© The Author(s), 2023. Published by Cambridge University Press on behalf of Universidad Complutense de Madrid and Colegio Oficial de la Psicología de Madrid. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited. doi:10.1017/SIP.2023.24



Co-Active Coping Inventory: Development and Validation for the Chilean Population

Javier Barría-González^{1,2} , Álvaro Postigo², Ricardo Pérez-Luco¹, Paulina Henríquez-Mesa¹ and Eduardo García-Cueto²

Abstract. Co-active coping is a fundamental construct in organizational and work environments as it allows for the exploration of individual and group behaviors within organizations. The aim of this study was to develop a new scale called the Co-Active Coping Inventory in the Chilean context. The sample was comprised of 1,442 workers with an average age of 30.48 years (SD = 11.13). 55% were public-sector workers, 34.5% were workers in private commercial organizations, and 10.5% belonged to non-profit private organizations. Different exploratory factor analyses were performed, and the best exploratory model was verified with a confirmatory factor analysis. In addition, multiple linear regressions were used to analyze which dimensions of co-active coping helped predict workers' burnout (emotional exhaustion, affective hardening, and personal fulfillment) and symptomatology (psychological and somatic). Based on the exploratory and confirmatory approach, the Co-Active Coping Inventory showed a good fit to a structure of five correlated factors (Reflective Action, Rash Action, Search for Spiritual Support, Search for Affective Support and Evasion), demonstrating measurement invariance in terms of sex and type of organization. The different domains of co-active coping explain between 20% (emotional exhaustion) and 41% (affective hardening) of occupational burnout and around 3–5% of workers' symptomatology, with reflective action being the most important variable. These results indicate that the new scale has suitable psychometric properties; it can assess coping strategies in the Chilean organizational context in a reliable and valid way. These coping strategies have demonstrated certain importance in relation to organizational and clinical variables.

Received 22 April 2022; Revised 20 July 2023; Accepted 20 July 2023

Keywords: assessment, coping, occupational burnout, psychometric properties, symptomatology

Organizations are socially constructed abstract systems, where their design, structure and processes are enacted by the people who comprise them (Kozlowski, 2012). These components of the organization are linked in complex and dynamic patterns of continuous influence where the characteristics of the context — the

Correspondence concerning this article should be addressed to Álvaro Postigo. Universidad de Oviedo. Departamento de Psicología. Plaza Feijoo s/n. 33003 Oviedo (Spain).

E-mail: postigoalvaro@uniovi.es

Funding Statement: This investigation has been funded (partially) by the Dirección de Investigación, Universidad de La Frontera (Chile).

Conflicts of Interest: None.

Authorship credit: J. B-G.: Conceptualization, data curation, formal analysis, investigation, funding acquisition, project administration, writing – original draft. Á. P.: Formal analysis, methodology, writing – original draft. R. P-L.: Conceptualization, data curation, investigation, funding acquisition, supervision, project administration, writing-review & editing. P. H-M.: Conceptualization, data curation, investigation, funding acquisition, project administration, writing-review & editing. E. G-C.: Investigation, formal analysis, methodology, supervision, writing-review & editing.

Data Sharing: The data that support the findings of this study are available from the corresponding author upon reasonable request.

organization — has effects on the individuals (Ehrhart et al., 2014). The effects of organizations on individuals can cause health to deteriorate as a result of high emotional demand. In addition, these effects sustained over time progressively deplete employees' psychological resources, producing exhaustion, stress, somatizations and even burnout, which affect performance and productivity, becoming an occupational risk factor (Demerouti & Bakker, 2011). These demands (workrelated stress) have become an important occupational risk factor in every industrialized country, although it is comparatively less known in many recently industrialized and developing countries (Kortum et al., 2010). A concern throughout the literature on stress and coping is how relatively successful different coping strategies are in producing more positive outcomes and leading to

How to cite this article:

Barría-González, J., Postigo, Á., Pérez-Luco, R., Henríquez-Mesa, P., & García-Cueto, E. (2023). Co-active coping inventory: Development and validation for the chilean population. *The Spanish Journal of Psychology*, 26. e22. Doi:10.1017/SJP.2023.24

¹ Universidad de La Frontera (Chile)

² Universidad de Oviedo (Spain)

fewer negative outcomes. When coping strategies fail, individuals may find themselves feeling stress, anxiety, and a suite of negative emotions. In short, coping resources are generally the most important predictors of job satisfaction, motivation, and engagement (Bakker & Bal, 2010; MacIntyre et al., 2020).

When it reaches unacceptable levels, stress is a phenomenon that leads to a deterioration in psychological health (Bhagat et al., 2010) and, consequently, to reduced performance and increased absenteeism (Shi et al., 2013), producing unnecessary costs (Goh et al., 2015; Rodríguez et al., 2019). In a systematic review of the costs of work-related stress globally, it was observed that the estimated total cost in 2014 was considerable and varied substantially between USD 187 and 221 million annually. In addition, it was noted that workrelated stress proportionally contributes most of the total cost of lost productivity (between 70 and 90%), and associated health care and medical costs constituted the remaining 10% to 30% (Hassard et al., 2018). On the other hand, the Organización Internacional del Trabajo (OIT; in English International Labor Organization [ILO]) indicates that in Chile 60% of all certified workrelated illnesses in 2019 were occupational mental health; this percentage is triple that of 2015. Behind these numbers hides an incalculable human cost for workers and their families, as well as considerable economic losses to businesses and society (Bueno, 2020).

Coping is a fundamental component in the execution of cognitive and behavioral efforts that determine the ability to reduce and control the damage and costs of work-related stress (Agencia Europea para la Seguridad y la Salud en el Trabajo, in English European Agency for Safety and Health at Work [EU-OSHA]; 2014; Hassard et al., 2018; Siu et al., 2020). All this is related to the idea that the natural antidote to handle work demands which result in occupational stress and which affect people's health and well-being is to manage to reduce the sources of stress at work more efficiently and strengthen the coping resources instead of mitigating the consequences of stress (Milner et al., 2017). As expressed in an extensive range of publications (Chico Librán, 2002; Meléndez et al., 2020; Ogueji et al., 2021), the theoretical model at the base of most studies on coping strategies is the now classic transactional model of Lazarus and Folkman. Here, coping resources are defined as the constantly changing cognitive and behavioral efforts that deal with external and/or internal demands appraised as excessive or beyond the individual's resources (Lazarus & Folkman, 1984). In addition, coping is defined as the efforts to prevent or reduce the associated threat, damage, loss or anxiety (Carver & Connor-Smith, 2010). Indeed, it deals with the strategies that the person initiates to control disagreeable emotional states and their different effects, especially when

they manifest as a stress process. As reflected in recent meta-analyses, the availability of coping strategies is positively related to the management of stress at work, in terms of prevention and health promotion (Bartlett et al., 2019; Zhang et al., 2020).

Coping strategies can be oriented to addressing the problem, "problem-focused coping", or managing the emotions associated with the stressor, "emotionfocused coping" (Lazarus & Folkman, 1984). Problemfocused coping refers to the efforts aimed at modifying the environmental demands or events causing the stress, attempting to solve the problem or, at least, reduce its impact. On the other hand, emotion-focused coping involves efforts to reduce or eliminate the negative feelings caused by the stressful situation. Folkman (2008) incorporates positive emotions within the model, ultimately suggesting that the assessment of the stressful situation entails both negative and positive emotions, including a new category in his model, "meaning-focused coping". More specifically, positive emotions such as humor, which enables a person to confront stress more effectively (Carbelo & Jáuregui, 2006; Martin & Ford, 2018; Menéndez-Aller et al., 2020), or spiritual beliefs, where existential meaning is sought to achieve emotional adjustment (Reynolds et al., 2016; Vinaccia et al., 2012). Initial research suggested that problem-focused coping was preferable to emotion-focused coping for healthier psychological functioning in the long term; however, it is now clear that most stressors require both types of coping, since emotion-focused coping strategies emphasise emotional regulation and help people to feel, understand and express their feelings (Finstad et al., 2021; Lee et al., 2016).

Research on coping has concentrated mainly on resources at the individual level (Afifi, 2015; Folkman, 2008), allowing social resources such as coping with stress to drift (Peiró & González-Romá, 2013; Rodríguez et al., 2019). Nevertheless, Schein's definition (2010, p. 18) of organizational culture refers implicitly to stress experiences and coping strategies as presenting collective resolution qualities determined by the values, beliefs and underlying assumptions inherent to the organization and the wider social culture. In fact, in certain circumstances, stress experiences can be shared by the members of an organization, generating a climate of organizational stress (Barría-González et al., 2021; Lansisalmi et al., 2000), and therefore, it is relevant to understand how the individual and social coping resources and strategies benefit people's performance and well-being (Moos, 2002).

In this vein, Pérez-Luco (2008) proposes within the work sphere, a generic construct called Subjective Work Environment (ALS in Spanish) as a conceptual model in which the specific domains of climate and

organizational culture, occupational burnout and co-active coping styles interrelate to comprehensively describe the employees' subjective organizational dynamics. This is how the ALS model gathers the influence of two theoretical approaches; the multilevel model of organizational culture and climate by Ostroff et al. (2012) and the demands and labor resources theory (DRL) by Bakker and Demerouti (2018). Combining the specific domains of climate and organizational culture in the ALS construct provides a better understanding of the expressive, communicative and human dimensions of organizations, as well as their importance in creating organizational life (Ehrhart et al., 2014; González-Romá & Peiró, 2014).

