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PSYCHOLOGICAL SELF-CARE

*A compendium of multimethod studies of
self-care and psychological well-being*



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April, 2024



**Programa de doctorado en Diseño, Gestión y Evaluación de
Políticas Públicas de Bienestar Social
Escuela de Doctorado de la Universitat Jaume I**

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Psychological Selfcare

A compendium of multimethod studies of self-care and psychological well-being

Autocuidado Psicológico

Un compendio de estudios multimétodo sobre autocuidado y bienestar psicológico

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*Que tus manos siempre estén ocupadas, que tus pies siempre sean veloces y que
tengas una fuerte base para cuando el viento cambie de golpe.*

Bob Dylan

PRÓLOGO (Foreword)

It was really hot, over 40° C, I was 17 years old (2000) and I was on an NGO mission in the Brazilian Amazon, when I realized that I wanted to work in a field related to people and alleviate the suffering of others in some way or another. My equation was very simple, helping others made me happy and if I could make a living from it, then perfect. Little did I know that almost 24 years later I would be savoring a feeling of insight and happiness when writing these lines and mentally and emotionally reviewing the path I had traveled. Little did I know (x2) that I would study psychology, that I would dedicate myself to promoting well-being within the work environment, much less that I would focus on researching psychological self-care and its effects on well-being.

The day was cold, it was a rainy afternoon, a typical gray, humid and windy afternoon of a Montevideo August. I was 26 years old, working as a psychologist in a human resources consultancy and participating in two selection processes at the same time. One was for a position at the international consulting firm Manpower, the other was to work as a psychologist in the Human Development area of the Catholic University of Uruguay. I advance in both processes and reach the final interview in both organizations. I perform very well, and eagerly await the final decision to see if I have been selected or not. In my head, the first one to call me would win, but in my heart, I wanted the Catholic University of Uruguay to call me, since the position in the educational field felt much more comfortable and consistent with my values. I had a goal: to continue studying, not just stop with my degree in psychology. Education was a bridge that would allow me to grow personally, professionally, and economically. A stroke of fate made them both call me on the same day to inform me that I had been selected. The university offered me a significantly lower salary compared to Manpower, but working at the university provided opportunities for me to pursue postgraduate and master's degrees. I didn't hesitate. I went to university. Little did I know (x3) that this decision would have such a significant impact on the path that has taken me to this point. Little did I know (x4) that two years later I would be in a master's class with Dr. Marisa Salanova, at the same university, and would learn about this new trend in psychology known as positive psychology. From there on, everything happened very quickly, I knew and was excited about the idea of taking the master's degree in Applied Positive Psychology and the master's degree in Psychology of Organizations, Work and

Human Resources, the latter enabling me to complete this doctorate and be part of the WANT Research TEAM.

As you will see, this path has been long, many times filled with doubts, fears, and great obstacles. I faced each stage of my life with courage (one of my main strengths from the VIA Character Strengths Test) and both achievements and failures helped me strengthen my self-efficacy, my feeling that although the challenge, such as completing a doctorate in this case, seems unattainable, it is possible with realistic optimism. This sense of self-efficacy also guided my decision to explore the significance of psychological self-care; in other words, what I could do to maintain my well-being and build the strength to achieve my goals. The aim of this thesis is to provide knowledge on the impact of self-care activities on our personal and social resources, ultimately leading to stress reduction and improved well-being. I was encouraged to go a little further and conduct positive psychological interventions to promote self-care and measure their results. Little did I know (x5) that this path would be so interesting, and I would feel so comfortable working as a psychologist, on another continent. That I'd be happy providing positive tools to people's lives and contributing knowledge to the academic world through the research proposed in this compendium of articles.

Finally, that formula of happiness “helping others = makes me happy” is still valid in my life and every time I feel lost, I return to it.

CHAPTER 1

GENERAL INTRODUCTION

At the beginning of this doctoral journey, when I chose self-care as a research topic, I had no idea it would become so important from March 2020. Since then, this thesis and its theme acquired even more importance given the recent COVID-19 pandemic. The extended period of confinement and subsequent restrictions have significantly influenced people's behaviors. This has led to discontinuation of positive habits such as healthy eating, sports, and social activities, as well as an increase in sedentary behaviors and negative habits, sleep difficulties, and changes in family dynamics (Bonati et al., 2022; Jongsik Yu et al., 2021; Pradhan et al., 2023; Xiang et al., 2020). The social, economic, physical, psychological, and emotional consequences generated by the pandemic have highlighted the importance of investigating and promoting a culture of self-care, not only at a physical level but also psychologically and emotionally (Heitzman, 2020; Hussain et al., 2020).

The current context, marked by the global pandemic crisis, accentuates the relevance of the topic addressed in this thesis. It brings to light the importance of mental health in a society during its process of economic, social, emotional, and psychological recovery. In line with this approach, the research conducted in this thesis work is significantly intertwined with the principles and guidelines set by the World Health Organization (WHO) and the 2030 Agenda. This work is closely aligned with the health and well-being strategy proposed by the WHO included in its recent report of recommendations for the promotion and importance of self-care in the general population (WHO, 2022). The WHO provides critical guidelines regarding the implementation and impact of self-care on society. According to this report, self-care actions have a direct effect on reducing health disparities and promoting greater equity, in addition to improving outcomes related to health and human and social rights and reducing the costs and use of health services and resources.

The WHO emphasizes three key dimensions of self-care intervention: the medication self-management dimension, the medical test administration dimension, and, especially relevant to the focus of this thesis, the self-knowledge dimension. This last dimension encompasses concepts such as self-regulation, self-efficacy and self-determination, aspects that this thesis explores in detail and that prove to be crucial in promoting psychological self-care.

In the current context, the central role of academic institutions, such as universities, in achieving the 17 Sustainable Development Goals (SDGs) has been highlighted within the framework of the Action Plan of the 2030 Agenda for Spain (2018). In addition, the Conference of Rectors of Spanish Universities (CRUE) has expressed its commitment to contributing to the achievement of the SDGs in Spain. This thesis contributes directly, through its research on psychological self-care, to the achievement of three particular goals: Goal 3 (Health and Well-being), Goal 4 (Quality Education) and Goal 8 (Decent Work and Economic Growth).

Based on a thorough review of literature on self-care, there is no consensus on the definition, types, and impact of self-care on psychological well-being (El Osta et al., 2019). This is the reason because it is important to conduct a historical synthesis of the concept and its different areas of conceptual development and clarification.

The birth and subsequent development of the concept of self-care is associated with the field of health and disease prevention. In fact, this practice became relevant in a historical context where access to medical care and the necessary medications was a privilege of the wealthy social classes (Martínez et al., 2021). So, in some way, the practice took on a certain role in helping individuals improve their physical health and thus mitigate the need to be treated by a health professional. This set of practices and activities aimed at ourselves and maintaining our health began to be called self-care. Since the mid-20th century, the concept and practice of self-care has risen a fundamental step. This comes from greater knowledge of the treatments for diseases such as diabetes or blood pressure imbalances in which the autonomy and active role of the patient in their care and treatment take on greater prominence. In the scientific world, names like Dorothea Orem (1971) or Ed Levin et al. (1979) are considered pioneers in the research on self-care, especially in the fields of health sciences, particularly nursing and medicine.

To define the concept of self-care, reference will be made to the most used definitions in the bibliography consulted. Dorothea Orem (1971) refers to self-care as the activities that people perform for their own benefit to maintain their health and well-being. Ed Levin et al. (1979) follow the same line as Orem, defining self-care as the process and activities that individuals carry out to care for their health. They go one step further in their definition and add a disease preventive aspect and not just reactive.

The WHO describes self-care as all individual efforts directed towards preserving their own health, aimed at enhancing human life and well-being, as a

significant portion of this duty lies with each person and their way of life. In other words, self-care is the functional ability to care for oneself and develop within the family and society (WHO, 1982). Following WHO, which understands health as a state of physical, mental, and social well-being, it is important to focus on self-care as a fundamental process in human development, where the individuals play a central role in achieving self-satisfaction and balance in their psychological, physical, and social well-being.

Later, Myres and colleagues (2012) expand the concept even further and take into account not only the ability to take care of us against diseases, which refers to physical and biological aspects, but also include psychological, emotional and social aspects. This means that the aim is not only to avoid disease, but also to promote well-being. They refer to self-care as the voluntary practice of activities that promote psychological, emotional, social, and physical well-being.

Self-care can be conceptualised as an imperative practice necessitating daily commitment towards achieving a harmonious and balanced development across various dimensions of one's being, encompassing emotional, physical, aesthetic, intellectual, and transcendent aspects. This entails nurturing and enhancing affective, cognitive, and social competencies, thereby fostering holistic and sustained growth in psychological well-being (Uribe, 2013).

On the other hand, Prado et al. (2014), inspired by Dorothea Orem's theory, define self-care as the practice of activities that a person initiates and carries out voluntarily to maintain their life, health, and well-being. They suggest that the self-care behaviour is learned and developed through a combination of social and cognitive experiences.

Self-care must be a internalized practice by the person, starting from the personal conviction of wanting to take care of oneself according to one's own needs. A gradual awareness-raising process is necessary, involving a self-assessment of our strengths, personal resources, shortcomings, vulnerabilities, and expectations, which will lead to the formulation of both individual and collective actions and strategies aimed at our own care.

Gomà-Rodríguez et al. (2018) explain that the implementation of a self-care plan entails numerous benefits for individuals, while promoting an equally positive multiplier effect. Those who follow a self-care plan experience improvement in their health and general well-being, strengthen their interpersonal relationships and find new

meaning in their work, which, in the case of volunteers, translates into improved quality of the service provided. Therefore, it is essential to promote healthy and resilient environments and allow organizations to offer spaces for their employees to design and follow self-care plans. The Institute for Health and Productivity (2018) highlights that workers' self-care practices contribute to greater productivity, excellence, and savings for organizations.

Furthermore, self-care is conceived as a social construct, which underlines the importance of the social and cultural context in promoting self-care behaviors. In other words, it is essential to teach how to design a self-care plan on an individualized basis instead of imposing a one-size-fits-all plan. A sustained effort must be made to change the social perception that people should only take care of themselves when they are sick, instead promoting practices that encourage the identification and automation of healthy behaviors that contribute to well-being.

Specifically, starting in the 21st century, the study and relevance of self-care expanded its studies to health professionals (Tomaschewski-Barlem et al., 2016; Holguín-Lezcano et al., 2020; Mills, 2021). Likewise, self-care activities began to gain notoriety in other contexts such as the work (Wise et al., 2012; Rupert & Dorociak, 2019; Gómez-Borges et al., 2022) and university environment, with self-care promotion programs for social and psychological professionals (Colman et al., 2016; Callan et al., 2020), as well as exploratory studies with university students in times of the COVID-19 pandemic (Gómez-Borges et al., 2023). Despite the growth of research in the field of self-care, there is still an important gap. There is still limited research on the self-care activities that have the greatest impact on people's well-being, not only in the health field but also in the general population, whether in the workplace and/or in the university environment.

In a meta-analysis carried out by Colman and collaborators (2016), a series of self-care promotion programs for the training of psychology professionals were reviewed. They found that the activities with the greatest impact on the well-being of the participants were the activities of meditation, physical exercises and seeking social support. People who went through this type of training program demonstrated higher life satisfaction scores, less stress, and greater self-compassion. Despite the insights gained, there persists a notable gap in research focusing on self-care within the realm of the workplace and organizational settings. This gap underscores the necessity for continued exploration and understanding of self-care practices in professional contexts,

particularly given their potential implications for employee well-being. Likewise, El-Osta and collaborators (2019) carried out a review of lay and academic literature specialized in self-care. Finally, they identified 32 theoretical models grouped into the following dimensions: activities, behaviors, context, and environment. The authors proposed an integrative model called the Self-Care Matrix in which they highlight the main self-care activities with the greatest impact on people's health: knowledge and health literacy; self-awareness; physical activity; healthy nutrition; risk avoidance; good hygiene; rational use of products and services.

In this context, it is important to establish the relationship between self-care and well-being and to address the question of why it is important to investigate the impact of self-care on well-being, as well as the novelty of this thesis in exploring this relationship within organizational contexts. As mentioned above, since the first references made by Orem (1971) and Levin et al. (1979), the aim of promoting self-care behaviors has to do with reducing and controlling the symptoms of diseases as well as health prevention. Currently, these objectives have been expanded and not only have to do with relieving symptoms of physical or biological diseases but also promoting people's psychosocial health, that is, their physical, psychological, and also social health. So far, another novelty of this study resides precisely in introducing a fresh perspective by embracing a salutogenic approach, focusing on the effects of self-care not only on distress but also on well-being indicators within organizational contexts. At this time, the study of the role and impact of self-care on well-being has increased, especially in a post-pandemic period where we were forced to step out of life's autopilot and confront reality with tools that were not always the most suitable to maintain mental, physical, and social balance. The reality experienced since March 2020 put society against the ropes and revealed the importance of self-care behaviors, both in a preventive way but also because of its important relationship with well-being. Colman et al. (2016) have already highlighted the positive impact of self-care programs in reducing stress and promoting health. In turn, Martinez et al. (2021) showed that self-care had an impact on patients' sense of well-being, satisfaction with life, and autonomy, all of these being higher compared to patients who did not have self-care habits. Matarese et al. (2018) observed that individuals who practice self-care experienced increased empowerment, self-esteem, reduced disease symptoms, and an improved social support network. Despite the increase in research on self-care, there is still an important gap in studies of self-care in the general population and not only in the field of health and social professionals.

Therefore, following this stream of research and giving the appropriate relevance to the topic, this thesis aims to continue providing scientific evidence in this area focusing not only in negative indicators of health (i.e., stress, negative emotions, loneliness) but also in health promotion and wellbeing indicators (i.e. psychological capital, academic engagement). Moreover, it aims to examine the importance of self-care in our daily lives, especially in areas where studies of this type are scarce, as is the case in the workplace and academic contexts.

Furthermore, the incorporation of DEI (Diversity, Equity, and Inclusion) approaches into the organizational fabric is increasingly relevant in today's context for fostering a workplace environment that promotes equity and diversity. This includes adapting positive psychological interventions to address the unique needs of individuals with intellectual disabilities, thereby facilitating their full participation and contribution in the workplace. It is intended to go a step further and investigate the impact of a self-care program in the work context, which goes beyond individual benefits and affects the organization and its results. Throughout this thesis, answers will be given to the questions that arose in this doctoral process and that were the guiding thread of this research. Below are the main research questions that guide this thesis and that will be answered in the following chapters:

- I. In the academic, pre-professional context: Do self-care behaviors contribute to academic engagement in university students?
- II. In work contexts: Are self-care behaviors associated with well-being at work?
- III. In contexts of functional diversity: What is the impact of a psychological self-care intervention adapted for the inclusion of people with intellectual disabilities in a group of workers, and how does this impact differ in comparison to workers without intellectual disabilities?

To answer these questions, three research studies were carried out with the objective of analysing the relationship of psychological self-care in well-being. The first study aimed to investigate the mediating role of psychological capital between self-care behaviors and academic engagement in university students during the COVID-19 pandemic and highlight the importance of promoting self-care promotion programs in the university environment. The second study aimed to investigate the role of self-care in psychological well-being in the workplace in different sectors: industrial,

commercial, educational and health care, as well as the impact of positive organisational practices in mindfulness and physical exercise based on self-care. Finally, the third study aimed, first, to adapt a positive psychological intervention (PPI) to a group of workers with functional diversity, that is, for the intervention program to have a positive impact on the entire sample. And second, to investigate the impact of the PPI on people with intellectual disabilities compared to those without intellectual disabilities.

The theoretical models used as the basis of the studies carried out and that support the relationship of self-care and both psychological well-being and stress reduction are the Job Demand Resources Model (JD-R) (Bakker and Demerouti, 2017; Bakker, Demerouti and Sanz-Vergel, 2023); Conservation of Resources (COR) (Hobfoll, 1989); HEalthy and Resilient Organizations (HERO) (Salanova et al., 2012). On the one hand, the JD-R model suggests worker well-being to be highly influenced by individual and organizational factors such as job demands and resources. The interaction of these two factors will have direct implications on the work performance, stress, and well-being of workers. COR theory proposes that people who obtain more resources will be able to better cope with diversities, as well as create a positive spiral of stress reduction and increased well-being. Finally, the HERO model (Salanova et al., 2012) emphasizes the significance of positive organizational practices and their influence on promoting job, social, and individual resources, as well as their impact on well-being, building on previous models. The development and promotion of self-care programs in the work environment will have a positive impact, both on work performance as well as in reducing stress and increasing well-being, strengthening the personal resources of its workers, facing the different demands of each organization with better balance.

Outline of this thesis:

The thesis aims to find scientific evidence that deepens and expands knowledge about the role and effects of self-care activities, as well as evaluate the effectiveness of intervention programs to promote self-care in the workplace. To this end, 3 empirical studies were designed and carried out constituting the 3 chapters of the thesis (see Table 1). The content of each chapter, its objectives and hypotheses are presented in the following paragraphs.

Table 1. Research questions addressed in the chapters of the thesis project

STUDY	AIM	CHAPTER		
		2	3	4
1	Do self-care behaviors promote academic engagement in university students?	X		
2	Are self-care behaviors related to well-being at work?		X	
3	What is the impact of a psychological self-care intervention adapted for the inclusion of people with intellectual disabilities in a group of workers, and how does this impact differ compared to workers without intellectual disabilities?			X

Chapter 2: *Academic engagement in university students. The mediating role of psychological capital as personal resources*

This chapter addresses the question of whether self-care behaviors favor academic engagement in university students during the COVID-19 pandemic period. In line with JD-R theory, we conceptualize and empirically examine two resources, self-care activities and Psychological Capital (PsyCap), as antecedents of academic engagement as a positive state of well-being or fulfilment. These personal resources, self-care and PsyCap, can play an important role in coping with demanding situations such as those faced by university students in their studies, which can contribute to their well-being. Based on this, the purpose of this study was to analyze the mediating role of PsyCap in the relationship between self-care and academic engagement. The participants were 397 university students from two Spanish universities (77.8% women; average age 26.08 years). Using structural equation models (SEM), the results revealed positive relationships between self-care and academic engagement, on the one hand, and between PsyCap and academic engagement on the other. The total mediation model obtained better fit and results, highlighting the mediating role of PsyCap. Based on the

results, the importance of self-care activities in university students and, above all, the implementation of programs to develop personal resources such as PsyCap that enhance its effect on academic engagement is discussed.

This chapter was published in the Journal Education XX1 (JCR (2023) = 3.067; 85/270. Education & Educational Research Q2) (Gómez-Borges et al., 2023)

Chapter 3: *Self-care at work matters: How job and personal resources mediate between self-care and psychological well-being.*

This chapter addresses the question of whether self-care behaviors are related to well-being within the workplace. Once we discover the impact of self-care on personal resources (in the previous chapter represented by psychological capital) and on well-being (in the previous chapter represented by academic engagement) we proceed to investigate whether a similar mechanism also exists in the work environment.

The analysis of the relationship between self-care activities (in this case physical exercise and mindfulness) and the use of personal and job resources and their relationship with well-being was carried out. The sample was collected in 20 organizations in Spain from different socioeconomic sectors. The results show that mindfulness is positively related to well-being (i.e., engagement, collective self efficacy) through the mediating role of job (i.e., autonomy, coordination) and personal resources (i.e., mental and emotional competence). However, while the latter shows a full mediating role in the hypothesized model, the former does not show a significant relationship with mindfulness. Finally, the results present a positive and significant relationship between the mindfulness-physical exercise interaction and all the dependent variables (i.e., personal and job resources, well-being).

