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Acción Psicológica

REVISTA SEMESTRAL DE PSICOLOGÍA

VOLUMEN 15, NÚMERO 2, DICIEMBRE 2018 - ISSN: 2255-1271

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REVISTA SEMESTRAL DE PSICOLOGÍA

VOLUMEN 15, NÚMERO 2, DICIEMBRE 2018 - ISSN: 2255-1271

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Acción Psicológica

SEMIANNUAL JOURNAL OF PSYCHOLOGY

VOLUME 15, NUMBER 2, DECEMBER 2018 - ISSN: 2255-1271

Acción Psicológica is a semiannual journal published by the Faculty of Psychology of the Universidad Nacional de Educación a Distancia (UNED) since 2002. Publishes original research, review, theoretical or methodological contributions, as well as case studies on different areas of Psychology.

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ACCIÓN PSICOLÓGICA

Monográfico. Fortalezas personales

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ACCIÓN PSICOLÓGICA

Monográfico. Fortalezas personales
[Personal Strength]

RESEARCHING PERSONAL STRENGTHS FOR CREATING POSITIVE LIVES AND ENVIRONMENTS: AN INTERNATIONAL PERSPECTIVE

INVESTIGANDO LAS FORTALEZAS PERSONALES PARA CREAR VIDAS Y AMBIENTES POSITIVOS: UNA PERSPECTIVA INTERNACIONAL

VANESSA M. SINCLAIR¹, ANITA FEHER¹, CLAIRE ANNE
WILSON¹, GABRIELA TOPA², AND DONALD H. SAKLOFSKE¹

Cómo referenciar este artículo/How to reference this article:

Sinclair, V. M., Feher, A. Wilson, C. A., Topa, G., & Saklofske, D. H. (2018). Researching Personal Strengths for Creating Positive Lives and Environments: An International Perspective [Investigando las fortalezas personales para crear vidas y ambientes positivos: una perspectiva internacional]. *Acción Psicológica*, 15(2), 1–4. <https://doi.org/10.5944/ap.15.2.24319>

In today's world, we face a barrage of difficulties in multiple life spheres. While previous times were not without their challenges, these were often restricted to our own personal, geographically localized worlds. Today, news and social media expose us to never-ending reports of traumatic events and interpersonal violence, making us

question human nature and our resiliency. Increasing technological advancements have brought forth new challenges, not only in our relationships with technology, but in how we live our daily lives. Financial uncertainty at both the individual and global level raises doubts about our abilities to afford basic necessities. Climate change is wreaking havoc on the environments we call home.

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Retrieved: December 1, 2018.

Accepted: December 10, 2018.

Changing interpersonal dynamics present new challenges to personal, social, and group relationships, often resulting in conflict or isolation. Adolescents and young adults are thrust into this confusing world, often lacking the proper resources to understand and cope with these challenges. Adults facing life's demands also experience extreme stress, with adverse consequences both at the present as well as later life in the form of physical and mental health issues. Furthermore, we have a tendency to direct attention to our individual weaknesses, exacerbating our experience of difficulties. It is therefore no wonder that psychology as a discipline, which seeks to understand the human experience, tends to focus on the deficiencies in our lives. However, as stated by Sheldon and King (2001), it is important for psychologists to deviate from this 'negative bias', and instead concentrate on positive human qualities and the promotion of what Maslow (1943, 1987) termed growth needs. This focus is the crux of positive psychology.

In Martin Seligman and Mihaly Csikszentmihalyi's (2000) seminal review of positive psychology, Csikszentmihalyi discussed his experience growing up through the dark period of World War II. He described witnessing adult men and women becoming shells of themselves as their social supports, careers, and meaning in life were stripped away. This observation was remarkably similar to Seligman's (1975) research on learned helplessness. But what fascinated Csikszentmihalyi was not the loss of dignity, purpose in life, or capacity to flourish – it was those few individuals who managed to maintain their 'sense of self' during hopeless times. Therein lay the fundamental questions of positive psychology: what characteristics enable human beings to become their strongest, wisest, most thriving selves, and how do we move beyond pathology into the study of prevention and growth? The scientific study of personal strengths has thus been a central line of inquiry in the field. Broadly speaking, personal strengths can be defined as traits and competencies that have protective effects for human beings. Peterson and Seligman (2004) posited that they are inherently desirable and ethically valuable, orienting individuals towards fulfillment and increasing the wellbeing of both themselves and their communities. It was our aim in this special issue to showcase empirical research on personal strengths for the betterment of lives.

Given the increasing demands, difficulties, and stressors in today's world, research examining the effects of positive psychology is more significant than ever. This special issue integrates a broad spectrum of research examining relationships between personal strengths and a variety of outcomes. The papers that form this special issue utilized a number of methodologies. Analyses range from classic correlation and prediction studies, to exploring when and why relationships occur using moderation and mediation analyses, to more advanced multivariate analysis and multilevel modeling. A portion of these studies examined how personal strengths protect against negative life outcomes. For instance, Merhi and colleagues were interested in the contribution of academic personal strengths, such as resilience and motivation, on academic engagement and burnout. Similarly, Martinez and Alcalde examined what specific personality factors related to burnout in a sample of supermarket workers. Lastly, the protective aspect of low trait anger and the risk factor of high trait anger were explored in relation to parenting styles, social skills, and aggression by Alcázar-Olán and colleagues.

On the other hand, many of the studies in this special issue explored the relationship between personal strengths and positive outcomes, such as subjective well-being and satisfaction with life. Ruvalcaba-Romero and colleagues were interested in which virtues and strengths significantly predicted life satisfaction in male and female college students, while Lau explored the moderating effects of meaning in life on the relationship between resiliency and satisfaction with life. This was also of interest to Freitas and colleagues, who predicted meaning in life would mediate the relationship between personal growth initiative and subjective well-being. The mediating effects of self-esteem on the relationship between hope and life satisfaction in three different cultural groups were examined by Bernardo and colleagues. Finally, Feher and Tremblay used multilevel modeling to explore the individual and country effects of relationship enhancing traits and individual attitudes on life satisfaction across 24 countries. The articles contributing to this special issue represent research conducted by authors across a number of different cultures, in locations including Canada, Latin America, Asia, and Europe. The extent of factors examined provides a broad overview of some of the many

benefits of studying positive psychology and the important influence these positive characteristics have on our lives. Hence, these contributions add to the growing literature that the building of capacity and personal strengths offers a positive way for promoting and enhancing the well-being of all persons.

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RESILIENCY, MEANING IN LIFE, AND LIFE SATISFACTION: AN EXAMINATION OF MODERATING EFFECTS

RESILIENCIA, SIGNIFICADO EN LA VIDA Y SATISFACCIÓN VITAL: UN ANÁLISIS DE LOS EFECTOS MODERADORES

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SARAH E. BABCOCK¹, AND DONALD H. SAKLOFSKE¹

Cómo referenciar este artículo/How to reference this article:

Lau, C., Feher, A., Wilson, C. A., Babcock, S. E., & Saklofske, D. H. (2018). Resiliency, Meaning in Life, and Life Satisfaction: An Examination of Moderating Effects [Resiliencia, significado en la vida y satisfacción vital: un análisis de los efectos moderadores]. *Acción Psicológica*, 15(2), 5–14. <https://doi.org/10.5944/ap.15.2.22256>

Abstract

While presence of meaning in life (i.e., presence) is associated with a plethora of desirable qualities (e.g., greater well-being, longevity, positive affect), search for meaning is associated with psychological distress (e.g., reports of conflict, rumination, depression; Boyle, Barnes, Buchman, & Bennett, 2009). Individuals with higher

resiliency, defined as a multifaceted competency in adapting and recovering from adversity, could potentially mitigate the distress associated with search, and thus, achieve greater satisfaction with life (SWL). The present study examined the moderating role of meaning in life between resiliency (i.e., sense of mastery and sense of relatedness) and SWL in a sample of Canadian university students (N = 289). Hierarchical regression analyses showed that there was a positive association between

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Retrieved: June 29, 2018.