From the model of Ostroff et al. (2012), the ALS construct considers the dimensions of organizational culture and climate focused mainly on the shared meanings of the work context and mediated by organizational structures and practices. On the one hand, organizational climate focuses on perceptions of what happens in the organization (behaviors, support, and expectations) and, on the other hand, organizational culture focuses on why those perceptions happen (basic assumptions, beliefs and values; Ostroff et al., 2012). From this perspective, organizational culture and climate shape management practices mediated by the leader in the construction of a work environment with more or less work demands (job burnout) and favoring (or not) personal and work resources (coping strategies). On the other hand, the ALS construct, in its specific domains of occupational burnout and coping styles, is framed directly with the job demandsresources theory (JD-R; Bakker & Demerouti, 2018). This theory seeks to understand the factors that determine employees' well-being (e.g., burnout, health, motivation) as well as work performance. According to the theory, the different work contexts can be divided into two different categories: Job demands and resources. Job demands are defined as those aspects of work (physical, psychological, social or organizational) that require efforts by the worker, with associated consequences. In this sense, coping showed relationships with workplace burnout (Martínez et al., 2020), and with psychological symptoms such as depression and anxiety. Conversely, job resources refer to the aspects of work contexts (physical, psychological, social or organizational) that help manage the demands, helping to meet targets and stimulate the worker's growth and development (Bakker & Demerouti, 2018; Hakanen et al., 2017; Schaufeli, 2017). For example, coping has been related with organizational climate (Ahmad et al., 2018), and culture (Naseer et al., 2018). Finally, the construct of Co-Active Coping occurs when members of an organization use similar individual coping strategies, i.e., develop shared ideas and beliefs to resolve stressful situations in similar circumstances, with the role of organizational culture and climate being relevant in this process. Coactive coping represents a process at the individual level that spreads through imitation and vicarious learning, becoming an organizational phenomenon (Peiró & Rodríguez, 2008; Rodríguez et al., 2019).

According to the ALS model, the imbalance between personal and work resources – co-active coping – and job demands – burnout – to which employees are exposed, have individual and collective resolution qualities. These are determined by the organizational culture and climate and mediated by the support of the leader, who moderates individual perceptions and interacts mutually in the intersubjective processes and affects occupational well-being and performance in the organization (see Figure 1).

From the proposed construct ALS, an evaluation battery is developed called Subjective Work Environment Questionnaire (CALS; Barría-González et al., 2021; Pérez-Luco, 2008). The CALS considers the construction of the following scales: Subjective Work Environment Organizational Climate scale (ECALS in Spanish; Barría-González et al., 2021), Organizational Culture scale (ECO; Pérez-Luco, 2008), Occupational Burnout scale (EDP; Pérez-Luco, 2008), Symptomatology scale (ES; Pérez-Luco, 2008) and Co-active Coping Inventory (EAC), the latter being a new instrument added to the CALS battery. These scales are constructs traditionally studied by psychology in work settings, measuring and interpreting organizational dynamics in an integrated manner according to the definition of the ALS model.

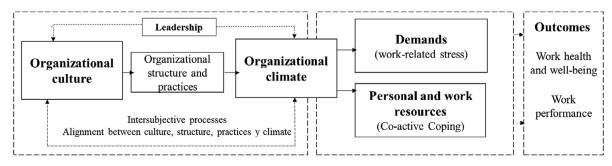


Figure 1. Subjetive Work Environment Model for Co-active Coping

Table 1. Frequently Used Coping Scales

Coping Scale	Acronym	Authors	Country
COPE Inventory	COPE	Carver et al. (1989)	EEUU
Coping Inventory for Stressful Situations	CISS	Endler and Parker (1990a, 1990b)	EEUU
Coping Response Inventory	CRI	Moos (1988, 1993a, 1993b)	Germany
Coping Strategies Questionnaire	CSQ	Rosenstiel and Keefe (1983)	EEUU
Pain Coping Inventory	PCI	Kraaimaat et al. (1997)	Netherlands
Religious COPE	R-COPE	Pargament et al. (1990), Pargament et al. (2000)	EEUU
Spiritual Coping Questionnaire	SCQ	Charzynska (2014)	Poland
WCQ: Ways of coping questionnaire	WCQ	Folkman and Lazarus (1988)	EEUU

Note. Own elaboration

In this scenario, the new Co-active Coping Scale presents five facets (reflective action, rash action, search for spiritual support, search for affective support, and evasion) that characterize the variable of coping in the domains that the literature indicates, as problemfocused strategies (reflective action), and emotionfocused strategies (search for affective support, evasion), and meaning-centered (rash action or humor and seeking spiritual support; Carbelo & Jáuregui, 2006; Carver, 1997; Folkman & Moskowitz, 2007; Martínez et al., 2019; van den Brande et al., 2016). From DRL, coping resources are generally the most important predictors of job satisfaction, motivation, and engagement (Prieto-Díez et al., 2022). The dimension reflective acting (problem-focused) is particularly relevant and effective on individuals' stress levels by reducing threat (Carver & Connor-Smith, 2010; González-Morales et al., 2010). The affective support-seeking and avoidance (emotionfocused) dimensions involve making efforts to mitigate the negative feelings caused by the stressful situation. On the other hand, the dimensions rash action (humor) and search for spiritual support, as meaning-centered strategies, incorporate positive emotions into the stress coping processes. This is, in essence, a confrontation that draws on a person's beliefs (e.g., religious, spiritual, or beliefs about justice), values (e.g., "what really matters'-I care about my family's well-being), existential goals (e.g., purpose in life or guiding principles), and use of humor to motivate and sustain coping and wellbeing during a difficult time (Folkman & Moskowitz, 2007; Lazarus & Folkman, 1984). Negative (emotionfocused) as well as positive (meaning-focused) emotions occur in a complementary manner in emotional strategies in the face of stress, contributing to cope more effectively with the situation and reduce levels of distress in individuals and teams (Ortega-Maldonado & Salanova Soria, 2016).

There is a broad distribution of questionnaire proposals created to assess coping, and there is variety in terms of their use on generic or specific stressors. Questionnaires in English are the most significant, having been adapted to different countries (Kato, 2015). In this vein, questionnaires in Spanish are based on the main questionnaires in English and these have been essentially validated in their countries. Specifically in Chile (see Table 1), there are basically only validations of the questionnaires by Folkman and Lazarus (1988) and Carver et al. (1989).

Bearing in mind the contributions of the original instruments shown in Table 1, it is possible to point out some relevant and differentiating arguments between the scales presented and the creation of the new EAC scale, based on previous literature such as the meta-analysis performed by Kato (2015). One of the main limitations of the scales in Table 1 is the target population. For example, according to the metaanalysis by Kato (2015), the most widely used scale in the literature is the COPE, but this has been constructed to measure coping especially in situations of unemployment. One of its versions, the COPE-R, was developed to measure religious coping in patients with an illness. In turn, both the SCQ and the WCQ have been designed to measure coping strategies to pain in patients with an illness or with violence problems. With all this, it is interesting to note that these scales used for their study mainly patients and university students between 18% and 25% respectively, with the COPE scale being the one that has been most used in the working population, but which is not specific for this type of population (Kato, 2015). It is also worth mentioning that the instruments present different factor structures, as well as high variability in measurement precision. For example, the reliability (α) of the COPE scale scores ranged from .44 to .91, with a mean of .75.

With the above in mind, the Co-Active Coping Inventory (EAC) attempts to somewhat address the problems. The EAC performs a specific measurement of personal and work resources (coping strategies) and provides indicators for the management of people in complex public and private organizations, to reduce individual and organizational stressors that affect the health and performance of employees. The EAC broadens the focus

and considers the evaluation of coping strategies focused on both positive and negative emotions, such as avoidance, humor and spiritual or religious emotions.

Several aspects can be considered to highlight the importance of developing a new coping inventory in the Chilean context. The Co-active Coping Inventory (EAC) proposes a comprehensive construct for the diagnosis of subjective work dynamics in complex organizations, both public and private. In addition, it responds to the absence of coping scales in the Chilean population using a large national sample for its later application to various sectors of the productive sphere. Therefore, the proposed scale contributes to the clarification and technical updating of the field of coping assessment, making it possible to evaluate the construct in different organizational contexts, favoring a more accurate diagnosis of the working environment. In addition, with the new coping inventory, it is hoped that a first step will be established in the future development of the Subjective Work Environment construct in the evaluation of complex organizational dynamics, being understood as those that present four or more divisions in their organizational structure, three or more hierarchical levels or layers and a minimum of 200 employees (Pérez-Luco, 2008; Rodríguez, 2002).

Within this framework, the main objective of this study is to develop a measuring instrument of greater precision to diagnose coping strategies in the Chilean labor context and that it is integrated into the CALS battery for the evaluation of the Subjective Work Environment. For this, the psychometric properties of the new measuring instrument in relation to the internal structure, reliability and evidence of validity in relation to other variables will be studied. Finally, the variables that comprise co-active coping will be examined to help predict occupational burnout (emotional exhaustion, affective hardening and personal fulfillment) and symptomatology (psychological and somatic). With this in mind, we formulate the following hypotheses:

*H*₁: If the items of the new EAC scale have been adequately constructed, then the EAC will show adequate psychometric properties: Evidence of validity (content and based on internal structure), and reliability of the scores.

*H*₂: If the coping-active dimensions are well-defined and adequately measured through the EAC instrument, then the coping dimensions show evidence of validity in relationship with other variables. Specifically, the coping dimensions of reflective action, spiritual and affective support correlate positively with organizational cultural and climate,

and occupational burnout and psychological and somatic symptomatology, and the coping dimensions of rash action and evasion correlate negatively with these variables studied.

Method

Participants

The sample is comprised of 1,442 workers from service and production organizations, seven public and two private, in various cities throughout Chile. In total, 55% of the sample belongs to public organizations, 34.5% to private commercial organizations and 10.5% to private non-profit ones (social development). The age ranged between 18 and 65 years, with a mean of 39.48 years and a standard deviation of 11.13. 45% of the sample was women. The organizations were selected deliberately and thus represent different production sectors and have national representatives. Stratified sampling (layers) was done by cluster (units) with a 5% margin of error to ensure the representativity within each participating organization. In each case quotas higher than those estimated were obtained according to the procedure by Scheaffer et al. (1986/ 1987).

