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**BURNOUT AND SELF-CARE: A SCALE AND AN ONLINE INTERVENTION AIMED AT PRACTICING PSYCHOLOGISTS IN CHILE.**

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## Abstract

Mental health professionals must deal with highly stressful working conditions. In Chile, working in the public system implies an even more significant challenge than the private exercise of the profession due to multiple conditions such as high workload, precarious contractual conditions, long patient waiting lists, and low salaries, among other things. In emergencies such as the COVID-19 pandemic or earthquakes, working conditions become almost impossible if we add the tension caused by the risk to one's health and that of the family. Burnout symptoms are almost inevitable due to the myriad of stressors and a lack of a formal mental health care system for these workers. This research is motivated by a practical interest in creating a psychological intervention aimed at these professionals to improve their professional and individual mental health, activating the professionals' ability to take care of themselves and improve their health besides taking care of others. The intervention was created and assessed for psychologists, basing the first empirical evidence of its effectiveness on a Randomized Controlled Trial. Two studies were conducted:

In **Study 1**, the Self-Care Assessment for Psychologists (SCAP) scale was successfully translated and adapted in Chilean Spanish and its psychometric properties were verified. It corresponds to an objective measure of self-care behaviours and, at the same time, constitutes a valuable list for professionals who want to improve their occupational mental health through the proactive incorporation of self-care behaviours.

In **Study 2**, the effectiveness of MAGO (in Spanish, “*Modelo de Autocuidado Guiado Online*”, MAGO) was determined. This study is the first empirical evidence grounded on a RCT that MAGO, (1) reduces emotional exhaustion, (2) reduces anxiety symptoms, (3) reduces depression symptoms, (4) increases perceived social support and (5) increases self-care behaviours.

# CHAPTER 1

## Introduction

Occupational Burnout is a phenomenon that can be troublesome in the case of psychologists and the challenges related to working in the public sector in conjunction with the recent appearance of the COVID-19 pandemic. There is yet to be a consensus regarding the measurements used, which has important implications when calculating the prevalence and the generation of treatments. In addition, more information on this topic must be provided on the Chilean population. Self-care is a term already established in the culture, and it is observed to be associated with less burnout and an improvement in people's general well-being. Its meaning can be vague and highly variable, frequently associated in Chile with leisure occasions. However, little by little, it is taking shape in reflection meetings between colleagues and activities aimed at promoting occupational mental health in some workplaces.

This research was facilitated by two factors. First, the massification of information and communication technologies, specifically the Zoom videoconferencing application. Second, the existence of a valid, psychometrically sound instrument to measure self-care behaviours, especially aimed at practicing psychologists (Dorociak et al., 2017a). This assessment tool was translated and validated into Spanish for the Chilean population and led us to structure an online burnout prevention intervention by promoting self-care behaviours. The intervention presented in this dissertation caught the attention of participants interested in reflecting on their working conditions and occupational health, free of charge, without transportation costs and the risk of face-to-face contagion, precisely during the pandemic. This intervention was shown to be effective using the most appropriate methodology (randomised controlled trial), constituting an alternative based on evidence of the effectiveness of a programme that includes online questionnaires and videoconference to promote self-care in psychologists. This dissertation will critically discuss the role, possibilities and practical implications of occupational burnout and self-care concepts, as well as the various measuring tools and interventions to provide psychological support to psychotherapists.

In **Chapter 2**, occupational burnout will be analysed with other problems at work and personal levels in the context of mental health workers and clinical psychologists. In **Chapter 3**, the concept of self-care will be defined, the use of scales and the potential benefits of reducing burnout and increasing psychological well-being. In **Chapter 4**, we will discuss the variety of interventions that can help improve the well-being of psychotherapists, emphasising the promotion of self-care and the reduction of professional burnout. **Chapters 5 and 6** will report the results of **Study 1** and

**Study 2**, respectively. Finally, in **Chapter 7**, the conclusions of this research will be drawn, with a critical review of the results, considerations for future studies and implications for the application of online tools to address the topic of burnout in clinical psychologists.

# CHAPTER 2

## **Burnout**

In this section, we will analyse occupational burnout and other problems at work and personal levels in the context of mental health workers and clinical psychologists.

Job burnout is a type of chronic occupational strain characterised by feelings of emotional exhaustion, depersonalisation/cynicism, and reduced personal accomplishment/efficacy (Maslach et al., 2001). In other words, it can be defined as an "overwhelming exhaustion, feelings of cynicism and detachment from the job and a sense of ineffectiveness and lack of accomplishment" (Maslach, 2003, p. 190).

Extensive evidence has been published regarding the causes and effects of burnout in the general working population (Bakker et al., 2006; Borgogni et al., 2012). However, the information regarding this phenomenon among applied psychologists has gone at a different speed or volume compared to the other professions (McCormack et al., 2018).

Mental health providers experiencing high levels of burnout can suffer from mental and physical health problems (Acker, 2010; Peterson et al., 2008 ). They can show more absenteeism (Borritz et al., 2006) and intentions to quit (Salyers et al., 2015), causing more economical costs (Smoot & Gonzales, 1995; Waldman et al., 2004). It can negatively interfere with the quality of the service provided (Happell & Koehn, 2011; Spence Laschinger & Leiter, 2006).

Psychotherapists are susceptible to burnout due to consistently emotionally taxing job demands and a high requirement for empathy (Maslach, & Jackson, 1996; Rupert et al., 2015). Job demands can include challenging and excessive workloads and insufficient resources like lack of control over the work environment, professional identity and job support (Hannigan et al., 2004; Lee et al., 2011).

Working as a psychologist can predispose to burnout by putting the needs of others before their own. Even though it is known that social support can mitigate the adverse effects of burnout, many of these professionals refuse to receive their professional support, even knowing that it could benefit them (Bearse et al., 2013).

According to Rupert et al. (2015), burnout in psychologists can become an ethical problem since this difficulty or inability to function competently can affect the well-being of patients who place their trust in and need help with their mental health.

### **Younger age as a risk factor**

Simionato & Simpson (2017), in a systematic review, identify younger age as a personal risk factor. Less experience in young professionals can be related to fewer coping mechanisms and the tendency to set unrealistically high expectations of their potential clinical efficacy, leading to an inability to reach their idealistic expectations and standards. McCormack et al. (2018) reported in their review that age is negatively related to burnout. Young psychologists experience a higher degree of burnout, and it is believed that it can lead to greater job turnover or the ending of their careers. Psychologists who do not leave the profession seem to learn to deal better with difficulties over the years. Ackerley et al. (1988) state that psychologists learn to conserve their emotional energy so that it does not deplete. It is essential to clarify that this does not mean that psychologists become immune to burnout over time. According to McCormack et al. (2018), it is concerning that the long-term effects of burnout in applied psychologists have not yet been investigated.

### **Private vs non-private sector**

Psychologists working in the private sector experience lower burnout levels than their colleagues in the non-private sector (Ackerley et al., 1988; Rosenberg & Pace, 2006; Vredenburg et al., 1999). It may be due to the need for more management characteristics of large organisations and greater autonomy. Autonomy is negatively related to burnout in therapists (Steel et al., 2015) and is characterised by having control over clients, hours worked, and case variability (McCormack et al., 2018). In addition, working in the private sector can impact the personal achievement dimension as it is more likely to perceive that clients contribute directly to the professional's income (Vredenburg et al., 1999).

### **Coping mechanisms**

Another important aspect is the individual dimension of coping with burnout. Authors have studied how professionals manage stress to protect themselves from stressful situations linked to working. These mechanisms can be "cognitive or behavioural coping, cognitive or behavioural avoidance, emotion-focused coping, or substance use" (Carver et al., 1989, as cited in Maresca et al., 2020; Lazarus & Folkman, 1987).

These strategies can be ineffective and become systematic and dysfunctional habits, progressively impacting personal well-being in the dimensions of emotional exhaustion, depersonalisation, and reduced personal achievement (Lee et al., 2016). Some of these unhealthy coping approaches may have a short-term effect but can have adverse effects in the long run, worsening the relationship with colleagues and patients. Examples of these are denial,

depersonalisation, compartmentalisation, suppression, social isolation, and substance abuse (Costa & Moss, 2018). A worker could react in an explosive or outward-oriented manner (e.g. irritability, aggressiveness, resentment, hostility) or an implosive or self-oriented manner (frustration, symptoms of anxiety or depression) (Maresca et al., 2020).

### **COVID-19 pandemic**

The current pandemic has increased the number of people requiring support (Chaturvedi, 2020; Mukhtar, 2020; Raudenská et al., 2020). The work of psychotherapists increased as demand grew. Facing the threat of exposure to the virus and a possible risk of infection, the absence of protective equipment, job-related stress, and demanding workloads are some factors that increase mental health difficulties (Serrano-Ripoll et al., 2020).

During this period, there are also restrictions to setting face-to-face hours, having to implement more online services by phone or videoconference (Barber & Santuzzi, 2015). Working online causes the professional to use technology more and, in this way, increases the feeling of telepressure, defined as the fixation with quickly reviewing and responding to messages (ONS, 2020, as cited in Kotera et al., 2021). All these factors could test mental health workers and psychologists in particular, contributing to an increment in symptoms linked to work burnout.

### **Scales to measure burnout**

There is no consensus regarding the measurement of occupational burnout (Poghosyan et al., 2009). The difficulty of harmonising accepted validity criteria regarding occupational burnout makes it difficult to estimate its prevalence, leading to an overestimation or underestimation of the phenomenon and its use in treatments (Rotenstein et al., 2018). The following is a list of patient-reported outcome measures for occupational burnout that can be used among psychologists:

- Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981), aimed at workers with regular contact with other people, measuring Emotional Exhaustion, Depersonalisation and Personal Accomplishment.
- Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005; used by Bourbonnais et al., 2006; Johnson & Naidoo, 2013). It measures the degree of psychological fatigue experienced in three scales: personal, work-related and client-related burnout. The first scale can be applied to the general population, the second is intended for the working population, and the last is for human services.



- the Oldenburg Burnout Inventory (OLBI scale; Demerouti et al., 2001; used by Peterson et al., 2008; Schaer et al., 2008). Aimed at the general population, it has two subscales: exhaustion and disengagement (from work).
- the Pine's Burnout Measure (BM; Malakh-Pines et al., 1981), aimed at the general population, measures Physical Exhaustion, Emotional Exhaustion and Mental Exhaustion.
- the Psychologist Burnout Inventory (PBI; (Ackerley et al., 1988) ), aimed at psychologists, measuring Control, Support, Negative Clientele and Over Involvement.
- the Professional Quality of Life (ProQOL; Stamm, 2005) assesses compassion satisfaction, burnout and secondary traumatic stress as three aspects of professional quality of life. Burnout is considered a dimension at the same level as secondary trauma.
- the Spanish Burnout Inventory (SBI; in Spanish *Cuestionario para la Evaluación del Síndrome de Quemarse por el Trabajo CESQT*; Gil-Monte, 2011), aimed mainly at human services personnel, measuring Enthusiasm toward the job, Emotional Exhaustion, Indolence and Guilt. It is widely used in Spanish-speaking countries (Serna-Gomez, 2018).

The MBI is the most widely used patient-reported outcome measure for occupational burnout (Guseva Canu et al., 2020). This questionnaire has been debated as the Gold Standard for various reasons. Although it has the largest number of validation studies, it needs a better quality of evidence on validity (Shoman et al., 2021). Its three dimensions have been questioned, starting from emotional exhaustion as the heart of burnout syndrome and arguing that depersonalisation and personal accomplishment are not even part of occupational burnout (Kristensen et al., 2005). The OLBI, as the most widely used alternative to the MBI, is not restricted to human service workers, is shorter, and corrects the wording bias because the MBI uses positive language regarding personal achievement and negative language regarding emotional exhaustion and depersonalisation (Demerouti et al., 2001; Halbesleben & Demerouti, 2005). According to Shoman et al., 2021, developing a diagnostic standard for occupational burnout would help assess the sensitivity and specificity of the patient-reported outcome measures and further reexamine their validity.

# CHAPTER 3

## Self-care behaviours

In this chapter, we will define the concept of self-care, the potential benefits of reducing burnout and increasing psychological well-being, and the use of scales.

Multiple definitions of self-care emphasise different aspects, such as the attitudinal factor, personal skills, intentionality, self-reflection and involvement in strategies. This dissertation takes into consideration the definition from Dorociak et al. (2017a), "a multidimensional, multifaceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being" (p. 326). This definition is in line with Colman et al. (2016) self-care is defined as the process of actively initiating a method to promote holistic well-being, involving a series of behaviours that fit into the category of Self-care, in addition to the intentional effort to engage in these activities to maintain well-being in multiple domains.

