study. *BMJ Open, 8*(1), e019189.

[2] Aknin, L. B., De Neve, J.-E., Dunn, E. W., Fancourt, D., Goldberg, E., Helliwell, J. F., Jones, S. P., Karam, E., Layard, R., Lyubomirsky, S., Rzepa, A., Saxena, S., Thornton, E. M., VanderWeele, T. J., Whillans, A. V., Zaki, J., Karadag, O., & Ben Amor, Y. (2022). Mental health during the first year of the COVID-19 pandemic: A review and recommendations for moving forward. *Perspectives on Psychological Science, 17*(4), 915–936.

[3] Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics, 11*(4), 959–975.

[4] Aria, M., Cuccurullo, C., & D'Aniello, L. (2022). A bibliometric analysis of the literature on Industry 4.0. *Scientometrics, 127*(4), 1715–1750.

[5] Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric database for academic research in quantitative science studies. *Quantitative Science Studies, 1*(1), 377–386.

[6] Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285.

[7] Barasa, E., Mbau, R., & Gilson, L. (2018). What is resilience and how can it be nurtured? A systematic review of empirical literature on organisational resilience. *International Journal of Health Policy and Management, 7*(6), 491–503.

[8] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120.

[9] Callahan, J. L., Gambrell, J., & Jones, J. (2021). Advancing human resource development scholarship: Current trends and future directions. *Human Resource Development Review, 20*(2), 135–152.

[10] Cameron, K. S. (2013). *Practicing positive leadership: Tools and techniques that create extraordinary results*. Berrett-Koehler Publishers.

[11] Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology, 62*(7), 1382–1402.

[12] Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology, 49*(3), 182–185.

[13] Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology, 86*(3), 499–512.

[14] Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*(3), 542–575.

[15] Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour, 2*(4), 253–260.

[16] Donaldson, S. I., van Zyl, L. E., & Donaldson, S. I. (2022). The future of positive psychology: New directions in theory and practice. *The Journal of Positive Psychology, 17*(6), 789–803.

[17] Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*, 285–296.

[18] Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing, 2*(3), 222–235.

[19] Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research, 13*(1), 215–246.

[20] Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226.

[21] Frenk, J., Moon, S., & Jamison, D. T. (2022). Strengthening health systems after COVID-19: Lessons for sustainable healthcare. *The Lancet, 399*(10330), 1225–1227.

[22] Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World Psychiatry, 14*(2), 231–233.

[23] Garavan, T. N., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M., & Carbery, R. (2020). Human resource development: Theory and practice for sustainable organisations. *European Journal of Training and Development, 44*(2/3), 119–138.

[24] Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during the COVID-19 pandemic. *BMJ, 368*, m1211.

[25] Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524.

[26] Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 103–128.

[27] Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-Being, 1*(2), 137–164.

[28] Kalshoven, K., Den Hartog, D. N., & De Hoogh, A. H. B. (2011). Ethical leadership at work questionnaire (ELW): Development and validation of a multidimensional measure. *The Leadership Quarterly, 22*(1), 51–69.

[29] Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*(2), 207–222.

[30] Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*(3), 539–548.

[31] Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*(2), 95–108.

[32] Keyes, C. L. M. (2014). Mental health as a complete state: How the salutogenic perspective completes the picture. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health: A transdisciplinary approach* (pp. 179–192). Springer.

[33] Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review, 21*(3), 243–255.

[34] Lim, W. M., Kumar, S., Pandey, N., & Donthu, N. (2022). Bibliometric analysis: The state-of-the-art methodology and future research agenda. *Journal of Business Research, 142*, 285–292.

[35] Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior, 23*(6), 695–706.

[36] Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior, 27*(3), 387–393.

[37] Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.

[38] Luthans, F., Youssef-Morgan, C. M., & Avolio, B. J. (2021). *Psychological capital: Developing the human competitive edge* (2nd ed.). Oxford University Press.

[39] Lyubomirsky, S. (2008). *The how of happiness: A scientific approach to getting the life you want*. Penguin Press.

[40] Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*(6), 803–855.

[41] Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370–396.

[42] McLean, G. N., & Jiantreerangkoo, R. (2020). Human resource development in the twenty-first century. *Human Resource Development International, 23*(5), 457–470.

[43] Noe, R. A., Clarke, A. D. M., & Klein, H. J. (2014). Learning in the twenty-first-century workplace. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 245–275.

[44] Nundy, S., Cooper, L. A., & Mate, K. S. (2022). The quintuple aim for health care improvement: A new imperative to advance health equity. *JAMA, 327*(6), 521–522.

[45] Organisation for Economic Co-operation and Development. (2023). *Health at a glance 2023: OECD indicators*. OECD Publishing.

[46] Prilleltensky, I. (2020). Mattering at the intersection of psychology, philosophy, and politics. *American Journal of Community Psychology, 65*(1–2), 16–34.

[47] Prilleltensky, I., Dietz, S., Prilleltensky, O., Myers, N. D., Rubenstein, C. L., Jin, Y., & McMahon, A. (2023). Assessing multidimensional well-being: Development and validation of a comprehensive well-being measure. *The Journal of Positive Psychology, 18*(2), 217–233.

[48] Prilleltensky, I., & Prilleltensky, O. (2021). *How people matter: Why it affects health, happiness, love, work, and society*. Cambridge University Press.

[49] 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), 1069–1081.

[50] Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83*(1), 10–28.

[51] Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719–727.

[52] Salanova, M., Llorens, S., & Martínez, I. M. (2019). Contributions from positive organizational psychology to developing healthy and resilient organizations. *Papeles del Psicólogo, 40*(3), 177–184.

[53] Salanova, M., Llorens, S., & Martínez, I. M. (2021). Healthy and resilient organizations: A review and future research agenda. *International Journal of Environmental Research and Public Health, 18*(15), 7859.

[54] Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2023). The science of training and development in organizations: What matters in practice. *Annual Review of Organizational Psychology and Organizational Behavior, 10*, 109–136.

[55] Schaufeli, W. B. (2017). Applying the job demands–resources model: A 'how to' guide to measuring and tackling work engagement and burnout. *Organizational Dynamics, 46*(2), 120–132.

[56] Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Free Press.

[57] Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Free Press.

[58] Seligman, M. E. P. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology, 13*(4), 333–335.

[59] Shanafelt, T. D., Ripp, J., & Trockel, M. (2020). Understanding and addressing sources of anxiety among healthcare professionals during the COVID-19 pandemic. *JAMA, 323*(21), 2133–2134.

[60] Snyder, C. R., & Lopez, S. J. (Eds.). (2002). *Handbook of positive psychology*. Oxford University Press.

[61] Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the mental health and well-being of healthcare workers: An urgent global public health priority. *Frontiers in Public Health, 9*, 679397.

[62] Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442–1465.

[63] Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*(2), 240–261.

[64] Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350.

[65] Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning, 51*(1), 40–49.

[66] United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations.

[67] Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics, 84*(2), 523–538.

[68] VanderWeele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences of the United States of America, 114*(31), 8148–8156.

[69] West, C. P., Dyrbye, L. N., Sinsky, C., Trockel, M., Tutty, M., Nedelec, L., Carlasare, L. E., & Shanafelt, T. D. (2020). Resilience and burnout among physicians and the general US working population. *JAMA Network Open, 3*(7), e209385.

[70] World Health Organization. (2022). *Global health and care worker compact*. World Health Organization.

[71] World Health Organization. (2023). *Health workforce support and safeguards list 2023*. World Health Organization.

[72] Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods, 18*(3), 429–472.