Accepted: September 23, 2018.

resiliency and SWL and this association was stronger at higher levels compared to lower levels of search for meaning. These results suggest that individuals searching for meaning with high levels of mastery have the greatest SWL, while their counterparts with low mastery have the lowest SWL. Similar moderating effects of search were found with the positive association between sense of relatedness and SWL. Overall, findings suggest that protective factors in resiliency may buffer against the potential negative impact of search.

Keywords: Meaning in life; Presence of meaning; search for meaning; Resiliency; Resiliency scale for young adults; Satisfaction with life.

Introduction

The pursuit of meaningful living is a longstanding concept, and recently psychologists have attempted to address the gap of understanding this concept with reliable and validated tools (e.g., Steger, Frazier, Oishi, & Kaler, 2006). Meaning in life (i.e., meaning) is a complex and multifaceted concept widely defined as the emotional and cognitive inquiry of whether one's life has value and purpose (Steger, 2009). Damon (2008) described today's North American young adults as "directionless drifters" who are living increasingly empty, meaningless lives. Converging evidence suggests that present-day college students are expressing greater need for personal fulfillment through achieving a sense of meaningful living (Higher Education Research Institute, 2004; Howe & Strauss, 2000; Lancaster & Stillman, 2002). In a survey conducted across 236 American colleges, 76 % of 112,232 college students indicated they were searching for meaning and a purpose in life (A. W. Astin et al., 2005). Presence of meaning (i.e., presence) is associated with a plethora of desirable outcomes, including greater well-being, longevity, positive affect, and satisfaction with life, while experiencing lower psychological distress (Boyle, Barnes, Buchman, & Bennett, 2009; Debats, Van der Lubbe, & Wezeman, 1993; Hicks & King, 2007; King, Hicks, Krull, & Del Gaiso, 2006; Melton & Schulenberg, 2008; Steger et al., 2006). Moreover, presence acts as a protective factor against substance abuse, depression, and

suicidal ideation, with evidence suggesting higher scores on the purpose in life test can discriminate psychiatric patients from the normal population (Batthyany & Russo-Netzer, 2014; Brassai, Piko, & Steger, 2011; Heisel, Flett, Duberstein, & Lyness, 2005; Junior, 1999; Kinnier, Metha, Keim, & Okey, 1994). Presence is associated with a number of growth-related variables that allow healthy psychological functioning.

While there is a common misconception that search for meaning (i.e., search) is indicative of absence of meaning, factor analytic and multitrait-multimethod matrix analyses reveal that search and presence of meaning are independent and distinct concepts (e.g., Steger et al., 2006). Presence is defined as the extent to which an individual experiences meaning in one's life, while the search for meaning refers to an individual's drive and orientation to establish meaning in life (Batthyany & Russo-Netzer, 2014; Steger, 2009). Frankl (1963) described the search for meaning as the primary motivational force in human living and noted several benefits of this pursuit, such as happiness and the capability to cope with suffering. However, previous research has found that search for meaning is negatively associated with presence of meaning and measures related to psychological well-being (Park, 2010; N. Park, M. Park, & Peterson, 2010; Steger, Kashdan, & Oishi, 2008). For instance, individuals high in search for meaning tend to report greater rumination, negative orientation towards the past, and depressive symptoms (Steger et al., 2006; Steger, Kashdan, Sullivan & Lorentz, 2008).

Increasing research has demonstrated that differences between people may impact search for meaning and thus, produce differential outcomes in presence of meaning and well-being (Steger et al., 2006; Steger, Kashdan, & Oishi, 2008; Steger, Kashdan, Sullivan, & Lorentz, 2008). The function of search can change depending on situational and cultural context, with supportive social environments and collectivist cultures reporting positive associations between presence and search (Shin & Steger, 2016; Steger, Kawabata, Shimai, & Otake, 2008). Moreover, C. L. Park et al. (2010) proposed that search only predicts greater presence and well-being when the individual already has high presence of meaning. A recent longitudinal diary study found that presence of meaning mediated positive relationships between search and well-being, while simul-

taneously suppressing negative direct relationships between search and well-being (Newman, Nezlek, & Thrash, 2017).

Resiliency allows an individual to overcome and thrive in the face of obstacles or adversity in his environment and has been shown to be positively associated with life satisfaction (Masten, 2001, 2007, 2014; Samani, Jokar, & Sahragard, 2007). While search for meaning may allow an individual to ultimately find meaning and thrive, the search for meaning is, inevitably, associated with distress as it may be a difficult process accompanied with certain challenges (Wong, 2012). Individuals with higher internal resources of resiliency, which is defined as a multifaceted competency in adapting and recovering from adversity, may mitigate the potential impact of adversity in search and buffer these negative effects of search to maintain psychological well-being (Prince-Embury, Saklofske, & Veseley, 2015). No research to the authors' knowledge has examined the associations between meaning in life, resiliency, and satisfaction with life, as a component of subjective well-being. Thus, this study provides a unique contribution of the dispositional correlates of meaning in life that may have an impact on the resiliency and satisfaction with life association.

Method

Participants and Procedure

Data were collected from a sample of 289 undergraduate students (78.2 % females) between the ages of 17 to 25 years ($M = 17.94$, $SD = 0.81$) from a large university located in central Canada. Participants were recruited from the Department of Psychology's subject pool and upon signing up for the study, participants were directed to an online survey. Participants completed a battery of questionnaires online using the web-based survey tool Qualtrics. Upon completion of the study, participants were debriefed. As compensation, participants were awarded one credit towards an introductory psychology course. The study was approved by the university's institutional ethical review board.

Measures

Meaning in Life Questionnaire (MLQ; Steger et al., 2006). The MLQ is a 10-item self-report measure that assesses the extent to which the individual is searching for meaning in life and the presence of meaning in life that the individual experiences. The statements are rated using a 7-point Likert scale from 1 (*absolutely untrue*) to 7 (*absolutely true*). Evidence of construct validity, test-retest reliability, internal consistency, and convergent and discriminant validity of the MLQ were established in previous studies (Steger et al., 2006; Steger & Kashdan, 2007).

Resiliency Scale for Young Adults (RSYA; Prince-Embury, Saklofske, & Nordstokke, 2017; Wilson et al., 2017). The RYSA is comprised of 50 items that measures three factors of personal resiliency, including sense of mastery, sense of relatedness, and emotional reactivity (Prince-Embury, 2006, 2007; Prince-Embury & Saklofske, 2013) on a 5-point scale 0 (*never*) to 4 (*almost always*). Sense of mastery is defined as an individual's sense of competence (i.e., belief in one's capabilities), self-efficacy (i.e., belief that one can master their environment), and adaptability (i.e., ability to adjust oneself and behaviour when needed; Prince-Embury & Saklofske, 2014; Prince-Embury et al., 2017). Sense of relatedness is defined as perceived access to social support, trust, comfort, and tolerance of others (Prince-Embury & Saklofske, 2014). Emotional reactivity, defined as the frequency and intensity of maladaptive emotional responses when confronted with adversity, represents a vulnerability factor to resiliency (Prince-Embury et al., 2017). Given that emotional reactivity represents a vulnerability factor and this study is primarily concerned with the protective factors of resiliency, only the two protective factors (i.e., sense of relatedness and sense of mastery) were included as predictors. Previous research has supported construct validity of the factor structure, reliability, and concurrent validity with related psychological concepts (Prince-Embury et al., 2017; Wilson et al., 2017).

Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS (Lucas, Diener, & Suh, 1996) was designed to measure the cognitive aspects of subjective well-being using a 7-point scale ranging

Table 1.