More examples of definitions can be reviewed to understand the concept better. Self-care can be defined as "the ability to refill and refuel oneself in healthy ways" (Gentry, 2022, p.48) through the engagement in behaviours capable of maintaining and promoting physical and emotional well-being (Myers et al., 2012) while lessening the stress, anxiety and negative emotional experiences working with clients (Williams et al., 2010).

There is a risk of reducing the definition of self-care to a fixed set of strategies without context. Self-care implies self-reflection regarding one's needs to make conscious efforts to obtain available resources to promote health and well-being (Colman et al., 2016; Pakenham, 2017). This effort at self-reflection requires a caring attitude towards oneself (Kissil & Niño, 2017).

Evidence supports the idea that self-care has a beneficial effect in reducing negative outcomes in mental health professionals. On the one hand, carrying out self-care behaviours is associated with greater well-being (Colman et al., 2016), compassion satisfaction (Butler et al., 2017), lower levels of negative affect and stress, and higher degrees of positive affect in addition to better academic and clinical performance (Zahniser et al., 2017). On the other hand, the lack of involvement in self-care behaviours is related to higher levels of burnout and secondary traumatic stress, a greater risk of a loss of health, together with the experience of stress (Butler et al., 2017; Mayorga et al., 2015; Santana & Fouad, 2017).

More experienced therapists tend to carry out more self-care behaviours than novice workers, reporting lower stress levels than colleagues starting their careers (Dorociak et al., 2017b). It is advisable to start preventing and caring for one's health as soon as possible. Cultivating the habit of self-care is a crucial element for the professional specialisation of psychologists (Bamonti et al.,

2014; Barnett & Cooper, 2009; Elman & Forrest, 2007; Norcross & Guy, 2007). Implementing self-care strategies can be a way to deal with the stressors of graduate school and can also be beneficial in the careers of these professionals in the near future (Posluns & Gall, 2020). Starting early to practice self-care from graduate school could be positive if we consider that the professional will not only face typical stressors of his profession but also at the beginning of his career is when people are most vulnerable to work-related stress (Ronnestad & Skovholt, 2003).

### **Scales to measure Self-Care**

According to Dorociak et al. (2017a), "Defining and operationalising self-care through the creation of a measurement instrument represents a critical step in advancing research aimed at understanding and promoting effective self-care for mental health professionals" (p. 326). These scales can be helpful in research (e.g. creating an intervention programme that tackles the key aspects) and when establishing strategies for mental health professionals (identifying strengths and weaknesses, distinguishing between effective practices and those that are not). The following list represents recent efforts by various authors to generate self-care scales specifically for psychologists:

- the Self-Care Utilization Questionnaire (SCUQ; Goncher et al., 2013) that evaluates the well-being focusing on positive coping and personal fulfilment of PhD candidates in psychology, including emotional, social, physical, medical, and spiritual needs.
- the Self-Care Behavior Inventory (SCBI; Santana & Fouad, 2017) also assesses three aspects of self-care (cognitive-emotional-relational, physical, and spiritual) in psychology doctoral workers.
- Self-Care Assessment for Psychologists (SCAP; Dorociak et al., 2017a) was specifically developed to evaluate self-care behaviours among practising psychologists. It measures Professional Support, Professional Development, Life Balance, Cognitive Awareness and Daily Balance. It is the most psychometrically sound instrument for evaluating self-care in practising psychologists (Garrido-Macías et al., 2022).
- Self-Care Behaviors Scale for Clinical Psychologists (EAP, in Spanish "*Escala de Autocuidado para Psicólogos*"; Guerra et al., 2008). It consists of 10 items aimed at clinical psychologists, of which 8 represent self-care behaviours and 2 incorporate self-care work conditions.

### **Dimensions of self-care**

According to Dorociak et al. (2017a), two general categories of self-care behaviours contribute to general health and well-being. On the one hand, five dimensions of personal self-care are distinguished: physical, psychological, spiritual, social and recreational. On the other hand, we find the dimensions of professional self-care: psychological, social, work-life balance and environmental. This division between two categories results in the creation of the SCAP that includes five dimensions of self-care, listed above and that we took as a reference in study 2 for the elaboration of MAGO. The dimension of physical self-care was not included in this scale because it falls into the individual domain where there is considerable variability between people, but that does not mean that it is no longer critical to eat well, exercise and sleep correctly, as the literature stands out (Salvagioni et al., 2017).

# CHAPTER 4

## **Interventions to reduce burnout**

In this section, we will discuss the variety of interventions that can help improve the well-being of psychotherapists, emphasising the promotion of self-care and the reduction of professional burnout. Phillips et al. (2019) found a significant moderate effect ( $g=0.51$ ) for occupational e-mental health interventions aiming to relieve burnout.

### **Types of interventions**

The emergence of studies on burnout has generated a need to generate interventions that aim to prevent or reduce burnout in employees in organisations. Interventions may vary in content, form, intensity, instruments and number of assessing points, among other factors. Since the 1980s, burnout intervention programmes that have been conducted and published fall into three broad categories: they can be person-directed (individual or group), organisation-directed, or mixed (Awa et al., 2010; Dreison et al., 2016; Maricuțoiu et al., 2014).

### **Person-directed interventions (individual/group)**

Person-directed interventions, which can be carried out individually or in groups, are designed to help employees deal with workplace stressors. These interventions are based on the idea that burnout is the product of an inefficient adaptation of the person in a workplace that is difficult or impossible to modify (Maslach et al., 2001). These interventions are usually offered as workshops and do not target specific organisational problems, making them context-independent (Schaufeli & Enzmann, 1998, as cited in Dreison et al., 2016).

According to Awa et al. (2010), these programmes usually use cognitive-behavioural strategies to improve personal coping skills, work-related skills, and social support or techniques such as relaxation. Examples of these interventions are usually self-care workshops, training in stress management skills and communication skills, and others that use mindfulness, yoga, massage or meditation (Zhang et al., 2020).

### **Organisational-directed interventions**

On the other hand, organisation-directed interventions aim to change the organisational factors contributing to burnout (Maricuțoiu et al., 2014), such as low staff cohesion, communication problems, work overload and poor job resources (Schaufeli & Enzmann, 1998). They usually involve a coworker support group, enhancing clinical supervision and offering education or training

opportunities (Dreison et al., 2016). They seek to empower individuals and reduce their stressors by generating changes in work procedures, such as the structure of tasks or evaluations, as well as carrying out supervision sessions to reduce the workload, increase control over work or the level of participation in decision-making (Awa et al., 2010). This type includes workload or schedule rotation, stress management training programmes, debriefing sessions and focus groups (Zhang et al., 2020).

### **Mixed or combined interventions**

As a third option, mixed or combined interventions aim to generate changes at the individual and organisational levels (Awa et al., 2010). They are rarer because they are more complex to implement but offer the possibility of combining methods and obtaining interesting results. An intervention can be multifaceted if, for example, a face-to-face workshop is combined with personalised online follow-up or partnered with an asynchronous mobile health (mHealth) strategy.

### **Simple and popular digital tools**

E-mental health strategies are being considered among the possible actions to mitigate the psychological difficulties experienced by healthcare workers. Generally, psychotherapy, psychiatry and counselling can be easily conveyed in a teleconferencing format using digital platforms (Bhaskar et al., 2020). Although more evidence is needed on the effectiveness of these interventions in healthcare workers (Drissi et al., 2020; Fiol et al., 2021; Pollock et al., 2020), there is the possibility of integrating them into a clinical context together with evidence-based treatments instead of using them as a standalone strategy (Fiol et al., 2021).

Internet-based interventions are at an early stage of development in Chile (Rojas et al., 2019). For this reason, in this dissertation, the emphasis is put on simple and popular tools that are readily available and free of charge. Videoconferencing and web-delivered questionnaires are crucial for outreach to psychologists regarding intervention, given problems such as long distances and small budgets for mental healthcare services (Calderon & Rojas, 2016; Cipolletta & Mocellin, 2018). Generally, administering questionnaires online does not change their psychometric properties (Hedman et al., 2010).

# CHAPTER 5

## **Study 1: Validation of the Self-Care Assessment for Psychologists (SCAP) scale in a sample of Chilean professionals**

### **Introduction**

According to Dorociak et al. (2017a), "Defining and operationalising self-care through the creation of a measurement instrument represents a critical step in advancing research aimed at understanding and promoting effective self-care for mental health professionals" (p. 326). These scales can be helpful in research (e.g. creating an intervention programme that tackles the key aspects) and when establishing strategies for mental health professionals (identifying strengths and weaknesses, distinguishing between effective practices and those that are not).

Literature supports the idea that self-care has a beneficial effect in reducing negative outcomes in mental health professionals. On the one hand, implementing self-care behaviours is associated with greater well-being (Colman et al., 2016), compassion satisfaction (Butler et al., 2017), lower levels of negative affect and stress, and higher degrees of positive affect in addition to better academic and clinical performance (Zahniser et al., 2017). On the other hand, the lack of involvement in self-care behaviours is related to higher levels of burnout and secondary traumatic stress, a greater risk of a loss of health, together with the experience of stress (Butler et al., 2017; Mayorga et al., 2015; Santana & Fouad, 2017).

The design of this study is focused on the translation and adaptation of the Self-Care Assessment for Psychologists (SCAP) scale. The principal aim of this study is to adapt the SCAP in Chilean Spanish and to verify its psychometric properties.

### **Method**

For the translation and cultural adaptation of the SCAP, the internationally standardised methodology was followed, consisting of translation by more than one translator, harmonisation and cognitive interviews. The items were not back-translated because it was considered not a good indicator of their quality (Solano-Flores et al., 2009).

### **Translation and adaptation process**

The process carried out was based on the guidelines developed by Carretero-Dios & Pérez (2005), Muñoz et al. (2013) and Elosua et al. (2014) for the test creation/adaptation process. As a first phase, four independent and simultaneous translations were carried out by psychologists whose native language is Spanish, with experience in research and a good level of English, the

original language of the instrument. These first translation proposals were contrasted to create a reconciled version that would preserve grammatical and semantic equivalence, cultural relevance and linguistic adaptation (Elosua et al., 2014) with the original questionnaire.

One of the researchers conducted cognitive interviews (CI) with nine psychologists, using a technique that combines thinking aloud about the instrument (Think Aloud) and a semi-structured interview (Willis, 1999). This interview uses the strategy of asking the interviewees to express in their own words the perceived meaning of each item. If they encountered comprehension problems, expressing the most logical wording of each item for them to ensure correct understanding of the instructions of the instrument and the content of the items.

The scale administration was face-to-face, with an average duration of 30 minutes. The second version of the instrument was obtained from this process, incorporating partial modification of three items and clarifications in another two. Finally, a judgment analysis of two experts was carried out for content validity purposes. It generated minor modifications in the items related to some keywords used. Based on these corrections, the definitive instrument was obtained and finally applied.

### **Participants**

The questionnaires were administered to a sample of 122 Chilean psychologists. The sample size was defined according to the recommendations of Carretero-Dios & Pérez (2005), that the sample for the test validation should be between 5 and 10 subjects per item and with similar characteristics to the target population. The sample consisted of active Chilean psychologists working in the public and private sectors. The age range of the participants was between 24 and 71 years, with an average of 38.2 years, of both sexes, made up of 84% women and 16% men and 11.7 years of professional experience on average. There is no centralized channel to massively notify psychologists in Chile and for this reason, the participants were recruited in Facebook groups related to psychology or psychotherapy, using a promotional image and a text that included the study email.

### **Measurements**

Self-Care Assessment for Psychologists (SCAP; Dorociak et al., 2017): This is a 21-item scale that assesses aspects of self-care relevant to the personal and professional functioning of mental healthcare practitioners. It has five subscales which accounted for 61.5% of the variance in the self-care items: professional support ( $\alpha = .83$ ), professional development ( $\alpha = .80$ ), life balance ( $\alpha = .81$ ), cognitive awareness ( $\alpha = .72$ ), and daily balance ( $\alpha = .70$ ). Participants are asked to



indicate the frequency with which they engage in each self-care behaviour on a 7-point scale from 1 (“never”) to 7 (“always”).