Instruments

Co-active Coping Inventory (EAC)

In the development of the EAC, the recommendations for the test design based on the criteria established by the European Federation of Psychologists' Associations (EFPA) to evaluate the tests (Evers et al., 2013) and the Standards for Educational and Psychological Testing (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME]; 2014), as well as the recommendations provided by present psychometric literature (Downing & Haladyna, 2006; Ferrando et al., 2022; Lane et al., 2016; Moreno et al., 2018; Muñiz & Fonseca-Pedrero, 2019), were all followed. A set of 32 items was constructed to include each aspect of the five domains that a priori form the coping inventory: Search for Spiritual Support, Search for Affective Support, Reflective Action, Rash Action, and Evasion. All these items were written directly (Suarez-Álvarez et al., 2018; Vigil-Colet et al., 2020). The items that compose the instrument follow a Likert-type format with five response categories (1 = never, 5 = always)in line with the established psychometric literature that indicates that between four and six response categories obtain the best estimations of the psychometric parameters (Lozano et al., 2008). Once the items were constructed, they were evaluated by 11 experts in Psychological Assessment and Organizational Psychology. The experts had to assign each of the items to their respective domain. Those items that showed an agreement less than 70% in terms of allocation of the item to their respective domain were eliminated. Only Item 14 corresponding to the domain "Search for Affective Support" was eliminated for having only 63% agreement. In addition, the content validity ratio (CVR) was calculated according to whether each of the experts considered the item as essential, all of them being above .45. Next, the average (content validity index; CVI) was calculated, obtaining a value of .85, which rose to .89 once item 14 was eliminated. This value is adequate considering the number of experts who participated in the study (Pedrosa et al., 2013; Rubio McGartland et al., 2003).

Next, each of the specific domains is described briefly: Search for Spiritual Support (4 items) refers to the passivereflective coping strategy focused on the search for spiritual meaning as the preferred response to reduce tension (Agbaria & Abu-Mokh, 2022; Baldacchino & Draper, 2001; Charzyńska, 2014). Search for Affective Support (4 items) is defined as a coping strategy focused on the mobilization of resources in the immediate social environment to find acceptance to unburden. It is not meant to resolve the problem causing the stress, but to talk about the experience and relieve the emotional burden (Mefoh et al., 2018; Pérez-Luco, 2008). Reflective Action (12 items) refers to the active coping strategy oriented directly to resolving the problem with a cognitive approach, evaluating the situation and behavior, mobilizing personal resources and the environment, mediated by a process of reflection and ordered planning, that in turn supports a positive redefinition of the experience as an opportunity for learning and personal development (Jacobs & Carver, 2020; Pérez-Luco, 2008). Rash action (4 items) is defined as an active and nonreflective coping strategy focused on taking distracting actions that ease the tension in the environment without resolving the underlying problem (Jiang et al., 2020; Pérez-Luco, 2008). Evasion (7 items) refers to the rash coping strategy that produces actions that tend to extinguish the feelings of malaise, displeasure or discomfort experienced, without tackling the problems giving rise to the stress (Pérez-Luco, 2008; van den Brande et al., 2020).

Subjective Work Environment Organizational Climate Scale (ECALS in Spanish; Barria-Gonzalez et al., 2021)

The ECALS is a questionnaire with 38 items that evaluate the five domains of organizational climate of the subjective work environment: Organizational confidence, Job strain, Social support, Reward and Job

satisfaction. The elements that comprise the inventory follow a Likert-type format with five response categories (1 = never, 5 = always). The scale has adequate psychometric properties to assess organizational climate in the Chilean context. In this study sample, the ECALS has a reliability coefficient (α) of .93 for the general score and between .78 and .93 for each of the specific domains.

Occupational Burnout Scale (EDP; Pérez-Luco, 2008)

This scale is made up of 22 items that measure workers' burnout. The scale is used to assess the level of occupational burnout and includes three domains (Emotional Exhaustion, Personal Fulfilment and Affective Hardening), using a Likert scale from 1 (never) to 5 (always). The sample of the present study presented reliability coefficients (α) of .86 for Emotional Exhaustion, .77 for Absence of Personal fulfillment, and .75 for Affective Hardening.

Symptomatology Scale (ES; Pérez-Luco, 2008)

The scale measures the psychological and somatic symptoms of occupational burnout through 27 items, using a dichotomous scale: 0 (no) and 1 (yes). In this study sample, reliability coefficients (α) of .78 for Psychological Symptomatology and .76 for Somatic Symptomatology were found.

Organizational Culture Scale (ECO); Pérez-Luco (2008)

It is a questionnaire of 41 items with Likert-type responses with five response alternatives from 1 (never) to 5 (always). The scale is used to evaluate the organizational culture and includes four domains (Skills, Brand, Rigor, and Improvisation). The sample of the present study showed reliability coefficients (α) of .70 for Skills, .70 for Relations, .74 for Rigor and .68 for Improvisation.

Procedure

For the selection of the participating organizations, a theoretical matrix of eight fields was defined, considering type of organization (public/private), orientation (production/services) and purpose (profit and social development). In each case different complex organizations (four or more divisions, three or more hierarchical levels or layers and a minimum of 200 employees) were identified with a presence in two or more regions in Chile. Their managers were contacted by formal and informal routes to invite them to participate in the study. From the eight predicted types, representation was obtained in seven cases, and it was not possible to access productive commercial public organizations. Informed consent was requested before beginning the application of the instrument to each of the study participants, carefully

respecting anonymity, confidentiality and guaranteeing strict compliance with data protection.

For each organization, a sample was estimated, and access was granted in periods of 15 to 30 days remotely, so the instrument was activated online. Agreement to participate included a general measurement of ALS with the results being returned to the corresponding managers, one of which was always a counterpart of the study.

Data Analyses

First, following a cross-validation procedure (Fabrigar et al., 1999; Rey-Sáez, 2022) the sample was randomly divided into one third (493 participants) to test the dimensionality of the instrument through an exploratory factor analysis (EFA). KMO and Bartlett's statistic were used in the EFA to evaluate the suitability of the data for the factor analysis. The EFA was performed on the polychoric correlation matrix using unweighted least squares (ULS) as the method of estimation. The dimensionality of the scales was determined through the optimal implementation of the parallel analysis (Timmerman & Lorenzo-Seva, 2011) with 1,000 random correlation matrices. The goodness-of-fit index (GFI) and root mean square of residuals (RMSR) were used as indices of fit, establishing a good fit when CFI > .95 and RMSEA < .06 (Hu & Bentler, 1999). The Pearson correlations among the different domains were also analyzed. Then, two thirds of the sample (949 participants) were used to confirm the internal structure obtained in the exploratory approach. For this, a confirmatory factor analysis (CFA) was carried out using weighted least squares with mean and variance adjusted (WLSMV). The comparative fit index (CFI), non-normed fit index (NNFI), RMSEA and RMSR were used as indices of fit, considering a good fit of the model when CFI and NNFI > .95 and RMSEA and RMSR < .08 (Hu & Bentler, 1999). In addition, due to the importance of studying the factor structure of the construct through different populations (Amérigo et al., 2020; Postigo et al., 2023), invariance was evaluated based on sex (man-woman) and type of organization (publicprivate). The levels of configural, metric and scalar invariance were analyzed using a multi-group confirmatory factor analysis (MG-CFA). Since this is about added models, a change in the CFI less than -.01 and a change in the RMSEA less than -.015 (Δ CFI < -.01, Δ RMSEA < .015; Chen, 2007) were allowed to accept the measurement invariance.

Once the factor structure had been studied, the descriptive statistics (mean, standard deviation, skewness, and kurtosis) and the discrimination index (corrected item-test correlation) of the 30 final items that compose the instrument (Muñiz & Fonseca-Pedrero,

2019) were examined. The reliability of each of the domains was analyzed using Cronbach's alpha for ordinal data (Oliden & Zumbo, 2008), McDonald's Omega (McDonald, 1999). Evidence of convergent and discriminant validity was studied by means of the composite reliability (CR), average variance extracted (AVE), and maximum shared variance (MSV). In terms of convergent and discriminant validity, the AVE must be higher than .50 and, in addition, it must be lower than the MSV.

As evidence of validity in relation to other variables (AERA, APA, & NCME, 2014), the Pearson correlation was calculated between the new coping instrument and the different domains of organizational climate and culture (Barría-González et al., 2021). The Pearson correlations were calculated between the EAC and the three specific domains of Occupational Burnout and the two specific domains of Symptomatology.

Finally, different multiple linear regressions were performed to analyze if the different coping domains predict the workers' burnout and symptomatology. All the variables were introduced into the model, and the percentage of variance explained (R^2) of the model was considered.

The descriptive statistics, Pearson correlations and multiple linear regressions were calculated using the IBM SPSS Statistics for Windows (Version 24.0). The EFAs and the reliability coefficients were prepared using FACTOR 10.5.03 (Lorenzo-Seva & Ferrando, 2013). The CFAs took place using MPlus8 (Muthén & Muthén, 2017).

Results

First, an EFA was conducted on a third of the sample. One item was eliminated (item 3) for not loading into any of the domains. The EFA was conducted again with the 30 final items. The data were adequate to perform a factor analysis (KMO = .84; Bartlett p < .001). The parallel analysis recommended five domains, explaining 64.8% of the variance. The percentage of explained variance of the first factor was 24.6%, the second 17.4%, 10% for the third, 6.6% for the fourth and 6.3% for the fifth factor. The fit indices of the model were adequate (GFI = .987; RMSR = .039).

The correlations matrix between the scores in the subscales of the battery (see Table 2) indicates that the five specific domains on the EAC are positively related to each other (p < .01), although the correlations are generally not very high.

Next, using the second sub-sample, the factor structure (model of five correlated factors) was confirmed by CFA, which showed a good fit of the data (CFI = .972; NNFI = .969; RMSEA = .070 90% CI [.067, .072]; RMSR = .079). The factor loadings, from both the exploratory and

Table 2. Correlations between the Specific Dimensions of EAC

Dimensions	Rash Action	Search for Spiritual Support	Search for Affective Support	Evasion
Reflective Action Rash Action Search for Spiritual Support Search for Affective Support	.090**	.130** .304**	.349** .380** .450**	163** .480** .339** .329**

Note. ** The correlation is significant at the 0.01 level (bilateral).

Table 3. Measurement Invariance for EAC according to Sex and Type of Organization

		CFI	RMSEA[90%]	ΔCFI	ΔRMSEA
Sex					
Man		.945	.059 [.055, .062]		
Women		.929	.064 [.061, .068]		
	Configural	935	.060 [.058, .062]		
	Metric	.938	.061 [.059, .064]	.003	001
	Scalar	.930	.061 [.058, .063]	008	0
Organization type					
Public		.930	.065 [.062, .068]		
Private		.941	.059 [.055, .063]		
	Configural	.932	.061 [.058, .063]		
	Metric	.935	.062 [.060, .065]	.003	001
	Scalar	.931	.060 [.058, .062]	004	.002

Note. CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

confirmatory parts, were all adequate, which can be seen in Table 3.