This chapter was published in the Journal of Work and Organizational Psychology (JCR (2022) = 3.100; 44/83. Psychology, Applied Q3) (Gómez-Borges et al., 2022)

Chapter 4: *Positive & Inclusive Psychological Intervention in Emotional Styles: Adaptation to Intellectual Disability Workers*

This chapter aims to analyze the effectiveness of an intervention program based on the promotion of self-care behaviors in relation to emotional styles. In addition, it seeks to analyze the different results for workers with intellectual disabilities and those who do not have this condition.

In Chapters 2 and 3, the impact of self-care on the well-being of university students and workers is investigated successively through cross-sectional studies. In Chapter 4, taking a further step forward and considering DEI (Diversity, Equity, and Inclusion), the study explores the effects of a positive psychological intervention on a group of workers with intellectual disabilities. A longitudinal study is conducted with three evaluation time points: pre-intervention, post-intervention, and follow-up. This study was conducted with a sample of 45 workers from an organization that has many people with intellectual disabilities (30,71%). In total, 26% of the individuals in the group had an intellectual disability, while the rest did not have this condition. The analysis of the results revealed positive and significant differences in time 1 (pre-intervention) compared to time 2 (post-intervention) and time 3 (follow up months after the intervention ended) on the variables Engagement, Relationship and Negative Emotions. The intervention was adapted to make it accessible to people with intellectual disabilities. Once the implementation of the IPP was completed, analyses of its effectiveness were carried out in the group with intellectual disabilities and without disabilities. Significant differences were observed in the results of different variables depending on the group factor. Positive and significant differences were found in the variables of Engagement, Relationships, and Negative Emotions depending on the evaluation times (pre, post, and follow-up). Additionally, variables such as Resilience and Outlook showed a significant decrease six months after the intervention ended.

This paper is currently in progress of journal selection for submission.

Chapter 5: *General conclusions*

The objective of this chapter is to integrate and discuss the main findings of this thesis, as well as to summarize its main theoretical and practical contributions. Likewise, the main limitations of the studies are listed along with future research directions on psychological self-care.

CHAPTER 2

Academic engagement in university students. The mediator role of Psychological Capital as a personal resource ¹

Abstract

The COVID-19 pandemic has led to a deterioration in the quality of life and, particularly, the mental health of university students. This situation highlights the need to offer coping programmes and preventive mental health measures. The effectiveness of self-care programmes designed to increase well-being in students has hardly been studied, although promising effects have been found in some studies in the work context (Gómez-Borges et al., 2022). In line with JD-R theory, we conceptualize and empirically examine two resources, self-care activities and Psychological Capital (PsyCap), as antecedents of academic engagement as a positive state of well-being or fulfilment. These personal resources, self-care and PsyCap, can play an important role in meeting demanding situations such as those encountered by students and, thus, contribute to their well-being. Therefore, the purpose of this study was to analyse the mediating role of PsyCap in the relationship between self-care and academic engagement. The participants were 397 university students from two Spanish universities (77.8 women; mean age 26.08 years). The data collection was carried out during the COVID-19 pandemic. We used structural equation modelling (SEM), and the results showed positive relationships between academic engagement and self-care, on the one hand, and PsyCap, on the other. However, the total mediation model obtained better fit and results, highlighting the mediating role of PsyCap. Based on the results, we discuss the importance of self-care activities for university students and, above all, programmes to develop personal resources such as PsyCap, in order to enhance their effect on academic engagement.

Keywords: University students, self-care, Psychological Capital, academic engagement

¹ Chapter 2 has been published as: Gómez-Borges, A., Peñalver, J., Martínez, I.M., & Salanova, M. (2023). Academic engagement in university students. The mediator role of psychological capital as a personal resource. *Educación XX1*, 26(2), 51-70. <https://doi.org/10.5944/educxx1.35847>

Introduction

In March 2020, a global alert was declared following the spread of Severe Acute Respiratory Syndrome (SARS-CoV-2), referred to as COVID-19. COVID-19 is a highly contagious and infectious respiratory disease that has become a pandemic and a public health problem with tragic consequences around the world.

The impact of the pandemic has not only had consequences for physical health, but it has also had a very negative effect on mental and emotional health (Heitzman, 2020; Hussain et al., 2020). Studies prior to the COVID-19 pandemic revealed that the context of university education has been affected by high levels of stress in its students, as well as the self-perception that they do not have sufficient tools to face the demands of academic and personal life. Nunes et al. (2014) reports a growing concern in university services about satisfying the great demands for mental health support from university students. In addition, Winerman (2019) reports that 45% of university students seeking psychological help experience high levels of stress, which is even more worrisome because the level of suicide among university students has tripled since the 1950s, making it the second most common cause of death in university students (Rosiek et al., 2016).

The post-pandemic deterioration in mental health has intensified the need to create more effective psychological health programmes to deal with this reality in university contexts. One possible strategy could be the implementation of psychological self-care promotion programmes.

The effectiveness of programmes based on self-care to increase well-being in students has hardly been studied, although promising effects have been found in several studies in the work context. These studies show the positive relationship between self-care activities and well-being (Fiodorova & Farb, 2021; Gomez- Borges et al., 2022). Well-being can be analysed from different approaches, including engagement. Different authors view engagement as a positive state of well-being or fulfilment (Schaufely et al., 2002a, Salanova et al., 2011). Moreover, the academic engagement construct has been adapted to academic contexts (Martínez et al., 2019b; Salanova et al., 2010).

The purpose of the present study is to analyse the academic engagement of university students and its relationship with psychological self-care activities and Psychological Capital (PsyCap). In addition, this study refers to the specific period of the weeks of confinement due to COVID-19. In order to advance the relationship between

students' psychological states such as PsyCap and academic engagement, we draw on the Demands and Resources Model (JD-R) (Bakker & Demerouti, 2017). Engagement involves a balance between the demands of a particular situation and the available resources to meet these demands. Personal resources are defined as psychological characteristics related to resilience and the ability to control and positively impact one's environment, helping people to achieve their goals and encouraging personal and professional growth.

Academic Engagement

Engagement is a positive psychological state characterised by vigour, dedication, and absorption. Originally, engagement referred to people's work activities (Schaufeli et al., 2002a), but it has also been extended to the academic context (academic engagement) and conceptualized in relation to students' tasks (Schaufeli et al., 2002b). Engaged students feel energetic, identify strongly with their studies, and are deeply involved in their academic lives. With regard to the three components of engagement, first, vigour is represented by a high level of energy and mental agility, reflected in a willingness to strive and persist in the face of adversity. Second, dedication refers to having a high degree of involvement in the work and experiencing enthusiasm, inspiration, and pride. Finally, absorption refers to the ability to be immersed in and enjoy the task at hand, and it includes the feeling that time passes quickly (Schaufeli et al., 2002b).

Students with higher academic engagement are more motivated in their studies (Loscalzo & Giannini, 2018) and have better academic performance (Salanova et al., 2010) and more positive emotions (Carmona-Halty et al., 2019). The Job Demands and Resources Model (JD-R) (Bakker & Demerouti, 2017) shows empirical evidence that personal resources (Gomez-Borges et al., 2022; Xanthopoulou et al., 2007) and job resources (Schaufeli & Bakker, 2004) are the most important predictors of work engagement, due to their extrinsic and intrinsic motivational potential. High levels of resources lead employees to be engaged at work. In turn, engaged employees report higher levels of well-being and exhibit better performance.

Self-care

Self-care is defined as conscious and voluntary engagement in activities that promote psychological, physical, and emotional well-being (Myers et al. 2012). In other words, people must be aware that what they are doing is an intentional act of improvement.

Self-care is a multi- dimensional and multi-faceted process of voluntary engagement in advocacy strategies that support healthy functioning and promote well-being.

In the JD-R model, Bakker and Demerouti (2017) incorporate actions and activities of employees based on their job demands and resources (e.g., job crafting, self-undermining, self-care) as personal resources. Some studies have related self-care to well-being in work contexts (Gomez-Borges et al. 2022). Colman et al. (2016) conducted a meta-analysis of which main self-care activities positively impacted greater life satisfaction, decreased distress, and self-compassion. The most beneficial activities were mindfulness, seeking social support, and other mixed activities, such as physical exercise in addition to mindfulness. In addition, several studies have found positive results of structured mindfulness programmes, such as increased positive affect, cognition, and psychological well-being (Depner et al., 2020; Garland et al., 2017). Furthermore, physical exercise refers to a subset of planned, structured, and repetitive physical activities with the ultimate or intermediate goal of improving or maintaining an optimal physical condition.

Psychological Capital (PsyCap)

With the emergence of scientific studies within positive psychology, there has been an increase in programmes and research in the area of positive education. These advances have allowed recent positive psychology constructs to be incorporated as PsyCap, which is considered a personal resource. PsyCap is characterized by hope, self-efficacy, resilience, and optimism (Luthans et al., 2006). Although Luthans' team initially focused on the study of work-related PsyCap, a growing number of studies have been carried out in the educational area (e.g., Datu et al. 2016, Carmona et al. 2019, 2021; Siu et al. 2014). In this context, PsyCap is a characteristic of students who manage to persevere in the pursuit and fulfilment of their goals and are able to adapt their strategies to achieve their goals (hope). Students with high PsyCap are also confident about their resources and capacity for goal achievement (self-efficacy), they overcome obstacles and adverse situations in order to achieve their goals (resilience), and they are optimistic about what is to come (optimism).

Specifically, in relation to PsyCap in students, some studies have shown relationships between academic PsyCap and motivation, academic performance (Luthans et al. 2015; Vanno et al. 2014), academic engagement (Datu and Valdéz, 2016; Martínez et al. 2019a), academic competence (Liao & Liu, 2016), and academic satisfaction (Ortega-Maldonado et al., 2017). Although these studies demonstrate positive relationships between

PsyCap and many variables, there are no previous studies that analyse the relationship between self-care, as a personal resource, and PsyCap and academic engagement.

In line with JD-R theory, as mentioned above, it is plausible that PsyCap, as a personal resource, promotes engagement. PsyCap is one of the personal resources that research has found to be relevant in relation to engagement (Schaufeli & Bakker, 2004). In the work context, employees with high levels of PsyCap perceive fewer job demands and bring higher job resources (Xanthopoulou et al., 2007). Therefore, PsyCap can play an important role in meeting demanding situations such as those encountered by college students, which can contribute to their engagement. When high PsyCap students appraise challenges more favourably, they can perceive these situations as less demanding in relation to their personal resources. A perceived balance between demands and resources is vital for engagement. In contrast, low PsyCap students lack personal resources and are also likely to appraise their situations as less favourable and more demanding than their high PsyCap counterparts. Based on the above, we formulate the following hypotheses:

H1: There is a positive and significant relationship between Self-care activities and Psychological Capital

H2: There is a positive and significant relationship between Psychological Capital and Academic Engagement.

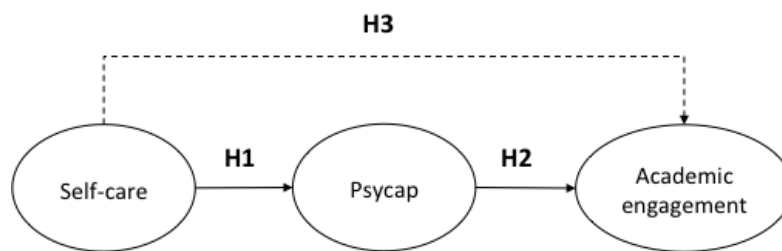
In this context, PsyCap would promote the use of other resources, such as self-care activities. High levels of PsyCap are associated with a balance between demands-resources and would enhance the effect of self-care activities on well-being.

So far, we have described the importance of self-care activities and their relationship with engagement. We have also presented the effects of PsyCap on engagement, due to its ability to enhance resources and meet demands. In addition, some research shows the importance of personal resources (self-efficacy, compassion, PsyCap) as mediators in the relationship between job resources and engagement (Carmona-Halty et al., 2021; San Román et al., 2022; Vink et al., 2011). Therefore, we propose that PsyCap has a mediating role in the relationship between self-care and engagement. In this way, high levels of PsyCap would enhance the effect of self-care activities on engagement, whereas low levels of capital would be associated with less use of resources such as self-care. Thus, the last hypothesis of this study would be the following.

H3: There is a positive and significant relationship between Self-care activities and Academic Engagement through the mediating role of Psychological Capital

As described above, a large number of studies refer to self-care and psychological capital as antecedents of well-being and engagement. However, we analyse these relationships in a specific context, during the weeks of confinement due to COVID-19, and in a special sample, university students. The model is displayed in Figure 1.

Figure 1. Proposed fully mediated model. Dotted lines show no significant paths



Methodology

Sample and procedure

The participants were university students from two Spanish universities. The sample consisted of 397 university students (77.8% women; mean age 26.08 years, SD = 9.6) and included undergraduate students (78 %), master's degree students (13%), and PhD students (1%).

The information contained in this study was collected between the 15th of October and the 15th of December 2020, using an online survey. The questionnaire was hosted on the university intranet, and access was voluntary. All the questionnaires received were considered valid, and their responses were analysed. The Ethics Committee of the University approved this study.

Measures

Self-care activities. They were measured through a questionnaire containing seven self-care activities: physical (e.g., diet, physical exercise), psychological (e.g., mindfulness), and social (e.g., affective relationships with friends) self-care activities. The students answered according to their satisfaction with the activities carried out during the

confinement period. The responses on these items ranged from 1 to 5 (1 = not at all satisfied; 5 = very satisfied).

Academic engagement. Academic engagement was measured with the short version of the Utrecht Work Academic Engagement Scale for students was measured with the short version of the Utrecht Work Engagement (UWES-S; Schaufeli et al., 2006; Schaufeli et al., 2002a). This version of the UWES-S contains nine items. The dimensions of engagement include feelings of vigour, dedication, and absorption. Students had to respond by indicating how often they experienced these feelings during the first COVID-19 quarantine (e.g., "When I'm doing my work as a student, I feel bursting with energy"). Responses were given on a seven-point Likert scale (1 = never, 7 = every day). The UWES-S has been used in previous studies and has shown acceptable psychometric properties. (e.g., Martínez et al., 2019b; Schaufeli et al., 2002a).

Psychological Capital. Psychological capital was measured using a translated and adapted version (Martínez et al. 2019a) of the 12-item Psychological Capital Questionnaire (PCQ-12) originally developed by Avey, Avolio, and Luthans (2011).

This scale includes four dimensions: self-efficacy (3 items, e.g. 'I feel confident in presenting my ideas about my studies'); hope (4 items, e.g. 'If I should find myself in a difficult situation related to my studies, I could think of many ways to get out of it'); resilience (3 items, e.g. 'I can get through difficult times academically because I've experienced difficulty with my studies before'); optimism (2 items, e.g. 'I'm optimistic about what will happen to me in the future in terms of my studies'). Participants were asked to indicate the extent to which they agreed with the twelve statements on a seven-point scale ranging from 0 (strongly disagree) to 6 (strongly agree).

Control variables. To avoid alternative interpretations, we measured some control variables such as gender (i.e., women, men) and degree (i.e., bachelor, master, doctorate).

Data analysis

First, preliminary analyses were computed such as missing data, sample size calculations, normal distribution, means, standard deviations, Cronbach's alpha and omega coefficients, and bivariate correlations for all the scales. Also, to examine common method variance, Harman's single factor test (Podsakoff, et al., 2003) was carried out using AMOS 21.0 (Arbuckle, 2010) for the variables assessed by the participants (i.e., self-care, PsyCap, academic engagement).

Second, we performed structural equation modelling (SEM), by means of AMOS 21.0, using the maximum likelihood estimation method. According to Finney and Distefano (2006), the maximum likelihood estimation method is a robust method when the data have at least 5 response options, have a distribution close to normal, and the sample size is adequate. In order to test the hypotheses, four models were compared: M1, the fully mediated model; M1r the fully mediated model with errors correlated; M2r, the partially mediated model with errors correlated; and M3r, the alternative model with errors correlated. To compare the models tested, seven goodness-of-fit indices were assessed: (1) the χ^2 goodness-of-fit statistic; (2) the root mean square error of approximation (RMSEA); (3) the Normed Fit Index (NFI); (4) the Tucker-Lewis Index (TLI); (5) the Incremental Fit Index (IFI); (6) the Comparative Fit Index (CFI); and (7) Akaike's Information Criterion (AIC). Values below 0.06 for RMSEA and $p > 0.05$ for χ^2 indicate a good fit. For the remaining indices, values greater than 0.90 indicate a good fit, whereas values greater than 0.95 indicate a superior fit (Hu & Bentler, 1999). Also, Kline (2011) suggested that, AIC can be used to compare competing non-nested models: the lower the AIC index, the better the fit.

Results

Preliminary analyses

First, listwise deletion of missing data was performed guaranteeing less than 5% data loss rate (Fichman and Cummings 2003). Based on the recommendations for sample size calculations in structural equation model (SEM; Soper, 2023), 119 was the minimum required sample size to test the exact model fit with 14 observed and 3 latent variables in the model, .3 anticipated effect size, the .05 probability and .8 power level. In this study, the sample is composed of 397 participants, thus it has been guaranteed the minimum sample required in SEM analysis. Also, normality analysis was performed, revealing that skewness and kurtosis do not deviate too far from a normal distribution. Since parametric tests (such as SEM analysis) have been shown to be sufficiently robust for use in case of violation of the normality assumption (Schmider et al., 2010), it was decided to use parametric tests instead of nonparametric tests.

Second, Table 1 presents means, standard deviations, internal consistencies (Cronbach's alpha and omega coefficients), and bivariate correlations for all the study variables. Self-care is positively related to the PsyCap dimensions (i.e., self-efficacy, hope, resilience, optimism) and academic engagement dimensions (i.e, vigor, dedication,

absorption). With regard to internal consistencies indexes, scales provide appropriate values for their use.

Finally, the results of Harman's test (Podsakoff et al., 2003) revealed that a one-factor model (self-care, PsyCap, academic engagement) showed a poor fit to the data: [χ^2 (77) = 983.393, $p = .000$, RMSEA = .17, CFI = .56, NFI = .54, TLI = .48, IFI = .56, AIC = 1067.393]. Results also showed that the three-factor model fit the data better than the one-factor model: [χ^2 (74) = 260.767, $p = .00$, RMSEA = .08, CFI = .91, NFI = .88, TLI = .89, IFI = .81, AIC = 350.767]. The difference between the two models was also significant, in favour of the model with three latent factors ($\Delta\chi^2$ (10) = 722.626, $p < 0.001$). Consequently, common method variance is not a serious problem in these data.

Hypothesis testing

In order to avoid effect of confounding variables, gender and degree (i.e., bachelor, master, doctorate) were included in the model as a control variable. Then, different models were calculated to verify the hypotheses using SEM analysis (see Table 2). We expected PsyCap to fully mediate between self-care and academic engagement (M1). Although the relationships between the variables were statistically significant, some goodness-of-fit indices revealed a poor fit. Based on results of the modification indices, we correlated two errors in self-care scale (friends-family; $r = .46$, $p < 0.001$), in order to improve the model, fit (M1r). The new model (M1r) showed a significant improvement in both the chi-squared value and goodness-of-fit indices ($\Delta\chi^2_{M1r-M1}=80.667$, $p < 0.001$).

Specifically, the path from self-care to PsyCap was positive and statistically significant ($\beta = .34$, $p < 0.001$), as was the path from PsyCap to academic engagement ($\beta = .59$, $p < 0.001$). This finding supported Hypotheses 1 and 2. To test the mediation hypothesis (Hypothesis 3), we used the product of coefficients method (MacKinnon et al., 2002). The mediated effect of Hypothesis 3 (self-care \rightarrow PsyCap \rightarrow academic engagement) was statistically significant ($P = Z\alpha \cdot Z\beta = 36.78$, $p < 0.05$). In addition, a partial mediation model was computed (M2r), but the direct effect between self-care and academic engagement was not statistically significant ($\beta = .09$, non-significant). Thus, these results suggested a full mediation effect.