Descriptive statistics and zero-order correlations of the study variables.

Variable	1	2	3	4	5
1. Search	<i>.90</i>				
2. Presence	-.03	<i>.90</i>			
3. Satisfaction	-.05	.58**	<i>.88</i>		
4. Mastery	.08	.53**	.57**	<i>.89</i>	
5. Relatedness	-.05	.47**	.56**	.68**	<i>.90</i>
Mean	25.15	22.21	24.06	41.13	55.16
SD	6.38	6.92	6.60	8.12	10.47

Note. N = 289. Search = Search for Meaning subscale in Meaning in Life Questionnaire; Presence = Presence of Meaning subscale in Meaning in Life Questionnaire; Satisfaction = Satisfaction with Life Scale; Mastery = Mastery Factor of Resiliency Scale for Young Adults (RYSA); Relatedness = Relatedness Factor of RYSA; Cronbach alphas in diagonal are in italics. **p < .001.

from 1 (*strongly disagree*) to 7 (*strongly agree*). The SWLS has demonstrated strong reliability and evidence of validity (for a review, see Pavot & Diener, 1993).

Statistical Analysis

To illustrate effects of moderating variables on each individual resiliency factor, two sets of hierarchical regression analyses were conducted for each of the two resiliency factors (i.e., sense of mastery, sense of relatedness) with satisfaction with life (SWL) as the criterion variable. The predictor and moderator variables were centered around the mean scores in this analysis to avoid multicollinearity (Aiken & West, 1991; Frazier, Tix, & Barron, 2004). In the first hierarchical regression analysis, a regression model (block 1) predicting the outcome variable SWL from both the predictor (i.e., sense of mastery) and the moderator variables (i.e., presence of meaning, search for meaning) was conducted. Next, an interaction effect to the previous model (block 2), with two interaction terms created between sense of mastery and the predictors

(sense of mastery × presence of meaning; sense of mastery × search for meaning) was further examined. This analysis was repeated for the second hierarchical regression analysis with sense of relatedness as the predictor and SWL as the outcome. All analyses were conducted on SPSS version 22 and Process version 2.16.3, a versatile modeling tool that integrates with SPSS to provide moderation analyses (Hayes, 2016).

Results

Descriptive statistics, Cronbach’s alpha, and zero-order correlations of the study variables were computed in Table 1. Independent samples *t*-tests and regression analyses on gender and age, respectively, were conducted and these variables did not significantly predict SWL in this sample. Therefore, age and gender were not included as covariates in this model. Bivariate correlations show satisfaction with life was positively associated with presence, sense of mastery, and sense of relatedness.

Table 2.

Results of hierarchical regression analysis for search, presence, and sense of mastery predicting satisfaction with life.

	Variable	B	SE of B	β	ΔR ²
Step 1	Sense of Mastery	.31	.04	.38**	.44
	Presence of Meaning	.36	.05	.38**	
	Search for Meaning	-.07	.05	-.07	
Step 2	Sense of Mastery x Presence	.01	.01	.05	.01
	Mastery x Search	.01	.01	.11*	

Note. N = 289. * p < .05, ** p < .001, Mastery = Mastery Factor of Resiliency Scale for Young Adults

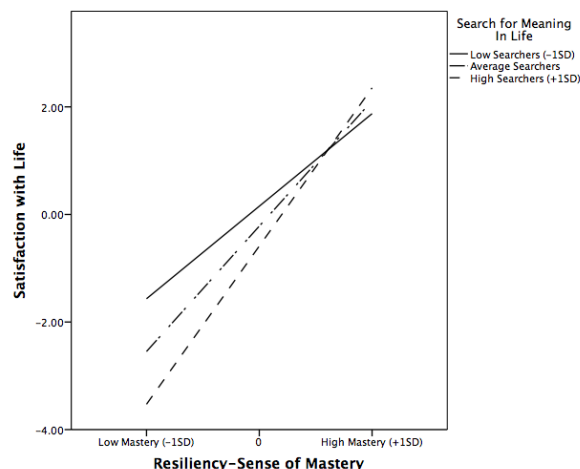


Figure 1. The interaction effects of search for meaning in life and sense of mastery on satisfaction with life, with search for meaning as a moderator.

Table 2 includes results of the hierarchical regression analysis with sense of mastery, presence of meaning in life, and search for meaning predicting SWL. In step 1 of the hierarchical regression analysis, sense of mastery, presence, and search accounted for 44.1% of the variance in SWL, $F(3, 285) = 74.87, p < .001$. In step 2, the interaction effect of sense of mastery $\times$ search for meaning accounted for an additional 1.4 % of the variance in SWL, $F(5, 283) = 47.17, p < .001$. This interaction term significantly contributed to the variance of SWL ($B = .01, \beta = .11, p < .05$) and was probed through testing the conditional effects of resiliency at three levels of search for meaning (i.e., one standard deviation below the mean, at the mean, and one standard deviation above the mean; West, Aiken, & Krull, 1996). Simple slopes analyses revealed that the association between resiliency and SWL was stronger at

higher levels of search ($b = .36$) than at average levels ($b = .29$) and at lower levels of search ($b = .22$). Figure 1 illustrates the simple regression slopes at three levels of search for meaning with sense of mastery and satisfaction with life as the predictor and outcome, respectively.

A second hierarchical regression analysis was conducted to investigate the moderating effects of meaning in life in the positive association between sense of relatedness and satisfaction with life. In step 1 of a hierarchical regression analysis, sense of relatedness, presence, and search accounted for 44.6 % of the variance in SWL, $F(3, 285) = 76.46, p < .001$. In step 2, the interaction effect of relatedness $\times$ search accounted for an additional 1.5 % of the variance in SWL, $F(5, 283) = 48.46, p < .001$. This interaction term significantly contributed to the variance of SWL ($B = .01, \beta = .11, p < .05$). The summary of the results of the hierarchical regression analysis for search for

Table 3.

Results of hierarchical regression analysis for search, presence, and sense of relatedness predicting satisfaction with life.

	Variable	B	SE of B	β	ΔR^2
Step 1	Search	-.02	.05	-.01	.45
Step 2	Presence	.39	.05	.41**	
	Relatedness	.23	.03	.37**	
	Relatedness x Presence	.01	.<.01	.07	.01
	Relatedness x Search	.01	.<.01	.11*	

Note. $N = 289$. *Significant at $p < 0.05$, ** Significant at $p < 0.001$, Relatedness = Relatedness Factor of RYSA

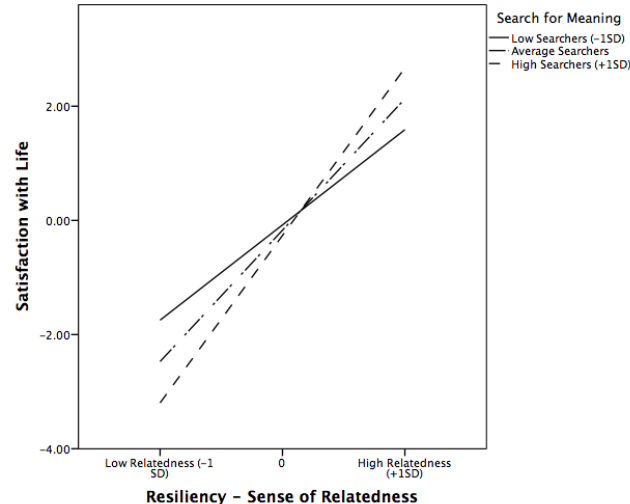


Figure 2. The interaction effects of search for meaning in life and sense of relatedness on satisfaction with life, with search for meaning as a moderator.

meaning and sense of relatedness in predicting satisfaction with life were presented in Table 3. Simple slopes analyses revealed that relatedness was positively associated with satisfaction with life at both lower and higher levels of the search for meaning. However, the association was stronger at higher levels of search for meaning ($b = .28$) compared to average ($b = .22$) and lower levels ($b = .16$) of search for meaning. Figure 2 illustrates the simple regression slopes at three levels of search for meaning with sense of relatedness and satisfaction with life as the predictor and outcome, respectively.