With respect to measurement invariance, the results are shown in Table 3. The EAC showed an adequate fit of a model of five factors correlated in each of the groups in terms of sex (men and women) and in terms of type of organization (public and private). In addition, the measurement invariance was confirmed at all levels (configural, metric and scalar) for both sex and type of organization (Table 3).

Once the factor structure had been verified, the descriptive statistics of the items were analyzed (see Table 4). It can be seen that all the values of skewness and kurtosis are adequate (oscillating between ± 1) as well as the discrimination indices, being between .40 and .77.

Referring to the reliability of the scores of each of the domains (Table 4), this is adequate in all of them, being between .83 and .87 for the Cronbach's alpha and McDonald's omega coefficients. Also, the evidence of convergent and discriminant validity is adequate according to the CR, AVE and MSV indices (Table 4).

Referring to the evidence of validity in relation to other variables, Table 5 shows that the EAC is positively related to the domains of organizational climate and culture and negatively to the domains of burnout

syndrome and symptomatology, consistent with what is reported in the literature (Bakker & Demerouti, 2014; Schneider et al., 2017).

Finally, multiple linear regressions were done considering the different domains of burnout and symptomatology as dependent variables and the different coping domains as independent variables (see Table 6). As can be seen, the different coping domains explain between 20% (emotional exhaustion) and 41% (affective hardening) of employee burnout and around 3–5% of employee symptomatology, with reflective action being the most important variable in this context.

Discussion

The aim of this study was to examine the psychometric properties of a new Co-Active Coping Inventory (EAC) for the Chilean context (see Appendix). The EAC includes five domains that evaluate co-active coping, accounting for similar individual coping strategies that workers use to deal with stressors that become an organizational phenomenon (Rodríguez et al., 2019). This in turn leads to the challenge of the evaluations on different levels (individual, teams and organization), where a construct such as coping on a lower level (individual) can be added to constitute an operationally

Co-Active Coping Inventory

 Table 4. Descriptive Statistics, Discrimination Indices of the Items and Reliability of the Specific Dimensions of the EAC

Item	М	SD	Sk	K	$\mathrm{D.I_S}$	FC (EFA)	FC (CFA)	α	ω	AVE	MSV	CR
Reflective Action												
I prepare a plan of action	3.68	1.18	-0.71	-0.28	.50	.82	.56	.87	.87	.44	.12	.81
[Elaboro un plan de acción]												
I take direct action to solve it	4.02	0.99	-1.01	0.78	.58	.73	.69					
[Llevo a cabo una acción directa para resolverlo]												
I talk to someone who can do something concrete about the problem	3.30	1.17	-0.25	-0.76	.40	.31	.54					
[Hablo con alguien que pueda hacer algo concreto acerca del												
problema]												
I try to propose a strategy about what to do	3.71	1.10	-0.65	-0.17	.63	.70	.73					
[Intento proponer una estrategia sobre qué hacer]												
I learn from the experience	4.22	0.93	-1.21	1.24	.55	.47	.71					
[Aprendo algo de la experiencia]												
I wait for the best time to act	3.69	1.07	-0.64	-0.07	.57	.59	.65					
[Espero el momento oportuno para actuar]												
I make sure I don't make this worse by acting hastily	3.75	1.18	-0.78	-0.17	.50	.64	.59					
[Me aseguro de no empeorar las cosas por actuar precipitadamente]												
I speak to someone to find out more about the situation	3.72	1.11	-0.75	0.01	.50	.49	.60					
[Hablo con alguien para averiguar más acerca de la situación]												
I look for something good in what is happening	3.68	1.01	-0.45	-0.22	.50	.60	.59					
[Busco algo bueno en lo que está sucediendo]												
I do what needs to be done, one step at a time	3.92	0.96	-0.81	0.61	.64	.78	.76					
[Hago lo que ha de hacerse, paso a paso]												
I focus my efforts on doing something about it	3.94	0.99	-0.87	0.57	.67	.82	.80					
[Concentro mis esfuerzos en hacer algo acerca de ello]												
I think about how I could manage the problem better	4.03	0.98	-0.99	0.87	.58	.65	.70					
[Pienso en cómo podría manejar mejor el problema]												
Total	45.66	8.07	-0.53	0.71	-	-	-					
Rash Action												
I laugh about the situation	2.46	1.26	0.45	-0.84	.67	.746	.81	.84	.84	.64	.23	.82
[Me río de la situación]												
I joke about it	2.20	1.17	0.70	-0.40	.62	.702	.77					
[Bromeo sobre ello]												
I take it lightly and laugh about the problem	2.14	1.15	0.75	-0.31	.68	.853	.81					
[Lo tomo livianamente y me río del problema]												
I look for the funny side to laugh about the problem	2.48	1.21	0.40	-0.82	.69	.816	.81					
[Le busco algún lado gracioso para reírme del problema]												

10

Table 4. Continued.

Item	М	SD	Sk	K	D.I _S	FC (EFA)	FC (CFA)	α	ω	AVE	MSV	CR
Total	9.28	3.92	0.48	-0.45	-	-	-					
Search for Spiritual Support												
I try to find comfort in my religion	3.11	1.48	-0.09	-1.38	.73	.83	.89	.86	.86	.72	.20	.85
[Intento encontrar alivio en mi religión]												
I pray more than usual	2.64	1.30	0.34	-0.95	.68	.75	.81					
[Rezo más de lo habitual]												
I seek divine help	2.74	1.51	0.27	-1.36	.71	.88	.85					
[Busco ayuda divina]												
Total	8.48	3.74	0.09	-1.07	-	-	-					
Search for Affective Support												
I talk to someone about my feelings	3.14	1.27	-0.02	-1.08	.66	.75	.75	.83	.83	.62	.11	.80
[Hablo de mis sentimientos con alguien]												
I try to get emotional support from friends or relatives	3.33	1.30	-0.24	-1.06	.58	.70	.69					
[Intento conseguir apoyo emocional de amigos o familiares]												
I get support and understanding from someone	3.22	1.17	-0.23	-0.75	.65	.85	.81					
[Consigo el apoyo y comprensión de alguien]												
I talk to someone about how I feel	3.14	1.24	-0.09	-0.98	.74	.82	.89					
[Hablo con alguien de cómo me siento]												
Total	12.48	4.05	-0.09	-0.67	-	-	-					
Evasion												
I drink to get drunk so I don't think about it so much	1.28	0.79	3.00	8.50	.59	.79	.84	.83	.83	.65	.23	.90
[Bebo hasta emborracharme para pensar menos en ello]												
I feel a lot of emotion pain and end up exploding	2.19	1.05	0.85	0.27	.42	.36	.58					
[Siento mucho malestar emocional y termino por explotar]												
I take a drug that helps me escape	1.20	0.71	3.83	14.7	.61	.92	.90					
[Ingiero alguna droga que me permita evadirme]												
I take a medication that helps me get over it	1.39	0.88	2.40	5.11	.60	.81	.84					
[Tomo algún medicamento que me ayude a superarlo]												
I get up upset and let my emotions out	2.01	1.04	0.98	0.45	.49	.46	.69					
[Me altero y dejo que mis emociones afloren]												
I try to lose myself for a while by drinking alcohol	1.26	0.76	3.21	10.0	.61	.87	.89					
[Intento perderme un rato bebiendo vino o licor]												
I take medicine that makes me feel better	1.38	0.91	2.48	5.41	.63	.79	.87					
[Tomo algún remedio que me haga sentir mejor]												
Total	10.72	4.25	2.04	4.79	-	-	-					

Note. M = mean; SD = standard deviation; SK = skewness; K = Kurtosis; D.Is = discrimination index per dimension; FC = Factor Loading; EFA = exploratory factor analysis; EFA = confirmatory factor analysis; EFA = composite reliability.

Table 5. Pearson Correlations between EAC and ECALS, ECO, EDP, and ES

Scales/Dimensions	Reflective Action	Rash Action	Search for Spiritual Support	Search for Affective Support	Evasion
ECALS (Organizational					
climate)					
Organizational satisfaction	.380**	100**	.097**	.115**	208**
Social support	.351**	066*	.024	.171**	188**
Organizational trust	.314**	061*	001	.170**	123**
Job strain	.182**	184**	103**	.027	272**
Reward	.157**	050	.117**	.144**	.032
ECO (Organizational					
culture)					
Skills	.251**	021	.131**	.112**	101**
Relations	.283**	038	.148**	.166**	099**
Rigor	.243**	028	.149**	.119**	094**
Improvisation	.083**	001	.142**	.192**	.104**
EDP (Occupational Burnout)					
Emotional Exhaustion	277**	.221**	.075**	.016	.386**
Personal Fulfilment	.583**	033	.069**	.246**	244**
Affective Hardening	309**	.260**	.130**	044	.594**
ES (symptomatology)					
Psychological	194**	.095**	040	005	.086**
Somatic	140**	.095**	006	002	.000

Note. ** < .01. * < .05.

isomorphic construct on a higher level (organizational level; Chan, 2014; Ehrhart & Raver, 2014; Klein & Kozlowski, 2000). The new EAC instrument, as far as can be determined, is the first measurement instrument of co-active coping in the Chilean population that assesses coping strategies which would reduce and control the damage and costs that work-related stress can entail (Carver & Connor-Smith, 2010; Hassard et al., 2018; Rabenu et al., 2017).

With respect to the psychometric properties of the EAC, this comprises 30 items, which evaluate five domains of co-active coping. These five domains are consistent with the literature and make it possible to conduct studies on stress coping profiles in organizational contexts. This instrument is easy to apply as it consists of 30 items and five facets compared to 53 items and 14 facets of the COPE instrument, for example (Carver et al., 1989).

In terms of evidence of validity in relation to other variables, the results are consistent with those found in other studies and reveal that problem-focused coping (reflective action) was preferable to emotion-focused coping (search for affective support, evasion), and meaning-focused coping (rash action, search for spiritual support), given that such strategies involve addressing the problem causing the stress and contribute to positive psychological states, allowing people to experience certain personal control and a feeling of achievement for healthier long-term psychological functioning

(Mark & Smith, 2012; Martínez et al., 2019). However, this type of coping is not a suitable strategy to address stress if the situation is uncontrollable or chronic (Montero-Marin et al., 2014), yet it is now recognized that most stressors require different types of coping (Bakker & de Vries, 2021).