Table 1.

Means, standard deviations, reliability, and correlations for the study variables

Variables	Mean	SD	alpha	omega	1	2	3	4	5	6	7	8
1. Self-care	3.12	.76	.76	.76	-	.247**	.250**	.242**	.222**	.233**	.194**	.270**
2. Self-efficacy	4.25	1.34	.88	.88		-	.649**	.499**	.448**	.296**	.415**	.323**
3. Hope	3.69	1.36	.87	.87			-	.692**	.665**	.514**	.453**	.436**
4. Resilience	3.72	1.34	.57**					-	.652**	.373**	.324**	.390**
5. Optimism	3.63	1.51	.83	.83					-	.475**	.444**	.427**
6. Vigor	3,65	1.36	.86	.86							.714**	.802**
7. Dedication	4.23	1.43	.91	.91								.747**
8. Absorption	3.89	1.42	.85	.85								

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

Note: Resilience is made up of 2 items, so the consistency index cannot be calculated, opting for a bivariate correlation

Finally, in order to increase the credibility of M1r, we tested an alternative model in which self-care worked as mediator variable (M3r; PsyCap → self-care → academic engagement). Based on the AIC index for competing non-nested models (Kline, 2011), M1r showed the lowest AIC value; therefore, M1r is better than M3r. It is interesting to note that in M1r, self-care explains 18.9% of the variance in PsyCap ($R^2 = 0.189$), which in turn explains 34% of the variance in academic engagement ($R^2 = 0.34$). The final model is illustrated in Figure 2.

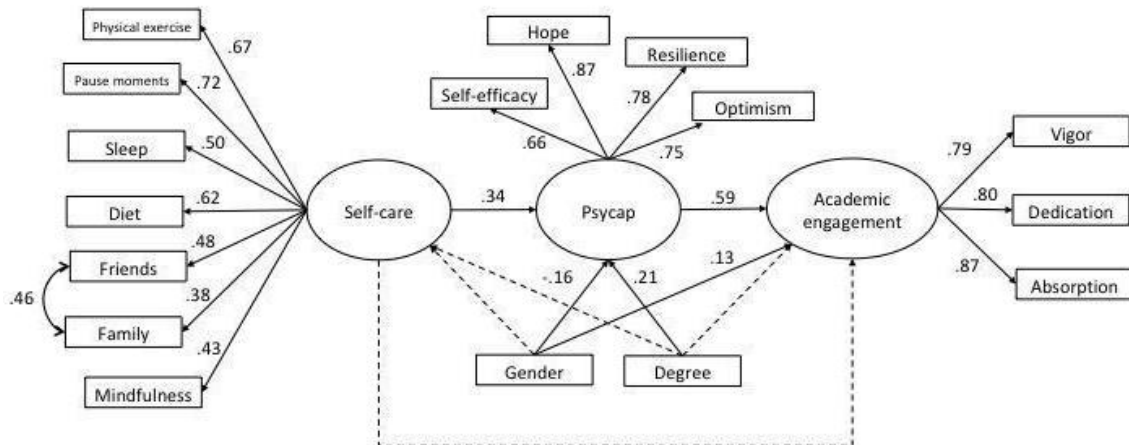
Table 2. Goodness-of-fit indices for the SEM models.

Model	χ^2	df	p	CFI	NFI	TLI	IFI	RMSEA	AIC
M1	295.160	97	.00	.90	.87	.87	.91	.07	405.160
M1r	214.493	96	.00	.94	.90	.94	.94	.06	326.493
M2r	212.340	95	.00	.94	.90	.93	.94	.06	326.340
M3r	295.960	96	.00	.904	.87	.88	.91	.07	407.960

Notes: M0= Harman’s single factor test; M1 = Full Mediation Model; M1b Full Mediation Model revised; M2r = Partial Mediation Model revised; M3r = Alternative Model revised; χ^2 = Chi-square; df = degrees of freedom; RMSEA = Root Mean Square Error of Approximation; NFI = Normed Fit Index; TLI = Tucker-Lewis Index; IFI = Incremental Fit Index; AIC = Akaike Information Criterion.

Figure 2.

The final model with standardized path coefficients. Dotted lines show no significant paths.



Discussion and conclusions

This study was carried out in the special social and health context of COVID-19 with a sample of university students. The data refer to experiences during the weeks of confinement, and they were collected retroactively six to seven months after this confinement.

So far, and based on the JD-R model (Bakker & Demerouti, 2017), the purpose of this study was to examine the mediating role of personal resources (PsyCap) in the relationship between self-care activities and academic engagement.

The results supported our hypotheses, indicating that Self-care activities were positively related to PsyCap, which confirms Hypothesis 1. With regard to Hypothesis 2 (which proposes that there is a positive and significant relationship between PsyCap and Academic Engagement), the results also confirmed this hypothesis. Moreover, our study demonstrated significant mediation paths through PsyCap. Specifically, PsyCap was found to fully mediate the effects of self-care activities on academic engagement. PsyCap was explored as a mediating mechanism that may explain how students capitalize on their academic engagement. These results of our study are consistent with previous studies on personal resources and well-being (Gomez-Borges et al., 2022; San Román et al., 2022), specifically regarding the mediating role of these resources and their effects on engagement (Carmona-Halty et al., 2021; Salanova et al., 2011). In this direction, our results show that PsyCap is a powerful personal resource that could play a very important role on the prediction of positive outcomes. Self-care activities did not show direct effects on academic engagement when PsyCap was considered; therefore, it would be advisable to accompany the activities with the development of PsyCap to increase their effectiveness on the academic engagement of university students. We have analyzed the M1r (self-care → PsyCap → academic engagement) and M3r (PsyCap → self-care → academic engagement) as possible models, considering in each case self-care activities and PsyCap as antecedents of the academic engagement. Although both models have shown positive relationships, the model that has obtained the best fit is the one that shows the effect of self-care activities on PsyCap (M1r). So this result could indicate the direction of the effect. For managers and those responsible for university management, these results provide some reasons to implement self-care programmes and healthy habits that, at the same time, can facilitate psychological development. Thus, academic engagement could promote positive spirals of psychological resource building, replenishment, and deployment, positive cognitive

appraisals that facilitate motivation, effort, and, ultimately, performance, according to the JD-R model by Bakker and Demerouti (2017). In academic contexts, these relationships would be important in improving student grades and overall performance, as shown in Martinez et al., 2019b.

This study and its findings are important in many ways. The main theoretical contribution is that the study highlights the relationship between self-care activities and PsyCap and academic engagement. Therefore, as a practical contribution, the results reveal the importance of including programmes to increase self-care and PsyCap in academic settings. The results of this study are like others previously carried out in work contexts where successful interventions based on scientific evidence have been implemented.

Theoretical contributions

From a theoretical point of view, this paper extends the research on the JD-R model (Bakker & Demerouti, 2017) by providing evidence that, in a sample of university students, personal resources such as PsyCap could be considered processes underlying the relationship between self-care activities and academic engagement. In fact, in the world of work, Gomez-Borges et al. (2022) found in workers' samples that performing self-care activities promotes the perception of personal and work resources, which in turn enhances employee well-being. This study adds to the knowledge about the role of self-care activities in increasing personal resources in a sample of students. Moreover, the results broaden the knowledge about self-care activities in students and, therefore, add value to self-care programmes, making them more efficient and valid.

Practical implications

First, results from the present study suggest a promising way to increase academic engagement through psychological programmes and interventions designed to jointly develop self-care activities and PsyCap. Self-care activities are important, but the added influence of psychological capital enhances their effect on engagement.

Second, following the logic of our model, the results reveal the possibility of re-evaluating self-care intervention programmes and including practices related to PsyCap development. The results of this study seem to indicate that self-care practices alone cannot increase academic engagement because we also need to further develop PsyCap.

Third, from an educational point of view, educational institutions could develop holistic educational practices and policies. Applying these measures in the educational

context can have effects like to those obtained in work contexts, given that engagement is positively related to performance (grades). Drawing a parallel with the workplace (Van Woerkom, 2021), actions addressing personal variables at the individual level may have fewer lasting effects than actions that are integrated into the organization's mindset under a multilevel approach, such as educational policies. Finally, the results show the importance of promoting a culture of self-care in the education of university students, given that these practices enhance psychological capital and, therefore, academic engagement. To achieve academic engagement, we must pay more attention to its related variables, such as PsyCap and self-care, and universities must be more committed to psychologically and emotionally empowering their students, not only to prepare them to face the obstacles of university life, but also to empower them for their personal and professional lives.

Limitations and future research

The present study has some methodological and theoretical-practical limitations. First, a convenience sample was used, which might restrict the generalizability of these findings. However, the sample is heterogeneous because it includes students from different universities and academic years as well as gender diversity. Moreover, the study refers to a special social and health moment in the COVID-19 context.

Second, data were collected from self-report measures, which might have caused common method variance bias. However, considering the nature of the psychological experiences evaluated, it is difficult to employ other measures, such as objective, physical, or external agent measures. Furthermore, Harman's test showed that common method variance bias was not a threat to the validity of our results.

Third, the data are cross-sectional, and so we cannot draw firm conclusions about the causal ordering among the model variables. In order to mitigate this limitation, a third model was proposed (M3r) that provided some information about the possible direction of the relationships. However, future research should focus on developing longitudinal studies with experimental designs in order to uncover the causal order among the study variables.

Finally, although the present study has focused on the relationship between the aforementioned variables in a university sample, future studies could replicate the findings at different educational levels (e.g., high school).

CHAPTER 3

Self-Care at Work Matters: The mediating role of Job and Personal Resources in the link between Self-care Activities and Psychological Well-being²

Abstract

The aim of this study is to analyze the relationship between self-care activities (mindfulness and physical exercise) and the use of personal and work resources and their relationship with well-being. The sample consisted of 294 workers recruited from 20 organizations from different socioeconomic sectors in Spain. Results showed that mindfulness is positively related to well-being through the mediating role of work resources and personal resources. However, whereas personal resources showed a full mediating role in the hypothesized model, work resources did not show a significant relationship with mindfulness. Finally, results showed positive and significant relationships between the mindfulness x physical exercise interaction and all the dependent variables, and also the interaction between physical exercise and mindfulness had a significant effect on each of these three dependent variables.

Keywords: Self-care, Wellbeing, Job and personal resources

² Chapter 3 has been published as: Gómez-Borges, A., Peláez Zuberbühler, M. J., Martínez, I. M., & Salanova, M. (2022). Self-care at work matters: How job and personal resources mediate between self-care and psychological well-being. *Journal of Work and Organizational Psychology*, 38(3), 231-239. <https://doi.org/10.5093/jwop2022a15>

Introduction

In recent years, a growing amount of attention has been paid to workers' self-care, especially in people who care for and assist others in their daily work (Wise et al., 2012). In fact, self-care is even an ethical responsibility for mental health professionals. For example, the American Psychological Association's Ethics Code (American Psychological Association, 2017) states that psychologists strive to be aware of the possible effects of their own physical and mental health on the ability to help those with whom they work. Moreover, with the growth of positive psychology, self-care has been increasingly emphasized as a means of enhancing well-being.

In work settings, people are the core of organization, and employees with high levels of well-being are crucial for organizational life. Thus, caring for their emotional, physical, and psychological health really matters. Organizations can implement different practices and job resources (e.g., work family balance programs, wellness and well-being protocols, transparent communication channels) to cultivate well-being (Salanova, 2021). Furthermore, also the employees can self-implement different deliberate activities to cultivate their own well-being. Although there is considerable research on healthy organizational practices (Acosta et al., 2019; Alfes et al., 2012), self-care practices and their effects on individuals' well-being have been explored less and seem to be a relevant topic in psychosocial research (Rupert & Dorociak, 2019).

A sustained effort to promote a culture of self-care in healthcare professionals can be seen throughout the scientific literature (Depner et al., 2020; Jiang et al., 2020), as well as in specialized books with suggestions and tips for improving self-care (Baker, 2003). However, there is still a gap in the literature about the role of self-care activities in other fields or types of employees (i.e., non-healthcare organizations). The current challenge is to identify the activities that have the greatest impact on the psychosocial health of employees, considering that each self-care strategy is unique and personal and depends on multiple individual and contextual factors. Furthermore, in the opinion of Rupert and Dorociak (2019), it is also important to identify the most effective self-care behaviors within the work context for maintaining personal and professional well-being while dealing with work demands.

Psychosocial well-being at work has been related to work demands and the job and personal resources of workers. Two models have been essential to understand the role of personal resources in well-being at work: The Conservation of Resources theory

(COR) (Hobfoll, 2012) and the Job Demands-Resources Model (Bakker & Demerouti, 2017). In this context, self-care activities can act as personal resources to cope with work demands and increase well-being (Callan et al., 2020).

On the one hand, the Conservation of Resources theory (COR) (Hobfoll, 1989; 2012) proposes that resources can be objects, conditions, energies, and personal characteristics. This theory predicts that people who obtain more resources will be able to cope better with diversities and, thus, create a gain spiral and show less stress than people who have a worse supply of resources. Therefore, people who use more resources will have greater well-being (Hobfoll et al., 2018). On the other hand, according to the Job Demands-Resources Model (JD-R) (Bakker & Demerouti, 2017), employee well-being is highly influenced by individual and organizational factors, such as job demands and resources, which are associated with employee motivation and job performance. Job demands refer to physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort, whereas job resources refer to physical, psychological, social, or organizational aspects of the work that can be useful to achieve objectives, reduce job demands and the associated physiological and psychological costs, and stimulate growth and personal development. Bakker and Demerouti (2017) also incorporate personal resources, which consist of the psychological capital (e.g. emotional and mental competences) built up in order to successfully adapt to the environment. These personal resources can be instrumental in coping with demands, managing stress, and promoting a healthy work environment. Additionally, the JD-R model contemplates actions employees take based on their job demands and resources (e.g. job crafting, self-undermining, self-care).

The work context is quite complex, and there are many interactive variables related to personal and professional well-being. In this relationship, it is essential to consider the effect of personal and job resources on well-being. Self-care activities can act as personal resources or interact with them. Each person uses these activities for his/her own benefit.

Based on this reality and drawing on the COR and JD-R theories, we examine the role of self-care activities in workers' well-being through the mediation role of job and personal resources. Few studies have been carried out on activities and behaviors, such as self-care activities, that can increase the appropriate use of job and personal resources. Bakker and Demerouti (2017) points out the importance of some actions that

workers carry out in relation to their resources, such as self-care activities. Our proposal can help to understand the role of self-care activities in achieving a more positive perception of the work environment, obtaining better resources, and increasing workers' well-being. Self-care activities, such as mindfulness, facilitate the positive perception of job and personal resources through a cognitive and emotional mechanism. These positive emotional and cognitive states resulting from self-care activities favor the optimal use of resources, which, in turn, affects well-being. When workers perform self-care activities, they make better use of their resources to respond to demands and, thus, increase their well-being. Therefore, the aim of this study is to show the positive relationship between self-care activities and the use of resources and workers' well-being. We analyze the role of self-care activities in well-being through the mediation of job and personal resources in a sample of workers from organizations from different socioeconomic sectors.

Self-Care and Self-care Activities

Myers and colleagues (Myers et al., 2012) define self-care as the conscious participation in behaviors that maintain and promote physical, emotional, and psychological well-being. In other words, it refers to a set of activities people perform, such as mindfulness, seeking social support, and physical activity, to maintain and improve their life, health, and well-being. Thus, self-care involves different dimensions of personal and professional life, and it contains an intentionality component, a decision to engage in specific activities or behaviors (Wise et al., 2012) that involves self-reflection and adaptation to one's changing needs. Hence, self-care is a multidimensional, multifaceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being.

This definition implies potential activities, such as healthy nutrition, exercise, mindfulness, maintaining a good sleep schedule, engaging in hobbies or leisurely activities, and using adaptive coping strategies (Carrol et al., 1999). All these activities involve a purposeful effort to engage in them in order to maintain well-being. These activities are not only able to enhance well-being, but they can also reduce unwell being. In this line, Zahniser et al. (2017) conceptualize self-care as an anti-stress mechanism, and research has found that reducing stress increases job performance. In a way, self-care is the process of actively initiating a method to promote well-being (Bressi & Vaden, 2017).

Research has also shown a positive relationship between self-care and positive outcomes, such as less psychological distress and greater life satisfaction, among others. In a meta-analysis, Colman et al. (2016) found that those who practiced self-care activities (mindfulness, seeking social support, or other self-care activities) experienced more benefits (i.e., self-compassion, decreased psychological distress, and greater life satisfaction) than those who did not. Myers et al. (2012), in an investigation with a sample of 488 people and using multiple regression analysis, indicated that self-care activities such as sleep hygiene, social support, emotion regulation, and acceptance within a mindfulness framework were significantly related to decreased levels of perceived stress.

Some of the most important self-care activities used in research are mindfulness and physical exercise activities (Colman et al., 2016). On the one hand, mindfulness can be defined as a form of awareness that stems from paying attention to the present moment in a nonjudgmental and accepting manner (Bishop et al., 2004). Effective mindfulness programs include breathing, body scan, anti-stress, and self-compassion practices, among others (Coo & Salanova, 2018), and different studies provide evidence that the development of mindfulness leads to positive affect and cognition, which are key aspects of well-being. Mindfulness plays a crucial role in the achievement of positive results related to well-being (Depner et al., 2020; Garland et al., 2017); therefore, it is a key variable in the present study.

On the other hand, the term physical exercise will be used to refer to voluntary physical activity (Nägel et al., 2015). Physical exercise is "a subset of planned, structured, and repetitive physical activity with the ultimate or intermediate goal of improving or maintaining physical fitness" (Caspersen et al., 1985 p. 128). Different activities can be considered physical exercise if they meet the voluntary requirement. In this study, activities of running, walking, cycling, etc. were included. It is widely understood that physical activity improves individual health and well-being (Biddle et al., 2019; Piercy et al., 2018). Physical exercise sustained in time leads to a series of physical benefits, such as improvements in cardiorespiratory functions and, therefore, less risk of cardiovascular diseases (Després, 2016).

Self-Care and Psychological Well-being

From Positive Psychology, the study of psychological well-being has been addressed not only to improve the negative aspects, (e.g. anxiety, depression, or burnout), but also to enhance the positive aspects (e.g. self-efficacy, work engagement, resilience) (Salanova et al., 2019). Furthermore, Ryan and Deci (2001) noted that two types of psychological well-being can be differentiated: hedonic and eudaimonic well-being. Hedonic well-being involves ‘feeling good’, and the concept most frequently used to measure it is subjective well-being, which consists of high levels of positive affect and life satisfaction along with low levels of negative affect. Also Salanova et al. (2019), understand employee well-being to refer to the level of positive psychological resources of workers with a high degree of control and a positive impact on organizational results such as performance. Some indicators of well-being in healthy workers are efficacy beliefs, work engagement, vertical and horizontal trust, and resilience.