Maslach Burnout Inventory (MBI-HSS; Maslach et al., 1996; Faúndez, 2009): This questionnaire consists of 22 items that, according to the manual, are distributed in the dimensions EE, PA and DP. It has 7 degrees ranging from 0 (“never”) to 6 (“every day”). The MBI is the most commonly used questionnaire in burnout studies and meta-analysis often include only studies that utilized the MBI (Dreison et al., 2016; Lee et al., 2011; Simionato & Simpson, 2017). For that reason it will be included, despite the criticisms presented in Chapter 2. Faúndez (2009) analysed the psychometric characteristics of the Spanish version for Chilean public service professionals and found that the MBI achieves adequate internal consistency values in terms of Cronbach's alpha (.87; .80 & .69 for each scale). In terms of its factorial validity, the three main factors jointly explain 45.76% of the total variance, although a fourth factor was observed that explains only 6.63% of the variance. The scale is considered adequate for use among Chilean public service professionals.

Utrecht Work Engagement Scale (UWES-17; Schaufeli et al., 2002; Müller et al., 2013): The Spanish version was used by Müller et al. (2013), derived from a Spanish version proposed by the Schaufeli team (Schaufeli et al., 2002) to improve their understanding in the Chilean population using a 17-item version. Responses vary from 0 (“never”) to 6 (“every day”). Through a factorial exploratory analysis, Müller et al. (2013) identified two factors - involvement with work and enthusiasm for work - that jointly explain 79.06% of the total variance and demonstrate sufficient reliability ( $\alpha = .87$  &  $.59$  for each scale). The UWES-17 scale presents appropriate psychometric properties for use among Chilean health workers.

General Health Questionnaire (GHQ-12; Goldberg et al., 1997; Araya et al., 1992): This self-report questionnaire has been commonly used to assess minor psychiatric disorders and emotional distress in the previous few weeks. It has 12 items with a four-point Likert scale ranging from 1 to 4 (maximum score of 36). High scores are indicative of high levels of emotional stress. Araya et al. (1992) found this questionnaire appropriate for primary care personnel in Chile. Validity coefficients for the GHQ-12 in Chile were sensitivity 76%, specificity 73%, and overall misclassification rate 26%.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988; Ortíz & Baeza, 2011) presents 12 statements (items) that evaluate the perception of social support. These items are grouped into three factors. The first factor group measures peer social support (items 6, 7, 9, and 12), the second measures family support (items 3, 4, 8, and 11), and the third measures perception of partner support or that of other significant figures (items 1, 2, 5 and 10). The response

format is a four-point Likert type, from 1 (“almost always”) to 4 (“always or almost always”). The higher the score obtained, the greater the perception of social support. Ortíz & Baeza (2011) estimated the psychometric properties of MSPSS in a Chilean sample. The total scale has an internal consistency of 0.855. An exploratory factor analysis with Varimax rotation was conducted, obtaining the three factors proposed by the authors, which together explain 66.8% of the variance.

Beck Depression Inventory-II (BDI-II; Beck et al., 1996; Araya et al., 2013): This scale is comprised of 21 items asking about depression symptoms experienced over the previous two weeks (Beck et al., 1996). Total scores can range from 0 to 63, with higher scores indicating higher levels of depressive symptomatology. Cut-off points used to estimate severity in adults are 10–16, possible mild depression symptoms; 17–29, moderate; and 30–63, severe (Beck et al., 1996). A Spanish translation of the BDI-II showed good psychometric properties when used with US Spanish-speaking youth populations (Weibe & Pelley, 2005 in Araya et al., 2013). A Chilean adaptation of the Spanish version of the BDI-II for use with adolescents showed good internal consistency ( $\alpha = .91$ ) and test-retest correlation coefficients, as well as good concurrent validity with other depression scales and an adequate goodness of fit in the confirmatory factor analysis for both uni- and bi-factorial solutions (Melipillan et al., 2008 in Araya et al., 2013).

Beck Anxiety Inventory (BAI; Beck & Steer, 1993; Cova et al., 2007): The BAI is a self-reported inventory of 21 items developed to assess anxiety and discriminate between anxiety and depressive symptomatology (Beck & Steer, 1993). The current edition of the original BAI proposes the following cut-off scores and definitions: 0-7 indicates minimal anxiety, 8-15 mild, 16-25 moderate, and 26-63 severe (Beck & Steer, 1993). A study conducted by Sanz & Navarro (2003) of the Spanish version of the BAI in a sample of Spanish university students showed positive results in terms of internal consistency ( $\alpha = .88$ ) and the ability to identify pathological anxiety in the non-clinical population. A study conducted in Chile (Cova et al., 2007) showed similar results.

## Results

The sample consisted of Chilean psychologists, with a range between 24 and 71 years and a mean age of 38.2, and with a majority of women, which reflects the usual demographic composition in this profession. There were no significant differences in the variables studied between both genders. The sociodemographic characteristics of the sample are shown in Table 1.

### **Table 1.**

*Sociodemographic information.*

| Variable                     |         | Women (n=103)             |       | Men (n=19)                |       | F                               |
|------------------------------|---------|---------------------------|-------|---------------------------|-------|---------------------------------|
|                              |         | Mean (Standard deviation) |       | Mean (Standard deviation) |       |                                 |
| <b>Age (years)</b>           |         | 37.57                     | 10.01 | 42.37                     | 10.51 | F (1, 24,41) = 3,683; p = 0.057 |
| <b>Marital Status [n(%)]</b> | Single  | 66                        | 64%   | 11                        | 58%   | F (1, 21,94) = 1,140; p = 0.297 |
|                              | married | 27                        | 26%   | 3                         | 16%   |                                 |
|                              | Other   | 10                        | 10%   | 5                         | 26%   |                                 |

Table 2 shows the **global analysis** of the instrument and its subscales. The distribution of the total scores was normal for the total scale ( $Z=1.291$ ;  $p=0.071$ ), so no item transformation procedure was performed. Figure 1 shows the distribution of scores for the SCAP test, with a normal distribution (mean 110.67; CI 95% 107.22 to 114.12 and median 114.50). No asymmetry or kurtosis values were found outside the normal range for the instrument and its subscales. However, when analysing the Kolmogorov-Smirnov test, it is observed that the PS, LB, and CA subscales do not fit a normal distribution. In the article describing the development of the SCAP scale, there is no reference to the normality of the subscales, so there is no basis for comparison (Dorociak et al., 2017).

**Table 2.**  
*Global analysis*

|                         |            | Mean   | 95%<br>Confidence<br>Interval for<br>Lower Bound | Upper Bound | 5% Trimmed<br>Mean | Median | Variance | Std. Deviation | Minimum | Maximum | Range | Interquartile | Skewness | Kurtosis |
|-------------------------|------------|--------|--|-------------|--------------------|--------|----------|----------------|---------|---------|-------|---------------|----------|----------|
| <b>SCAP<br/>general</b> | Statistic  | 110.67 | 107.22   | 114.12      | 112.13             | 114.5  | 370.45   | 19.24          | 4       | 14      | 10    | 22            | -        | 182      |
|                         | Std. Error | 1.74   |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |
| <b>SCAP<br/>PS</b>      | Statistic  | 26.35  | 25.33  | 27.37       | 26.71              | 28     | 32.52    | 5.7            | 7       | 35      | 28    | 7             | -        | 912      |
|                         | Std. Error | 0.51   |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |
| <b>SCAP<br/>PD</b>      | Statistic  | 24.64  | 23.56  | 25.72       | 24.96              | 26     | 36.06    | 6              | 8       | 35      | 27    | 7             | -        | 462      |
|                         | Std. Error | 0.54   |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |
| <b>SCAP<br/>LB</b>      | Statistic  | 22.34  | 21.53  | 23.14       | 22.64              | 24     | 20.1     | 4.48           | 8       | 28      | 20    | 6             | -        | 431      |
|                         | Std. Error | 0.4    |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |
| <b>SCAP<br/>CA</b>      | Statistic  | 23.48  | 22.88  | 24.07       | 23.74              | 24     | 11.06    | 3.32           | 9       | 28      | 19    | 4             | -        | 359      |
|                         | Std. Error | 0.3    |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |
| <b>SCAP<br/>DB</b>      | Statistic  | 13.87  | 13.11  | 14.62       | 13.98              | 14     | 17.73    | 4.21           | 4       | 21      | 17    | 6             | -        | -        |
|                         | Std. Error | 0.38   |  |             |                    |        |          |                |         |         |       |               | 0.21     | 0.43     |

**Kolmogorov-Smirnov test for one sample**

|                             |                   | SCAP<br>General | SCAP<br>PS | SCAP<br>PD | SCAP<br>LB | SCAP<br>CA | SCAP<br>DB |
|-----------------------------|-------------------|-----------------|------------|------------|------------|------------|------------|
| normal parameters           | Mean              | 110.67          | 26.35      | 24.64      | 22.34      | 23.48      | 13.87      |
|                             | Typical deviation | 19.247          | 5.703      | 6.006      | 4.484      | 3.326      | 4.211      |
| More extreme<br>differences | Absolute          | 0.117           | 0.139      | 0.122      | 0.174      | 0.128      | 0.089      |
|                             | Positive          | 0.072           | 0.071      | 0.069      | 0.103      | 0.087      | 0.065      |
|                             | Negative          | -0.117          | -0.139     | -0.122     | -0.174     | -0.128     | -0.089     |
| Kolmogorov–Smirnov Z        |                   | 1.291           | 1.539      | 1.351      | 1.918      | 1.416      | 0.988      |
| Next asymptot. (bilateral)  |                   | 0.071           | 0.018      | 0.052      | 0.001      | 0.036      | 0.283      |

**Figure 1.**

*The distribution of scores for the SCAP test, with a normal distribution.*

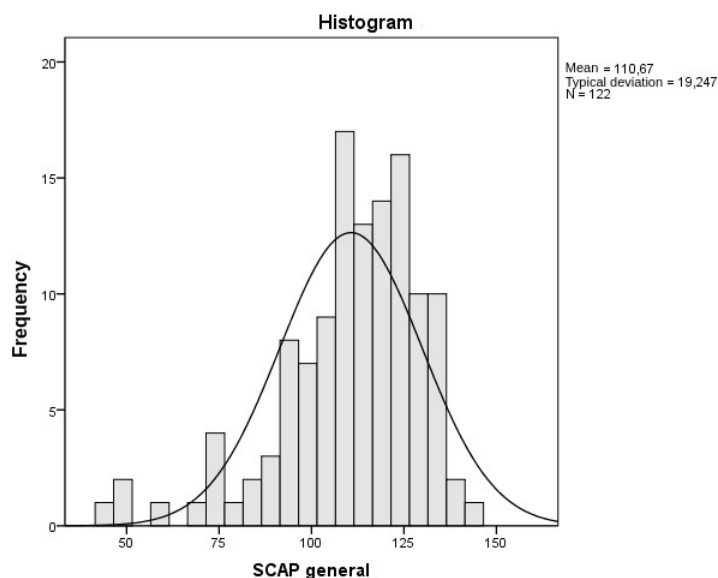


Table 3 shows the descriptive scores for each item of the SCAP scale to verify its distribution in the sample used, the total item-test correlation, and the reliability coefficient without the item.

As can be seen, the mean item scores are concentrated between 4 and 5 points on the scale, in the mean values of the total 7 points available. Only item 3 (*"I participate in social and community events related to my work"*) is below 4 points on average, and items 8 and 16 (*"I am aware of the triggers that increase professional stress "* and *"I try to be aware of my emotions and needs"*) appear with an average slightly higher than 6 points. However, the discrimination capacity of the items is within acceptable ranges. The standard deviation values were above the value 1 in all the items, except for item 8, which is 0.931.

The item-total correlation coefficient ranges from a minimum of 0.42 for item 18 (*"I avoid overcommitting myself to work tasks"*) to 0.76 for item 9 (*"I look for activities or people that comfort me"*). All item-total correlations were significant ( $p < 0.001$ ). The difference between the upper and lower quartiles of responses to items was significant ( $F = 152.43$ ;  $p < 0.00$ ), indicating good discriminative power of the items.