On the other hand, the variable Evasion on the Coping inventory is better related to the Occupational Burnout scale, specifically and to a greater extent with the domain Affective Hardening. The coping strategies of evasion, even if only used occasionally, can be strong predictors of burnout in its classic definition (Gibbons, 2010), and they can increase the use of substance abuse as a coping strategy (Chen & Cunradi, 2008). In addition, the presence of evasion strategies has been related specifically to de-personalization (affective hardening on the EAC), which is associated with the direct customer service professions in social services and which affects work efficiency and professional well-being (Martínez et al., 2020; Montero-Marin et al., 2014). In addition, the third component of Occupational Burnout, Personal Fulfillment, was highly and positively related with the use of problem-focused coping strategies, Reflective Action, which suggests that a problemfocused response and a positive self-assessment can be mutually reinforced (Demerouti, 2015).

In addition, the results show that coping resources (Reflective Action, Rash Action, Search for Spiritual Support, Search for Affective Support and Evasion)

Table 6. Multiple Linear Regressions to Predict Burnout and Symptomatology

Coping dimensions	Beta (p)	R^2	
Emotional Exhaustion			
Reflective Action	199 (< .001)	.195	
Evasion	.280 (< .001)		
Rash Action	.135 (< .001)		
Search for Spiritual Support	.006 (.828)		
Search for Affective Support	.029 (.323)		
Affective Hardening			
Reflective Action	141 (< .001)	.406	
Evasion	.537 (< .001)		
Rash Action	.078 (.002)		
Search for Spiritual Support	066 (.016)		
Search for Affective Support	.092 (< .001)		
Personal Fulfilment			
Reflective Action	.531 (< .001)	.349	
Evasion	098 (< .001)		
Rash Action	.036 (.157)		
Search for Spiritual Support	.061 (.025)		
Search for Affective Support	014 (.579)		
Somatic symptomatology			
Reflective Action	170 (< .001)	.033	
Evasion	088 (.006)		
Rash Action	.111 (< .001)		
Search for Spiritual Support	005 (.870)		
Search for Affective Support	.046 (.153)		
Psychological symptomatology			
Reflective Action	212 (< .001)	.052	
Evasion	005 (.887)		
Rash Action	.099 (.001)		
Search for Spiritual Support	054 (.074)		
Search for Affective Support	.068 (.033)		

Note. $R^2 = \%$ variance explained of the dependent variable.

directly impact on Occupational Burnout (Emotional Exhaustion, Affective Hardening and Personal Fulfillment) and Symptomatology (Somatic and Psychological). This is relevant since emotional exhaustion is the central component of exhaustion and a chronic form of stress as a result of long-term processes (García-Arroyo & Osca Segovia, 2019; Shin et al., 2014; Yin et al., 2018; Zhang et al., 2020). On the other hand, the five domains of co-active coping help to explain Affective Hardening, with evasion being the variable that most helps to explain it. Affective hardening is associated with the use of the negation, mental disconnection and avoidance. Therefore, people with Occupation Burnout tend to use evasion as a way of distancing, being an indicator of an employee's lack of commitment and, consequently, a reduction in feelings of competence and successful achievement at work. Employees who experience high levels of affective hardening use coping strategies that require passive acceptance and

they do not seek effective solutions (reflective action) that can help them handle stressful situations in the workplace (Bakker & de Vries, 2021; Xu & Yang, 2021). Finally, the five domains of co-active coping help to explain Personal Fulfillment, with Reflective Action being the variable that most helps to explain it. A high degree of Personal Fulfillment is associated with the frequent use of strategies such as planning, problemfocused coping, the search for social support and positive re-assessment (Doménech Betoret & Gómez Artiga, 2010; Guerrero Barona, 2003; Martínez et al., 2020), and these are important coping strategies to encourage in employees since they help to adaptively modify the results of a situation that otherwise would be negative (Awa et al., 2010). Finally, the five domains of co-active coping do not show a construct that better predicts somatic and psychological symptomatology; however, the domain of co-active coping that best explains it in a negative way is Reflective Action, which shows that the styles of maladaptive coping (negation, mental disconnection, avoidance) are associated with physical health, emotional exhaustion, reduced job satisfaction, reduced well-being and high levels of psychological malaise such as depression and anxiety (Bueno, 2020; Harmsen et al., 2018; Stapleton et al., 2020).

The present study has some relevant theoretical implications because it adds necessary background on the well-being of collaborators in the work context, identifying coping strategies that as personal and organizational resources manage to mitigate stressors (Outten & Schmitt, 2015; Rodríguez et al., 2019). This study provides some clarity on the need to continue developing an organizational-level approach to the study of coping and stress at work, taking into consideration both the individual level and the isomorphic construction from the organizational culture and climate (Rodríguez et al., 2019). Added to this is the contribution of a new scale (EAC) to a broader battery such as the Subjective Work Environment questionnaire (CALS). The ALS model, on which the battery is based, allows for a systemic understanding of work dynamics underlying the need to simultaneously assess characteristics of employees, work and the socio-occupational context of an organization. In addition, it aims to be a construct that provides multidimensionality (organizational culture and climate, job burnout, symptomatology, and coping) appropriate for the study of organizational behavior, allowing the exploration of individual and group behaviors that occur in organizations (Ostroff et al., 2012).

The results of this study have some practical implications. It was found that coping resources are positively related to problem-focused coping strategies and that there is a tendency to put the responsibility on the individual, often forgetting the active role of organizations in coping with individual and collective stress. Specifically, the results suggest that in the face of collective stressors (organizational culture and climate according to the ALS model), organizations should promote problem-focused collective coping strategies, such as the development of people through training, participative management, effective coordination of tasks, and the search for affective support among collaborators, to reduce the stressful work climate and individual stress. That is, coping resources at the organizational level should be focused specifically on organizing, designing, and managing work (Halbesleben et al., 2014; Nielsen et al., 2017). Moreover, the leader's power position within this organizational management influences coping strategies for the performance and well-being of collaborators (Durán & Aguado, 2022; Kelloway & Barling, 2010), being relevant to strengthen leadership styles and the quality of leader-member exchange. The new EAC tool is a good starting point to evaluate the coping styles of people in relation to the stressors of their organization and can lead to detect areas for improvement to develop training workshops in these competencies, which should also improve the organizational climate of the company (Barría-González et al., 2021).

Future research may benefit from investigating particularly work-related co-active coping strategies linked to specific and relevant issues such as role conflict, workload, role ambiguity, job insecurity, job harassment, telecommuting, and leader relationship.

In essence, this study presents a new instrument (Co-Active Coping Inventory; EAC) to assess co-active coping in the general Chilean population, contributing satisfactory psychometric properties. Thus, the construct of coping can be evaluated rigorously and objectively, as can its impact on significant aspects of life where it has an effect such as different organizational scenarios. The suitable use of personal resources, like coping strategies, can reduce work demands and the related physiological and psychological costs, being decisive in meeting work targets or stimulating personal growth, learning and development (Bakker, 2011, 2013). In this same sense, and given the paucity of studies in this area in Chile, studies are needed that contribute to knowledge of workers' quality of life and working conditions, which would make it possible to assess the impact of human resources management strategies in organizations. On the other hand, it would be interesting to make organizational diagnoses using the EAC, and in this way improve the effectiveness of current interventions for occupational burnout by influencing the preventive programs and adjusting to the specific features of the coping strategies to manage stress in the workplace.

The results of this study must be interpreted in the light of some limitations. First, the data from this study were obtained by self-reporting. It would be advisable

to complement these measures with other directly observable evaluations that could complement the methodologies of the organizational dynamic approach and delve more deeply into the diagnosis of personal and occupational resources that the different organizational scenarios have. Second, regarding the dimensionality of the instrument, the results give an account of a multidimensional structure that leads to a set of scales or profiles of scores to the detriment of a one-dimensional solution, which would make it possible to propose the construction of an overall score.

References

- Afifi, T. D. (2015). Communal coping. In C. R. Berger, M. E. Roloff, S. R. Wilson, J. P. Dillard, J. Caughlin, & D. Solomon (Eds.), The international encyclopedia of interpersonal communication. Wiley. https://doi.org/10.1002/9781118540190.wbeic049
- Agencia Europea para la Seguridad y la Salud en el Trabajo. (2014). La estimación del coste del estrés y los riesgos psicosociales relacionados con el trabajo [Calculating the cost of work-related stress and psychosocial risks]. https://osha.europa.eu/es/publications/calculating-cost-work-related-stress-and-psychosocial-risks
- Agbaria, Q., & Abu-Mokh, A. J. (2022). The use of religious and personal resources in coping with stress during COVID– 19 for Palestinians. *Current Psychology*. Advance online publication. https://doi.org/10.1007/s12144-021-02669-5
- Ahmad, K. Z. B., Jasimuddin, S. M., & Kee, W. L. (2018). Organizational climate and job satisfaction: Do employees' personalities matter? *Management Decision*, 56(2), 421–440. https://doi.org/10.1108/MD-10-2016-0713
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). Standards for educational and psychological testing. American Psychological Association.
- Amérigo, M., García, J. A., Pérez López, R., Cassullo, G., Ramos, A., Venumbaka, S. K., & Aragonés, J. I. (2020). Analysis of the structure and factorial invariance of the Multidimensional Environmental Concern Scale (MECS). Psicothema, 32(2), 275–283. https://doi.org/10.7334/ psicothema2019.281
- Awa, W. L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient Education and Counseling*, 78(2), 184–190. https://doi.org/10.1016/j.pec.2009.04.008
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265–269. https://doi.org/10.1177/0963721411414534
- Bakker, A. B. (2013). La teoría de las demandas y los recursos laborales [The job demands-resources model]. *Journal of Work* and Organizational Psychology, 29, 107–115. https://doi.org/ 10.5093/tr2013a16
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189–206. https://doi.org/10.1348/096317909X402596