Efficacy beliefs are defined as “beliefs about one’s ability to organize and implement courses of action necessary to produce certain achievements or results” (Bandura, 1997 p.3), and they could be considered a dimension of “cognitive well-being” (Diener & Emmons, 1984). Work engagement is defined as a key indicator of employee well-being, specifically *organizational well-being* at different levels (individual, group, leader, and organization), as well a core dimension of a healthy organization, as in the Healthy and Resilient Organization (HERO) Model (Salanova et al., 2012, 2019). Thus, employees with high levels of work engagement (i.e., vigor, dedication, and absorption) are characterized by a positive pattern of psychological well-being at work. Team engagement or collective engagement exists at different levels in organizations (Salanova et al., 2003) and is an indicator of a healthy organization. Research views trust as a relevant psychological construct related to psychological well-being. It is defined by (Mayer et al., 1995) as “the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party” (p. 712). Trust can be vertical (aggregated levels of trust that employees have in their supervisors and top managers) and/or horizontal (aggregated levels of trust that team members have in their fellow teammates (Peñalver et al., 2019). Finally, resilience is considered a relevant dimension of

employee well-being (Salanova et al., 2012). Resilience is usually defined as a person's ability to recover after a traumatic situation or experience (Tugade et al., 2004). From a positive psychology perspective, much of the research focuses on well-being and the adaptation of responses to stress based on resilience (Denovan et al., 2016). Resilience is an important personal factor that can help individuals to deal with day-to-day exhaustion and stress.

The self-care activities have been related to well-being. Considering voluntary physical exercise and mindfulness as self-care activities, we highlight the work by Nägel et al. (2015), who make it clear that employees who do physical exercise after a stressful day have higher levels of well-being than those who do not. In addition, physical exercise has emotional effects. Positive affective states are important antecedents of results related to work and success (Ilies & Judge, 2005; Lyubomirsky et al., 2005; Tsai, 2007). After an exhausting day at work, when affective states could be deteriorated, it is crucial for employees to do activities such as PE in their free time to restore these affects. Team sports have also received significant attention, showing the benefits of team sports on health and well-being (Reinboth & Duda, 2006). Some studies even analyze the relationship between physical activity and health and well-being depending on the type of physical activity and intensity (Klussman et al., 2021).

Various studies have highlighted physical exercise as an important behavior for health and well-being and this is the reason for including it as another key variable in our research. For example, Gil-Beltrán et al. (2020), in a sample of 319 employees (156 sedentary and 163 non-sedentary employees), showed that non-sedentary employees are more empathetic and absorbed in their jobs than sedentary ones. Similarly, in another study with a sample of 485 workers from different Spanish and Latin American companies, Gil-Beltrán et al. (2020) showed that physical exercise is related to higher levels of vigor, which in turn is positively related to organizational well-being. Doing physical exercise seems to create a process of recovering and obtaining more resources, according to the COR theory, which makes workers experience greater well-being at work.

Likewise et al. (2013) showed that mindfulness improves job satisfaction, and Coo and Salanova (2018) found that employees who completed a structured mindfulness program obtained significant growth in their levels of happiness, work engagement, and performance. More recently, Martín-Hernández et al. (2020) indicated

that workers who increased their mindfulness capacity when facing job demands were more innovative in the future. Moreover, in a meta-analysis about the efficacy of self-care programs, carried out by Colman et al. (2016), results showed that programs that focused on life satisfaction and self-compassion obtained better results than those that focused only on reducing stress, although the results of the latter were also positively significant. In summary, self-care activities (physical exercise and mindfulness) are positively related to well-being. These results indicate that self-care activities can help people to improve their self-perception and feel more effective, due to having a greater flow of (job and personal) resources with which to positively face moments of greater stress.

The present study

As stated above, each self-care strategy is unique and personal and depends on multiple individual and contextual factors. Therefore, it is important to study each self-care activity separately to find out its effect on the psychosocial health of workers. Some of the most important self-care activities used in research are mindfulness and physical exercise activities (Colman et al., 2016). In our case, we focus on these two activities. We pay attention to two self-care activities related to two different aspects of health. Physical activity is mainly related to physiological health, whereas mindfulness activities are related to psychosocial health. In addition, these two activities can be carried out without supervision, and workers can record and measure them. No specific investigations have been found that report the mediating role of job and personal resources in the relationship between self-care and well-being, although there are isolated studies, mentioned above, on the impact of mindfulness and physical activities on well-being. Moreover, the scientific literature has emphasized the impact of self-care programs on healthcare workers. However, there is still a gap to fill in the study of self-care for the promotion of well-being in other occupational sectors, such as the industrial, commercial, NGO, and public administration sectors, among others. For this reason, our purpose is to address this issue in workers from different socioeconomic sectors: services, productive, commercial, education, and health.

The main objective of this study is to test the mediating role of job/personal resources in the relationship between self-care activities (mindfulness and physical exercise) and psychological well-being. Based on the above, we formulate the following hypotheses (see Figure 1 and Figure 2):

H1: There is a positive and significant relationship between mindfulness activities and psychological well-being through the mediating role of job resources.

H2: There is a positive and significant relationship between mindfulness activities and psychological well-being through the mediating role of personal resources.

H3: There is a positive and significant relationship between physical exercise activities and psychological well-being through the mediating role of job resources.

H4: There is a positive and significant relationship between physical exercise activities and psychological well-being through the mediating role of personal resources.

As a complementary approach, we go a step further and test an interaction hypothesis to determine whether the effects of each self-care activity (Mindfulness, Physical Exercise) on the dependent variables (Personal Resources, Job Resource, Well-being) are independent or interactive (Mindfulness X Physical Exercise).

H5: There is a two-way interaction effect of Mindfulness \times Physical Exercise on Personal Resources, Job Resource and Well-being.

Methodology

Participants and procedure

A total of 622 workers from Spain were invited to participate in the study. Participation was voluntary, and the final sample consisted of 294 participants (47.27%) from 20 private organizations. Participants ranged in age from 18 to 69 years (18–24 age range = 5.8%; 25–34 age range = 25.8%; 35–44 age range = 30.3%; 45–54 = 29.55%; > 54 = 9.5%); 52% were female.

The average age was 41 years old (SD=9.9), average tenure time was 10.04 years (SD = 9.58). Participants were recruited from different organizations that belonged to different socioeconomic sectors: services (45%), productive (30%), commercial (13%), education (9%), and health (3%). The job positions were diverse:

CEOs (3.84%); directors (16%); department heads (9%); coordinators (9.8%); administrative (18%); secretaries (6.5%); teachers (5%) among other positions.

Procedure

This study is part of a broader project called *People Who Shine* (PWS), which is a non-profit association that brings together 46 Spanish organizations committed to promoting health and well-being at work. This project is divided into three main stages: organizational diagnosis, implementation of healthy practices, and solidarity collaboration with NGOs. To be part of this association, it is necessary to implement all the stages. The organizational diagnosis stage was carried out by the Research Team of this study.

The procedure followed different steps. First, 46 organizations from the PWS Association were contacted and invited to participate voluntarily in the validation process of a tool for the identification of psychosocial factors developed by the WANT Research Team. Finally, 20 organizations filled out the questionnaires, and employees reported the self-care activities required by the study (56% sample mortality). The data collection consisted of identifying stakeholders from each organization who were representative in terms of gender, age, position held, hierarchy, and seniority. Second, semi-structured interviews were carried out by researchers from the WANT Research Team at the Universitat Jaume I, evaluating quantitative and qualitative aspects of the variables (i.e., job and personal resources and psychological well-being). The stakeholders who provided data on their organization were informed that participation was voluntary and that data would be protected according to the General Data Protection Regulation (EU) 2016/679. The Ethics Committee of the University approved this study. Third, workers from the PWS organizations were invited to voluntarily use a mobile phone app called *Run to the Moon*. Through this app, employees can access different mindfulness exercises and record physical activities. The purpose of this mobile phone app is to foster healthy habits and good practices through technological and collaborative resources that improve quality of life in participants and in the organization in general. Run to the moon app is available on IOS and Android Store. This smartphone application was easy to use, and it was exclusively for the employees who worked in organizations included in the “People who Shine” association. Finally, participants were informed that the data obtained from their recorded self-care activities (mindfulness and physical exercise) through the Run to the

Moon app would be analyzed only for scientific purposes and under the confidential and ethical-professional commitment of the researchers.

Measures

Mindfulness activities. Mindfulness was measured with the Run to the Moon mobile app. This smartphone application delivers short daily activities based on mindfulness practices, which include breathing, body scan, anti-stress, self-care, and various activities. Practice audio files could be used every day, and they lasted from 5 to 30 minutes. The mindfulness activities were recorded in the span of one year, and the recording activities were based on the amount of time spent. We evaluated the time invested in these activities by the user of the Run to the Moon app.

Physical exercise activities. Physical exercise activities were measured with the Run to the Moon mobile app. This mobile app worked as a record sheet of physical activities such as walking, biking, running, and various physical exercises. The physical activities were recorded during a period of one year, and they were evaluated based on the time invested in these activities by the user of the app.

The participating organizations of the People Who Shine partnership invited their employees to use the app and record their physical exercises and mindfulness activities. For this study, it was considered the sum of the minutes recorded of the mindfulness and physical activities of each organization.

Job Resources. Job Resources were measured with the Healthy and Resilient Organization (HERO) questionnaire (Salanova et al., 2012). The responses range from 1 (never) to 6 (always), and the scale includes five items: autonomy, feedback, social support climate, coordination, and positive leadership (i.e., “*Degree to which people are coordinated with each other to act in work situations*”; coordination).

Personal Resources. Personal Resources were measured with the Healthy and Resilient Organization (HERO) questionnaire (Salanova et al., 2012). The responses range from 1 (never) to 6 (always), and the scale includes two items: mental competence and emotional competence (i.e., “*Degree to which employees feel they have the emotional competence to cope with the job demands*”; emotional competence).

Well-being. Well-being was measured with the HERO questionnaire (Salanova et al., 2012). Responses range from 1 (never) to 6 (always), and the scale includes five items: collective efficacy, commitment, vertical trust, horizontal trust, and resilience

(i.e., “Degree to which both you and the organization are able to emerge stronger in the face of adversity and failures at work”; resilience).

Statistical Analyses

First, descriptive statistics (e.g., means, standard deviations, and Cronbach’s alpha coefficients) were calculated, in addition to the bivariate correlations between all the variables, using the IBM SPSS Statistics 25.0 package. Second, Harman’s single-factor test (Podsakoff et al., 2003) was applied with confirmatory factor analysis for the study variables (mindfulness, physical exercise, job resources, personal resources, and well-being), using the SPSS AMOS 23.0 (Analyses of Moment Structures; (Arbuckle, 2010) software package, to test for possible common method variance bias. Third, structural equation modelling (SEM) was applied to test the structural relations in the hypothesized models using AMOS. The maximum likelihood method was used, and the goodness of fit of each model was determined by considering absolute and relative indexes (Schermelleh-Engel et al., 2003): χ^2 , χ^2/df , incremental fit index (IFI), comparative fit index (CFI), normed fit index (NFI), root mean square error of approximation (RMSEA), standardized root-mean-square residual (SRMR), and Akaike information criterion (AIC). Furthermore, the product of coefficients method (MacKinnon et al., 2002) was employed to test the mediation hypothesis.

Results

Preliminary Analyses

Table 1 shows means, standard deviations, Cronbach’s α indexes, and Pearson’s correlations among the study variables. The data show positive relationships between mindfulness activities and resources and well-being, whereas physical exercise activities do not show significant relationships with resources or well-being. A one-factor ANOVA did not reveal any significant gender, age, or tenure differences in the study variables. Next, results of preliminary data analyses revealed a significantly poorer fit of the Harman single-factor model to the study variables (See Table 2, M0; Podsakoff et al., 2003). Therefore, common method variance cannot be considered a serious deficiency in this dataset. Additionally, the same analysis was performed to compare a single-factor model of (job and personal) the resource subdimensions with a bifactorial model (job and personal resources separately). Results indicated a poor fit of the single factor model to the data [$\chi^2 (14) = 64.533$, $p < .001$, RMSEA= 0.11, IFI = 0.87, CFI =

0.87, NFI= 0.85, TLI= 0.81, AIC= 92.53] and a good fit of the two-factor model [χ^2 (13) = 23.435, $p < .001$, RMSEA= 0.05, IFI = 0.97, CFI = 0.97, NFI= 0.95, TLI= 0.96, AIC= 53.43], as expected.

Table 1. Means, Standard Deviations, Internal Consistency, and Inter-correlations of the Study Variables ($N = 294$)

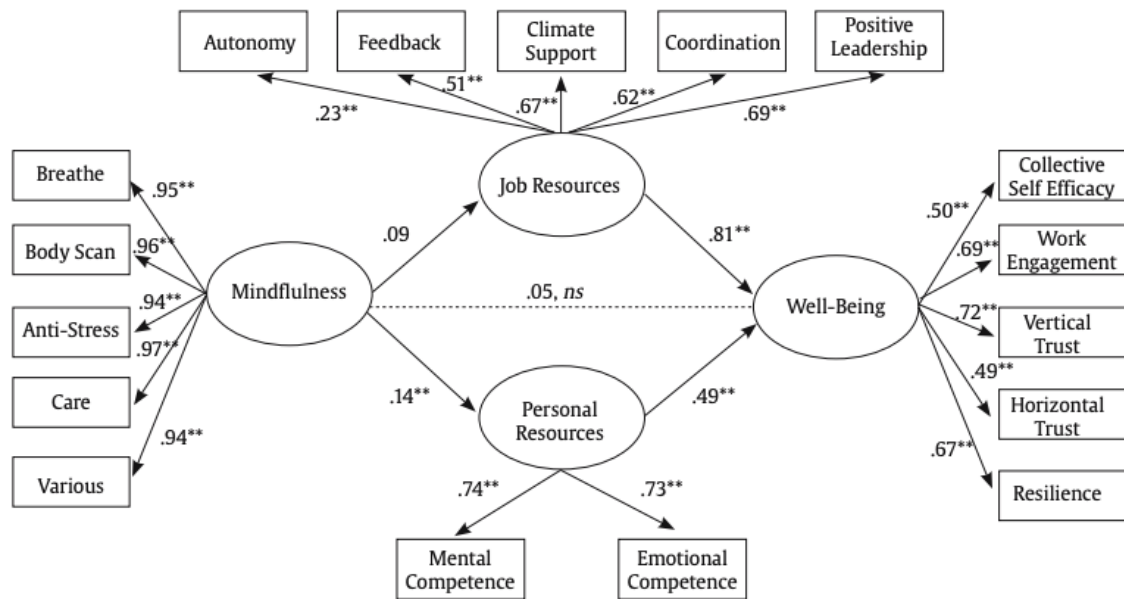
Variables	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7
1. Age	40.67	10.28	-	-	-	-	-	-	-	-
2. Gender	1.52	0.50	-	.01	-	-	-	-	-	-
3. Tenure	10.04	9.58	-	.61**	-.03	-	-	-	-	-
4. Mindfulness	27.65	43.36	.78	.14*	-.06	-.01	-	-	-	-
5. Physical Activity	168.50	72.52	.72	.18**	-.05	.03	.26**	-	-	-
6. Job Resources	4.52	0.87	.66	-.05	.04	-.06	.09*	-.03	-	-
7. Personal Resources	4.36	0.79	.70	-.04	-.01	-.09	.11*	-.02	.48**	-
8. Well-being	4.60	0.77	.80	-.06	.05	-.07	.12*	.01	.67**	.59**

** $p < .01$.

Model Fit: Structural Equation Modelling

Mindfulness, Job Resources, Personal Resources, and Well-being are represented as latent variables in the structural model shown in Figure 1. Following James et al. (2006), different models were tested to verify the hypotheses. Our research model (M1) assumes that Job Resources and Personal Resources play full mediating roles in the relationship between Mindfulness activities and Well-being. The results in Table 2 show that M1 presented an acceptable fit to the data, and that almost all the fit indices met the criteria. The path from Mindfulness to Job Resources was positive, but not statistically significant ($\beta = .09, p = .19, ns$). The path from Mindfulness to Personal Resources was positive and statistically significant ($\beta = .14, p < 0.05$), as was the path from Job Resources to Well-being ($\beta = .81, p < 0.05$) and from Personal Resources to Well-being ($\beta = .49, p < 0.001$). Furthermore, the sociodemographic variables age, gender, and tenure were included in the initial SEM model as control variables. Upon examination, none of them showed significant relationships with the dependent variables (job resources, personal resources, and well-being), and so they were excluded from further models.

Figure 1: Research model 1



Next, a new model (M2) was developed that proposes that Job Resources and Personal Resources play partial mediating roles between Mindfulness and Well-being, which means that there is also a direct relationship between Mindfulness and Well-being. The results indicate that, although M2 also fits the data, given that most of the fit indices met the criteria, the data fit M1 better, and most of the relationships between the variables in M2 were not significant. Specifically, the path from Mindfulness to Job Resources was positive, but not significant ($\beta = .07, p = .31, ns$), as was the path from Mindfulness to Personal Resources ($\beta = .12, p = .06, ns$) and from Mindfulness to Well-being ($\beta = .05, p = .28, ns$). Although the difference between the two models (M1 and M2) was not significant ($\Delta\chi^2_{M2-M1}(2) = 517, ns$), M1 showed significant relationships between the variables. Thus, we opted for our research model (M1), which assumes that Mindfulness is positively related to Well-being through the full mediating role of Job Resources and Personal Resources. However, whereas Personal Resources showed a full mediating role in the hypothesized model, Job Resources did not show a significant relationship with Mindfulness. These results ruled out our Hypotheses 1 and confirmed our Hypothesis 2.

Table 2. Fit Indices of the Structural Equation Models

Model	χ^2	<i>df</i>	RMSEA	IFI	CFI	NFI	TLI	AIC
M0	2288.363	179	.21	.66	.66	.64	.60	2434.33
M1	289.491	111	.07	.97	.96	.95	.95	407.491
M2	288.974	110	.07	.96	.96	.94	.95	408.359
M3	430.249	98	.11	.81	.81	.77	.77	538.249
M4	429.584	97	.11	.81	.81	.77	.77	539.584

Note. M0 = Harman's single factor test; M1 = Model 1; M2 = Model 2; M3 = Model 3; M4 = Model 4.

Furthermore, the structural model for Hypotheses 3 and 4, shown in Figure 2, consisted of Physical Exercise, Job Resources, Personal Resources, and Well-being, which are represented as latent variables. Our research model (M3) proposes that Job Resources and Personal Resources play full mediating roles in the relationship between Physical Exercise and Well-being. The results presented in Table 2 show that M3 did not fit the data, and that not all the fit indices met the criteria. Additionally, although the relationships between the variables were positive, neither the path from Physical Exercise to Job Resources ($\beta = .02, p = .63$) nor the relationship between Physical Exercise and Personal Resources ($\beta = .04, p = .28$) was statistically significant.

Next, another model was developed (M4) that assumes that Job Resources and Personal Resources play partial mediating roles between Physical Exercise and Well-being, which means that there is also a direct relationship between Physical Exercise and Well-being. Results indicate that this new model did not fit the data, and that most of the relationships between the variables were not statistically significant, specifically, the path from Physical Exercise to Job Resources ($\beta = .009, p = .79, ns$), Physical Exercise to Personal Resources ($\beta = .05, p = .30, ns$), and Physical Exercise to Well-being ($\beta = .02, p = .47, ns$). These results did not confirm our Hypotheses 3 and 4.