Discussion

Although previous studies showed that individuals who are searching for meaning report a lesser sense of well-being compared to others who are not searching for meaning (e.g., Steger et al., 2006), this study showed that individual differences in protective facets of resiliency may change this association. The present study found that search for meaning had a significant moderating effect between the two protective facets of resiliency (i.e., sense of mastery, sense of relatedness) and satisfaction with life (SWL). More specifically, in the first hierarchical re-

gression model, sense of mastery was positively associated with SWL at all levels of search for meaning. However, this positive association between sense of mastery and SWL were stronger at higher levels compared to lower levels of search for meaning. These results would suggest that individuals high in search for meaning with high levels of mastery have the greatest SWL, while individuals high in searching for meaning with low mastery have the lowest SWL. Sense of mastery involves an optimistic view of oneself as well as the future, and the belief that one has the capabilities to thrive and master their own environment (Prince-Embury et al., 2016). Individuals with high sense of mastery who engage in search for meaning may search in an open or approach-oriented fashion, allowing them to achieve aspirations and insights to experience greater psychological well-being (Steger, Kashdan, Sullivan, & Lorentz, 2008). In contrast, for individuals with a negative, deficit-based approach, previous researchers have hypothesized search for meaning amongst those individuals may accompany existential frustration (Baumeister, 1991; Klinger, 1998). Ultimately, search for meaning under positive conditions through sense of mastery could act as an opportunity to discover new avenues, challenges, and desires towards fulfillment in life.

Aligned with previous research, Shin and Steger (2016) found that when students perceived their college environments to be supportive, search for meaning was positively associated with presence of meaning. The authors concluded that perceived support may have promoted students' presence of meaning through protection against the negative effects associated with searching for meaning. Similarly, the present study found that sense of relatedness had a positive association with satisfaction with life. This positive association between sense of relatedness and SWL was stronger at higher levels compared to lower levels of search for meaning. Sense of relatedness is conceptualized as a sense of trust and perceived access to support, as well as comfort and tolerance with others (Prince-Embury et al., 2017). Hence, the construct is proposed to be a major underlying mechanism in the formation and maintenance of relationships as the basis of developing a support system (Prince-Embury, 2006, 2007, 2013, 2014). Overall, individuals with high sense of relatedness may be more socially adept and have a stronger social network that could promote a healthier approach to search for meaning.

This study is not without its limitations that will require further research. First, the present study utilized a cross-sectional design rather than a longitudinal design and temporal associations between study variables were not able to be determined. Second, this study uses self-report measures and, like all studies involving self-report questionnaires, is limited to the observations and insights of the individual. Proper insight into the present study variables can only be determined by self-report and these factors may be associated with biases. Future studies should assess whether self-report ratings of meaning in life and resiliency are associated with social desirability biases. Third, it should be noted that the sample in this study involves undergraduate students from one institution in a large Canadian University and further, there was an imbalance in the ratio and number of females and males. Future studies should examine the generalizability of these findings with more diverse populations, especially given that previous research found that younger adults report searching for meaning to a greater extent than older adults (Bodner, Bergman, & Cohen-Fridel, 2014). Moreover, the negative association between searching for meaning and presence of meaning is stronger for older adults than for

younger adults (Steger, Oishi, & Kashdan, 2009). These findings suggest that searching for meaning may be particularly disadvantageous to older adults compared to their younger counterparts. Future research should investigate whether the present findings may be replicated in an older population.

Overall, these results suggest that resiliency, as measured by two protective factors of sense of mastery and sense of relatedness, may be an asset for those who are seeking meaning in predicting greater psychological well-being. The present study suggests that although the literature shows search for meaning is associated with psychosocial distress, higher educational settings should provide social support and build up an individual's sense of mastery while reassuring these individuals that the search of meaning is part of a developmental process (Shin & Steger, 2016). Through efforts directed towards enhancing resiliency, individuals searching for meaning could gain new insights and ultimately achieve satisfaction with life. Thus, the importance of enhancing resiliency should be brought to the forefront to researchers and student affairs professionals. These findings provide new insight into the relationship between resiliency, meaning in life, and well-being that hopefully will advance a coherent and multifaceted theoretical framework of the pathways in which well-being may be achieved.

Acknowledgement: This research was supported by the Social Sciences and Humanities Research Council of Canada Joseph Armand Bombardier Doctoral Award held by the first author. Thank you to You Kyung Hwang for proofreading this manuscript.

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A MULTILEVEL MODELING STUDY OF THE INFLUENCE OF RELATIONSHIP ENHANCING TRAITS AND INDIVIDUALISM ON SATISFACTION WITH LIFE ACROSS NATIONS

ESTUDIO DE LA INFLUENCIA DE LOS RASGOS Y EL INDIVIDUALISMO EN LA SATISFACCIÓN VITAL ENTRE NACIONES: UN MODELO MULTINIVEL

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Cómo referenciar este artículo/How to reference this article:

Feher, A. & Tremblay, P. F. (2018). A Multilevel Modeling Study of the Influence of Relationship Enhancing Traits and Individualism on Satisfaction with Life Across Nations [Estudio de la influencia de los rasgos y el individualismo en la satisfacción vital entre naciones: un modelo multinivel]. *Acción Psicológica*, 15(2), 15–26. <https://doi.org/10.5944/ap.15.2.22260>

Abstract

The current cross-cultural study explored the associations between relationship enhancing traits (interpersonal trust, importance of close relationships, sociability), characteristics corresponding to an individualistic attitude (competition, autonomy), and life satisfaction. Data for this study was from 24 of the 59 countries used in the

World Values Survey Wave 6. Multilevel modelling was used as a means to analyse the influence of individual level (Level 1) and country level (Level 2) variables on life satisfaction. Results indicated that the individual level predictors interpersonal trust and importance of close relationships made meaningful positive contributions to life satisfaction. The competition variable aggregated at the country level significantly negatively predicted life satisfaction, while country-level aggregated autonomy

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Retrieved: July 1, 2018.

Accepted: November 23, 2018.

shared a positive relationship with life satisfaction.

Keywords: Life satisfaction; Relationship enhancing traits; Individualism; Multilevel modelling; World Values Survey.

Introduction

Examining what factors contribute to positive psychological functioning associated with individual well-being has been a topic of intense scientific scrutiny (see Ryan & Deci, 2001). Individuals' assessments of their lives in terms of its quality is referred to as subjective well-being (E. Diener, Oishi, & Lucas, 2003). Life satisfaction is one of the components that constitute subjective well-being (Andrews & Whitey, 1976; Lucas, E. Diener, & Suh, 1996). It can be defined as the subjective cognitive judgment that individuals make about their overall quality of life (E. Diener, Emmons, Larsen, & Griffin, 1985; Shin & Johnson, 1978). Having higher life satisfaction has been linked with numerous benefits, including higher self-esteem, lower depression, and educational accomplishments (Proctor, Linley, & Maltby, 2010).

There is increasing evidence in the literature that having positive social interactions and relationship-relevant individual characteristics contributes across the life span to individual well-being, including life satisfaction (e.g., DeNeve & Cooper, 1998; Nickerson & Nagle, 2004; Pinquart & Sörensen, 2000; Ryan & Deci, 2001; Wu, Kasearu, Värnik, Tooding, & Trommsdorff, 2016). Therefore, the present study will examine how variables determining 'how we relate to others' predict life satisfaction. More specifically, we will examine the influence of relationship enhancing traits and individualism.