- Bakker, A. B., & de Vries, J. D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress, & Coping*, 34(1), 1–21. https://doi.org/10.1080/10615806.2020.1797695
- Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), Work and wellbeing: A complete reference guide. Volumen 3: Work and wellbeing (pp.1-28). John Wiley & Sons. http://doi.org/10.1002/9781118539415.wbwell019
- Bakker, A. B., & Demerouti, E. (2018). Multiple levels in job demands-resources theory: Implications for employee well-being and performance. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of wellbeing*. DEF Publishers.
- Baldacchino, D., & Draper, P. (2001). Spiritual coping strategies: A review of the nursing research literature. *Journal of Advanced Nursing*, 34(6), 833–841. https://doi.org/10.1046/j.1365-2648.2001.01814.x
- Barría-González, J., Postigo, A., Pérez-Luco, R., Cuesta, M., & García-Cueto, E. (2021). Evaluación de clima organizacional: Propiedades psicométricas del ECALS [Assessing organizational climate: Psychometric properties of the ECALS Scale]. Anales de Psicología/Annals of Psychology, 37(1), 168–177. https://doi.org/10.6018/analesps.417571
- Bartlett, L., Martin, A., Neil, A. L., Memish, K., Otahal, P., Kilpatrick, M., & Sanderson, K. (2019). A systematic review and meta-analysis of workplace mindfulness training randomized controlled trials. *Journal of Occupational Health Psychology*, 24(1), 108–126. https://doi.org/10.1037/ocp0000146
- Bhagat, R. S., Krishnan, B., Nelson, T. A., Leonard, K. M., Ford, D. L., Jr., & Billing, T. K. (2010). Organizational stress, psychological strain, and work outcomes in six national contexts: A closer look at the moderating influences of coping styles and decision latitude. *Cross Cultural Management: An International Journal*, 17(1), 10–29. https://doi.org/10.1108/13527601011016880
- Bueno, C. (2020). Desafíos, respuestas y oportunidades para la seguridad y salud en el trabajo en América Latina en tiempos de COVID–19 [Challenges, responses and opportunities for occupational safety and health in Latin America in times of COVID–19]. Organización Internacional del Trabajo. https://www.ilo.org/santiago/publicaciones/notas-informativas-cono-sur/WCMS_764974/lang_es/index.htm
- **Carbelo, B., & Jáuregui, E.** (2006). Emociones positivas: Humor positivo [Positive emotions: Positive mood]. *Papeles del Psicólogo*, 27(1), 18–30.
- Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92–100. http://doi.org/10.1207/s15327558ijbm0401_6
- Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. Annual Review of Psychology, 61, 679–704. https:// doi.org/10.1146/annurev.psych.093008.100352
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283. https://doi.org/10.1037/0022-3514.56.2.267
- Chan, D. (2014). Multilevel and aggregation issues in climate and culture research. In M. G Ehrhart & J. L. Raver (Eds.), *The*

- Oxford handbook of organizational climate and culture (pp. 484–495). Oxford University Press.
- Charzyńska, E. (2014). Multidimensional approach toward spiritual coping: Construction and Validation of the Spiritual Coping Questionnaire (SCQ). *Journal of Religion and Health*, 54 (5), 1629–1646. https://doi.org/10.1007/s10943-014-9892-5
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. Structural Equation Modeling: A Multidisciplinary Journal, 14(3), 464–504. https://doi.org/ 10.1080/10705510701301834
- Chen, M.-J, & Cunradi, C. (2008). Job stress, burnout and substance use among urban transit operators: The potential mediating role of coping behaviour. *Work Stress*, 22, 327–340. http://doi.org/10.1080/02678370802573992
- Chico Librán, E. (2002). Optimismo disposicional como predictor de estrategias de afrontamiento [Dispositional optimism as a predictor of coping strategies]. *Psicothema*, 14 (3), 544–550.
- **Demerouti, E.** (2015). Strategies used by individuals to prevent burnout. *European Journal of Clinical Investigation*, 45(10), 1106–1112. https://doi.org/10.1111/eci.12494
- **Demerouti, E., & Bakker, A. B.** (2011). The job demandsresources model: Challenges for future research. *SA Journal of Industrial Psychology*, 37(2), Article a974. https://doi.org/ 10.4102/sajip.v37i2.974
- **Doménech Betoret, F., & Gómez Artiga, A.** (2010). Barriers perceived by teachers at work, coping strategies, self-efficacy and burnout. *The Spanish Journal of Psychology*, *13*, 637–654. https://doi.org/10.1017/S1138741600002316
- Downing, S. M., & Haladyna, T. M. (2006). *Handbook of test development*. Lawrence Erlbaum Associates.
- Durán, W. F., & Aguado, D. (2022). The relationship between the chief executive officer's (CEO) social capital and dynamic capabilities: A meta-analysis of its moderators. *The Spanish Journal of Psychology*, 25, Article E9. https://doi.org/ 10.1017/SJP.2022.4
- Ehrhart, M. G., & Raver, J. L. (2014). The effects of organizational climate and culture on productive and counterproductive behavior. In B. Schneider & K. M. Barbera (Eds.), *The Oxford handbook of organizational climate and culture* (pp. 153–176). Oxford University Press.
- Ehrhart, M. G., Schneider, B., & Macey, W. H. (2014).

 Organizational climate and culture: An introduction to theory, research, and practice. Routledge/Taylor & Francis Group.
- Endler, N. S., & Parker, J. D. A. (1990a). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58, 844–854. http://doi.org/10.1037/0022-3514.58.5.844
- Endler, N. S., & Parker, J. D. A. (1990b). Coping Inventory for Stressful Situations (CISS): Manual. Multi-Health Systems.
- Evers, A., Muniz, J., Hagemeister, C., Hstmaelingen, A., Lindley, P., Sjöberg, A., & Bartram, D. (2013). Assesing the quality of tests: Revision of the EFPA review model. *Psicothema*, 25(3), 283–291. https://doi.org/10.7334/psicothema2013.97
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272–299. https://doi.org/10.1037/1082-989X.4.3.272

- Ferrando, P. J., Lorenzo-Seva, U., Hernández-Dorado, A., & Muñiz, J. (2022). Decalogue for the factor analysis of test items. *Psicothema*, 34(1), 7–17. https://doi.org/10.7334/psicothema2021.456
- Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., Cantero-Sánchez, F. J., & Mucci, N. (2021). Resilience, coping strategies and posttraumatic growth in the workplace following COVID–19: A narrative review on the positive aspects of trauma. *International Journal of Environmental Research and Public Health*, 18(18), Article 9453. https://doi.org/10.3390/ijerph18189453
- **Folkman, S.** (2008). The case for positive emotions in the stress process. *Anxiety, Stress, & Coping*, 21(1), 3–14. https://doi.org/10.1080/10615800701740457
- Folkman, S., & Lazarus, R. S. (1988). Manual for the ways of Coping Questionnaire. Consulting Psychologists Press.
- Folkman, S., & Moskowitz, J. T. (2007). Positive affect and meaning-focused coping during significant psychological stress. In M. Hewstone, H. Schut, J. de Wit, K. van Den Bos, & M. Stroebe, (Eds.). *The scope of social psychology: Theory and applications* (1st Ed., pp. 193–208). Psychology Press.
- García-Arroyo, J. A., & Osca Segovia, A. (2019). Work overload and emotional exhaustion in university teachers: Moderating effects of coping styles. *Universitas Psychologica*, 18(2), 1–12. https://doi.org/10.11144/Javeriana.upsy18-2.woee
- **Gibbons**, C. (2010). Stress, coping and burn-out in nursing students. *International Journal of Nursing Studies*, 47(10), 1299–1309. https://doi.org/10.1016/j.ijnurstu.2010.02.015
- Goh, J., Pfeffer, J., Zenios, S. A., & Rajpal, S. (2015). Workplace stressors and health outcomes: Health policy for the workplace. In C. R. Fox & S. B. Sitkin (Eds.), *Challenging assumptions about behavioral policy* (pp. 43–52). Brookings Institution Press.
- González-Morales, M. G., Rodríguez, I., & Peiró, J. M. (2010). A longitudinal study of coping and gender in a female-dominated occupation: Predicting teachers' burnout. *Journal of Occupational Health Psychology*, 15(1), 29–44. https://doi.org/10.1037/a0018232
- González-Romá, V., & Peiró, J. M. (2014). Climate and culture strength. In B. Schneider & K. Barbera (Eds.), *The Oxford* handbook of organizational climate and culture (pp. 496–531). Oxford University Press. http://doi.org/10.1093/ oxfordhb/9780199860715.013.0026
- Guerrero Barona, E. (2003). Análisis pormenorizado de los grados de burnout y técnicas de afrontamiento del estrés docente en profesorado universitario [Detailed analysis of the degrees of burnout and techniques for coping with teaching stress in university professors]. *Anales de Psicología/Annals of Psychology*, 19 (1),145–158.
- Hakanen, J. J., Seppälä, P., & Peeters, M. C. W. (2017). High job demands, still engaged and not burned out? The role of job crafting. *International Journal of Behavioral* Medicine, 24(4), 619–627. https://doi.org/10.1007/s12529-017-9638-3
- Halbesleben, J. R. B., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334–1364. https://doi.org/10.1177/0149206314527130