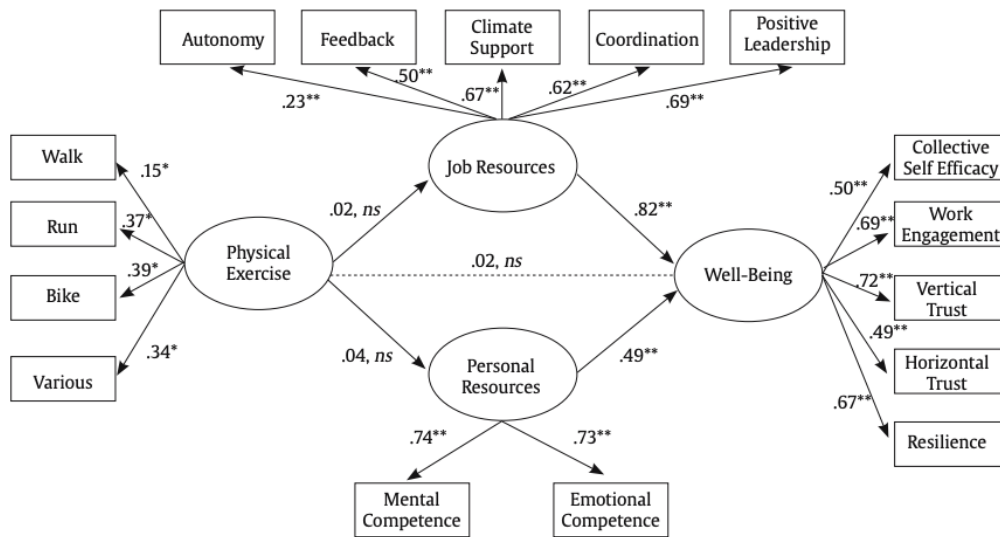
Based on MacKinnon et al. (2002), the product of coefficients method was estimated to test the mediation hypotheses for H2. The mediated effect of Personal Resources in the relationship between Mindfulness and Well-being was statistically significant ($P = \mathbf{Z}_\alpha \cdot \mathbf{Z}_\beta = 24.14, p < .05$). This result suggests a full mediation effect of Personal Resources, thus supporting H2.

Interactive effect

To determine whether the effects of each self-care activity (Mindfulness, Physical Exercise) on the dependent variables (Personal Resources, Job Resource, Well-being) are independent or interactive (Mindfulness X Physical Exercise), we tested an interaction hypothesis (H5) via linear regression. We expected a two-way interaction effect of Mindfulness \times Physical Exercise on the dependent variables. That is, the combination of practicing Mindfulness and Physical Exercise activities would enhance Personal Resources, Job Resources, and Well-being.

A centering methodology was used to reduce multicollinearity. Thus, each independent variable was centered, followed by the creation of a new centered product variable by multiplying Mindfulness and Physical Exercise. Next, bivariate correlations among the study variables were calculated, and the results showed positive and significant relationships between the centered Mindfulness-Physical Exercise interaction and all the dependent variables (Personal Resources = .13, $p < 0.05$; Job Resources = .12, $p < 0.05$; Well-being = .15, $p < 0.05$). With these results, we proceeded to carry out linear regression analysis to determine to what degree the centered Mindfulness-Physical Exercise interaction variable contributes to each dependent variable. Results revealed that this interaction variable was a significant predictor of Personal Resources ($R^2 = 0.017$, $\beta = 0.13$, $p < 0.05$), Job Resources ($R^2 = 0.014$, $\beta = 0.12$, $p < 0.05$), and Well-being ($R^2 = 0.024$, $\beta = 0.15$, $p < 0.05$) in our research model. This means that the interaction between Physical Exercise and Mindfulness has a significant effect on each of these three variables. Following Cohen (1983) and Jaccard et al., (1990), regression lines were drawn separately for each regression equation to interpret the relationship between mindfulness, physical exercise, and our dependent variables at high levels (+1 SD) and low levels (-1 SD) of the moderator variable.

Figure 2: Research model 3



Discussion

Based on the COR (Hobfoll, 1989; 2012) and JD-R (Bakker & Demerouti, 2017) models, we examined in the current study, the mediating role of self-care activities (i.e., mindfulness and physical exercise) and the use of personal and work resources and their relationship with well-being. In other words, we proposed job resources and personal resources as mediators in the relationship between self-care activities and well-being.

More and more attention is paid to the self-care of workers because its relationship with well-being and performance has been shown. Specifically, the present study draws on the Conservation of Resources Theory (COR), (Hobfoll, 1989, 2012) and the Job Demands-Resources Model (JD-R) (Bakker & Demerouti, 2017) to test the mediating role of job resources and personal resources in our research model. Therefore, our purpose was to study the complexity of the effect of job resources and personal resources on the well-being of workers.

Theoretical and practical implications

From a theoretical point of view, this study expands the investigation of the COR model (Hobfoll, 1989) and the JD-R model (Demerouti et al., 2001; Bakker & Demerouti, 2017) by providing evidence that personal resources, such as emotional and mental competence, are mediators in the relationship between mindfulness, self-care activities and well-being at the workplace. Thus, a new aspect of the relationship

between resources and well-being is shown by knowing variables that activate and make resources more effective.

From a practical point of view, our results provide evidence for promoting and implementing self-care activities, such as mindfulness, which at the same time are related to a better perception of job and personal resources and better well-being-related outcomes. These positive practices may contribute to promoting healthy organizations and providing evidence about useful digital tools (i.e., Run on the Moon app) for organizations that want to optimize healthy self-care practices in the work environment.

Therefore, it is important to study each self-care activity in order to determine its effect on the workers wellbeing. In our case, we focused on physical exercise activities and mindfulness activities. The results led to different conclusions about each self-care activity. Regarding mindfulness activities, our results confirm the proposed hypotheses, although in a specific way. Personal resources are mediators in the relationship between mindfulness self-care activities and workers' well-being. There is a positive relationship between mindfulness activities and personal resources and between the latter and well-being. In addition, we found a full mediation because it cancels the direct relationship between mindfulness activities and well-being. This result is interesting given that mindfulness care activities involve mental, cognitive and emotional processes and are related to personal resources and these to well-being through a total mediation. This mediation reveals the effect process of mindfulness activities on the dependent variables. However, job resources are not mediators in the relationship between mindfulness activities and workers' well-being. Mindfulness activities show a positive relationship with well-being, but job resources do not intervene in this relationship. These results have important practical implications for practitioners because the promotion of well-being can come from mindfulness activities, when workers have personal resources. But this relationship does not occur in the case of job resources. Our results show different results for each self-care activity and are important for scientific development and the practice of professionals. Given that a study of the direct relationship between self-care activities and well-being would be incomplete, it is important to analyze the effect of the mediating variables. Considering mediating variables involves identifying specific aspects that might affect the relationship. In the case of resources, considering general effects of "resources" could produce unrealistic

results. Therefore, we analyzed the differential effects of each type of resource (job and personal).

Regarding physical exercise activities, we were not able to establish a relationship between these activities and the use of job and personal resources. The relationship between these activities and well-being was not significant either. Therefore, we cannot confirm the hypotheses about the potential effect of physical exercise activities on resources as a way to increase well-being. However, it is important to keep in mind that our study was carried out with a sample of workers from different socioeconomic sectors: commercial, education, productive, health, and services. Our results are not consistent with previous studies carried out with samples of workers who care for and assist others in their daily work, which obtained positive effects of physical exercise on well-being (Gil-Beltrán et al., 2020; Nägel et al., 2015). We think it is important to study the specific effects of self-care activities in different occupations with different demands and working conditions.

However, our Hypothesis 5 was confirmed, suggesting that there is a significant effect of Physical Exercise on the dependent variables (Personal Resources, Job Resource, Well-being) when it is combined with the practice of Mindfulness. This result is in line with the self-care literature, which sustain that self-care is a multidimensional process of engagement in strategies of personal and professional life (i.e., Mindfulness and Physical Exercise) that promote healthy functioning (Wise et al., 2012). This idea suggests that Mindfulness and Physical Exercise should be combined, and thus interact in a synergetic way to have a greater impact on coping with work demands, using resources and enhancing employee well-being, than independently (Callan et al., 2020). Furthermore, these results are consistent with the meta-analysis conducted by Colman, et al. (2016), which highlighted mindfulness and physical activities as the self-care activities more closely related to well-being. These findings also support the complexity of the COR and JD-R models, since considering the interaction between variables is fundamental to knowing the antecedents of well-being.

Limitations and future research

Some limitations of this study must be acknowledged. First, the groups of people who participated were not randomly chosen because the organizations sent a general invitation to all the workers. The second limitation is that it is a cross-sectional study. Finally, we think that the use of digital technologies can discriminate the sample based

on the skills of using technology. Future studies should include longitudinal designs in order to compare the effects of practicing self-care activities at different times, using pre-post measurement points and randomized controlled trials with experimental and (waiting list)-control assignments. Moreover, the use of diary studies could be interesting for future studies in order to obtain relevant information about the psychological mechanisms underlying the use of self-care activities that can influence the outcome variables. Finally, replications with smartphone Apps are welcome, in order to include the use of other self-care activities, such as social support, gratitude interventions, optimism increment, as well as diverse physical exercises, and analyze their impact on various organizational outcomes such as organizational commitment and in-role and extra-role performance, among others.

Final note

In conclusion, self-care activities have a different effect on the well-being of workers depending on the work context. Physical exercise activities, which have been shown to have benefits for the well-being of care workers in past studies (Gil-Beltrán et al., 2020; Nägel et al., 2015), do not show this relationship with the well-being of workers in the socioeconomic sectors included in this study. Mindfulness activities show a positive and significant relationship with well-being, and this relationship is even more powerful when the mediated effect of personal resources is considered. However, the more powerful driver of workers' well-being is just the interaction between the body (physical activity) and the mind (mindfulness) as we demonstrated in the current study and that could be replicated in future research. Mind (mindfulness) and body (physical exercise) are potential drivers of wellbeing when they work in an interaction way. Thus, when physical exercise interacts with mindfulness activities, they are positively and significantly related to job and personal resource variables and to well-being. These interaction results are very important and show the convenience of analyzing the effect of each of the self-care activities on well-being and going one step further by also analyzing the interaction between them.

CHAPTER 4

Positive & Inclusive Psychological Intervention in Healthy Emotionality: adaptation to functional diversity ³

Abstract

Over decades a wide array of psychological constructs and their interconnections have been deeply scrutinized. Nevertheless, the domain of psychological interventions within the workplace remains relatively uncharted. This study explores the effects of adapting and implementing a positive psychological intervention based on the development of emotional styles on psychological well-being and stress among workers with functional diversity. It also assesses the intervention's outcomes, considering both the group with intellectual disabilities (ID) and the group without intellectual disabilities (NoID). This positive and inclusive psychological intervention is founded on the Emotional Styles model, derived from affective neuroscience (Davidson & Begley, 2012), which identifies six key dimensions or emotional profiles (i.e., attention, self-awareness, resilience, outlook, social intuition and context sensibility). A total of 45 individuals participated in the study, with 12 individuals representing diverse functional abilities (26.66%). Among the participants, 64.4% were women, and their ages ranged from 19 to 61 years. The first section of this study, describes the process of adapting the intervention on "Emotional Styles" for its application in heterogeneous groups of workers, including those with ID. The adaptation stages are detailed, taking into consideration the specific needs and characteristics of this group of workers, as well as the incorporation of Easy Read strategies to ensure comprehension and full participation. The second section is the positive intervention that was designed longitudinally and applied for six weeks, with a weekly session of two-hour sessions. Analyzing the data at different time points pre-intervention, post-intervention and follow up (six months after the intervention ends). Repeated-measure ANOVA for each variable revealed statistically and positive significant differences in Outlook, Resilience, and happiness indicators (i.e., Engagement, Relationship and Negative Emotions). In conclusion, the results of this intervention provide evidence that positive psychological

³ This paper is currently in progress of journal selection for submission.

interventions, suitably tailored for diverse functional contexts, positively contribute to enhancing well-being and alleviating stress. The study's limitations are also discussed.

Introduction

A wide array of psychological constructs and their interconnections have been deeply scrutinized over decades of scholarly investigation. Nevertheless, the domain of psychological interventions within the workplace remains relatively unexplored. This is partly due to the inherent complexity of conducting quasi-experimental studies within work environments. The need for practical outcomes clashes with the challenges of executing thorough research and understanding the inherent variability within organizations. In this study, we test the effectiveness of a psychological intervention about emotional styles in the workplace. In addition, we explore the challenges of adapting it to a sample of employees with intellectual disabilities.

Furthermore, the COVID-19 pandemic has posed unprecedented challenges worldwide, requiring a collective effort to mitigate its impact on mental health. In this context, promoting self-care activities has emerged as a vital strategy to safeguard public health. While the general population has been urged to adopt prevention actions, it is crucial to adopt measures that consider the diversity of the population.

The literature refers to self-care as a set of practices which include a person's ability to effectively self-medicate and other healthy practices related to eating, physical exercise, good rest and meditation or mindfulness (Colman et al., 2016; El Osta et al., 2019). Consensus over the concept of psychological self-care within the literature has been a challenge. Nevertheless, recent systematic reviews have converged in highlighting the indispensable role of emotional regulation as a fundamental practice for self-care and, consequently, psychological well-being (Matarese et al., 2018). In this sense, emotional well-being specifically constitutes a pivotal aspect of an individual's overall welfare, particularly for individuals with intellectual disabilities (ID) (Gavin-Chocano et al., 2022). Over the past three decades, there has been a substantial surge in scientific research that examines the significance of emotional regulation and its impact on psychological well-being. These studies are accompanied by diligent efforts to devise psychological interventions aimed at promoting effective emotional regulation (Van Agteren et al., 2021). These interventions are highly relevant in professional domains that support individuals with intellectual disabilities. However, locating empirical studies that focus on specifically adapting interventions for this population remains a challenging task. To bridge this gap, the current study aimed to adapt a psychological intervention that targets emotional style functioning in a cohort of

employed individuals who have dependents diagnosed with ID. At the same time, the intervention's efficacy was evaluated.

Self-Care Research

The concept of self-care lacks a universally agreed-upon definition in the academic realm. However, its exploration is primarily centred around the field of healthcare, particularly within the nursing domain. Dorothea Orem (1971) provides a definition of self-care as the deliberate actions that individuals take towards themselves or their environment in specific life situations, aimed at regulating factors that impact their own development and functioning to enhance their life, health, and well-being. Moreover, other scholars have defined self-care as a conscious and voluntary engagement in activities that foster psychological, physical, and emotional well-being (Myers et al., 2012). After conducting an extensive literature review on self-care across various disciplines, Martinez et al. (2021) propose a comprehensive definition, characterising self-care as the ability to proactively attend to one's own needs through mindfulness, self-discipline, and self-sufficiency, with the goal of maintaining and promoting personal health and well-being.

Research has demonstrated the positive impact of self-care on psychological well-being, particularly through the practice of self-care behaviours such as meditation and mindfulness, physical exercise, and social support (Colman et al., 2016). These effects have been observed in various contexts, including the training of psychologists, healthcare professionals, the workplace, and university students (Carr et al., 2023; Gómez-Borges et al., 202, 2023; Myers et al., 2012).

Emotional Styles

As mentioned above, emotion regulation plays a fundamental role as a self-care behaviour and has a direct connection to the state of psychological well-being. Our emotions have an effect at the individual, family, work, and social levels. However, how can we get a more accurate definition of the concept of emotional style? What are the characteristics or emotional profiles that relate to optimal functioning and improved levels of well-being? To provide answers to these questions we can refer to the theoretical model of emotion based on neuroscience conducted by Richard Davidson's team (Davidson and Begley, 2012).

This model establishes six main dimensions or emotional profiles relevant to psychological well-being. The model also suggests a series of techniques, generally based on mindfulness, to learn how to regulate each of the dimensions. These six dimensions are: Attention, Self-Awareness, Resilience, Outlook, Context Sensitivity and Social Intuition (Kesebir et al., 2019). *Attention* refers to the capacity to filter out diversions and maintain concentration. Individuals with a high level of this attribute exhibit a keen and undistracted focus. Conversely, individuals with a lower level of this attribute find themselves readily drawn towards the most captivating stimuli in their surroundings. *Self-awareness* encompasses the capacity to recognize the physiological indicators within oneself that mirror emotions. Even though people react to stressful circumstances in different ways, enhancing understanding and honing skills can contribute to successful prevention. Certain individuals demonstrate precision in discerning internal bodily signals, while others exhibit less precision.

Resilience refers to the time-related aspects of emotional responses. It involves the ability to navigate the temporal trajectory of negative emotional stimuli, signifying the capacity to swiftly rebound from adverse emotions. Individuals with high levels of resilience can promptly recover from negative emotions like sadness, anger, and fear, swiftly restoring their emotional balance in the wake of minor everyday inconveniences as well as significant life adversities. In the field of psychology, *outlook* refers to an individual's ability to maintain positive emotions in a timely manner and their skill in sustaining these positive emotions over an extended period. *Sensitivity to context* refers to the alignment of emotional and behavioural responses with the social cues presented. Social cognition and behaviour hinge on one's ability to discern intention and context effectively. Sensitivity to context serves as a fundamental requirement for engaging in social interactions and acquiring social knowledge. It can be viewed as an outwardly directed counterpart to self-awareness. Finally, *Social intuition* encompasses an individual's capacity to swiftly form judgments and attune themselves to nonverbal social signals, such as facial expressions, body language, and gestures. Those scoring high on the social intuition dimension excel at interpreting nonverbal cues and deducing motives and intentions from specific signals. Individuals with a high level of social intuition are skilled at managing their emotions and their impact in interpersonal interactions, as well as understanding social cues from others' emotional states.

Individuals with autism, for example, exhibit social impairments and a deficiency in social intuition (Kesebir et al., 2019).

Each of these dimensions describe a continuum with two extremes that in most cases reflect brain circuit activity. How people are emotionally will depend on where they fall on the six dimensions. Our unique emotional style determines how we behave emotionally, in other words, it determines our emotional reactions to different life events. Our lesser or greater ability to regulate our emotions will have an impact on our well-being (Bisquerra & Hernández, 2017).

Intellectual disability and emotional regulation

According to the American Association on Intellectual and Developmental Disabilities, intellectual disability (ID) is defined as significant limitations in intellectual functioning and adaptive behaviour that emerge before the age of 18 (Verdugo et al., 2011). Various authors indicate that emotional development plays a crucial role in different adaptive capacities (Izard & Harris, 1995; Kasari & Bauminger, 1998; Navas et al., 2010), among other aspects.

It is important to highlight the value of adapting interventions to people with ID. These adaptations are essential to ensure that interventions are matched to the different cognitive and emotional profiles of this population. By tailoring psychological approaches to their specific needs, professionals can provide more meaningful support, enabling people with ID to function more effectively in different aspects of their lives. This individualised approach enables them to develop coping strategies, improve their self-esteem and fosters the acquisition of essential life skills, ultimately promoting their overall psychological well-being. Through this adapted intervention, we can promote an inclusive society that recognises the potential and strengths of people with ID, enabling them to thrive and make meaningful contributions to their communities.

Self-care plays a crucial role in the recovery from illness or traumatic experiences. However, it is also essential for individuals who require structured habits and routines for optimal functioning. This is particularly relevant for individuals with ID.

People with intellectual disabilities are characterized by limitations in cognitive development and adaptive behaviours, such as conceptual, social, and practical daily living skills (Verdugo et al., 2011). To enhance the quality of life and well-being of

individuals with ID, it is necessary to explore and disseminate intervention strategies that promote adaptive capacities through self-awareness and emotional regulation (Navas et al., 2010). Several studies have demonstrated the effectiveness of intervention programs to increase and strengthen emotional skills in children and adolescents (Bisquerra, 2002; 2007; 2015; Filella et al., 2014). However, interventions specifically tailored to individuals with ID are still limited. González et al. (2019) conducted research with individuals with ID and found improved self-control, emotion regulation, and increased empathy through an emotional regulation promotion program. Positive emotion is a central component of study within the framework of positive psychology (Dykens, 2006), and the promotion of positive emotion is associated with positive outcomes in terms of health and quality of life (Silton et al., 2020).