Relationship Enhancing Traits

Personality traits that enhance interpersonal relationships (i.e., relationship enhancing traits) have been shown to promote subjective well-being (DeNeve, 1999; DeNeve & Cooper, 1998). According to DeNeve (1999), and DeNeve and Cooper (1998), relationship enhancing traits are interpersonally-relevant personality traits: affiliation (desiring and having abilities to form positive social bonds), trust (one's views about honesty and

trustworthiness of others), and sociability/social desirability (adaptive patterns of relating to people). DeNeve (1999) proposed that these traits not only aid in assisting relationships, but also in subjective well-being. Studies that have separately assessed these personality traits have found that they all positively link to life satisfaction. With regards to affiliation, multiple studies have demonstrated that a lack of affiliation in the form of attachment avoidance negatively relates to life satisfaction (e.g., Gnilka, Ashby, & Noble, 2013; Hinnen, Sanderman, & Sprangers, 2009; Lavy & Littman-Ovadia, 2011), demonstrating the importance of wanting close interpersonal relationships for life satisfaction. Trust in other people has likewise shown a positive relationship with life satisfaction (e.g., Ashleigh, Higgs, & Dulewicz, 2012; Barefoot et al., 1998). Finally, the relationship between sociability and life satisfaction is also positive (Emmons & Diener, 1986).

Individualism

At the country level, individualism represents cultural differences in how people from different countries tend to relate to one another in society (Geert Hofstede, Gert Jan Hofstede, & Minkov, 2010). More individualistic societies have looser ties between people, and people are expected to be more self-reliant and independent (Geert Hofstede et al., 2010). It is often contrasted with collectivism, where people in a society share strong, loyal, and close-knit bonds with their in-groups (Geert Hofstede et al., 2010). Individualism is more than just a unitary dimension, and instead can be separated into subtypes (Triandis & Gelfand, 1998). Vertical individualism refers to competing with others to achieve status and become distinguished, while horizontal individualism focuses on desiring to achieve autonomy, uniqueness, and self-reliance without the need for high status (Triandis & Gelfand, 1998).

While individualism is often conceptualized at the country-level (some countries are considered higher in individualism; e.g., Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002), individualism can also be assessed at the individual level (see Oyserman & Uskul, 2008). These individual-level counterparts of individualism and collectivism are called idiocentrism and

allocentrism respectively (Triandis, Leung, Villareal, & Clack, 1985). Markus and Kitayama (1991) termed them independent and interdependent self-construals. Examinations of vertical and horizontal individualism at the individual level have likewise been conducted (e.g., Soh & Leong, 2002). The importance of employing a multi-level method of assessing individualism has been previously supported (e.g., Nguyen, Le, & Boles, 2010; Taras, Kirkman, & Steel, 2010).

When assessed as a unidimensional construct, individualism has been associated with high satisfaction with one's social relationships (E. Diener, Suh, Smith, & Shao, 1995). When assessed according to its components, vertical individualism has a significant negative relationship with degree of social relationships, while horizontal individualism has a nonsignificant association but in the positive direction (Gouveia, Clemente, & Espinosa, 2003). This suggests that different conceptualizations of individualism have different implications for how we relate to others.

In general, studies suggest that individualism is positively associated with life satisfaction and subjective wellbeing (E. Diener, M. Diener, & C. Diener, 1995; Diener et al., 1995; Yetim, 2003). However, this positive relationship becomes less stable when individualism is assessed based on its vertical and horizontal subcomponents. Being competitive (i.e., vertical individualism) on average is associated with lower life satisfaction (Oishi, 2000). Autonomy (i.e., horizontal individualism) on average is positively associated with life satisfaction, however this relationship tends to be stronger in individualistic countries (Oishi, 2000).

Present Study

The present study aims to assess how relationship enhancing traits and individualism predict life satisfaction using World Values Survey data. While other studies have focused on what factors predict life satisfaction using this survey data (e.g., Bjørnskov, 2003), there appears to be a lack of studies that focus on the combination of interpersonal relationship-relevant variables examined in the present study. The three relationships enhancing traits that will be examined are interpersonal trust, affiliation

(i.e., importance of close relationships), and sociability. In line with previous research (see DeNeve, 1999), the study hypothesizes that individual level relationship enhancing traits (i.e., interpersonal trust, importance of close relationships, sociability) will predict higher life satisfaction. Individualism is another variable that has implications for how individuals relate to one another. Therefore, the present study will examine individualism through its components (i.e., competition and autonomy) at both the individual-level and at the country-level. Based on Oishi (2000)'s findings, it is hypothesized that in the present study the autonomy component of individualism will positively, and the competition component of individualism will negatively, predict life satisfaction at both the country and individual level.

Method

Participants

The study utilized data from Wave 6 of the World Values Survey (2010-2014). A total of 85070 participants from 59 countries were assessed as part of the survey. The gender composition is 40548 males and 44434 females, with 88 participants not reporting their gender. Participants ranged in age from 16-99 years old ($M = 42.06$, $SD = 16.55$). The number of people within each clustering unit (i.e., number of people within each country) ranges from 841 (New Zealand) to 3531 (South Africa). Due to missing data on the variables of interest, the sample size was reduced to 30900 participants and 24 countries. Although missing data can be handled with the maximum likelihood estimation process in Mplus, cases are typically not included for missing values on the predictors.

Measures

Interpersonal trust

Interpersonal trust was assessed by combining six items (V102-V107) on the World Values Survey (2010-2014) into a general measure of interpersonal trust. These items asked how much participants trusted people from

different groups; family, neighbourhood, known personally, people met for the first time, other religions, and other nationalities. Participants responses were reversed coded for the purposes of the present study, ranging from 1 (*do not trust at all*) to 4 (*trust completely*). These items were all significantly and positively related, with correlations ranging from $r = .02$ to $.70$, $p < .01$.

Importance of close relationships

Affiliation in the present study was operationalized as reporting importance of close relationships. Importance of close relationships was assessed by combining items V4 and V5 on the World Values Survey (2010-2014) into a general measure of importance of close relationships. These items asked participants how important family and friends were in their life. These two items are assessed using a 4-point Likert scale which were reverse coded for the present study so that they ranged from 1 (*not at all important*) to 4 (*very important*). These two items were significantly and positively related at $r = .16$, $p < .01$.

Sociability

Sociability was assessed using a single-item measure (V160F) on the World Values Survey (2010-2014) that asks participants whether they see themselves as someone

who is outgoing and social. Participants responded using a 5-point Likert Scale 1 (*disagree strongly*) to 5 (*agree strongly*).

Autonomy

Autonomy was assessed using a single-item measure (V216) on the World Values Survey (2010-2014), that assessed whether participants saw themselves as an autonomous individual using a 4-point Likert scale, which were reversed for the present study to range from 1 (*strongly disagree*) to 4 (*strongly agree*).

An aggregate of participants' autonomy scores was created to assess autonomy as a Level-2 (i.e., country-level) predictor variable, therefore creating a contextual variable that assessed country differences in autonomy.

Competition

Competition was assessed by using a single-item measure (V99) on the World Values Survey (2010-2014), which asks participants to respond on a 10-point Likert scale regarding their views towards competition, which in reversed form for the present study ranged from 1 (*Competition is harmful. It brings out the worst in people*) to 10 (*Competition is good. It stimulates people to work hard*).

Table 1.

Means, standard deviations, and correlations of study variables.