- Harmsen, R., Helms-Lorenz, M., Maulana, R., & van Veen, K. (2018). The relationship between beginning teachers' stress causes, stress responses, teaching behaviour and attrition. *Teachers and Teaching*, 24(6), 626–643. https://doi.org/10.1080/13540602.2018.1465404
- Hassard, J., Teoh, K. R. H., Visockaite, G., Dewe, P., & Cox, T. (2018). The cost of work-related stress to society: A systematic review. *Journal of Occupational Health Psychology*, 23(1), 1–17. https://doi.org/10.1037/ocp0000069
- Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6, 1–55. https://doi.org/10.1080/ 10705519909540118
- Jacobs, J. M., & Carver, C. S. (2020). Personality and coping. In K. Sweeny, M. L. Robbins, & L. M. Cohen (Eds.), The Wiley encyclopedia of health psychology (pp. 411–420). John Wiley & Sons Ltd. http://doi.org/10.1002/9781119057840.ch91
- Jiang, F., Lu, S., Jiang, T., & Jia, H. (2020). Does the relation between humor styles and subjective well-being vary across culture and age? A meta-analysis. Frontiers in Psychology, 11, Article 2213. https://doi.org/10.3389/fpsyg.2020.02213
- Kato, T. (2015). Frequently used coping scales: A metaanalysis. Stress and Health, 31(4), 315–323. https://doi.org/ 10.1002/smi.2557
- Kelloway, E. K., & Barling, J. (2010). Leadership development as an intervention in occupational health psychology. Work & Stress, 24(3), 260–279. https://doi.org/10.1080/ 02678373.2010.518441
- Klein, K. J., & Kozlowski, S. W. (2000). From micro to meso: Critical steps in conceptualizing and conducting multilevel research. Organizational Research Methods, 3(3), 211–236. https://doi.org/10.1177/109442810033001
- Kortum, E., Leka, S., & Cox, T. (2010). Psychosocial risks and work-related stress in developing countries: Health impact, priorities, barriers and solutions. *International Journal of Occupational Medicine and Environmental Health*, 23(3), 225–238. http://doi.org/10.2478/v10001-010-0024-5
- Kozlowski, S. W. J. (2012). The nature of organizational psychology. In S. W. J. Kozlowski (Ed.), *Oxford library of psychology. The Oxford handbook of organizational psychology* (Vol. 1, pp. 3–21). Oxford University Press. http://doi.org/10.1093/oxfordhb/9780199928309.013.0001
- Kraaimaat, F. W., Bakker, A. H., & Evers, A. W. M. (1997).
 Pijncoping-strategieën bij chronische pijnpatiënten: De ontwikkeling van de Pijn Coping Inventarisatielijst (PCI)
 [Pain coping strategies in chronic pain patients: The development of the Pain Coping Inventory (PCI)].
 Gedragstherapie, 22, 267–277.
- Lane, S., Raymond, M. R., & Haladyna, T. M. (2016). Handbook of test development (2nd Ed.). Routledge. http://doi.org/ 10.4324/9780203102961
- Lansisalmi, H., Peiro, J. M., & Kivimaki, M., IV. (2000).
 Collective stress and coping in the context of organizational culture. European Journal of Work and Organizational Psychology, 9(4), 527–559. https://doi.org/10.1080/13594320050203120
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

- Lee, H. F., Kuo, C.-C., Chien, T.-W., & Wang, Y.-R. (2016). A meta-analysis of the effects of coping strategies on reducing nurse burnout. *Applied Nursing Research*, *31*, 100–110. https://doi.org/10.1016/j.apnr.2016.01.001
- Lorenzo-Seva, U., & Ferrando, P. J. (2013). FACTOR 9.2: A comprehensive program for fitting exploratory and semiconfirmatory factor analysis and IRT models. *Applied Psychological Measurement*, 37, 497–498. https://doi.org/ 10.1177/0146621613487794
- **Lozano, L. M., García-Cueto, E., & Muñiz, J.** (2008). Effect of the number of response categories on the reliability and validity of rating scales. *Methodology*, *4*(2), 73–79. https://doi.org/10.1027/1614-2241.4.2.73
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid–19 conversion to online teaching: Correlations with stress, wellbeing, and negative emotions. *System*, *94*, Article 102352. https://doi.org/10.1016/j.system.2020.102352
- Mark, G., & Smith, A. P. (2012). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. Anxiety, Stress & Coping, 25(1), 63–78. https://doi.org/10.1080/10615806.2010.548088
- Martin, R. A., & Ford, T. E. (2018). *The psychology of humor: An integrative approach*. Academic Press. https://doi.org/10.1016/C2016-0-03294-1
- Martínez, I. M., Meneghel, I., & Peñalver, J. (2019). ¿El género afecta en las estrategias de afrontamiento para mejorar el bienestar y el desempeño académico? [Does gender affect coping strategies to improve well-being and academic performance?] Revista De Psicodidáctica, 24(2), 111–119. https://doi.org/10.1016/j.psicod.2019.01.003
- Martínez, J. P., Méndez, I., Ruiz-Esteban, C., Fernández-Sogorb, A., & García-Fernández, J. M. (2020). Profiles of burnout, coping strategies and depressive symptomatology. *Frontiers in Psychology*, *11*, Article 591. https://doi.org/10.3389/fpsyg.2020.00591
- McDonald, R. P. (1999). Test theory: A unified treatment. Lawrence. http://doi.org/10.4324/9781410601087
- Mefoh, P. C., Ude, E. N., & Chukwuorji, J. C. (2018). Age and burnout syndrome in nursing professionals: Moderating role of emotion-focused coping. *Psychology, Health & Medicine*, 24(1), 101–107. https://doi.org/10.1080/13548506.2018.1502457
- Meléndez, J. C., Satorres, E., & Delhom, I. (2020).

 Personalidad y afrontamiento. ¿Qué rasgos predicen las estrategias adaptativas? [Personality and coping. What traits predict adaptive strategies?] *Anales de Psicología/Annals of Psychology*, 36(1), 39–45. https://doi.org/10.6018/analesps.349591
- Menéndez-Aller, Á., Postigo, Á., Montes-Álvarez, P., González-Primo, F. J., & García-Cueto, E. (2020). Humor as a protective factor against anxiety and depression. *International Journal of Clinical and Health Psychology*, 20(1), 38–45. https://doi.org/10.1016/j.ijchp.2019.12.002
- Milner, A., Spittal, M. J., Pirkis, J., Chastang, J. F., Niedhammer, I., & LaMontagne, A. D. (2017). Low control and high demands at work as risk factors for suicide: An

- Australian national population-level case-control study. *Psychosomatic Medicine*, 79(3), 358–364. https://doi.org/10.1097/PSY.00000000000000389
- Montero-Marin, J., Prado-Abril, J., Piva Demarzo, M. M., Gascon, S., & García-Campayo, J. (2014). Coping with stress and types of burnout: Explanatory power of different coping strategies. *PLOS ONE*, *9*(2), Article e89090. https://doi.org/10.1371/journal.pone.0089090
- **Moos, R. H.** (1988). *The Coping Response Inventory manual.* Social Ecology Laboratory.
- Moos, R. H. (1993a). Coping Response Inventory Adult Form manual. Psychological Assessment Resources.
- Moos, R. H. (1993b). Coping Response Inventory Youth Form manual. Psychological Assessment Resources.
- Moos, R. H. (2002). The mystery of human context and coping: An unraveling of clues. *American Journal of Community Psychology*, 30, 67–88. http://doi.org/10.1023/A: 1014372101550
- Moreno, R., Martínez, R. J., & Muñiz, J. (2018). Test item taxonomy based on functional criteria. *Frontiers in Psychology*, 9, Article 1175. https://doi.org/10.3389/fpsyg.2018.01175
- Muñiz, J., & Fonseca-Pedrero, E. (2019). Diez pasos para la construcción de un test [Ten steps for test development]. *Psicothema*, 31(1), 7–16. https://doi.org/10.7334/psicothema2018.291
- Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide* (8th Ed.). Muthén and Muthén.
- Naseer, S., Raja, U., Syed, F., & Bouckenooghe, D. (2018). Combined effects of workplace bullying and perceived organizational support on employee behaviors: Does resource availability help? *Anxiety, Stress, & Coping, 31*(6), 654–668. https://doi.org/10.1080/10615806.2018.1521516
- Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Känsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, *31*(2), 101–120, https://doi.org/10.1080/02678373.2017.1304463
- Ogueji, I. A., Okoloba, M. M., & Demoko-Ceccaldi, B. M. (2021). Coping strategies of people in the UK during the COVID–19 pandemic. *Current Psychology*, 41, 7493–7499. https://doi.org/10.1007/s12144-020-01318-7
- Oliden, P. E., & Zumbo, B. D. (2008). Coeficientes de fiabilidad para escalas de respuesta categórica ordenada [Reliability coefficients for ordered categorical response scales]. Psicothema, 20(4), 896–901. https://reunido.uniovi.es/index.php/PST/article/view/8747
- Ortega-Maldonado, A., & Salanova Soria, M. (2016). Evolución de los modelos sobre el afrontamiento del estrés: Hacia el coping positivo. [Evolution of models of coping with stress: Towards positive coping]. *Agora de Salut*, *3*, 285–293. https://doi.org/10.6035/AgoraSalut.2016.3.30
- Ostroff, C., Kinicki, A. J., & Muhammad, R. S. (2012).
 Organizational culture and climate. In I. B. Weiner, N. W. Schmitt, & S. Highhouse (Eds.), *Handbook of psychology*, (2nd Ed., pp. 643–676). John Wiley & Sons. https://doi.org/10.1002/9781118133880.hop212024
- Outten, H. R., & Schmitt, M. T. (2015). The more "intergroup" the merrier? The relationship between ethnic identification,

- coping options, and life satisfaction among South Asian Canadians. *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement*, 47(1), 12–20. https://doi.org/10.1037/a0035907
- Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., van Haitsma, K., & Warren, R. (1990). God help me: (I): Religious coping as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology*, 18, 793–824. https://link.springer.com/article/10.1007/BF00938065
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56, 519–543. https://doi.org/10.1002/(SICI)1097-4679(200004) 56:4<519::AID-ICLP6>3.0.CO:2-1
- Pedrosa, I., Suárez-Álvarez, J., & García-Cueto, E. (2013). Content validity evidences: Theoretical advances and estimation methods. *Acción Psicológica*, 10(2), 3–18. https:// doi.org/10.5944/ap.10.2.11820
- Peiró, J. M., & González-Romá, V. (2013, July 15–19). El clima organizacional de estrés: Componentes, procesos de aparición, fuerza y efectos [Organizational climate and stress: Components, emergence processes, strength, and consequences] [Paper presentation]. XXXIV Congresso Interamericano de Psicologia. Brasília. Brazil.
- Peiró, J. M., & Rodríguez, I. (2008). Estrés laboral, liderazgo y salud organizacional [Work stress, leadership and organizational health]. Papeles del Psicólogo, 29(1), 68–82.
- Pérez-Luco, R. (2008). Ambiente laboral subjetivo: Formulación empírica de un constructo [Subjective work environment: Empirical formulation of a construct] [Doctoral dissertation, Universidad Pontificia de Salamanca]. Universidad Pontificia de Salamanca Digital Archive. https://summa.upsa.es/viewer.vm?id=30816
- Postigo, Á., García-Cueto, E., Muñiz, J., González-Nuevo, C., & Cuesta, M. (2023). Measurement invariance of entrepreneurial personality in relation to sex, age, and self-employment. *Current Psychology*, 42, 3160–3170. https://doi.org/10.1007/s12144-021-01685-9
- Prieto-Díez, F., Postigo, A., Cuesta, M., & Muñiz, J. (2022). Work engagement: Organizational attribute or personality trait? *Journal of Work and Organizational Psychology*, 38(2), 85–92. https://doi.org/10.5093/jwop2022a7
- **Rabenu, E., Yaniv, E., & Elizur, D.** (2017). The relationship between psychological capital, coping with stress, wellbeing, and performance. *Current Psychology*, *36*, 875–887. https://doi.org/10.1007/s12144-016-9477-4
- Reynolds, N., Mrug, S., Wolfe, K., Schwebel, D., & Wallander, J. (2016). Spiritual coping, psychosocial adjustment, and physical health in youth with chronic illness: A meta-analytic review. *Health Psychology Review*, 10(2), 226–243. https://doi.org/10.1080/17437199.2016.1159142
- Rey-Sáez, R. (2022). Réplica a: Validación cruzada sobre una misma muestra: Una práctica sin fundamento [Reply to: Cross validation on the same sample: An unfounded practice]. REMA Revista Electrónica de Metodología Aplicada, 24(1), 41–44. https://doi.org/10.17811/rema.24.1.2022.41-44