**Table 3.***Descriptive scores for each item of the SCAP*

|   | Mean | Std. Deviation | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|------|----------------|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| <b>1. Paso tiempo con personas cuya compañía disfruto.</b>  | 5.57 | 1.239          | 105.10                     | 344.916                        | 0.521                            | 0.914                            |
| <b>2. Mantengo un sistema de apoyo profesional.</b>   | 4.96 | 1.779          | 105.71                     | 336.190                        | 0.477                            | 0.915                            |
| <b>3. Participo en eventos sociales y comunitarios relacionados a mi trabajo.</b>                 | 3.86 | 1.917          | 106.81                     | 332.799                        | 0.486                            | 0.916                            |
| <b>4. Tomo descansos durante mi jornada laboral.</b>  | 4.73 | 1.814          | 105.94                     | 333.327                        | 0.511                            | 0.915                            |
| <b>5. Participo en actividades que promueven mi desarrollo profesional.</b>                       | 5.28 | 1.663          | 105.39                     | 334.323                        | 0.549                            | 0.913                            |
| <b>6. Cultivo relaciones profesionales con mis colegas.</b>                                       | 5.39 | 1.463          | 105.29                     | 334.289                        | 0.636                            | 0.911                            |
| <b>7. Encuentro maneras de fomentar un sentido de conexión social y pertenencia en mi vida.</b>   | 5.23 | 1.630          | 105.44                     | 323.555                        | 0.754                            | 0.908                            |
| <b>8. Soy consciente de los gatilladores que aumentan el estrés profesional.</b>                  | 6.02 | 0.931          | 104.65                     | 354.263                        | 0.437                            | 0.915                            |
| <b>9. Busco actividades o personas que me reconfortan.</b>  | 5.80 | 1.309          | 104.87                     | 332.247                        | 0.765                            | 0.909                            |
| <b>10. Me conecto con organizaciones en mi comunidad profesional que son importantes para mí.</b> | 4.30 | 1.836          | 106.37                     | 319.623                        | 0.723                            | 0.909                            |
| <b>11. Realizo un esfuerzo proactivo para manejar los desafíos de mi trabajo profesional.</b>     | 5.72 | 1.152          | 104.95                     | 342.774                        | 0.618                            | 0.912                            |
| <b>12. Evito aislarme en el trabajo.</b>  | 4.81 | 1.769          | 105.86                     | 339.460                        | 0.427                            | 0.917                            |

|   |      |       |        |         |       |       |
|---|------|-------|--------|---------|-------|-------|
| <b>13. Paso tiempo con mi familia o amigos/as.</b>                                    | 5.73 | 1.367 | 104.94 | 345.178 | 0.461 | 0.915 |
| <b>14. Encuentro maneras para mantenerme actualizado/a en mi profesión.</b>           | 5.93 | 1.190 | 104.74 | 344.146 | 0.564 | 0.913 |
| <b>15. Comparto experiencias laborales positivas con mis colegas.</b>                 | 5.55 | 1.444 | 105.12 | 333.563 | 0.660 | 0.911 |
| <b>16. Intento ser consciente de mis emociones y necesidades.</b>                     | 6.00 | 1.052 | 104.67 | 343.611 | 0.660 | 0.912 |
| <b>17. Tomo un tiempo para relajarme cada día.</b>                                    | 5.02 | 1.631 | 105.66 | 330.757 | 0.624 | 0.911 |
| <b>18. Evito sobre comprometerme con tareas del trabajo.</b>                          | 4.12 | 1.718 | 106.55 | 340.878 | 0.420 | 0.917 |
| <b>19. Monitoreo mis emociones y reacciones hacia mis clientes.</b>                   | 5.73 | 1.193 | 104.94 | 346.451 | 0.509 | 0.914 |
| <b>20. Comparto los elementos estresantes de mi trabajo con colegas de confianza.</b> | 5.65 | 1.414 | 105.02 | 339.495 | 0.556 | 0.913 |
| <b>21. Maximizo el tiempo en las actividades profesionales que disfruto.</b>          | 5.26 | 1.372 | 105.41 | 333.798 | 0.694 | 0.910 |

### Reliability and validity analysis

Internal consistency analysis was performed using Cronbach's Alpha coefficient. The value for the scale was 0.92, indicating a high level of internal consistency. In Table 3, the Cronbach's Alpha values can be analysed if any of the items are eliminated, thus verifying that all the items contribute to the scale's internal consistency since none of the options exceeds the maximum value reached for the full scale of 21 items.

The results obtained for each subscale are consistent with those obtained by the authors of the test in its first version (Dorociak et al., 2017), the Professional Support subscale ( $\alpha = 0.769$  in the present adaptation to Spanish and  $\alpha = 0.83$  in its first version), Professional Development subscale ( $\alpha = 0.796$  in the present application and  $\alpha = 0.80$  in the original version), Life Balance subscale ( $\alpha = 0.818$  in this application and  $\alpha = 0.81$  in the original), Cognitive Awareness subscale ( $\alpha = 0.764$  in this application versus  $\alpha = 0.72$  previous), and Daily Balance subscale ( $\alpha = 0.747$  in this version, versus  $\alpha = 0.70$  in the first application).

Test-retest reliability was assessed within a subgroup of 41 participants with an average interval of 90 days between both measurements. The correlation coefficient was 0.527 ( $p=0.000$ ), an indicator of acceptable test stability over time.

As can be seen in Table 4, all the correlations between the SCAP subscales were significant for  $p < 0.001$ .

**Table 4.**

*Intercorrelations between scales.*

| <b>Professional self-care factors</b> | <b>Professional Support</b> | <b>Professional Development</b> | <b>Life Balance</b> | <b>Cognitive Awareness</b> | <b>Daily Balance</b> |
|---------------------------------------|-----------------------------|---------------------------------|---------------------|----------------------------|----------------------|
| Professional Support                  | --                          |                                 |                     |                            |                      |
| Professional Development              | 0.654**                     | --                              |                     |                            |                      |
| Life Balance                          | 0.619**                     | 0.645**                         | --                  |                            |                      |
| Cognitive Awareness                   | 0.567**                     | 0.571**                         | 0.590**             | --                         |                      |
| Daily Balance                         | 0.391**                     | 0.518**                         | 0.515**             | 0.550**                    | --                   |
| SCAP                                  | 0.828**                     | 0.868**                         | 0.832**             | 0.777**                    | 0.711**              |

\*\* Pearson correlation (2-tailed)  $p < .001$

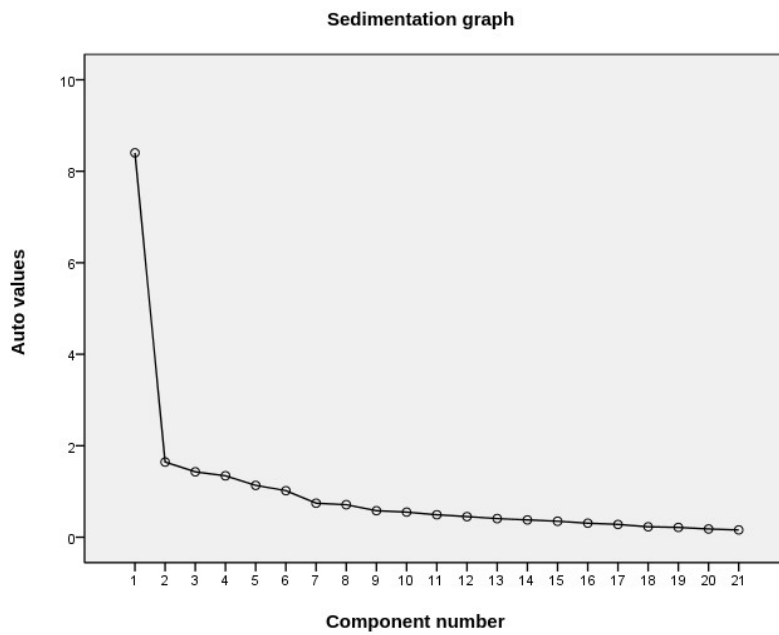
An Exploratory Factor Analysis (EFA) was first performed with the principal component extraction method (Principal Axis Factoring) to analyse the dimensions of the SCAP. Data suitability analysis using Kaiser-Meyer-Olkin sample suitability (KMO = 0.880) and a significant Bartlett sphericity test ( $\chi^2 (210) = 1337.105$ ;  $p < 0.001$ ) indicated the feasibility of the criteria to be subjected to factor analysis. Items with saturation  $> 0.50$ , communality  $> 0.5$  or high alpha correlation coefficient were included. After evaluating the feasibility of the factor analysis of the data, an exploratory factor analysis (EFA) was performed.

In the factor analysis using the principal components method, six factors with an eigenvalue greater than 1 were initially selected, which together explain 71.29% of the variance. The items with a factorial weight or load equal to or greater than 0.40 were chosen for each factor. When an item presents loads of that level in two or more factors, it will be grouped in the highest saturation factor. As seen in the sedimentation graph, a very strong factor appears that by itself explains 40.01% of the variance.



**Figure 2.**

*Graph of initial solution sedimentation without rotating. Principal component analysis.*



Based on the results provided by the factorial analysis presented above, a new factorial analysis was performed using the principal components method with varimax rotation for five factors, which together explain 66.45% of the variance, which approached the original SCAP subscales. Loads of each one of the items are presented in Table 5. As can be seen, the Professional Support subscale is one of the least represented in this analysis, with only items 2 and 6 loading on the factor. Professional Development loads with 3 of the 5 items that make it up and Cognitive Awareness with 3 of the 4 items that make up the original scale.

**Table 5.**

*Matrix of factor loadings for the solution of five factors using principal components and Varimax rotation.*

|                                 | <b>Item</b> | <b>Factor 1</b> | <b>Factor 2</b> | <b>Factor 3</b> | <b>Factor 4</b> | <b>Factor 5</b> |
|---------------------------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Professional Support</b>     | SCAP 2      | 0.174           | <b>0.690</b>    | 0.189           | 0.206           | -0.080          |
|                                 | SCAP 6      | 0.083           | <b>0.711</b>    | 0.389           | 0.138           | 0.193           |
|                                 | SCAP 12     | 0.015           | 0.220           | 0.391           | <b>0.457</b>    | 0.005           |
|                                 | SCAP 15     | <b>0.569</b>    | 0.440           | 0.356           | 0.173           | 0.004           |
|                                 | SCAP 20     | 0.153           | 0.429           | <b>0.666</b>    | 0.122           | -0.016          |
| <b>Professional Development</b> | SCAP 3      | 0.146           | <b>0.781</b>    | -0.079          | 0.087           | 0.248           |
|                                 | SCAP 5      | <b>0.783</b>    | 0.214           | 0.034           | 0.077           | 0.176           |
|                                 | SCAP 10     | <b>0.417</b>    | <b>0.473</b>    | 0.141           | 0.327           | 0.334           |
|                                 | SCAP 14     | <b>0.877</b>    | 0.070           | 0.150           | 0.157           | 0.057           |
|                                 | SCAP 21     | <b>0.595</b>    | 0.305           | 0.162           | 0.104           | 0.456           |
| <b>Life Balance</b>             | SCAP 1      | 0.232           | 0.297           | -0.160          | <b>0.705</b>    | 0.206           |
|                                 | SCAP 7      | 0.214           | 0.392           | 0.380           | <b>0.451</b>    | 0.364           |
|                                 | SCAP 9      | 0.359           | 0.325           | 0.276           | <b>0.578</b>    | 0.280           |
|                                 | SCAP 13     | 0.102           | 0.040           | 0.085           | <b>0.855</b>    | 0.097           |
| <b>Cognitive Awareness</b>      | SCAP 8      | 0.014           | 0.135           | <b>0.655</b>    | 0.004           | 0.320           |
|                                 | SCAP 11     | <b>0.585</b>    | 0.005           | 0.306           | 0.466           | 0.122           |
|                                 | SCAP 16     | 0.332           | 0.071           | <b>0.621</b>    | 0.250           | 0.333           |
|                                 | SCAP 19     | 0.324           | -0.030          | <b>0.676</b>    | 0.026           | 0.307           |
| <b>Daily Balance</b>            | SCAP 4      | 0.109           | 0.154           | 0.095           | 0.168           | <b>0.769</b>    |
|                                 | SCAP 17     | 0.199           | 0.093           | 0.266           | 0.305           | <b>0.677</b>    |
|                                 | SCAP 18     | 0.086           | 0.040           | 0.217           | 0.008           | <b>0.727</b>    |

To establish the best-fit model, a maximum likelihood Confirmatory Factor Analysis (CFA) was performed to review the theoretical model corresponding to the original subscales of the SCAP. The results were confirmatory for a five-factor fit model, as seen in tables 6 and 7. A path analysis was performed according to a structural fit model, which determined the fit indices of each item with the subscales/factors and each with the total scale, as seen in Figure 3. The model does not have fully adequate fit indices as the values obtained are higher or lower than the conventionally used threshold values: in fact, the p-value of the Chi-squared is significant; CFI and TLI are less than .90 and RMSEA is higher than .08. (Kline, 2005; Schermelleh-Engel et al., 2003).