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Life satisfaction	6.81	2.31	1.00							
2. Trust	2.67	0.51	.07	1.00						
3. ICR	3.59	0.46	.08	.19	1.00					
4. Sociable	3.51	1.24	.07	.05	.14	1.00				
5. Competition	7.05	2.62	.02	.02	.09	.10	1.00			
6. Autonomy	2.99	0.93	.05	.04	.04	-.00	.02	1.00		
Country-level variables										
7. Agg_Competition	7.17	0.91	-.40	—	—	—	—	—	1.00	
8. Agg_Autonomy	2.96	0.41	.03	—	—	—	—	—	-.07	1.00

Notes. ICR=Importance of close relationships; Correlations from individual-level variables are based on within-individual correlation matrix; correlations for country-level variables are based on between-country correlation matrix. Tests of significance for these coefficients not available, but see tests of significance for regression coefficients in Table 2.

and develop new ideas). Seeing competition as good was interpreted as participants endorsing higher competition levels, while saying that competition is harmful was interpreted as participants endorsing lower competition levels.

To assess competition as a level-2 (i.e., country-level) predictor variable, an aggregate measure of participants' competition scores was created, in order to create a contextual variable assessing country differences in competition.

Life Satisfaction

Life satisfaction was assessed using a single-item measure (V23) from the World Values Survey (2010-2014) that asks participants to evaluate on 10-point Likert scale 1 (completely dissatisfied) to 10 (completely satisfied) about how satisfied they were with their lives as a whole.

Data Analytic Strategy

Multilevel modeling analysis was used to address the research hypotheses of the present study using Mplus Version 7.4 program (Muthén & Muthén, 1998-2015), with maximum-likelihood estimation. Level-1 predictors (i.e., individual-level variables) were interpersonal trust, importance of close relationships, sociability, competition, and autonomy. Level-2 predictors (i.e., country-level variables) were aggregate competition and aggregate autonomy. Life satisfaction was used as the outcome variable. A model building approach was used in this study. Model 1 is an unconditional model, and was analyzed to assess the intraclass correlation. Model 2 is a level-1 model with fixed predictors, while Model 3 a level-1 model with random slopes on all the level-1 predictors. These random slope parameters were tested since it seems reasonable for the relationship between the predictor variables (e.g., individualism) and the outcome variable life satisfaction to vary somewhat across countries (e.g., E. Diener et al., 1995). In Model 4 both level-1 and level-2 predictors were included.

Results

Descriptive Statistics

Means, standard deviations, and correlations for the study variables are presented in Table 1. At the individual level, the correlations between all predictors and life satisfaction were smaller than .10. At the country level, Competition had a correlation of -.40 with life satisfaction, while the correlation between autonomy and life satisfaction was negligible. Tests of significance for these within and between country coefficients are not available in Mplus; however, we report the tests of significance for regression coefficients in the next section and in Table 2.

Multilevel Modeling

Since the research interests of the present study involve examining predictor influences at both individual and country levels, predictors were grand mean centered (Enders & Tofighi, 2007). The four models are presented in Table 2. An examination of Model 1 (i.e., the unconditional model) revealed that the intraclass correlation was equal to .119. Therefore, 11.9 % of the variance in life satisfaction is due to country differences. In Model 2, the level-1 predictors were included, followed by inclusion of the random slope coefficients in Model 3, and the level-2 predictors in Model 4. No cross-level interactions were included since we did not postulate any hypotheses of moderation effects. Given that the coefficients did not change substantially across models, we focus our interpretation on Model 4.

In Model 4, results for individual-level predictors were mostly consistent with our hypothesis. However, at the individual level, competition did not significantly predict life satisfaction ($\beta = 0.01, p > .05$). Interpersonal trust ($\beta = 0.24, p < .05$), importance of close relationships ($\beta = 0.34, p < .001$), sociability ($\beta = 0.09, p < .001$), and autonomy ($\beta = 0.09, p < .05$) were all significant positive predictors of life satisfaction. However, sociability and autonomy have very small effects that are probably detected due to the very large sample size, indicating that only interpersonal trust and importance of close relationships make meaningful contributions. Therefore,

Table 2.

Multilevel modeling with life satisfaction as outcome variable.

Model parameters	Model 1: Unconditional	Model 2: Level-1 Predictors Fixed	Model 3: Level-1 Model Random slopes	Model 4: Level 2 predictors
Regression coefficients (fixed effects)				
Intercept (γ_{00})	6.86(.10)**	6.78(0.18)**	6.69(.17)**	6.75(.16)**
<i>Individual-level effects</i>				
Trust (γ_{10})		0.22(.03)**	0.24(.08)*	0.24(.08)*
ICR (γ_{20})		0.27(.03)**	0.34(.07)**	0.34(.07)**
Sociability (γ_{30})		0.10(.01)**	0.10(.02)**	0.09(.02)**
Competition (γ_{40})		0.00(.01)	0.00(.01)	0.01(.01)
Autonomy (γ_{50})		0.11(.01)**	0.10(.04)*	0.09(.04)*
<i>Country-level effects</i>				
Aggregate Competition (γ_{01})				-0.43(.13)*
Aggregate Autonomy (γ_{02})				0.52(.37)
Variance components (random effects)				
Residual (σ^2)	4.53(.02)**	4.56(.04)**	4.45(.04)**	4.45(.04)**
Intercept (τ_{00})	0.61(.11)**	0.79(.23)*	0.72(.22)*	0.62(.19)*
Slope of Individual-level trust(τ_{11})			0.123(.04)*	0.124(.04)*
Slope of Individual-level ICR(τ_{22})			0.108(.04)*	0.106(.04)*
Slope of Individual-level sociability(τ_{33})			0.008(.00)*	0.007(.00)*
Slope of Individual-level competition(τ_{44})			0.003(.00)*	0.003(.00)*
Slope of Individual-level autonomy(τ_{55})			0.032(.01)*	0.033(.01)*
Model summary				
Deviance statistic	367784.60	134668.23	134150.97	134139.78
Number of estimated parameters	3	8	18	20

Note. * $p < .05$ ** $p < .001$. Standard errors are shown in parentheses. Omitted from this table are correlations between intercept and five slope coefficients in Models 3-4. These account for 5 estimated parameters.

higher trust in others and findings close relationships important positively affects life satisfaction.

Hypotheses regarding country-level predictors were partially supported. Aggregate competition negatively predicted life satisfaction ($\beta = -0.43$, $p < .05$). Therefore, high country-level competition negatively influences life satisfaction. Aggregate autonomy predicted life satisfaction in the expected positive direction, however it was not significant ($\beta = 0.52$, n.s.). It is not surprising that some of these coefficients are not significant given that the number of countries in our sample is 24.

The variance of all the slopes was also significant, showing that countries differ in the slopes of the predictor variables on life satisfaction.

Discussion

The current study utilized the World Values Survey to investigate the influence of interpersonal relationship relevant variables in predicting life satisfaction. Individual level predictor variables were examined to determine whether individual differences in relationship enhancing traits and individualism predict life satisfaction. It was hypothesized that trust, importance of close relationships, and sociability would positively predict satisfaction. Autonomy was expected to positively, and competition negatively, predict satisfaction. Country level individualism variables were created by aggregating individual level responses, which were then examined to assess how they influence life satisfaction across countries. It was hypothe-

sized that higher aggregate autonomy and lower aggregate competition would predict higher life satisfaction.

The multilevel modeling analyses revealed that trust and importance of close relationships (i.e., affiliation) positively predicted life satisfaction, thus lending support for relationship enhancing traits bearing importance for subjective well-being (DeNeve, 1999). Sociability also predicted life satisfaction, but the effect was small. Trust in other people has been characterized as a part or form of social capital (e.g., Inglehart, 1997; Putnam, 1995, 2000), and individual-level trust in others has been associated positively with well-being across cultures (Elgar et al., 2011; Helliwell & Putnam, 2004; Yip et al., 2007). Regarding importance of close relationships, one study also found that having motivations and abilities to socially belong (i.e., affiliation) is positively related to life satisfaction (Pillow, Malone, & Hale, 2015). Satisfactory relationships with family and friends has been positively associated with life satisfaction in most countries (E. Diener & M. Diener, 1995). Overall, the present findings regarding relationship enhancing traits support studies that have found that relationship quality is more related to measures of individual well-being like health and subjective well-being than quantity of interactions (Fiorillo & Sabatini, 2011; Pinquart & Sörensen, 2000).