Very few studies have focused on examining the impact of self-care behaviours on individuals with disabilities. Therefore, the objective of this research is to fill this gap by offering an adapted protocol of a positive psychological intervention for individuals with intellectual disabilities and analysing the efficacy of this intervention in heterogeneous sample (ID - NoID).

Procedure

This study consists of two related sections. The first section relates to the adaptation process of the positive psychological intervention called "Emotional Styles" for heterogeneous groups of workers that include individuals with ID.

The second section of the study focuses on the implementation of the adapted intervention. The section presents the results and analysis derived from the intervention implementation.

The first section of this study, describes the process of adapting the "Emotional Styles" intervention for its application in heterogeneous groups of workers, including those with ID. The adaptation stages are detailed, taking into consideration the specific needs and characteristics of this group of workers, as well as the incorporation of Easy Read strategies (García, O., 2012) to ensure comprehension and full participation.

This adaptation of the Emotional Styles intervention was carried out in a foundation that is committed to offering care, training, resources, and integration opportunities for individuals with ID in the workforce. Currently, this foundation has over 840 employees. The organization's motto is social inclusion, and its success is built

upon its human capital. Consequently, the organization has a systematic and specific training plan in place for its members.

The initial step prior to conducting this intervention was an assessment of psychosocial factors using the HERO methodology (Salanova et al., 2012). The HEROCheck questionnaire was administered to all employees to gather baseline information for the intervention program.

Based on the results of the HERO psychosocial assessment, in collaboration with the organization, the target groups most susceptible to receiving this type of intervention were determined.

Furthermore, to facilitate the application for people with special needs, specifically for individuals with functional diversity, the evaluation questionnaire was adapted to the Easy Read methodology by professionals in the field.

Additionally, the Emotional Styles intervention protocol was adapted. This adaptation took into account the content, materials, and timing of the protocol. It was conducted both on-site and between sessions to maximize the effectiveness of the intervention. Support personnel for individuals with ID were involved to help with their participation in different intervention activities. Given the characteristics of the group, several actions were taken, listed below:

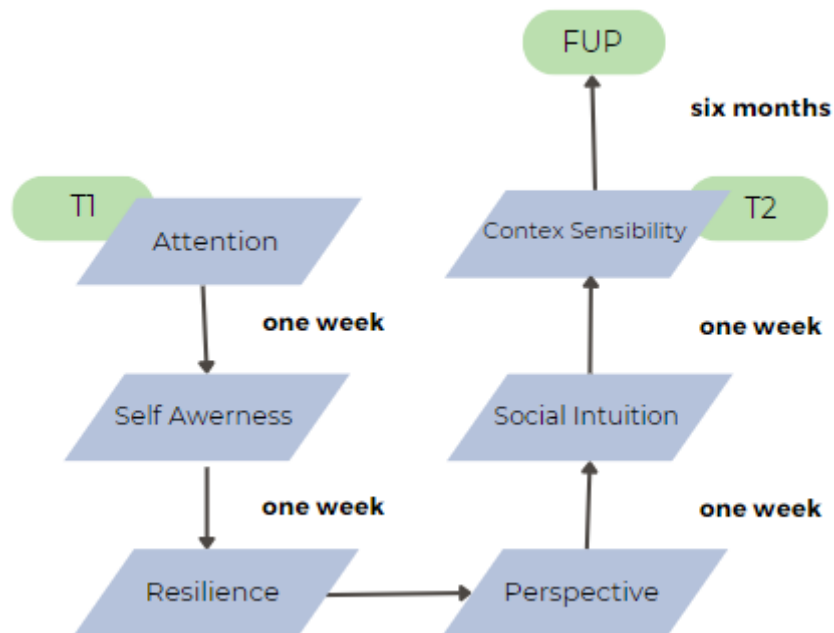
- Adaptation of the materials and resources used in the intervention sessions, either in terms of the language and methodology used to explain complex concepts such as neuroplasticity. Likewise, the audiovisual content was adapted by reducing the colour ranges of the presentations, the number of words, and the location on the screen.
- Adaptation of the evaluation questionnaires to the Easy-Reading methodology for people with intellectual disabilities. The sociodemographic data sections were adapted; satisfaction survey, transfer of what has been learned to daily life and work, as well as the questionnaires. The response time to these questionnaires was extended for people with intellectual disabilities. Also, the response scales of all items were adapted to make it easier for people with special needs to understand.
- Adaptation of the practical exercises in the different sessions. This intervention was carried out in person and in a state of health alert due to the COVID-19

pandemic. This reality led to the fact that in the different sessions we had to use masks, which made the exercises associated with mindfulness (Breathing, Body Scan, etc.) very difficult. Alternative practices, not focused on breathing, were sought to achieve the same effects (mindfulness walking, savouring, etc.). The exercises were also adjusted to group use given that groups responded better to this type of exercises compared to individual ones.

- The times of the sessions were also adapted to this group with functional diversity. The sessions did not last more than two hours with a 15-minute break at the end of the hour. In this way it was possible to rest and connect better with the proposed exercises.

The second section of this study consisted of the positive intervention. The intervention was designed longitudinally and applied for six weeks, with a weekly two-hour session. The intervention was conducted by professional researchers specialized in the covered topics. Figure 2 shows the structure of the intervention program, the contents covered in each session and the duration of the workshop.

Figure 1: Program Emotional Styles (N=45)

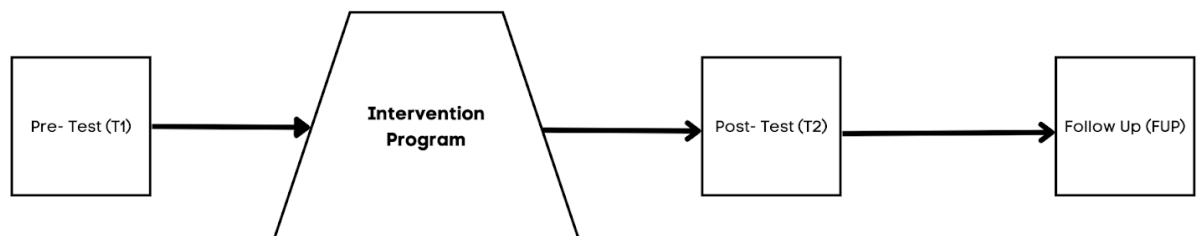


The objectives of sessions 1 and 2 were to get familiar with emotional styles, their theoretical and neural foundations based on scientific research, explain the six emotional dimensions and more specifically the profiles of Attention and Self-Awareness, as well as to carry out practical exercises of full attention and mindfulness. In turn, the objective of sessions 3 and 4 was to learn about and deepen the Resilience and Perspective dimensions through practical and applied exercises. Sessions 5 and 6 were used to learn about the dimensions of Social Intuition and Context Sensitivity; practical exercises were carried out to develop an understanding of these two dimensions. The format of the sessions was mostly practical, given that people with intellectual disabilities found it difficult to stay focused on more theoretical content.

Method

The research design employed in this study is a longitudinal design with a pretest, intervention, post-test and follow up (6 months after the program is finished). Due to the specific context in which the intervention took place, it was not feasible to randomize the intervention (Figure 2).

Figure 2: Design of the study.



Sample

For this research, an organization from the service sector was selected. This organization employs individuals with diverse functional abilities, predominantly individuals with intellectual disabilities. It has a total of 848 employees, with women comprising 65% of the workforce. Regarding age distribution, the majority of individuals fall within the 18-35 age range (38%), followed by 36-45 (35%), and 45-61 (27%) age ranges.

Regarding the implementation of the positive psychological intervention program, a sample of 45 individuals participated, including 12 individuals with diverse functional abilities (26.66%). Among the participants, 64.4% were women. The ages of the participants in this sample ranged from 19 to 61 years.

Measures

The intervention incorporated the following variables and measurement tools:

Emotional Styles were assessed using the Emotional Styles Questionnaire (ESQ, Kesebir et al., 2019). The ESQ is an 18-item self-report questionnaire that captures individual variations in the six dimensions considered crucial for a healthy and happy emotional life. Participants rated their responses on a 7-point Likert scale, indicating their level of agreement (1 = Strongly Disagree; 7 = Strongly Agree).

Well-being was measured using the Workplace PERMA Profiler (Butler & Kern, 2016). This comprehensive tool assesses well-being across five dimensions based on the PERMA model: Positive and Negative Emotion, Engagement, Relationships, Meaning, Accomplishment, and Health. Participants provided ratings on an 11-point Likert scale, indicating the extent to which each statement applied to them (0 = Not at all; 10 = Completely). ($\alpha = .86$).

Work engagement was assessed using the Ultrashort Utrecht Work Engagement Scale (UWES-3, Schaufeli et al., 2017). The UWES-3 captures the three characteristic dimensions of work engagement: dedication, absorption, and vigour. Participants rated their responses on a 7-point Likert scale, ranging from 0 (Strongly Disagree) to 6 (Strongly Agree). ($\alpha = .84$).

Satisfaction level was assessed using a self constructed questionnaire. This scale was constructed to assess the participants' satisfaction level with the training received. Participants rated their responses on a 5-point Likert scale, where 1 signifies extremely dissatisfied and 5 extremely satisfied with the intervention. Satisfaction was evaluated only at T2 at the end of the intervention.

It is worth noting that the measurement instruments were adapted by professionals in the field to the Easy-to-Read (García, O., 2012) style for individuals with intellectual disabilities.

Data Analysis

First, descriptive analysis were conducted with the study variables. Then one-factor Analysis of Variance (ANOVA) were applied using the IBM SPSS 26 (IBM Corp, 2019) program, to examine if there were significant differences between the group with ID and the group without intellectual disabilities (NoID) before the intervention took place. Second, to test the effects of the intervention program, data were analysed with repeated-measures ANOVA consisting of one between-subjects factor (ID with or NoID) and one within-subjects factor (time: pre intervention test (T1), post intervention test (T2) and follow up (FUP)). These analyses were carried out in order to observe differences in the means of each variable depending on the group. The effect represented by the time factor (T1, T2 and FUP) would show whether the Emotional Styles protocol was effective from a general approach; whereas the effect obtained according to the group (ID or NoID) would show whether there were differences between the groups at the level of the general mean. Finally, interaction effects were examined by comparing time factors (T1, T2 and FUP) across each group (ID and NoID). A significance level of .05 was established for all the tests.

Results

First, Table 1 shows internal consistencies (Cronbach's α) between the questionnaires for T1, T2 and FUP scores for the whole intervention group (ID and NoID, N=45).

Table 1: Internal consistencies for the questionnaires for the whole intervention group (N=45)

Measures	α	α	α
	T1	T2	T3
1. UWES 3 Engagement	.82	.71	.69
2. ESQ Emotional Style	.66	.70	.83
3. PERMA	.79	.80	.87

Next, Table 2 shows mean, standard deviations for T1, T2 and FUP scores for all the variables for the whole intervention group (ID and NoID, N=45). Finally, tested whether there were significant differences between ID and NoID on the demographic variables before the intervention (Pre-time). One-factor ANOVA results indicated no

differences between the two groups on the demographic data and gender. With these results, we proceeded to carry out the study, concluding that the two groups were comparable.

Table 2: Pre, Post, and FUP intervention means, standard deviations for all the variables for whole intervention group (N=45)

Variables	M T1	SD	M T2	SD	M FUP	SD
1. UWES 3 Engagement	4.68	1.04	5.15	.84	5.27	.82
2. EE Outlook	3.92	1.09	4.95	1.18	2.66	1.22
3. EE Resilience	4.40	.95	4.64	1.39	3.07	1.25
4. EE Self Awareness	4.34	1.14	4.51	.77	4.35	.74
5. EE Sensibility to Context	5.07	1.46	4.90	1.75	3.96	1.06
6. EE Social Intuition	4.23	1.26	5.07	.89	3.47	.87
7. EE Attention	4.20	1.26	4.45	1.31	4.42	.68
8. PERMA Engagement	7.01	1.29	7.81	1.00	8.02	1.37
9. PERMA Relationships	6.63	1.75	7.96	1.47	8.06	1.28
10. PERMA Meaning	7.29	1.20	7.79	1.23	7.65	1.40
11. PERMA Accomplishment	7.11	1.25	7.50	1.32	7.55	1.46
12. PERMA Health	6.48	1.79	6.49	1.97	7.15	1.98
13. PERMA Happiness	7.17	1.66	7.65	1.75	7.81	1.76
14. PERMA Positivity	7.24	1.41	7.52	1.44	7.61	1.51
15. PERMA Negative Emotions	5.67	2.3	3.66	2.09	4.09	2.4
16. PERMA Loneliness	3.35	2.41	3.37	2.88	3.40	3.18

The results suggest significant changes in groups across time (T1, T2 and FUP), across groups (ID and NoID), and across the time*group interaction.

Taking into account the time (T1, T2 and FUP), a repeated-measure ANOVA for each of the variables showed a statistically significant differences in the following variables:

First, statistically significant differences were found in ESQ Outlook measures at the three time points (T1, T2, and FUP) with a large effect size $F(1.51) = 25.57$, $p < .001$, $\eta^2 = .516$, $\beta-1 = .1$. Where the scores at T2 ($M = 4.95$, $SD = 1.18$) were higher and statistically significant than at T1 ($M = 3.92$, $SD = 1.09$). Additionally, the FUP results ($M = 2.66$, $SD = 1.22$) were lower and statistically significant than at T1.

Second, statistically significant differences were found in ESQ Resilience measures at the three time points (T1, T2, and FUP) with a large effect size $F(1.89) = 20.61$, $p < .001$, $\eta^2 = .462$, $\beta-1 = .1$. Where the scores at FUP ($M = 3.07$, $SD = 1.25$) were lower and statistically significant than at T1 ($M = 4.4$, $SD = .95$). Additionally, the FUP results were lower and statistically significant than at T2 ($M = 4.64$, $SD = 1.39$).

Third, statistically significant differences were found in PERMA Engagement measures at the three time points (T1, T2, and FUP) with a large effect size $F(2) = 9.39$, $p < .005$, $\eta^2 = .281$, $\beta-1 = .932$. Where the scores at T2 ($M = 7.81$, $SD = 1$) were higher and statistically significant than at T1 ($M = 7.01$, $SD = 1.29$). Similarly, the FUP results ($M = 8.02$, $SD = 1.37$) were higher and statistically significant than at T1.

Furthermore, statistically significant differences were found in PERMA Relationships measures at the three time points (T1, T2, and FUP) with a large effect size $F(1.34) = 38.83$, $p < .001$, $\eta^2 = .347$, $\beta-1 = .972$. Where the scores at T2 ($M = 7.96$, $SD = 1.47$) were higher and statistically significant than at T1 ($M = 6.63$, $SD = 1.75$). Similarly, the FUP results ($M = 8.06$, $SD = 1.28$) were higher and statistically significant than at T1.

Finally, statistically significant differences were identified in PERMA Negative Emotions measures at the three time points (T1, T2, and FUP) with a large effect size $F(1.36) = 22.46$, $p < .001$, $\eta^2 = .484$, $\beta-1 = .999$. Where the scores at T2 ($M = 3.66$, $SD = 2.09$) were lower and statistically significant than at T1 ($M = 5.67$, $SD = 2.3$). Additionally, the FUP results ($M = 4.09$, $SD = 2.4$) were lower and statistically significant than at T1.

Taking into account the groups (ID – NoID), a repeated-measure ANOVA for each of the variables showed statistically significant differences between groups of belonging on ESQ Outlook $F_{(2)} = 4.74$, $p < .05$, $\eta^2 = .143$, $\beta-1 = .66$ (Figure 3); ESQ Context Sensibility $F_{(2)} = 14.2$, $p < .001$, $\eta^2 = .382$, $\beta-1 = .99$ (Figure 9); ESQ Resilience $F_{(2)} = 6.19$, $p < .005$, $\eta^2 = .212$, $\beta-1 = .87$. (Figure 4); PERMA Happiness $F_{(2)} = 4.1$, $p < .05$, $\eta^2 = .151$, $\beta-1 = .69$ (Figure 10) and PERMA Meaning $F_{(2)} = 5.92$, $p < .005$, $\eta^2 = .205$, $\beta-1 = .85$ (Figure 11).

First, the results indicate that the ESQ Outlook variable from the NoID group had a significant increase from T1 to T2 when compared to the ID group. Moreover, the NoID group had a significantly higher decrease in FUP than the ID group. Second, the ESQ Context Sensibility variable had similar results in both groups from T1 to T2, despite that the ID group had a significantly positive effect at FUP and the NoID group had a significant decrease. Third, there was a better implementation of the ESQ Resilience variable in the NoID group than the ID group. However, both groups experienced a decrease in their results at FUP. Fourth, the PERMA Happiness variable tended to increase in both groups. However, the NoID group maintained its tendency to

improve at FUP and the ID group suffered a decline. Finally, the PERMA Meaning variable had better results in the NoID group given how its growth was sustained from T1 to T2 and finally at FUP. In the ID group, a decrease in the score is observed, both from T1 to T2 as well as at FUP.