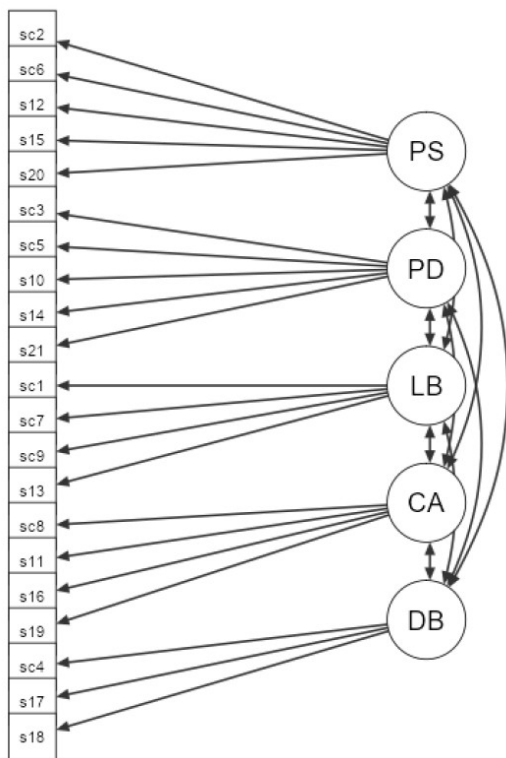
**Table 6.**  
*Factor Loadings Confirmatory Factor Analysis.*

| <b>Subscale/<br/>Factor</b> | <b>Item</b> | <b>Estimate</b> | <b>SE</b> | <b>Z</b> | <b>p</b> | <b>Stand.<br/>Estimate</b> |
|-----------------------------|-------------|-----------------|-----------|----------|----------|----------------------------|
| <b>PS</b>                   | SCAP 2      | 1.046           | 0.1576    | 6.63     | < .001   | 0.590                      |
|                             | SCAP 6      | 1.047           | 0.1235    | 8.48     | < .001   | 0.719                      |
|                             | SCAP 12     | 0.819           | 0.1625    | 5.04     | < .001   | 0.465                      |
|                             | SCAP 15     | 1.115           | 0.1180    | 9.45     | < .001   | 0.775                      |
|                             | SCAP 20     | 0.954           | 0.1211    | 7.87     | < .001   | 0.677                      |
| <b>PD</b>                   | SCAP 3      | 1.024           | 0.1712    | 5.98     | < .001   | 0.536                      |
|                             | SCAP 5      | 1.096           | 0.1430    | 7.66     | < .001   | 0.662                      |
|                             | SCAP 10     | 1.423           | 0.1471    | 9.68     | < .001   | 0.778                      |
|                             | SCAP 14     | 0.784           | 0.1022    | 7.67     | < .001   | 0.661                      |
|                             | SCAP 21     | 1.045           | 0.1106    | 9.45     | < .001   | 0.765                      |
| <b>LB</b>                   | SCAP 1      | 0.787           | 0.1061    | 7.42     | < .001   | 0.638                      |
|                             | SCAP 7      | 1.275           | 0.1306    | 9.76     | < .001   | 0.785                      |
|                             | SCAP 9      | 1.159           | 0.0980    | 11.82    | < .001   | 0.889                      |
|                             | SCAP 13     | 0.804           | 0.1183    | 6.80     | < .001   | 0.591                      |
| <b>CA</b>                   | SCAP 8      | 0.525           | 0.0836    | 6.27     | < .001   | 0.566                      |
|                             | SCAP 11     | 0.745           | 0.1015    | 7.34     | < .001   | 0.649                      |
|                             | SCAP 16     | 0.850           | 0.0850    | 9.99     | < .001   | 0.811                      |
|                             | SCAP 19     | 0.798           | 0.1023    | 7.79     | < .001   | 0.672                      |
| <b>DB</b>                   | SCAP 4      | 1.214           | 0.1600    | 7.59     | < .001   | 0.672                      |
|                             | SCAP 17     | 1.367           | 0.1360    | 10.05    | < .001   | 0.841                      |
|                             | SCAP 18     | 1.021           | 0.1544    | 6.61     | < .001   | 0.596                      |

**Table 7.**  
*Results of the confirmatory factor analysis.*

| <b>Model</b> | $\chi^2$ | <b>df</b> | <b>p</b> | <b>CFI</b> | <b>TLI</b> | <b>RMSEA</b> | <b>RMSEA 90% CI</b> |              |
|--------------|----------|-----------|----------|------------|------------|--------------|---------------------|--------------|
|              |          |           |          |            |            |              | <b>Lower</b>        | <b>Upper</b> |
| 5 factors    | 396      | 179       | < .001   | 0.824      | 0.793      | 0.0997       | 0.0865              | 0.113        |

**Figure 3.**  
*Path Diagram Confirmatory Factor Analysis*



Given the non-existence of self-care scales validated in Spanish at the time of this study, to obtain a convergent or concurrent validation, techniques analogous to the original development of the SCAP are included, including some constructs that have been related to self-care (emotional stress, burnout, work commitment and peer support). Dorociak et al. (2017) observed a correlation between self-care and positive well-being outcomes, considering that self-care is presented as means of reducing stress and enhancing well-being. The convergent validity analysis was performed by relating the scales and subscales of the SCAP test in relation to a battery of questionnaires.

Regarding the Maslach Burnout Inventory (Maslach, Jackson 1986), negative and significant correlations were obtained with the emotional exhaustion (EE) and depersonalisation (DP) subscales, which was theoretically expected since self-care was inversely related to feelings of being overwhelmed and emotionally exhausted by work and was also inversely related to having an impersonal response and lack of feelings towards the subjects of care. In contrast, the self-care scale was positively and significantly correlated with the personal achievement (PA) subscale, indicating that self-care is related to less burnout and greater feelings of competence and successful accomplishment at work towards others.

A positive and significant correlation was obtained with all the subscales of the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) and the SCAP subscale of

professional support, which validates the measurement of the construct of perception of support on this scale.

Concerning the Utrecht Work Engagement Scale (Schaufeli et al., 2002), positive and significant relationships were obtained with the global scale, which measures work commitment, as well as with the involvement subscales and enthusiasm at work, which refers that higher levels of self-care are related to a higher level of effort that the subject dedicates to work, together with the positive emotions that this produces higher levels of energy and pleasure that the activity produces labour.

A negative and significant correlation is observed with the General Health Questionnaire emotional stress scale (Goldberg et al., 1997), indicating that higher levels of self-care are related to better general health. Finally, the SCAP scale is negatively and significantly related to the Beck Depression Inventory for Adults (Beck, 1961) and Beck Anxiety Inventory (Beck & Steer, 2003), which shows that people with higher levels of self-care have lower levels of anxiety and depression.

**Table 8.**  
*Correlations of Self-Care Factors with Validity Measures.*

|                |                              | <b>overall<br/>SCAP</b> | <b>SCAP<br/>PS</b> | <b>SCAP<br/>PD</b> | <b>SCAP<br/>LB</b> | <b>SCAP<br/>CA</b> | <b>SCAP<br/>DB</b> |
|----------------|------------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>MBI</b>     | Emotional exhaustion (EE)    | -.510 **                | -.328 **           | -.429 **           | -.403 **           | -.339 **           | -.578 **           |
|                | Depersonalization (DP)       | -.432 **                | -.317 **           | -.336 **           | -.349 **           | -.458 **           | -.331 **           |
|                | Personal Accomplishment (PA) | .346 **                 | .275 **            | .259 **            | .317 **            | .278 **            | .283 **            |
| <b>MSPSS</b>   | Total                        | .351 **                 | .330 **            | 0.166              | .547 **            | 0.173              | .199 *             |
|                | Family                       | .247 **                 | .197 *             | .140               | .457 **            | .076               | .114               |
|                | Friends                      | .236 **                 | .222 *             | .071               | .396 **            | .125               | .156               |
|                | Significant others           | .425 **                 | .446 **            | .221*              | .540 **            | .256 **            | .248 **            |
| <b>UWES-17</b> | General                      | .496 **                 | .391 **            | .462 **            | .391 **            | .448 **            | .306 **            |
|                | Job involvement              | .484 **                 | .402 **            | .453 **            | .384 **            | .446 **            | .261 **            |
|                | Enthusiasm for work          | .438 **                 | .295 **            | .404 **            | .341 **            | .376 **            | .367 **            |
| <b>GHQ-12</b>  |                              | -.584 **                | -.397 **           | -.499 **           | -.554 **           | -.332 **           | -.567 **           |
| <b>BDI-2</b>   |                              | -.596 **                | -.417 **           | -.500 **           | -.607 **           | -.340 **           | -.531 **           |
| <b>BAI</b>     |                              | -.443 **                | -.290 **           | -.398 **           | -.407 **           | -.265 **           | -.424 **           |

\*p < 0.050, \*\*p < 0.010

## CHAPTER 6

### **Study 2: A Randomised Controlled Trial of an Online Self-Care Training Programme to Reduce Burnout and Promote Work Engagement in Clinical Psychologists: a MAGO Study**

#### **Introduction**

As defined by Maslach (1982), burnout is a state of long-term chronic stress that includes three core dimensions: emotional exhaustion (EE), depersonalisation (DP), and reduced personal accomplishment (PA). It is associated with physical and emotional fatigue at work (high EE), negative feelings or attitudes towards clients and job tasks (high DP), and a reduced sense of PA associated with work-related successes (Maslach & Jackson, 1981). Burnout has recently been included in the 11<sup>th</sup> revision of the International Classification of Diseases (ICD-11) as an occupational phenomenon (WHO, 2019).

High levels of burnout diminish the ability of professionals to take care of themselves and their clients (Maslach et al., 2001). Mental healthcare professionals experiencing untreated burnout may be at risk of reduced capacity to provide empathy, support, and guidance within their therapeutic work, compromising client progress and well-being (Bearse et al., 2013). Psychologists face a variety of emotionally-intense experiences in their daily working lives, including the cumulative effects of witnessing multiple narratives of suffering, trauma, and loss (Rabu et al., 2016). In the same way, clinical psychologists are susceptible to developing burnout as a result of facing consistently emotionally-taxing job demands and a high requirement for empathy (Maslach et al., 1996; Rupert et al., 2015). Job demands can include challenging and excessive workloads, insufficient resources and job support, and a lack of control over the work environment and one's professional identity (Hannigan et al., 2004). A recent systematic review (Simionato & Simpson, 2017) identified younger age and less job experience as personal risk factors for burnout. Less experience on the part of young professionals can be related to the possession of fewer coping mechanisms and the tendency to set unrealistically high expectations regarding their potential clinical efficacy, leading to an inability to achieve their idealistic expectations and standards.

Globally, between 21% and 67% of mental health service providers have reported high levels of burnout (Morse et al., 2012), and the prevalence rates reported in psychologists and psychotherapists fall between 44.1% (Rupert & Morgan, 2005; Rupert & Kent, 2007) and 59% (Cushway & Tyler, 1994 in Simpson et al., 2018). Currently, no studies indicate the general prevalence of occupational burnout in healthcare workers and clinical psychologists in Chile. However, there are prevalence studies among specific samples (Bitran et al., 2019; Jiménez et al.,

2019; Véliz-Burgos et al., 2018). For example, Pastorino & Alvarado (2008) found a burnout prevalence of 25% among 416 healthcare workers in hospitals. During the pandemic, several studies have been carried out involving online surveys to determine the mental health status of healthcare workers. In a study with a sample of more than 8,700 Chilean healthcare workers, severe levels of burnout were found (CUT, 2020). These results are consistent with the COVID-19 Health Care Workers Study (Alvarado & Tapia, 2020) with a sample of 2,500 health professionals, where 31% showed depressive symptoms of a moderate to severe nature.

During the COVID-19 pandemic, information technology and online services were widely used to provide supportive, educational and psychological interventions (Vizheh et al., 2020). Healthcare systems had to adapt quickly, implementing tele- or e-health services (Bhaskar et al., 2020) in order to decrease the risk of healthcare workers' infection by reducing unnecessary visits (Vizheh et al., 2020). In this stressful context, telemental health services were feasible and crucial for supporting patients, family members and healthcare providers (Bhaskar et al., 2020). Different studies have suggested various methods to prevent or reduce burnout. According to Sharifi et al. (2020), these methods can be divided into individual and organisational approaches. Examples of effective techniques to prevent or reduce occupational burnout among healthcare providers are improving work schedules, promoting self-management, teaching physical, mental and emotional self-care, establishing support meetings for COVID-19 teams, introducing mindfulness-based self-control activities and providing counselling and support systems.