These findings are also consistent with theories that view relationships as important for individual well-being. Self-determination theory (Deci & Ryan, 1991; Ryan & Deci, 2000, 2001; Ryan, Sheldon, Kasser, & Deci, 1996) postulates that relatedness is one of the basic psychological needs, and that fulfillment of such a need is important for well-being (e.g., life satisfaction). Relatedness comprises of strivings related to caring and connecting with others, feelings of authentically relating with others, and having generally satisfying social involvements (Deci & Ryan, 1991). Higher daily experiences of relatedness have been positively associated with well-being (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Ryff proposed a multidimensional model that posits 'positive relations with others' (having trusting, warm, empathetic, and satisfying relationships) as being one of the six dimensions of well-being (Ryff, 1989a, 1989b; Ryff & Keyes, 1995).

The study found only partial support for the hypothesis regarding individualism and its components. While individual-level autonomy predicted life satisfaction in the expected positive direction, the effect was very small. This warrants further exploration. Currently, there is some disagreement in the literature about whether autonomy is a universal basic need across cultures in line with self-determination theory, or whether it only demonstrates functional significance in more individualistic Western countries (Chirkov, Ryan, Kim, & Kaplan, 2003; Oishi, 2000; Ryan & Deci, 2000). Likewise, since the present study asked participants about how autonomous they were and did not employ a full-scale measure to assess horizontal individualism, it is possible that the study tapped into a different conceptualization of autonomy. For example, individualistic autonomy has been equated with being independent or separate from others, which is contrasted with autonomy conceptualized as agency and not separateness from others (Chirkov et al., 2003; Kagitcibasi, 1996). Competition at the individual level was found to be unrelated to life satisfaction, suggesting it may be the case that competition as assessed in the present study does not have an important negative impact on life satisfaction. The lack of significant results at the individual level contradicts findings from studies that suggest competition between people has a negative influence on individual well-being (e.g., Hibbard & Buhrmester, 2010; Tempelski et al., 2012).

Autonomy at the country level positively predicted life satisfaction. While the result was not significant, an increase in the number of countries might provide more power to detect a significant effect. Inglehart, Foa, Peterson, and Welzel (2008) likewise found that country-level sense of freedom of choice (akin to autonomy) positively predicted life satisfaction. The present study corroborates findings that horizontal individualism positively relates to life satisfaction (Oishi, 2000), though that study found the effect to be stronger in individualistic countries. At the country level, competition negatively predicted life satisfaction, supporting findings that vertical individualism has a negative influence on life satisfaction (Oishi, 2000).

For studies that want to undertake a more detailed level of analysis regarding individualism, findings from the present study demonstrate the need to analyze individualism at the subtype level, and not just as a unitary construct.

While studies that assess individualism as a singular construct find it relates positively to life satisfaction (e.g., Yetim, 2003), the present study demonstrates that the relationship is more complex when vertical and horizontal individualism are distinguished. Furthermore, the study results show they share a small positive correlation at the individual level, and a weak negative correlation at the country level, indicating they should be assessed as separate constructs. Other studies have likewise found small correlations between the vertical and horizontal individual components ($r = 0.27$; Gouveia et al., 2003). In line with these results, research has demonstrated that amongst individualistic countries, life satisfaction differences exist between those that are comparatively higher on the horizontal dimension in comparison to the vertical dimension of individualism (Ferguson, Kasser, & Jahng, 2011).

Limitations and Future Directions

Many of the measures in the World Values Survey are single item or averaged item measures not specifically designed to assess the variables in the current study, which does not allow for a comprehensive assessment of either the predictor or outcome variables. For example, the present study used single-item measures of competition and autonomy to assess vertical and horizontal individualism, instead of a more traditional measure like Singelis, Triandis, Bhawuk, and Gelfand's (1995) individualism and collectivism scale. If one were to examine the full scale, items relating to vertical and horizontal individualism cover more nuances than just blanket autonomy and competition. Therefore, the items and variables used in the present study should be considered representations or proxy measures of constructs, and limitations concerning these measures should be acknowledged.

Future studies should therefore aim to replicate the present study using more robust and validated measures. While the present study focused on 'to what extent' the variables related to life satisfaction, conclusions cannot be made about 'why'. Studies have found that individualists versus collectivists differ on the what information they use to make judgements concerning life satisfaction (Suh, Diener, Oishi, & Triandis, 1998). For example, emotional feelings are an important determinant of well-being in

individualistic societies, while considerations of norms also have an influence in collectivistic ones (Suh et al., 1998). While it is beyond the scope of the present study, explanations for the relationships that emerged in the present study should be investigated in future research. Finally, the findings of present study concerning relationship enhancing traits can be informative for future intervention or educational programs that aim to enhance personal well-being. Focusing on improving relationship enhancing traits (especially trust and affiliation) as one area of development in these programs could have a beneficial impact.

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BURNOUT AT THE SUPERMARKET: TESTING THE RELEVANCE OF PERSONALITY AND STRESSFUL SITUATIONS

BURNOUT EN EL SUPERMERCADO: EVALUANDO LA IMPORTANCIA DE LA PERSONALIDAD Y SITUACIONES DE ESTRÉS

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Cómo referenciar este artículo/How to reference this article:

Colom, C. C. & Contreras, M. J. (2018). Burnout at the Supermarket: Testing the Relevance of Personality and Stressful Situations [Burnout en el Supermercado: evaluando la importancia de la personalidad y situaciones de estrés]. *Acción Psicológica*, 15(2), 27–38. <https://doi.org/10.5944/ap.15.2.22154>

Abstract

Professional burnout includes psychological implications that have been studied in relation to job positions in which personal contact is frequent. However, there might be differential vulnerability with respect to the likelihood of showing increased symptoms of the syndrome. The present study analyzes two risk paths: (a) the increased contact with clients that characterizes some job positions,

and (b) the relationship between burnout and the combination of the personality traits considered by the Big Five model. To do so, two groups of supermarket workers were compared: cashiers and department managers. To test the relevance of the situation, here we analyze whether cashiers present higher burnout scores than department managers due to their greater level of stressful contact with clients. Furthermore, personality traits were measured and combined to estimate the efficient use of skills and knowledge to achieve certain social goals (*P*

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Retrieved: May 29, 2018.

Accepted: September 5, 2018.

factor). The results show no significant differences in burnout between cashiers and department managers. Individual differences in P scores, however, showed substantial negative correlations with burnout scores: greater burnout scores were associated with increased vulnerable personalities (low levels of extraversion, agreeableness, conscientiousness, emotional stability, and openness). It is suggested that interventions tailored to the workers' P levels may help to increase protective factors against burnout in inescapable stressful situations.

Keywords: Burnout; Personality; Supermarket workers; Short Burnout Questionnaire; Maslach Inventory.

Introduction

According to Maslach, Jackson, and Leiter (1997) "burnout is a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with other people in some capacity" (p.192).

The first studies about this syndrome focused on healthcare professions (Freudemberger, 1974; Maslach & Jackson 1982). It was thought that the syndrome emerged from the social interaction with patients. Based on these observations, the *Maslach Burnout Inventory* (MBI, Maslach & Jackson, 1981, 1986) was designed to evaluate the *burnout* construct in a standardized way.

Initial studies with the MBI on this type of healthcare professions identified three factors: emotional exhaustion, depersonalization, and personal accomplishment. However, research on burnout has not been limited to healthcare. It is usually assumed that the syndrome results from chronic stress, essentially work-related, induced by the working conditions experienced across occupations and activities. Burnout has been documented in athletes (Fender, 1989; Garcés de los Fayos & Cantón, 1995), managers (Levinson, 1981) and non-professional activities such as parenting (Procaccini & Kiefaber, 1983) or couple relationships (Pines, 1988).