Figure 3: Interaction between outlook, time and group

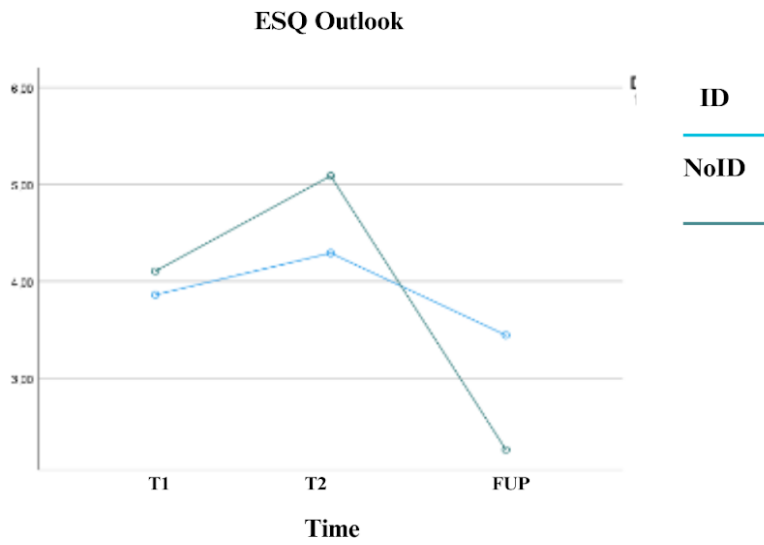


Figure 4: Interaction between resilience, time and group

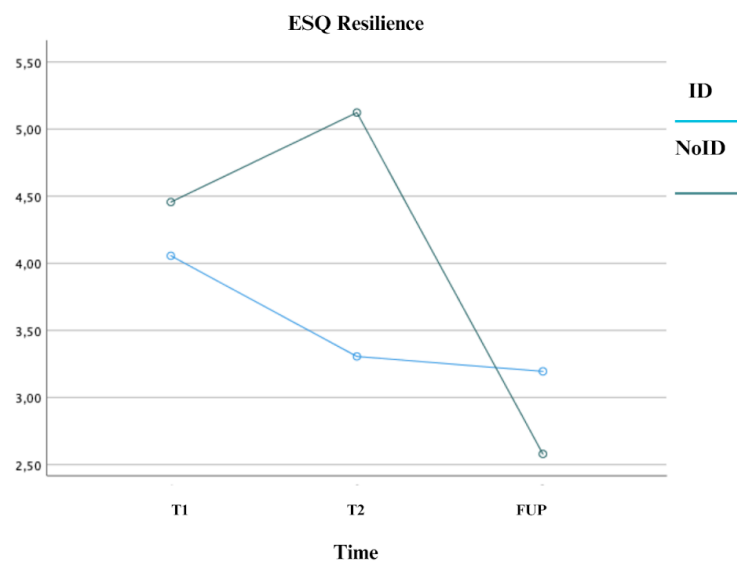


Figure 5: Interaction between engagement, time and group

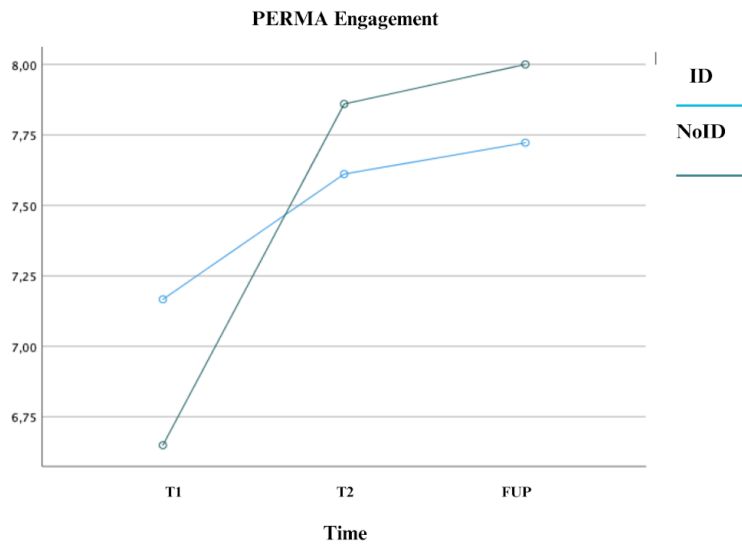


Figure 6: Interaction between relationship, time and group

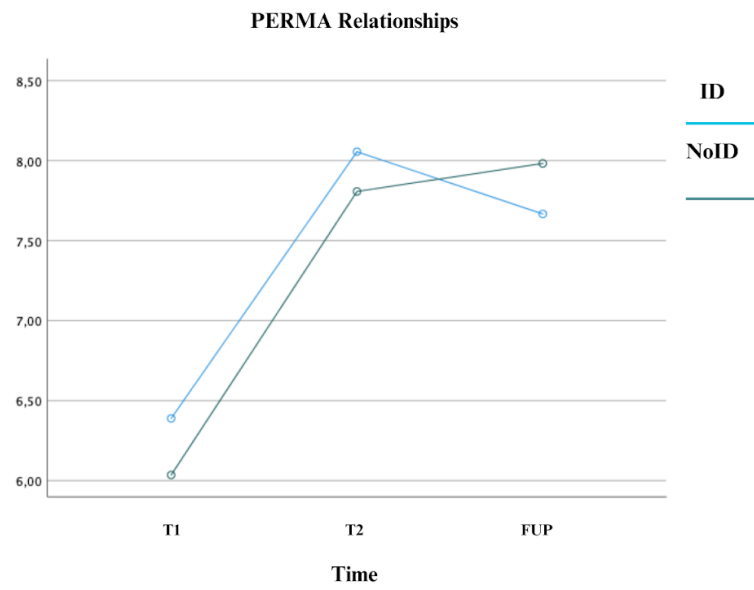


Figure 7: Interaction between relationship, time and group

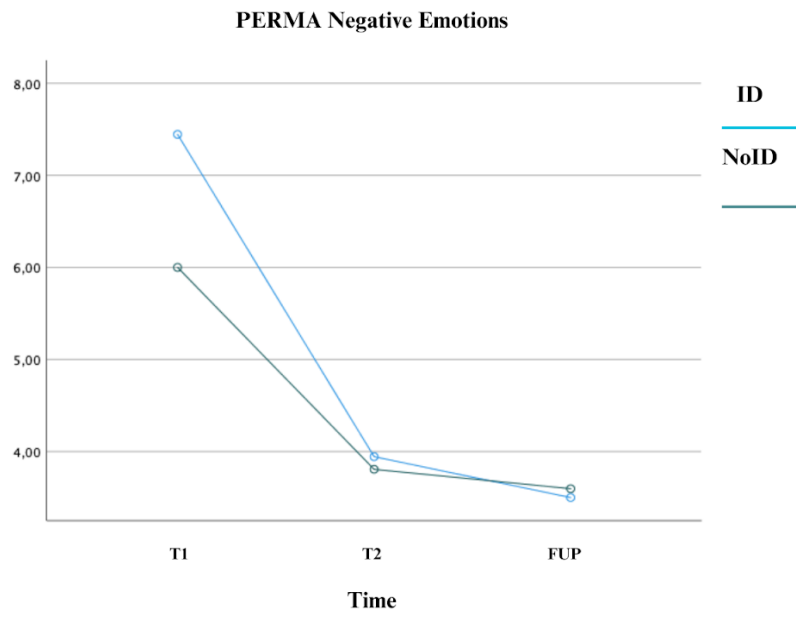


Figure 8: Interaction between context sensibility, time and group

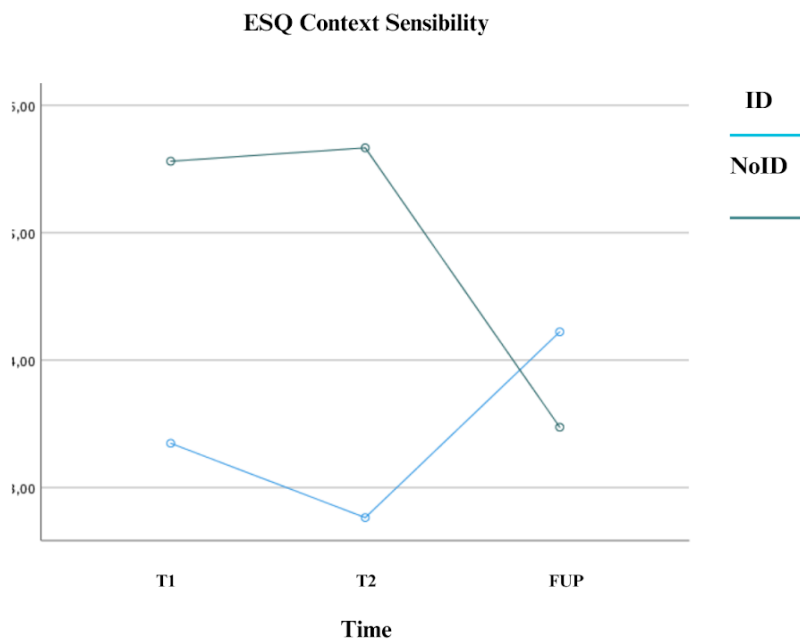


Figure 9: Interaction between happiness, time and group

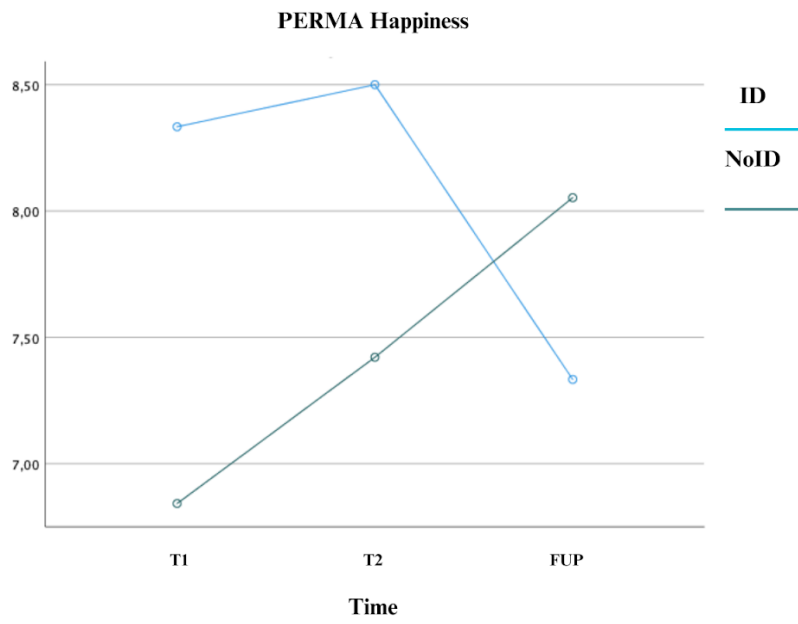


Figure 10: Interaction between meaning, time and group

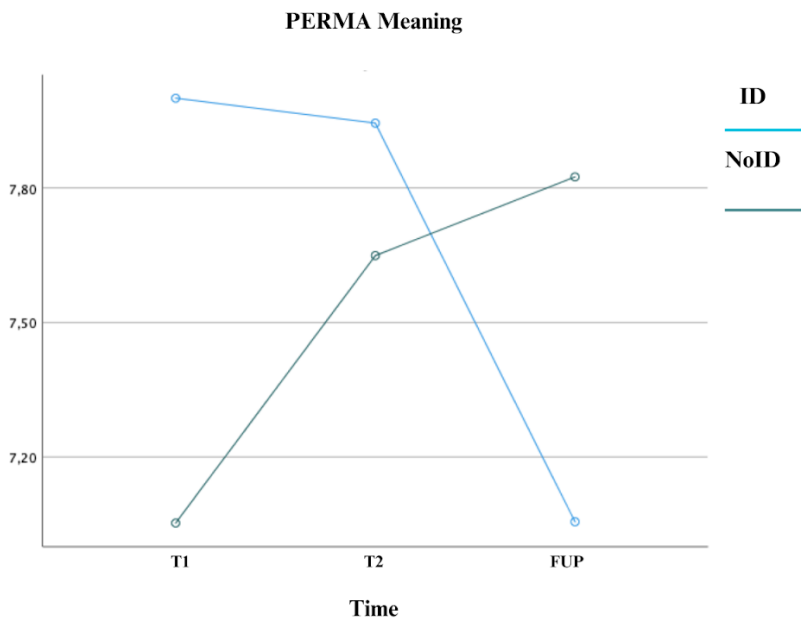
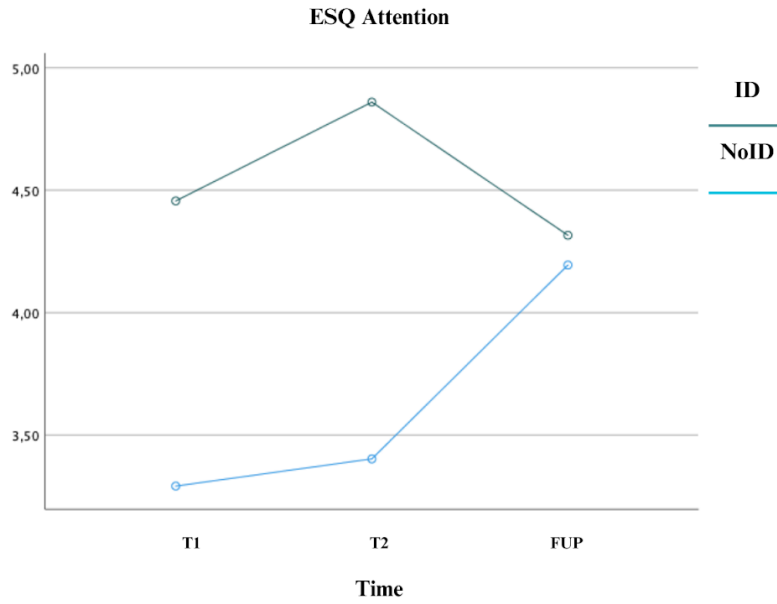


Figure 11: Interaction between attention, time and group



Taking into account the time* group interaction, a repeated-measure ANOVA for each of the variables showed a statistically significant in Context Sensibility $F_{(1,684)}=684, p<.001, \eta^2= .967, \beta-1=1$ (Figure 9) and Attention $F_{(1,684)}=684, p<.025, \eta^2= .634, \beta-1=1$ (Figure 11).

Table 3: Repeated measures ANOVA’s for the effect of Time, Group and Time X Group X Variable interaction

	Time				Group				Time*Group			
	df effect	F	P	η^2	df effect	F	P	η^2	df effect	F	P	η^2
UWES 3 Engagement	2	523	.596	.022	2	4.43	.017	.162	1	.022	.884	.052
EE Outlook	2	12.63	<.001	.355	2	3.83	.029	.143	1	.018	.895	.052
EE Resilience	2	10.59	<.001	.304	2	6.8	.004	.212	1	3.153	.089	.398
EE Self-Awerness	2	.287	.752	.012	2	2.13	.130	.085	1	.638	.433	.119
EE Contex Sensibility	2	1.40	.255	.058	2	14.20	<.001	.382	1	20.826	<.001	.992
EE Social Intuition	2	9.96	<.001	.302	2	1.23	.301	.051	1	1.132	.298	.175
EE Attention	2	.845	.436	.035	2	2.75	.074	.107	1	5.781	.025	.634
PERMA Engagement	1.6	4.53	.024	.165	1.61	.860	.401	.036	1	.000	.994	.050
PERMA Relationships	1.43	8.12	.003	.261	1.43	.284	.681	.086	1	.033	.857	.054
PERMA Meaning	2	5.92	.005	.045	2	5.92	.005	.205	1	.094	.762	.060
PERMA Accomplishment	2	.402	.672	.017	2	1.02	.238	.061	1	.198	.661	.071
PERMA Health	2	2.03	.14	.081	2	2.43	.098	.096	1	.480	.495	.102
PERMA Happiness	2	.439	.647	.019	2	4.10	.023	.151	1	.779	.386	.033
PERMA Positivity	1.72	.170	.844	.007	1.72	.627	.539	.027	1	.042	.839	.054
PERMA Negative Emotions	1.51	21.53	<.001	.484	1.51	1.218	.295	.050	1	.382	.543	.091
PERMA Loneliness	1.65	2.45	.097	.096	1.65	1.533	.230	.062	1	.026	.873	.053

Finally, the satisfaction of the 45 intervention participants was assessed. Their satisfaction level reached 100%, with 93% reporting being very satisfied or extremely satisfied. The remarkable 100% satisfaction rate observed among participants in the emotional styles intervention suggests that the program effectively addressed a spectrum of emotional needs. This high level of satisfaction may be attributed to the intervention's adaptability, resonating with the varied emotional experiences of the participants.

Discussion

The purpose of this project, focused on diversity awareness, has been to design, implement, and evaluate the effectiveness of an Emotional Styles intervention within an organization that has employees with intellectual disabilities. The objective of this intervention was to enhance the psychosocial well-being of individuals.

This research was divided into two sections. In section 1, the adaptation of the Emotional Styles and Positive Resources intervention programme was carried out for a heterogeneous group of workers of which 25% are workers with intellectual disabilities (26.6% with ID). In section 2, an analysis of the programme's effectiveness was conducted on participants at three different time points (T1, T2, and FUP), as well as an examination of program assimilation and differences between the ID and NoID groups.

Derived from the findings of section 1, it can be affirmed that the proposed objectives have been fulfilled. A psychosocial diagnosis of the organization was conducted through the HERO model, which laid the groundwork for the selection of the intervention programme. The tool demonstrated efficacy in identifying the evaluated factors, rendering it suitable for intervention planning. Moreover, a psychological intervention programme was designed and implemented. This intervention can be adapted to heterogeneous groups of workers which include individuals with functional diversity (intellectual disabilities). This achievement represents progress in developing strategies to promote health and diversity inclusion at work. Possessing not only tailored assessment tools but also appropriate action protocols and materials constitutes a valuable resource for professionals in the field of psychosocial health.

Furthermore, conclusions drawn from section 2 affirm the effectiveness of the Emotional Styles intervention, as evidenced by longitudinal changes observed both pre and post-intervention and follow up, in the analyzed variables. Despite the sample size, the significant differences obtained have favored the beneficial impact of the

intervention. In addition to these positive changes, participants' satisfaction with the intervention has been notably high.

Positive and significant differences have been shown in some variables between T1 and T2 and FUP. The positive increase in the PERMA Engagement and PERMA Relationships variables, as well as the significant decrease in the PERMA Negative Emotions variable are particularly noteworthy. In the workplace, being able to positively impact these variables has a very positive effect on the well-being of employees (reduction in the impact of negative emotions), on the work environment (better relationships with colleagues), and on organizational outcomes (increased engagement).

Significant differences were found regarding the impact of the intervention between the ID groups and the NoID group. The PERMA Happiness and PERMA Meaning variables stand out, as they exhibited contrasting effects, especially in the FUP measurements. This point suggests that efforts to adapt the intervention and make it consistent for both populations have been partially successful. Furthermore, an interaction was found between the variables time versus group in relation to the sensitivity to context and attention variables, which demonstrates a significant difference in the impact of the intervention in the two groups.

Finally, variables such as ESQ Resilience and ESQ Outlook showed a significant decrease in their results 6 months after the intervention ended. Meanwhile, variables like ESQ Outlook, PERMA Engagement, PERMA Relationship, and PERMA Negative Emotions maintained their positive effect over time, with some cases even maintaining the improvement trend.

The importance of attaining a 100% participant satisfaction rate in the intervention cannot be overstated. This remarkable outcome not only highlights the considerable pertinence and effectiveness of such interventions within the professional sphere, especially in organisations marked by a significant presence of individuals with intellectual disabilities but also underscores the resonance of tailored psychological interventions in cultivating a positive influence on the well-being and occupational experiences of a workforce encompassing intellectual diversity. The resounding success in eliciting unanimous contentment among participants serves to accentuate the potential transformative impact of tailored psychological interventions, elevating both

the emotional and professional dimensions of a workforce marked by intellectual diversity.

Limitations and future research

This project is situated within a complex social, economic, and health-related period. Alongside the socio-economic challenges inherent in recovering from the global crisis, there are also those brought about by the COVID-19 pandemic. The working environment has been greatly impacted by new forms of work and changes in the production processes. All of this has negatively affected individuals' overall health, both in their professional and personal lives. In relation to the project's implementation, several obstacles have been identified, most of which are related to the pandemic-induced working conditions. Fortunately, all of these obstacles have been successfully overcome.

First, selecting the organization in which to carry out the intervention and psychological project was a challenge. Identifying organizations with a presence of employees with functional diversity was difficult, as finding a minimum percentage of workers with these characteristics is hard to come by.

Second, adapting the protocol and materials to the groups' characteristics posed a challenge due to the lack of precedents in this regard. This required adapting the workshop's execution almost in real-time. The materials and tools that were used demanded significant effort, which was carried out under considerable time pressure.

Third, due to the pandemic's working conditions, the intervention was initially planned to be conducted online. However, considering the attendees' characteristics, it was reformulated to be carried out in-person. This required the organization's effort in finding a sufficiently large space to accommodate the group of attendees while adhering to COVID-19 safety measures.

Last, unforeseen difficulties arose during the statistical analysis process. The obtained results, while intriguing, refer to a relatively small sample size, and as such, they must be interpreted within this context.

A promising area of research would be to explore the transferability of the intervention to other populations with functional diversity. Investigating how the adaptation could benefit different groups of workers with various abilities and

challenges could provide valuable insights for expanding the intervention at a community level.

Furthermore, underscoring the need for a randomized controlled trial is paramount. Implementing this methodological approach in future research would ensure a more robust evaluation of the intervention's impact, establishing a solid evidence base for its effectiveness in comparison to alternative interventions.

CHAPTER 5

GENERAL CONCLUSIONS

Currently, there is an urgent need for organizations to address aspects related to mental health and the promotion of well-being in different settings (i.e., workplace, universities) as a fundamental strategic value for the society development. This paradigm shift reflects the contemporaneity of the tenets of Positive Psychology, whose focus lies at the core of the transformation advocated by the present thesis.

The findings obtained reinforce the essential premise that proactive attention to mental health, in this case through psychological self-care behaviors, not only constitutes an ethical imperative but also emerges as a key strategy for cultivating a resilient, sustainable, and healthy work environment.