Previous efforts have been made in Chile to address occupational burnout among mental health professionals. These include handbooks (CONASIDA, 2006; MIDEPLAN, 2009; SENAME, 2014) and two group person-directed interventions (Guerra et al., 2009; Escobar et al., 2017). Guerra et al. (2009) assessed the effectiveness of a 5-day workshop in terms of increasing the frequency of self-care behaviours and decreasing levels of secondary traumatic stress in a small sample of clinical psychologists. Escobar et al. (2017) implemented a 4-day workshop for healthcare professionals using a larger sample. Their intervention was not effective in terms of reducing burnout; however, it reduced emotional distress significantly.

Internet-based interventions are at an early stage of development in Chile (Rojas et al., 2019). Videoconferencing and web-delivered questionnaires are crucial for outreach to psychologists when it comes to intervention, given problems such as long distances and small budgets for mental healthcare services (Calderon & Rojas, 2016; Cipolletta & Mocellin, 2018). Generally, psychotherapy, psychiatry and counselling can be easily conveyed in a teleconferencing format using digital platforms (Bhaskar et al., 2020).

Implementing self-care behaviours can help prevent the negative consequences of work stress and promote positive outcomes such as optimal professional functioning and enhanced well-being in psychologists (Colman et al., 2016; Rupert & Dorociak, 2019). Dorociak et al. (2017) defined self-care as “a multidimensional, multifaceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being” (p. 326).

This study aims to evaluate the efficacy of an online guided self-care model (in Spanish, “*Modelo de Autocuidado Guiado Online*”, MAGO), a structured, therapist-guided online intervention for the prevention of burnout in psychologists. MAGO is expected to enhance the work engagement and reduce burnout on the part of participants in the Intervention Group, specifically with regard to EE.

## **Method**

### **Experimental design**

This study is a parallel, two-armed, RCT with three assessment points. Participants were randomised for the intervention or Control Groups. We used a waiting list Control Group to compare with the regular professional activities of psychologists. The three assessment points (baseline, post-intervention, and follow-up) correspond to two weeks before the intervention, two weeks after the intervention, and six months after the intervention, respectively.

### **Ethical approval**

The study was registered at [clinicaltrials.gov](https://clinicaltrials.gov) with identifier code NCT04462484. It followed the SPIRIT statement recommendations for clinical trials (Chan et al., 2013) and was conducted following the CONSORT guidelines. Declaration of Helsinki protocols were followed, and participants gave written informed consent. The Ethical Committee of the University of Chile, with the approval number “13-12/2020”, approved the study design before the recruitment phase. The principles of autonomy, the search for good (principles of beneficence and non-maleficence), and justice were protected. Participants received an email with an explanation of the study outline as well as a clear and concise consent form.

### **Participants**

Individuals met the following criteria in order to be admitted to the study: (a) Chilean clinical psychologists, (b) currently working in the public sector in Chile, (c) available to attend six online self-care training sessions, and (d) willing to participate voluntarily. Exclusion criteria were

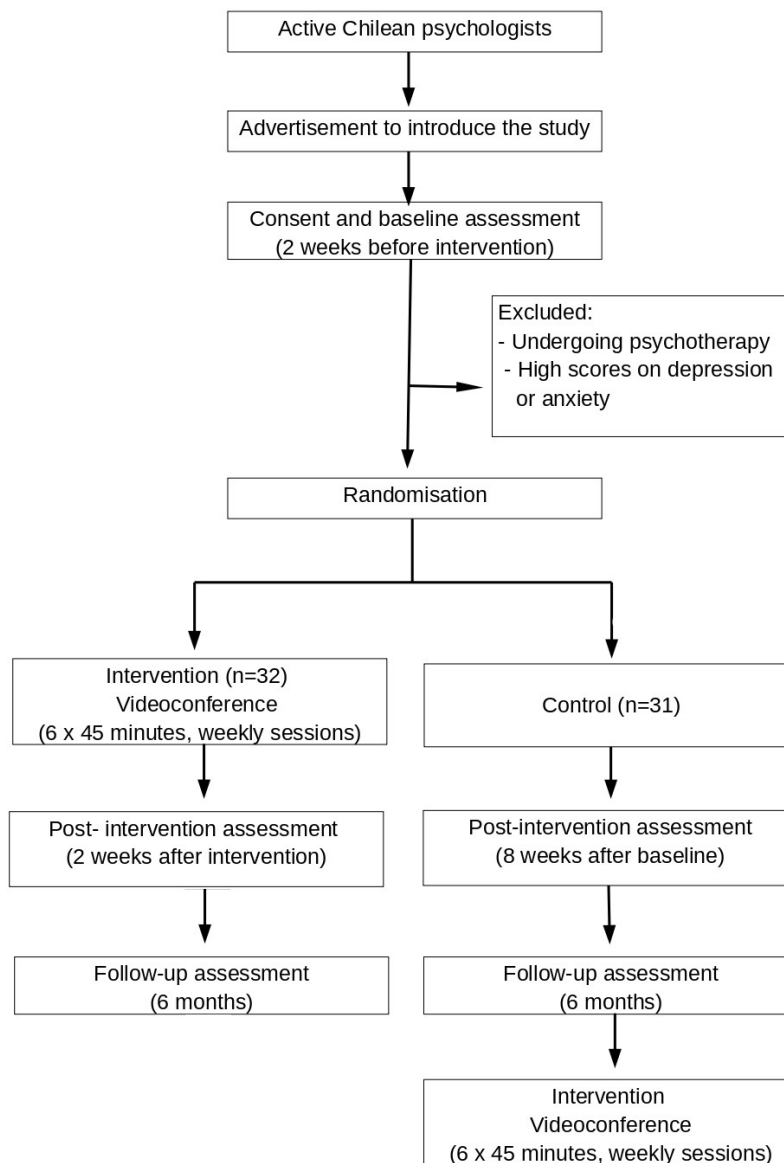


(a) subjects participating in psychotherapy as clients and (b) high scores for depression ( $\geq 29$  on BDI-II) or anxiety ( $\geq 26$  on BAI), corresponding to severe symptomatology (Beck et al., 1996; Beck & Steer, 1993). Figure 1 shows the participant flow through the trial. There is no centralized channel to massively notify psychologists in Chile and for this reason, the participants were recruited in various Facebook groups, using a promotional image and a text that included the study email.

The sample size was 63 participants (32 for the Intervention Group and 31 for the Control Group). Initially, the sample size was estimated at 74 participants, with a 20% loss allowed during the intervention, expecting a minimum effective sample size of 62 people. The sample size was determined using G-power 3.1.9.4 software based on a chosen effect size of 0.30. An alpha level of 0.05 and statistical power of 0.80 was adopted for the analysis of variance (ANOVA). Missing data will be treated with Complete Case Analysis (CCA), discarding cases whose information is incomplete.

**Figure 1.**

*Participant flow through the study.*



## Measures

*Maslach Burnout Inventory (MBI-HSS; Maslach et al., 1996; Faúndez, 2009):* This questionnaire consists of 22 items that, according to the manual, are distributed in the dimensions EE, PA and DP. It has 7 degrees ranging from 0 (“never”) to 6 (“every day”). The MBI is the most commonly-used questionnaire in burnout studies. Faúndez (2009) analysed the psychometric characteristics of the Spanish version for Chilean public service professionals and found that the MBI achieves adequate

internal consistency values in terms of Cronbach's alpha (.87; .80 & .69 for each scale). In terms of its factorial validity, the three main factors jointly explain 45.76% of the total variance, although a fourth factor was observed that explains only 6.63% of the variance. The scale is considered adequate for use among Chilean public service professionals.

*Utrecht Work Engagement Scale (UWES-17; Schaufeli et al., 2002; Müller et al., 2013)*: The Spanish version was used by Müller et al. (2013), derived from a Spanish version proposed by the Schaufeli team (Schaufeli et al., 2002) to improve their understanding in the Chilean population using a 17-item version. Responses vary from 0 ("never") to 6 ("every day"). Through a factorial exploratory analysis, Müller et al. (2013) identified two factors - involvement with work and enthusiasm for work - that jointly explain 79.06% of the total variance and demonstrate sufficient reliability ( $\alpha = .87$  &  $.59$  for each scale). The UWES-17 scale presents appropriate psychometric properties for use among Chilean health workers.

*Self-Care Assessment for Psychologists (SCAP; Dorociak et al., 2017)*: This is a 21-item scale that assesses aspects of self-care relevant to the personal and professional functioning of mental healthcare practitioners. It has five subscales which accounted for 61.5% of the variance in the self-care items: professional support ( $\alpha = .83$ ), professional development ( $\alpha = .80$ ), life balance ( $\alpha = .81$ ), cognitive awareness ( $\alpha = .72$ ), and daily balance ( $\alpha = .70$ ). Participants are asked to indicate the frequency with which they engage in each self-care behaviour on a 7-point scale from 1 ("never") to 7 ("always"). The scale was translated into Spanish and validated in a sample of Chilean professionals (Hernandez-Lillo et al., 2020).

*General Health Questionnaire (GHQ-12; Goldberg et al., 1997; Araya et al., 1992)*: This is a self-report questionnaire that is commonly used to assess minor psychiatric disorders and emotional distress in the previous few weeks. It has 12 items with a four-point Likert scale ranging from 1 to 4 (maximum score of 36). High scores are indicative of high levels of emotional stress. Araya et al. (1992) found this questionnaire appropriate for use among primary care personnel in Chile. Validity coefficients for the GHQ-12 in Chile were sensitivity 76%, specificity 73%, and overall misclassification rate 26%.

*Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988; Ortíz & Baeza, 2011)* presents 12 statements (items) that evaluate the perception of social support. These items are grouped into three factors. The first factor group measures peer social support (items 6, 7, 9, and 12), the second measures family support (items 3, 4, 8, and 11), and the third measures perception of partner support or that of other significant figures (items 1, 2, 5 and 10). The response

format is a four-point Likert type, from 1 (“almost always”) to 4 (“always or almost always”). The higher the score obtained, the greater the perception of social support. Ortíz & Baeza (2011) estimated the psychometric properties of MSPSS in a Chilean sample. The total scale has an internal consistency of 0.855. An exploratory factor analysis with Varimax rotation was conducted, obtaining the three factors proposed by the authors, which together explain 66.8% of the variance.

*Beck Depression Inventory-II* (BDI-II; Beck et al., 1996; Araya et al., 2013): This scale is comprised of 21 items asking about depression symptoms experienced over the previous two weeks (Beck et al., 1996). Total scores can range from 0 to 63, with higher scores indicating higher levels of depressive symptomatology. Cut-off points used to estimate severity in adults are: 10–16, possible mild depression symptoms; 17–29, moderate; and 30–63, severe (Beck et al., 1996). A Spanish translation of the BDI-II showed good psychometric properties when used with US Spanish-speaking youth populations (Weibe & Pelley, 2005 in Araya et al., 2013). A Chilean adaptation of the Spanish version of the BDI-II for use with adolescents showed good internal consistency ( $\alpha = .91$ ) and test-retest correlation coefficients, as well as good concurrent validity with other depression scales and an adequate goodness of fit in the confirmatory factor analysis for both uni- and bi-factorial solutions (Melipillan et al., 2008 in Araya et al., 2013).

*Beck Anxiety Inventory* (BAI; Beck & Steer, 1993; Cova et al., 2007): The BAI is a self-reported inventory of 21 items developed as an instrument to assess anxiety and discriminate between anxiety and depressive symptomatology (Beck & Steer, 1993). The current edition of the original BAI proposes the following cut-off scores and definitions: 0-7 indicates minimal anxiety, 8-15 mild, 16-25 moderate, and 26-63 severe (Beck & Steer, 1993). A study conducted by Sanz & Navarro (2003) of the Spanish version of the BAI in a sample of Spanish university students showed positive results in terms of internal consistency ( $\alpha = .88$ ) and the ability to identify pathological anxiety in the non-clinical population. A study conducted in Chile (Cova et al., 2007) showed similar results.

## **Procedure**

The sampling is non-probabilistic, and voluntary or self-selected. People may propose to participate in the study or respond to an invitation. Candidates were contacted by email and social media. Interested subjects applied via mail and received detailed information about the study and informed consent in PDF format. Sociodemographic data was requested (age, gender, nationality, workplace, marital status, and years of experience as a psychologist), and baseline questionnaires were delivered. Approved volunteers were assigned randomly to the intervention or Control Group

using sealed envelopes by an independent researcher unaware of the study's characteristics and data. All participants received a summary of the study's results, and participants from the Control Group were offered the possibility of intervention in September 2022. The study completion date was February 13, 2022.