- Rodríguez,D. (2002). Diagnóstico organizacional [Organizational diagnosis] (5th Ed.). Ediciones Universidad Católica de Chile.
- Rodríguez, I., Kozusznik, M. W., Peiró, J. M., & Tordera, N. (2019). Individual, co-active and collective coping and organizational stress: A longitudinal study. *European Management Journal*, 37(1), 86–98. https://doi.org/10.1016/j.emj.2018.06.002
- **Rosenstiel, A. K., & Keefe, F. J.** (1983). The use of coping strategies in chronic low back pain patients: Relationship to patient characteristics and current adjustment. *Pain*, *17*, 33–44. http://doi.org/10.1016/0304-3959(83)90125-2
- Rubio McGartland, D., Berg-Weber, M., Tebb, S. S., Lee, E. S. & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. *Social Work Research*, 27(2), 94–104. https://doi.org/10.1093/swr/27.2.94
- Schaufeli, W. B. (2017). Applying the job demands-resources model: A 'how to' guide to measuring and tackling work engagement and burnout. *Organizational Dynamics*, 46(2), 120–132. https://doi.org/10.1016/j.orgdyn.2017.04.008
- Scheaffer, R. L., Mendenhall, W., & Ott, L. (1987). Elementos de muestreo [Elementary survey sampling] (G. Rendón Sánchez & J. R. Gómez Aguilar, Trans.). Grupo Editorial Iberoamérica. (Original published work in 1986).
- Schein, E. H. (2010). Organizational culture and leadership (Vol. 2). John Wiley y Sons.
- Schneider, B., González-Romá, V., Ostroff, C., & West, M. A. (2017). Organizational climate and culture: Reflections on the history of the constructs in the Journal of Applied Psychology. *Journal of Applied Psychology*, 102(3), 468–482. https://doi.org/10.1037/apl0000090
- Shi, Y., Sears, L. E., Coberley, C. R., & Pope, J. E. (2013). The association between modifiable well-being risks and productivity. *Journal of Occupational Environmental Medicine*, 55(4), 353–364. https://doi.org/10.1097/ JOM.0b013e3182851923
- Shin, H., Park, Y. M., Ying, J. Y., Kim, B., Noh, H., & Lee, S. M. (2014). Relationships between coping strategies and burnout symptoms: A meta-analytic approach. *Professional Psychology: Research and Practice*, 45(1), 44–56. https://doi.org/10.1037/a0035220
- Siu, O. L., Cooper, C. L., Rollo, L. C., & Lo, C. (2020).

 Occupational stress and its economic cost in Hong Kong: The role of positive emotions. *International Journal of Environmental Research and Public Health*, 17(22), Article 8601. http://doi.org/10.3390/ijerph17228601
- Stapleton, P., Garby, S., & Sabot, D. (2020). Psychological distress and coping styles in teachers: A preliminary study. *Australian Journal of Education*, 64(2), 127–146. https://doi.org/10.1177/0004944120908960
- Suarez-Álvarez, J., Pedrosa, I., Lozano, L. M., García-Cueto, E., Cuesta, M., & Muñiz, J. (2018). Using reversed items in Likert scales: A questionable practice. *Psicothema*, 30(2), 149–158. https://doi.org/10.7334/psicothema2018.33
- **Timmerman, M. E., & Lorenzo-Seva, U.** (2011).

 Dimensionality assessment of ordered polytomous items

- with parallel analysis. *Psychological Methods*, 16(2), 209–220. https://doi.org/10.1037/a0023353
- van den Brande, W., Baillien, E., De Witte, H., Vander Elst, T., & Godderis, L. (2016). The role of work stressors, coping strategies and coping resources in the process of workplace bullying: A systematic review and development of a comprehensive model. *Aggression and Violent Behavior*, 29, 61–71. https://doi.org/10.1016/j.avb.2016.06.004
- van den Brande, W., Baillien, E., Elst, T. V., De Witte, H., & Godderis, L. (2020). Coping styles and coping resources in the work stressors—workplace bullying relationship: A two-wave study. *Work & Stress*, 34(4), 323–341. https://doi.org/10.1080/02678373.2019.1666433
- Vigil-Colet, A., Navarro-González, D., & Morales-Vives, F. (2020). To reverse or to not reverse Likert-type items: That is the question. *Psicothema*, 32(1), 108–114. https://doi.org/10.7334/psicothema2019.286
- Vinaccia, S., Quiceno, J. M., & Remor, E. (2012). Resiliencia, percepción de enfermedad, creencias y afrontamiento espiritual-religioso en relación con la calidad de vida relacionada con la salud en enfermos crónicos colombianos

- [Resilience, illness perception, beliefs and spiritual-religious coping in relation to health-related quality of life in chronically ill Colombians]. *Anales de Psicología/Annals of Psychology*, 28(2), 366–377. https://doi.org/10.6018/analesps.28.2.148821
- Xu, Z., & Yang, F. (2021). The impact of perceived organizational support on the relationship between job stress and burnout: A mediating or moderating role? *Current Psychology*, 40, 402–413. https://doi.org/10.1007/s12144-018-9941-4
- Yin, H., Huang, S., & Lv, L. (2018). A multilevel analysis of job characteristics, emotion regulation, and teacher well-being: A Job Demands-Resources model. *Frontiers in Psychology*, 9, Article 2395. https://doi.org/10.3389/fpsyg.2018.02395
- Zhang, W., Li, K. H, Gobis, B., Zed, P. J., & Lynd, L. D (2020). Work productivity losses and associated risk factors among university employees in the CAMMPUS Wellness Program. *Journal of Occupational and Environmental Medicine*, 62(1), 25–29. https://doi.org/10.1097/JOM.0000000000001734

Appendix Subjective Work Environment Coping Inventory

	Dimension/Item					
Reflective	e Action					
1	I prepare a plan of action [Elaboro un plan de acción]	1	2	3	4	5
2	I take direct action to solve it	1	2	3	4	5
3	[Llevo a cabo una acción directa para resolverlo] I talk to someone who can do something concrete about the problem	1	2	3	4	5
4	[Hablo con alguien que pueda hacer algo concreto acerca del problema] I try to propose a strategy about what to do	1	2	3	4	5
5	[Intento proponer una estrategia sobre qué hacer] I learn from the experience	1	2	3	4	5
6	[Aprendo algo de la experiencia] I wait for the best time to act	1	2	3	4	5
7	[Espero el momento oportuno para actuar] I make sure I don't make this worse by acting hastily	1	2	3	4	5
8	[Me aseguro de no empeorar las cosas por actuar precipitadamente] I speak to someone to find out more about the situation	1	2	3	4	5
	[Hablo con alguien para averiguar más acerca de la situación]					
9	I look for something good in what is happening [Busco algo bueno en lo que está sucediendo]	1	2	3	4	5
10	I do what needs to be done, one step at a time [Hago lo que ha de hacerse, paso a paso]	1	2	3	4	5
11	I focus my efforts on doing something about it [Concentro mis esfuerzos en hacer algo acerca de ello]	1	2	3	4	5
12	I think about how I could manage the problem better [Pienso en cómo podría manejar mejor el problema]	1	2	3	4	5
Rash Act						
13	I laugh about the situation	1	2	3	4	5
14	[Me río de la situación] I joke about it	1	2	3	4	5
15	[Bromeo sobre ello] I take it lightly and laugh about the problem	1	2	3	4	5
16	[Lo tomo livianamente y me río del problema] I look for the funny side to laugh about the problem	1	2	3	4	5
	[Le busco algún lado gracioso para reírme del problema]	1	_	J	1	
	r Spiritual Support	1	2	2	4	-
17	I try to find comfort in my religion [Intento encontrar alivio en mi religión]	1	2	3	4	5
18	I pray more than usual [Rezo más de lo habitual]	1	2	3	4	5
19	I seek divine help [Busco ayuda divina]	1	2	3	4	5
Search fo	r Affective Support					
20	I talk to someone about my feelings	1	2	3	4	5
21	[Hablo de mis sentimientos con alguien] I try to get emotional support from friends or relatives	1	2	3	4	5
22	[Intento conseguir apoyo emocional de amigos o familiares] I get support and understanding from someone	1	2	3	4	5
23	[Consigo el apoyo y comprensión de alguien] I talk to someone about how I feel	1	2	3	4	5
	[Hablo con alguien de cómo me siento]		- Seed			
Evasion						
24	I drink to get drunk so I don't think about it so much [Bebo hasta emborracharme para pensar menos en ello]	1	2	3	4	5
25	I feel a lot of emotion pain and end up exploding [Siento mucho malestar emocional y termino por explotar]	1	2	3	4	5

20 J. Barría-González et al.

Continued.

	Dimension/Item					
26	I take a drug that helps me escape	1	2	3	4	5
	[Ingiero alguna droga que me permita evadirme]					
27	I take a medication that helps me get over it	1	2	3	4	5
	[Tomo algún medicamento que me ayude a superarlo]					
28	I get up upset and let my emotions out	1	2	3	4	5
	[Me altero y dejo que mis emociones afloren]					
29	I try to lose myself for a while by drinking alcohol	1	2	3	4	5
	[Intento perderme un rato bebiendo vino o licor]					
30	I take medicine that makes me feel better	1	2	3	4	5
	[Tomo algún remedio que me haga sentir mejor]					