Focusing on specific details, the thesis aimed to provide scientific evidence regarding the importance of self-care in reducing stress and promoting well-being in the pre-professional and work environment. To achieve these objectives, the following research questions were formulated:

- I. In the academic and pre-professional context: Do self-care behaviors contribute to academic engagement in university students?
- II. In workplace settings: Are self-care behaviors associated with well-being at work?
- III. In the context of functional diversity: What is the impact of a psychological self-care intervention tailored for the inclusion of individuals with intellectual disabilities in a group of workers, and how does this impact differ compared to workers without intellectual disabilities?

These questions were answered throughout chapter 2, 3, and 4. In relation to the impact of self-care on psychological capital and academic engagement in university students in the period of the COVID-19 pandemic, the study in chapter 2 aimed to investigate the mediating role of psychological capital between self-care behaviors and academic engagement in university students. To answer question 2, chapter 3 aimed to investigate the role of self-care in psychological well-being in the workplace in different

sectors such as industrial, commercial, education, and healthcare, as well as the impact of positive organizational practices based on self-care. Finally, the study in chapter 4 was conducted to answer question 3. The first objective of this chapter was to adapt a positive psychological intervention to a group of workers with functional diversity, that is, for the intervention program to have a positive impact on the whole sample. And second, to investigate the impact of the intervention on people with intellectual disabilities compared to those without intellectual disabilities.

Answers to research questions:

What is the impact of self-care on psychological capital and academic engagement in university students in the period of the COVID-19 pandemic?

Chapter 2 of this thesis addresses the answer to this question in a cross-sectional study with a sample of 397 Spanish university students during confinement and the subsequent months of the COVID-19 pandemic. Based on the JD-R model (Bakker & Demerouti, 2017), the study tested the following hypotheses: First, the positive and significant relationship between students' self-care activities and positive psychological capital. Second, the positive and significant relationship between psychological capital (Luthans et al., 2006) and academic engagement (Schaufeli et al., 2002b). And finally, the positive and significant relationship between self-care activities and academic engagement through the mediating effect of psychological capital.

The results supported the proposed hypotheses given that a positive and significant relationship was found between self-care activities and psychological capital (Hypothesis 1) and a positive and significant relationship was found between self-care activities and academic engagement (Hypothesis 2). This study also revealed how psychological capital fully mediates the effects of self-care activities on academic engagement, being a potential psychological mechanism that explains why self-care activities work in its relationship with academic engagement. It also showed that psychological capital is a valuable personal resource and could play a crucial role in predicting positive outcomes. Self-care activities did not directly impact academic engagement unless psychological capital was involved as a mediator. Therefore, it is recommended to pair self-care activities with programs to develop psychological capital to improve university students' academic engagement.

There is a variety of theoretical and practical implications that arise from this study. First, from a theoretical perspective, research on the JD-R model (Bakker & Demerouti, 2017; Bakker et al., 2023) has been expanded. The study has revealed new evidence about how personal resources (in this case, represented by PsyCap) may contribute to the processes underlying the relationships between self-care activities and academic engagement in a university sample. Furthermore, this study enhances our understanding of the importance of self-care in academic engagement and its connection to PsyCap. Second, in terms of practical implications, the results of this chapter suggest a way to enhance the academic engagement of university students through positive psychological intervention programs based on self-care and PsyCap. In short, the results highlight the importance of promoting a culture of self-care, not only in health and work contexts, but also in educational contexts, to not only prepare students to face future obstacles in their professional lives but also to empower them for their personal, family, and social lives.

What is the relationship between self-care activities, personal and job resources, and well-being in the workplace?

The answer to this question is found in chapter 3 of this thesis in which a cross-sectional study with a sample of 294 workers from 20 organizations in Spain was presented. The main objective of this study was to analyze the relationship between self-care activities and both personal and job resources, as well as their impact on psychological well-being. Just as in chapter 2, this study uses the JD-R model (Bakker & Demerouti, 2017) as a theoretical framework, in addition to incorporating the COR model (Hobfoll, 1989).

With this basis, we tested the following hypotheses: First, the positive and significant relationship between the self-care activity of mindfulness and psychological well-being through the mediating role of job resources (i.e., feedback, climate support). Second, the positive and significant relationship between mindfulness-based self-care activities and psychological well-being through the mediating role of personal resources (i.e., mental and emotional competences). Third, the positive and significant relationship between self-care activities based on physical exercise and psychological well-being through the mediating role of job resources. Fourth, the positive relationship between self-care activities based on physical exercise and psychological well-being through the mediating role of personal resources. Finally, the interaction between

mindfulness and physical exercise and its positive and significant effect on the dependent variables of personal and job resources as well as psychological well-being (i.e., engagement, collective self-efficacy) was hypothesized.

The results showed the follow evidence. Hypothesis 1 was not confirmed in this study given that no positive relationship was found between mindfulness and job resources. In turn, Hypothesis 2 was confirmed with a positive relationship between mindfulness, personal resources, and psychological well-being. In other words, personal resources had a partial mediating role between mindfulness and psychological well-being.

Hypotheses 3 and 4 were refuted given how we did not find any positive and statistical relationship between physical exercise, personal or job resources and psychological well-being. Finally, Hypothesis 5 was confirmed by finding a positive and significant relationship between the interaction of mindfulness self-care activities * physical exercise, personal resources, and psychological well-being, which suggests that workers who practice mindfulness in addition to physical exercise have a better use of their personal resources at work, which positively impacts their psychological well-being.

The theoretical and practical implications of this chapter expand our knowledge of the JD-R (Bakker & Demerouti, 2017, Bakker et al., 2023) and COR models (Hobfoll, 1989). The research provides scientific evidence on how personal resources play a mediating role in the relationship between self-care activities and psychological well-being at workplace. Knowledge about the impact of self-care on psychological well-being in work environments across different socioeconomic sectors has also been expanded, making this article one of the pioneering works on this specific topic. From a practical point of view, the results of this study provide evidence on the positive impact of promoting self-care at workplace, whether through mindfulness programs or the promotion of physical exercise. This type of practices has a positive impact on the well-being of workers by increasing personal resources. These results can contribute to promoting healthier organizations and provides evidence on the effectiveness of using digital tools to promote a healthy work environment for everyone.

What is the impact of a psychological self-care intervention adapted for the inclusion of individuals with intellectual disabilities in a group of workers, and how does this impact differ compared to workers without intellectual disabilities?

The answer to this question is found in Chapter 4 of this thesis through a longitudinal study conducted with a sample of 45 individuals who participated in a self-care promotion program through Healthy Emotionality.

The primary objective of this chapter was twofold. Firstly, to adapt a positive psychological intervention to a group of workers with functional diversity and evaluate the program's effectiveness longitudinally. This intervention is based on the Emotional Styles model by Davidson & Begley (2012).

Building upon this foundation, the present study was divided into two sections: In the first section, we implemented modifications to the Emotional Styles and Positive Resources intervention programme to cater to a diverse cohort of employees, encompassing 25% individuals with intellectual disabilities (ID). Section 2 involved a comprehensive evaluation of the program's efficacy across three distinct time intervals (T1, T2, and FUP), coupled with an assessment of program assimilation and distinctions between the ID and NoID groups.

Based on the section 1 findings, it is confirmed that the proposed objectives have been achieved. The organization went through a psychosocial diagnosis using the HERO model, which guided the selection of the intervention program. The tool effectively identified the assessed factors, making it suitable for planning interventions. Additionally, a psychological intervention program was created and executed, adaptable to diverse worker groups, including those with functional diversity like intellectual disabilities. This accomplishment signifies advancement in devising strategies for promoting health and fostering diversity and inclusion in the workplace.

Section 2 findings solidify the efficacy of the Emotional Styles intervention, evident through longitudinal changes pre, post-intervention, and at follow-up in analyzed variables. Positive and significant differences emerged in some variables between T1, T2, and FUP. Noteworthy is the positive increase in PERMA Engagement and PERMA Relationships, coupled with a significant decrease in PERMA Negative Emotions. In the workplace, positively influencing these variables has a substantial effect on employee well-being (reduced negative emotions impact), the work

environment (improved relationships with colleagues), and organizational outcomes (increased engagement). Distinct differences were observed between the ID and NoID groups regarding the intervention's impact. Particularly prominent are the contrasting effects in PERMA Happiness and PERMA Meaning, especially in FUP measurements. It is very positive that these variables have remained with high scores even six months after the intervention. This suggests partial success in adapting the intervention consistently for both populations. Additionally, an interaction was detected between the time X group concerning sensitivity to context and attention, demonstrating a significant difference in the intervention's impact on the two groups. Initially, findings suggest that the ESQ Outlook variable within the NoID group exhibited a notable increase from T1 to T2 in comparison to the ID group. Additionally, the NoID group experienced a considerably larger decrease during the FUP period compared to the ID group. Secondly, the ESQ Context Sensibility variable yielded comparable outcomes across both groups from T1 to T2, albeit with the ID group demonstrating a significantly positive impact during FUP, while the NoID group exhibited a marked decrease. Lastly, the implementation of the ESQ Resilience variable was more effective within the NoID group when juxtaposed with the ID group. Finally, factors such as ESQ Resilience and ESQ Outlook exhibited a noteworthy decline in their outcomes six months post-intervention conclusions. These results highlight the importance of carrying out refreshment actions with the aim of maintaining the achieved results between T1 and T2 over time. Conversely, elements like ESQ Outlook, PERMA Engagement, PERMA Relationship, and PERMA Negative Emotions sustained their favorable impact over time, with certain instances even continuing the trajectory of improvement.

Theoretical and Practical Implications

The theoretical and practical implications of this thesis are the following. Firstly, the theoretical implications are related to the expansion of knowledge about the impact of self-care activities in the academic and professional settings. This implication is crucial, considering that at the beginning of this thesis, there was a scarcity of scientific research on the relationship between self-care activities and their impact on well-being. The present thesis has revealed results indicating that when organizations are incorporating self-care practices into their organizational policies will have employees with an enhanced ability to recognize their personal resources, consequently leading to higher levels of well-being. Moreover, it was confirmed that organizations including the

teaching of new psychological tools in their training can optimize the well-being of their employees and reduce distress by improving emotional care and the care of their surroundings.

Secondly, knowledge about the relationship of self-care activities in the JD-R (Bakker & Demerouti, 2017; Bakker et al., 2023), COR (Hobfoll, 1989), HERO Model (Salanova et al., 2012) and PsyCap (Luthans et al., 2006) models has been expanded. In the case of JD-R and COR models, it was demonstrated how the interaction of self-care activities (mindfulness x physical exercise) and the psychological well-being of workers from various socioeconomic sectors was mediated by personal resources. In other words, individuals engaging in mindfulness and physical exercises were better able to leverage their personal resources, resulting in higher levels of psychological well-being. Additionally, a positive and significant relationship between self-care activities and PsyCap, with the latter mediating the relationship between self-care activities and academic engagement, was observed in a sample of university students. In essence, students engaging in more self-care activities scored higher in PsyCap, leading to increased levels of academic engagement.

Regarding practical implication, on the one hand, the research provides evidence to persuade organizations about the importance of caring for their employees and the impact of fostering a culture of self-care in the workplace and academic settings. Positive results were found in terms of well-being promotion through self-care in the participating organizations. The implementation of self-care programs has elevated the well-being of their employees. Positive evidence was also found in the university setting, highlighting the importance of self-care and its relation to academic engagement. This is particularly significant as both the university and workplace environments are important sources of stress.

On the other hand, the objectives achieved in these investigations have a direct correlation with the Sustainable Development Goals (SDGs), especially concerning SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 8 (Decent Work and Economic Growth). The empirical evidence found in Chapters 2, 3, and 4 contributes, through research, to reflecting on the importance of consciously and voluntarily engaging in self-care activities, such as physical exercise, meditation, and social support. Additionally, the results from Chapter 2 advocate for the importance of educational institutions including self-care and psychological capital promotion in their

training, as these are precursors to academic engagement. Lastly, this thesis has also provided empirical evidence for the development of SDG 8. The three investigations carried out in this thesis are directly associated with the promotion of decent work and economic growth through the promotion of self-care behaviors for stress reduction and increased well-being.

The results derived from this study support and extended the guidelines of the World Health Organization (WHO) regarding the establishment of a self-care culture (WHO, 2022). By addressing the effectiveness of specific psychological self-care practices, this research advocates for the integration of concrete approaches into daily routines as an effective strategy to enhance mental health. These findings consolidate the importance of adopting a comprehensive care paradigm, aligning with WHO recommendations, and emphasizing the relevance of including psychological self-care as an essential element in global health management.

Limitations and future research

The present thesis comes with several limitations. Firstly, the samples used in the three empirical studies were convenience samples, which could restrict the generalizability of the findings. Nevertheless, the samples used were heterogeneous in terms of age, education, nationality, gender, tenure in the organization, and functional diversity. Secondly, the data collected in all three studies were self-reported. This could introduce a common method variance bias. Despite this, considering the nature of the psychological experiences assessed in the studies, it is challenging to employ other study methodologies. Additionally, the Harman's test was conducted, demonstrating that common method variance bias was not a threat to validity. Thirdly, the studies in Chapters 2 and 3 were cross-sectional; therefore, firm conclusions about the causal order of variables and their relationships cannot be drawn.

Another limitation was the timing of data collection and the implementation of self-care programs in organizations and universities. In both Chapter 2 and Chapter 4, the studies were conducted during the COVID-19 pandemic in 2020. For this reason, it is recommended to replicate these studies during a period of normal health and social conditions.

Future research is recommended based on this thesis. Firstly, despite conducting a longitudinal study in Chapter 4, it is recommended to conduct longitudinal studies

with experimental designs to uncover the causal order of variables studied in Chapters 2 and 3. Additionally, the use of diary studies would be advisable to obtain more relevant information about the underlying psychological mechanisms of self-care behaviors and their impact on dependent variables. Investigating other variables considered as personal resources, such as optimism, compassion, or gratitude, and their potential effect on the relationship between self-care activities and psychological well-being would be interesting.

Upon concluding this research, there arises a need to consider the long-term implications of the presented results. The integration of psychological self-care strategies not only addresses current demands but also establishes a solid foundation for future considerations. This study posits that the promotion of psychological self-care can be not only a preventive strategy but also a sustainable approach to address persistent challenges in mental health. In this regard, a path is opened towards continuous research and persistent efforts aimed at fostering the widespread adoption of psychological self-care practices in diverse contexts and populations.

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SUMMARY (English)

The doctoral thesis aims to contribute scientific evidence emphasizing the significance of self-care in daily life, with a particular focus on underexplored areas such as academic and professional contexts. To achieve this objective, the research revolves around three fundamental questions guiding the thesis development:

I. In the pre-professional academic realm: Do self-care behaviors contribute to academic engagement in university students?

II. In professional contexts: Are self-care behaviors associated with well-being at work?

III. In contexts of functional diversity: What is the impact of a psychological self-care intervention tailored for the inclusion of individuals with intellectual disabilities in a group of workers, and how does this impact differ compared to workers without intellectual disabilities?

To address these inquiries, three research studies were conducted to examine the relationship between psychological self-care, stress mitigation, and well-being promotion. The first study focused on investigating the mediating role of psychological capital between self-care behaviors and academic engagement in university students during the COVID-19 pandemic, emphasizing the importance of promoting self-care programs in academic settings. The second study aimed to explore the influence of self-care on psychological well-being across various occupational sectors, including industrial, commercial, educational, and healthcare, as well as to assess the impact of positive organizational practices based on self-care. Finally, the third study aimed, firstly, to adapt a positive psychological intervention to a group of workers with functional diversity, ensuring the intervention programme had a beneficial impact on the entire sample. Secondly, the study investigated the intervention's impact by comparing individuals with intellectual disabilities to those without intellectual disabilities.

Diverse methodologies, research approaches, data analysis techniques, and samples were employed to conduct these studies. The findings enrich the understanding of the impact of various self-care practices, such as meditation and physical activities, on stress reduction and well-being improvement in diverse occupational settings. These settings encompass the pre-professional realm, such as the university context, and the

professional realm, including different productive sectors such as industrial, service-oriented, educational, third-sector, and healthcare settings, addressing labour contexts with a significant percentage of workers experiencing functional diversity.

RESUMEN (Español)

La tesis doctoral se centra en aportar evidencia científica que subraya la importancia del autocuidado en la vida diaria, con especial énfasis en áreas poco exploradas como los contextos laborales y académicos. Para lograr este propósito, la investigación se articula alrededor de tres preguntas fundamentales que guían el desarrollo de la tesis:

- I. En el ámbito académico preprofesional: ¿Contribuyen los comportamientos de autocuidado al compromiso académico de los estudiantes universitarios?
- II. En contextos laborales: ¿Están asociados los comportamientos de autocuidado con el bienestar en el trabajo?
- III. En contextos de diversidad funcional: ¿Cuál es el impacto de una intervención psicológica de autocuidado diseñada para la inclusión de personas con discapacidad intelectual en un grupo de trabajadores, y cómo difiere este impacto en comparación con los trabajadores sin discapacidad intelectual?

Para abordar estas cuestiones, se llevaron a cabo tres estudios de investigación con el objetivo de examinar la relación del autocuidado psicológico en la mitigación del estrés y la promoción del bienestar. El primer estudio se enfocó en indagar el papel mediador del capital psicológico entre las conductas de autocuidado y el compromiso académico en estudiantes universitarios durante la pandemia del COVID-19, destacando la importancia de impulsar programas de promoción del autocuidado en entornos universitarios. El segundo estudio buscó explorar la influencia del autocuidado en el bienestar psicológico en diversos sectores laborales, como el industrial, comercial, educativo y sanitario, así como evaluar el impacto de las prácticas organizacionales positivas basadas en el autocuidado. Finalmente, el tercer estudio se propuso, en primer lugar, adaptar una intervención psicológica positiva a un grupo de trabajadores con diversidad funcional, asegurando que el programa de intervención tuviera un impacto beneficioso en toda la muestra. En segundo lugar, se investigó el impacto de la intervención comparando el grupo de personas con discapacidad intelectual con aquellos sin discapacidad intelectual.

Se utilizaron diversas metodologías, enfoques de investigación, técnicas de análisis de datos y muestras para llevar a cabo estos estudios.

Los hallazgos de este estudio enriquecen la comprensión acerca del impacto de diversas prácticas de autocuidado, como la meditación y las actividades físicas, en la reducción del estrés y la mejora del bienestar en variados entornos laborales. Estos entornos abarcan desde el ámbito preprofesional, como el contexto universitario, hasta el ámbito profesional, que incluye distintos sectores productivos como el industrial, de servicios, educativo, del tercer sector y sanitario, abordando además contextos laborales con un significativo porcentaje de trabajadores que presentan diversidad funcional.

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*La apreciación es algo maravilloso,
hace que lo que es excelente en otros nos pertenezca también.*

Voltaire

Durante una conferencia online, en plena pandemia de COVID-19, tuve la oportunidad de escuchar por primera vez en vivo al padre de la psicología positiva, Martin Seligman. Estaba expectante, esperando descubrir ideas innovadoras, los nuevos rumbos de la psicología positiva o los recientes hallazgos de las investigaciones de su equipo, pero sorpresivamente, nada de eso ocurrió. La conferencia se centró principalmente en el poder de la gratitud y la técnica de las tres bendiciones, conceptos que ya conocía desde su primer libro a fines de la década de los 90. A pesar de mi primera impresión (decepción), rápidamente comprendí que la gratitud es algo atemporal; no importa cuánto tiempo pase, sigue generando efectos positivos e inmediatos en nuestro bienestar.

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