## **Intervention**

A person-directed, individual, primary occupational intervention was proposed. It was carried out via videoconference in six sessions of 45 minutes on a weekly basis. MAGO is a therapist-guided conversation promoting self-care behaviours. Audio and video sessions were held on the Zoom platform, using as a background a text with the self-care behaviours proposed by Dorociak et al. (2017) for each dimension (see Table 4). Through guided dialogue, the individual difficulties and opportunities with regard to each participant were examined in order for them to gain self-awareness in terms of personal characteristics (e.g., strengths, limitations, maximum workload capacity). Participants were encouraged to adopt the set of self-care strategies in each dimension, adapting them to their specific context. Activities were carried out in Spanish by the principal investigator PHL and supervised by FGS.

**Table 4.**

*Intervention content.*

| <b>Sessions</b>  | <b>Contents</b>  | <b>Practices</b>  |
|--|--|---|
| 1. Professional Support (cultivating supportive relationships with colleagues)   | Emphasis on the importance of supportive colleagues, including avoiding isolation, cultivating relationships with colleagues, and sharing both rewarding and stressful work experiences. | Exploration of perceived social support<br>Exploration of beliefs<br>Examples<br>Strengths and weaknesses<br>Areas to improve<br>Action-oriented resolution |
| 2. Professional Development (seeking opportunities for professional growth and involvement in enjoyable professional activities) | Demonstrate the importance of engaging in enjoyable work activities, participating in professional organisations and events, and staying current in professional knowledge.              | Exploration of opportunities in the workplace (organisations, events, meetings)<br>Beliefs about professional development                                   |

|  |   |  |
|--|---|--|
|  |   | Strengths and weaknesses<br>Areas to improve<br>Action-oriented resolution   |
| 3. Life Balance (cultivating relationships and activities outside workplace) | Highlight the importance of having more than a professional identity, but also a personal identity. Underscore the importance of social support outside the workplace and emphasize strategies that build a balance between work and non-work life. | Exploration of the main aspects of life<br>Exploration of external social support<br>Personal relationship between work and non-work activities in terms of time and energy used<br>Strengths and weaknesses<br>Areas to improve<br>Action-oriented resolution |
| 4. Cognitive Awareness (monitoring workplace stress and reactions)           | Emphasize the importance of psychological Self-care, monitoring workplace stress and emotions, having a proactive approach to manage challenges, and maintaining awareness of one's feelings and needs.   | Exploration of beliefs about personal health<br>Exploration of self-monitoring<br>Exploration of using schedules, to-do lists, and priorities.<br>Strengths and weaknesses<br>Areas to improve<br>Action-oriented resolution                                   |
| 5. Daily Balance (managing demands and structuring the workday)              | Smaller-scale, micro-focused strategies that can be incorporated throughout the workday to manage demands while maintaining awareness and replenishing resources.   | Exploration of daily habits<br>Exploration of typical demands<br>Exploration of techniques used to cope<br>Exploration of ways to recover<br>Strengths and weaknesses<br>Areas to improve<br>Action-oriented resolution  |
| 6. Synthesis and Future  | Review of the last five sessions.   | Open conversation about previous sessions<br>Exploring positive actions related to this intervention<br>Agreement on next actions to enhance Self-care behaviours  |

## **Analysis**

Baseline differences between groups in terms of sociodemographic and clinical variables were assessed using Chi-square tests for categorical variables (sex and workplace), analysis of variance (ANOVA) for continuous data (age, years of experience), analysis of covariance (ANCOVA) for continuous data (MBI and all other measures) with age as a covariate.

The evaluation of the pre- post-intervention and follow up differences were carried out through group (intervention and control) x time (baseline, post-intervention, and follow-up at six months) ANCOVA repeated measures, with age as a covariate to evaluate the effects of the intervention for all primary and secondary outcomes.

## **Results**

### **Baseline Data and Participant Characteristics**

Descriptive statistics and sociodemographic characteristics of the participants are shown in Table 1. The correlation between age and years of experience is high ( $r = .81$ ); therefore, in all subsequent analyses, only age was considered as a covariate.

### **Primary outcomes from Pre- to Post-intervention and 6-Month Follow-Up**

Results for MBI-HSS showed a significant group x time interaction effect in two of three subscales – Emotional Exhaustion [ $F(2, 120)=4.44$ ;  $p = .014$ ] and Personal Accomplishment [ $F(2, 120)=5.13$ ];  $p = .007$ ]. Within-group comparisons revealed a reduction in the emotional exhaustion subscale only in the Intervention Group, particularly from pre-to 6-month follow-up (see Table 2). On the other hand, for PA, there is a decrease only in the Control Group, in particular in pre-post. Regarding DP, there is an initial difference between groups maintained over time (see Table 3). Results for UWES-17 showed no significant group x time interaction effect.

### **Secondary outcomes from Pre- to Post-intervention and 6-Month Follow-Up**

A significant group  $\times$  time interaction effect was found in the case of Perceived Social Support [ $F(2, 120)=4.16$ ;  $p=.018$ ], Depression Symptoms [ $F(2, 120)=5.18$ ;  $p=.007$ ], Anxiety Symptoms [ $F(2, 120)=3.09$ ;  $p=.049$ ] and self-care behaviours [ $F(2, 120)=4.88$ ;  $p=.009$ ]. Within-group comparisons revealed significant pre-to-post and pre-to 6-month follow-up changes in the Intervention Group for all these domains. In contrast, no significant changes were found in the Control Group (Table 2). All

the changes indicate an improvement in the health of the Intervention Group subjects, with an observed increase in perceived social support and self-care behaviours and a reduction in depression and anxiety symptoms. Results with regard to General Health showed no significant group x time interaction effect.

**Table 1.**

*Sociodemographic data.*

| <b>Variable</b>     | <b>Total sample<br/>(n= 63)</b> | <b>Control<br/>Group<br/>(n=31)</b> | <b>Intervention Group<br/>(Experimental)<br/>(n=32)</b> | <b>Statistics (CG vs<br/>IG)</b> |
|---------------------|---------------------------------|-------------------------------------|---|----------------------------------|
| Age                 | 36.51 (7.26)<br>(range=24-53)   | 34.58 (6.50)<br>(range=24-53)       | 38.38 (7.56)<br>(range=27-53)                           | T (61)= -2.13<br>p= .037         |
| Years of Experience | 9.38 (5.75)<br>(range=1-28)     | 7.55 (4.76)<br>(range=1-17)         | 11.16 (6.12)<br>(range=2.5-28)                          | T (61)= -2.60<br>p= .012         |
| Sex                 |                                 |                                     |   |                                  |
| Female              | 51 (81%)                        | 24 (77%)                            | 27 (84%)  | $\chi^2$ (1)= 0.50<br>p= .482    |
| Male                | 12 (19%)                        | 7 (23%)                             | 5 (16%)   |                                  |
| Workplace           |                                 |                                     |   |                                  |
| Santiago de Chile   | 29 (46%)                        | 12 (39%)                            | 17 (53%)  | $\chi^2$ (1)= 1.07<br>p= .301    |
| Other cities        | 33 (52%)                        | 18 (58%)                            | 15 (47%)  |                                  |
| Missing data        | 1 (2%)                          | 1 (3%)                              | 0 (0%)  |                                  |



**Table 2.**

*Adjusted Marginal Means (Standard Errors) controlling for age, and within-group effect size for primary and secondary outcomes at pre-, post-intervention, and 6-month follow-up.*

| <b>CONTROL GROUP</b>      |               |               |               |                    |       |                  |       |  |
|---------------------------|---------------|---------------|---------------|--------------------|-------|------------------|-------|--|
| <b>Outcome</b>            | <b>PRE</b>    | <b>POST</b>   | <b>FU</b>     | <b>PRE vs POST</b> |       | <b>PRE vs FU</b> |       |  |
|                           | M (SE)        | M (SE)        | M (SE)        | t                  | d     | t                | d     |  |
| <b>MBI</b>                |               |               |               |                    |       |                  |       |  |
| EE                        | 30.84 (2.15)  | 32.46 (2.30)  | 34.12 (2.34)  | -1.02              | -0.37 | -1.65            | -0.6  |  |
| PA                        | 36.27 (1.37)  | 33.23 (1.47)  | 34.04 (1.48)  | 2.38*              | 0.87  | 1.6              | 0.58  |  |
| DP                        | 8.47 (1.02)   | 8.27 (0.79)   | 9.19 (1.03)   | 0.22               | 0.08  | -0.82            | -0.3  |  |
| <b>MSPSS</b>              | 3.26 (0.11)   | 3.26 (0.16)   | 3.18 (0.12)   | -0.02              | -0.01 | 0.78             | 0.29  |  |
| <b>BDI</b>                | 9.86 (1.13)   | 10.72 (1.25)  | 10.71 (1.23)  | -0.93              | -0.34 | -0.82            | -0.3  |  |
| <b>UWES-17</b>            |               |               |               |                    |       |                  |       |  |
| General                   | 63.48 (3.50)  | 59.86 (3.71)  | 56.63 (3.49)  | 1.63               | 0.6   | 1.93             | 0.71  |  |
| IT                        | 50.50 (2.66)  | 47.95 (2.84)  | 45.62 (2.62)  | 1.47               | 0.54  | 1.73             | 0.63  |  |
| ET                        | 12.98 (0.95)  | 11.91 (0.97)  | 11.01 (1.01)  | 1.51               | 0.55  | 2.09*            | 0.76  |  |
| <b>GHQ</b>                | 4.59 (0.58)   | 4.32 (0.61)   | 3.80 (0.58)   | 0.47               | 0.17  | 1.14             | 0.42  |  |
| <b>BAI</b>                | 9.74 (1.28)   | 10.32 (1.27)  | 9.91 (1.40)   | -0.45              | -0.16 | -0.15            | -0.05 |  |
| <b>SCAP</b>               | 102.12 (3.45) | 103.69 (3.41) | 106.01 (3.69) | -0.64              | -0.23 | -1.19            | -0.44 |  |
| <b>INTERVENTION GROUP</b> |               |               |               |                    |       |                  |       |  |
| <b>Outcome</b>            | <b>PRE</b>    | <b>POST</b>   | <b>FU</b>     | <b>PRE vs POST</b> |       | <b>PRE vs FU</b> |       |  |
|                           | M (SE)        | M (SE)        | M (SE)        | t                  | d     | t                | d     |  |
| <b>MBI</b>                |               |               |               |                    |       |                  |       |  |
| EE                        | 26.41 (2.12)  | 23.43 (2.26)  | 22.26 (2.31)  | 1.91               | 0.69  | 2.12*            | 0.76  |  |
| PA                        | 36.86 (1.35)  | 39.31 (1.45)  | 38.66 (1.46)  | -1.95              | -0.7  | -1.34            | -0.48 |  |
| DP                        | 5.33 (1.01)   | 4.37 (0.77)   | 4.60 (1.01)   | 1.06               | 0.38  | 0.84             | 0.3   |  |
| <b>MSPSS</b>              | 3.10 (0.12)   | 3.39 (0.11)   | 3.35 (0.12)   | -4.27***           | -1.53 | -2.47*           | -0.89 |  |
| <b>BDI</b>                | 9.33 (1.11)   | 5.93 (1.23)   | 6.56 (1.21)   | 3.73***            | 1.34  | 2.71**           | 0.98  |  |
| <b>UWES-17</b>            |               |               |               |                    |       |                  |       |  |
| General                   | 67.04 (3.44)  | 68.89 (3.65)  | 65.77 (3.43)  | -0.85              | -0.31 | 0.36             | 0.13  |  |
| IT                        | 52.64 (2.62)  | 53.52 (2.79)  | 51.78 (2.58)  | -0.51              | -0.18 | 0.31             | 0.11  |  |
| ET                        | 14.39 (0.94)  | 15.37 (0.95)  | 13.99 (1.00)  | -1.4               | -0.5  | 0.43             | 0.15  |  |
| <b>GHQ</b>                | 4.58 (0.57)   | 2.60 (0.60)   | 2.44 (0.57)   | 3.46**             | 1.24  | 3.16**           | 1.14  |  |
| <b>BAI</b>                | 10.03 (1.26)  | 7.00 (1.25)   | 6.27 (1.37)   | 2.39*              | 0.86  | 3.31**           | 1.19  |  |
| <b>SCAP</b>               | 101.98 (3.39) | 116.42 (3.35) | 113.87 (3.63) | -5.94***           | -2.13 | -3.71***         | -1.33 |  |

Pre, baseline; Post, post-intervention; FU, 6-month follow up; M, mean; SE, standard error; t, t value for means comparison; d, Cohen's d; F, F-value; MBI, Maslach Burnout Inventory; EE, emotional exhaustion; PA, personal accomplishment; DP, depersonalisation; MSPSS, Multidimensional Scale of Perceived Social Support; BDI, Beck depression inventory II; UWES-17, Utrecht Work Engagement Scale; General, total score; IT, job involvement subscale (in Spanish Involucramiento con el trabajo); ET, Job enthusiasm subscale (in Spanish Entusiasmo por el trabajo); GHQ, General Health Questionnaire; BAI, Beck Anxiety Inventory; SCAP, Self-care Assessment for Psychologists. \*p < 0.050, \*\*p < 0.010, \*\*\*p < 0.001

**Table 3.**

*Between-group comparisons at pre, post and 6-month follow-up controlling for age.*

| Outcome        |         | PRE   |                    | POST    |                    | FOLLOW-UP |                    |
|----------------|---------|-------|--------------------|---------|--------------------|-----------|--------------------|
|                |         | F     | Partial eta-square | F       | Partial eta-square | F         | Partial eta-square |
| <b>MBI</b>     |         |       |                    |         |                    |           |                    |
|                | EE      | 2.08  | 0.03               | 7.55**  | 0.11               | 12.54**   | 0.17               |
|                | PA      | 0.09  | 0.00               | 8.40**  | 0.12               | 4.65*     | 0.07               |
|                | DP      | 4.62* | 0.07               | 12.06** | 0.17               | 9.74**    | 0.14               |
| <b>MSPSS</b>   |         | 0.85  | 0.01               | 0.61    | 0.01               | 0.99      | 0.02               |
| <b>BDI</b>     |         | 0.11  | 0.00               | 7.17*   | 0.11               | 5.54*     | 0.08               |
| <b>UWES-17</b> |         |       |                    |         |                    |           |                    |
|                | General | 0.51  | 0.01               | 2.91    | 0.05               | 3.37      | 0.05               |
|                | IT      | 0.32  | 0.01               | 1.90    | 0.03               | 2.71      | 0.04               |
|                | ET      | 1.08  | 0.02               | 6.29*   | 0.09               | 4.26*     | 0.07               |
| <b>GHQ</b>     |         | 0.00  | 0.00               | 3.91    | 0.06               | 2.67      | 0.04               |
| <b>BAI</b>     |         | 0.03  | 0.00               | 3.35    | 0.05               | 3.34      | 0.05               |
| <b>SCAP</b>    |         | 0.00  | 0.00               | 6.85*   | 0.10               | 2.23      | 0.04               |

Pre, baseline; Post, post-intervention; Follow-up, 6-month follow up; F, F value of group effect in ANCOVA with age as a covariate; MBI, Maslach Burnout Inventory; EE, emotional exhaustion; PA, personal accomplishment; DP, depersonalisation; MSPSS, Multidimensional Scale of Perceived Social Support; BDI, Beck depression inventory II; UWES-17, Utrecht Work Engagement Scale; General, total score; IT, job involvement subscale (in Spanish Involucramiento con el trabajo); ET, Job enthusiasm subscale (in Spanish Entusiasmo por el trabajo); GHQ, General Health Questionnaire; BAI, Beck Anxiety Inventory; SCAP, Self-care Assessment for Psychologists. \* $p < 0.050$ , \*\* $p < 0.010$ , \*\*\* $p < 0.001$ .

## Discussion

The results of the present study are the first empirical evidence grounded on a RCT that MAGO, a new self-care training programme for clinical psychologists, (1) reduces emotional exhaustion, (2) reduces anxiety symptoms, (3) reduces depression symptoms, (4) increases perceived social support and (5) increases self-care behaviours.

The type of intervention chosen may explain the effect of MAGO on burnout symptoms. Our team considered the recommendations from Dreison et al. (2016) that indicate that person-directed interventions such as individual videoconferencing effectively reduce the EE aspect of burnout. This individual space offered not only allows direct communication due to the one-on-one format, but also allows the incorporation of the proposals of Simionato & Simpson (2017), who recommend interventions that improve self-awareness in terms of personal strengths, limitations, and maximum workload capacity in order to find the best fit between one's personality, circumstances, and job demands. This approach to burnout interventions may also promote

resilience through building skills in adaptive coping (including positive reinterpretation and reflection on satisfying work experiences, use of humour, and seeking support when needed) and cultivating beliefs that promote self-care and work-life balance, counteracting unrealistic self-expectations.

Our findings may agree with the literature in that an increase in self-care behaviours is related to better levels of mental health (Colman et al., 2016; Dorociak et al., 2017). Although further analysis is needed between outputs. The emphasis of MAGO on self-care could have had a broad effect, reflected in the different measures we applied. In the Intervention Group, the significant effect of the interaction and the difference within the group in self-care behaviours in post-intervention, may be due to the fact that participants need time to establish new habits.

Our results differ from studies in the literature that indicate that work engagement and burnout scales are moderately correlated (Schaufeli & Bakker, 2004). Nonetheless, no significant effect was observed. This may be due to the fact that the construct was not the object of our intervention and was therefore not actively promoted.

The study had the following limitations. First, the absence of information on the occupational well-being of clinical psychologists does not allow the generation, adjustment and improvement of specific strategies. One reason for the lack of studies on this topic may be the difficulty of identifying and recruiting such a specific and dispersed sample. Second, one of the challenges of the present study was that of reaching the expected number of participants for the estimated sample size because they practice in very heterogeneous and disconnected contexts. At the same time, this limitation is the main strength of the study, in that its aim is to test a tool that can facilitate access to those professionals who are not immediately available in person.

Healthcare providers should be heard, protected, prepared, and supported by their organisations (Sharifi et al., 2021). Currently, the responsibility for monitoring occupational health and the exercising self-care behaviours is placed on the individual psychologist and the spontaneous activities of mental health teams. Mental health programmes rarely include a space for reflection and care for their professionals. As the care then falls on the professional individually, there will be little guarantee that it is a coherent or effective action. According to Arredondo et al. (2020), there is still not a sufficient body of evidence to influence public policy, highlighting the need for the state and NGOs to invest in the care of their professionals. An example of this can be found in the CUT (2020) study, where only 29% of mental healthcare workers reported actions aimed at protecting their mental health in the workplace, showing less EE compared to individuals without these

measures. Additionally, graduate programmes can help develop a culture of self-care by including activities, concepts, and plans specific to psychology graduate students (Colman et al., 2016).

The MAGO study corresponds to a contribution to the mental health of psychologists. Although it is in its infancy, the first tests were promising. In the future, the intervention could be modified using homework, audiovisual content, reminders, and could even be complemented with the use of asynchronous communication with the participant. MAGO can be permanently improved by incorporating participants feedback involving questionnaires assessing user experience, satisfaction, and gathering other comments. This programme could become an empirically-assessed viable option suited to the needs of other healthcare workers by adopting an empirically-based measure of self-care behaviours corresponding to that profession. It can be replicated with little effort in larger groups, other countries and languages. Using simple and accepted popular online tools is crucial for conducting surveys and interventions promoting occupational well-being, especially in countries such as Chile, which face problems including long distances in terms of transportation, and a small budget for mental healthcare services.

### **Availability of data and materials**

The data supporting this study's findings are available on [clinicaltrials.gov](https://clinicaltrials.gov), a resource provided by the U.S. National Library of Medicine at <https://clinicaltrials.gov>, reference number NCT04462484.

# CHAPTER 7

## General discussion

In the previous chapters, this project provided an overview of the concepts around occupational burnout and self-care, as well as various measuring tools and interventions. This theoretical framework contextualised the results of the previously discussed two studies focused on promoting self-care to prevent adverse outcomes such as occupational burnout. The following paragraphs will discuss the findings' practical implications, the study's strengths and limitations and indications for future research.

### Practical implications

The Self-Care Assessment for Psychologists (SCAP, Study 1) is now translated and validated for the Chilean population. It can be used in an individual or group setting. In other words, any psychologist could self-apply the SCAP one or more times a year to assess their self-care at work independently or with colleagues. In addition, the possibility of being used in research with the Chilean population opens up, and the results of these investigations will allow a better understanding of self-care. Finally, it is possible to generate other interventions that include the scale as a measurement tool and a list of beneficial behaviours for professionals.

The MAGO study (Study 2) corresponds to a contribution to the mental health of psychologists. The results of the present study are the first empirical evidence grounded on an RCT that MAGO, a new self-care training programme for clinical psychologists, (1) reduces emotional exhaustion, (2) reduces anxiety symptoms, (3) reduces depression symptoms, (4) increases perceived social support and (5) increases self-care behaviours.

### Strengths and Limitations of the Research

It is necessary to highlight that online questionnaires and videoconference meetings meant practically zero economic cost for researchers and participants in both Studies 1 and 2. Some participants got permission to carry out the activities during working hours.

Although some participants withdrew from the research in Study 2, we highlight the adherence of the participants who completed the entire process, allowing the research to conclude satisfactorily. This study did not have an evaluation of user experience and satisfaction survey in its methodology. However, participant adherence and positive outcomes in the intervention group can be interpreted as a positive reaction towards the study. Based only on verbal communication, participation in the study was considered a self-care activity. Unlike a group intervention, the

intervention had a fixed itinerary of contents, but there was plenty of space to listen to each person's details, anecdotes, and concerns.

Study 2 was limited by the absence of a body of information on the occupational well-being of clinical psychologists (McCormack et al., 2018), impeding the generation, adjustment and improvement of specific strategies. One reason for the lack of studies on this topic, specifically in Chile, could be the difficulty of identifying and recruiting such a specific and dispersed sample. Indeed, one of the challenges of the present study was reaching the expected number of participants for the estimated sample size because they practice in very heterogeneous and disconnected contexts. At the same time, this limitation is the main strength of the study since it aims to evaluate a tool that can facilitate access to those professionals who are not immediately available in person.

### **Indications for Future Research**

It is possible to generate and assess new versions of MAGO. It can be delivered as a traditional face-to-face group, an online programme, or a combined one. It could combine synchronous and asynchronous modules, as in the study of Zuñiga et al. (2021), in a mindfulness-based self-care programme addressed to medical students. Despite the limited number of studies examining asynchronous online interventions, this modality is effective, improves the experience of care for both patients and providers, and it is cost-effective while eliminating geographic barriers, reducing wait times, improving adherence, maintaining clinical outcomes and patient and provider satisfaction (O'Keefe et al.,2021).

There are many possibilities; it could also take the form of a videogame, a mobile application or an emulated interview in audio format. Whatever form MAGO may take in the future, authors should assess the four domains established by the National Quality Forum (NQF, 2017) for evaluating telehealth services: access to care, effectiveness, experience and financial impact/costs.

# CHAPTER 8

## Conclusion

Considering the results of the studies and the sources of information from the literature used to critically analyze them to support them, this project aimed to answer the questions: what is the best instrument to measure self-care in practicing psychologists in Chile? And what is the best occupational intervention to address the problem of burnout in the specific conditions of these professionals?

In the early stages of this research, the authors considered perceived social support and self-care as key concepts that can be measured and enhanced to promote occupational well-being and reduce burnout. It is imperative to clarify that self-care does not mean reductionism to the individual dimension of a problem rooted in social life. Social support was one of the topics discussed in our intervention as a dimension of self-care (Dorociak et al., 2017a). It simply highlights the responsibility of each one to identify the people who represent personal and professional support, in addition to entering into interaction with them. Social support refers to an individual's belief that help is available from other people in different situations (Cobb, 1976; Mayo et al., 2012). Social support is a job resource that buffers the effect of stress (Mayo et al., 2012; Schaufeli & Bakker et al., 2004) and thus should ameliorate the onset of burnout (McCormack et al., 2015). Perceived social support also reduces burnout in clinical psychologists (Hammond et al., 2018). Social support at work comes mainly from supervisors or coworkers. Support from supervisors has also been found to protect work engagement during times of high stress and to be a key resource in encouraging employee engagement (Bakker & Demerouti, 2007). Job resources had a negative effect on burnout, meaning that the greater the resources, the less likely an individual is to burn out (McCormack et al., 2015). Hämmig (2017) found that supervisor support is the most crucial source of improving health and well-being at work and it can be intensified presumably by support from an increasing number of sources available.

Our impression is that online interventions should be tailored specifically for the subjects who may benefit from them. That is why the next steps of MAGO should take into consideration our results and the valuable recommendations of our colleagues. This intervention was probably perceived by the participants as professional social support. This is why it is necessary for the human factor to be present even if the intervention leads to a more asynchronous or automated intervention.

This project represents a contribution since it made available a scale of self-care behaviors and an intervention that was shown to be effective in improving the occupational mental health of people who actively work to contribute to the well-being of Chile. We also hope that this project has contributed to the culture of self-care among mental health professionals.



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