However, the three factors enumerated above were ambiguous when analyzing data in further non-healthcare samples. For example, the factors of emotional exhaustion and depersonalization overlapped and it was difficult to distinguish them. For this reason, in later editions of the MBI, the MBI General Survey (MBI-GS)-a theoretical and operational reworking of the burnout construct- was applied to non-healthcare professions (Maslach et al., 1997). Specifically, burnout was redefined as "a crisis in one's relationship with work, not necessarily as a crisis in one's relationship with people at work" (pp. 208-209). The three modified scales were renamed exhaustion, cynicism, and professional efficacy.

Some studies have proposed the construct of "emotional labor", which has been related to burnout in some studies, yet no consistent empirical results have been found (Shankar & Kumar, 2014). In these "emotional labors", the worker must show emotions according to a "social desirability" or company norms, regardless of their real emotional state. This would occur, for example, in jobs that are carried out face to face with the clients, where the famous corporate saying ("The customer is always right") is applied. In non-congruent situations where the worker must display certain emotions that he/she does not feel or feels differently, it is necessary to make an effort to hide or exaggerate real emotions. This effort is referred to as "emotional labor" (Hochschild, 1983).

There are studies that document a direct relationship between emotional dissonance and professional burnout (Heuven & Bakker, 2003; Zapf, 2002). In Spain, Moreno-Jiménez et al. (2004) study on the professional burnout carried out with 485 supermarket cashiers in the Community of Madrid found that cashier work has a strong emotional component. The interaction with clients exceeds 80 % of the time invested in the working day, requiring expressing positive emotions and controlling/inhibiting negative emotions. This continuous emotional management can create conflict, both with the mood of the worker, and with the situation (e.g., conflictive clients or problems with payment of products), probably causing emotional dissonance. Further studies have obtained results in this regard, showing that workers in the "first line" of contact with the client are more likely to experience labor exhaustion due to the high frequency and repetitive-

ness of their work, especially in terms of emotional exhaustion and cynicism (Johnson, Holdsworth, Hoel, & Zapf, 2013; Singh, 2000).

On the other hand, there are also studies connecting burnout and undesirable physical consequences in the health of workers, and consequently, with reduced well-being. This could also include an economic impact associated to the medical leave that workers sometimes need due to these physical consequences. For example, Kottwitz, Salathé, Buser, and Elferin (2017) reviewed the cost of lower back pain associated with presentism, absenteeism, and work disablement in Switzerland. These authors showed that musculoskeletal pain is a major health problem that causes costs of 1.3-3.2 % of the gross domestic product. Only lower back pain accounts for approximately 6.1 % of the total expenditure on medical care in Switzerland (Wieser et al., 2011). Apart from lower back pain, these authors describe the emotional burden associated with some jobs that combine stress at work, family stress, and economic stress, resulting in a reduction in their quality of life (Elfering & Mannion, 2008). Kottwitz et al. (2017) related emotional work with musculoskeletal pain in supermarket cashiers, starting from a preventive model of occupational health as a demonstrated priority (Elfering, 2006).

The present study proposes that it is feasible that the worker's state of mind, and his/her interaction with the employment situation and emotional components mentioned above, may be linked to an association between suffering burnout and the most stable personality characteristics of a worker.

In this regard, Roberts and DelVecchio (2000) published a meta-analysis of 152 longitudinal studies in which 3,217 test-retest correlations were considered for a series of personality traits. In those studies, 55,180 people had been evaluated. The results indicated that the stability of personality increases from 0.31 in childhood to 0.54 during university, to 0.64 at the age of 30 years and reaches a stable maximum of 0.74 at the age of 50 years (remaining stable until approximately the age of 70 years). The observed increased stability of personality traits may be attributed to the fact that there are greater chances for

choosing environments consistent with the individual's identity.

From this perspective, an individual with high levels of emotional instability and introversion would probably be more vulnerable to the emotional exhaustion when exposed to a situation of systematic interaction with clients. On the contrary, someone with high levels of extraversion and emotional stability would have (and could spontaneously develop) more efficient coping strategies for controlling and regulating emotions (Caspi et al. 2014; Lluís-Font, 2005).

There are previous studies relating burnout and stable personality traits (e.g., Alarcon, Eschleman, & Bowling, 2009; Langelaan, Bakker, Lorenz, van Doornen, & Schaufeli, 2006; Swider & Zimmerman, 2010).

Swider and Zimmerman (2010) noted the importance of including individual-level predictors in research that typically centers on occupational- or organizational-level predictors of job burnout. Their conclusions suggest that the use of a Five Factor Model -based personality assessment as part of the selection systems would better inform organizations/companies of those employees more likely to burnout. Authors also highlighted that using personality testing during the selection processes may allow to screen out individuals who have traits that would predispose them to experience job burnout, particularly for jobs that frequently tend to induce burnout in employees: "Organizations that make selection decisions based on these traits may benefit in multiple ways, as some of the traits that are related to job burnout (conscientiousness, neuroticism, and agreeableness) have also been found to predict other important work-related outcomes such as job performance (conscientiousness and neuroticism for performance in most jobs and agreeableness for performance in customer service and team-based jobs)" (p. 501). In a previous study, Langella et al. (2006) demonstrated that neuroticism dominated the "picture burnout"; their results showed that burnout seems to be primarily related to neuroticism.

In a meta-analysis study, Alarcon et al. (2009) recommended that, to better understand the process of burnout, researchers should explore the mechanisms through which

personality influences burnout. Authors found that some personality traits yielded stronger relationships with burnout than others. For example, Emotional stability, positive affectivity, and negative affectivity had relatively stronger relationships with emotional exhaustion than the other personality traits. In the same way, high agreeableness reflected favorable perceptions of people in general. Authors concluded that it is unlikely for agreeable individuals to experience negative responses (e.g., depersonalization) towards people in specific domains, such as the workplace.

Alarcon et al' meta-analysis concluded that personality variables must be included as predictors in future research on burnout, showing that more research is needed to examine personality and burnout relationships. Following this suggestion, the present study focuses on the general factor of personality (P), as no studies have been found that relate P factor and burnout. van der Linden et al.'s (2017) comprehensive meta-analysis revealed greater levels of emotional intelligence in people characterized by higher levels of extraversion, agreeableness, conscientiousness, emotional stability, and openness. The combination of these traits in the appropriate direction would increase the probability of efficiently using skills and knowledge to achieve desired social goals.

In summary, the present work includes the proposals of previous studies that suggest evaluating personality in relation to the problem of burnout, starting from the Big-Five model (i.e., Alarcon et al., 2009; Swider & Zimmerman, 2010), but adding the integrating dimension proposed by the general personality factor model (i.e., Musek 2007). Therefore, the present study supports the framework initiated by previous studies that have used the dimensions of the Big-Five, but also adds an integrating analysis in a single score that calculates P and which has not been analysed in previous studies. In fact, P can be considered as a more parsimonious summary score, as it yields a single indicator, yet it parts from a combination of traits considered in the Big Five Model. The P factor usually results from the following combination: high openness (A+), high responsibility (R+), high extraversion (E+), high cordiality (C+) and low neuroticism (N-): A+R+E+C+N-. Therefore, it is noteworthy that this unique score stresses a conceptual definition related to the use of

skills and knowledge to achieve social goals. In the present study, we will analyze whether those skills could be a protective factor against burnout.

We acknowledge that the psychological relevance of the P factor (also known as GFP, General Factor of Personality) is still controversial (Demetriou et al., 2018). However, the exhaustive analyses of Loehlin (2012) led to the following conclusion: "a GFP is a fairly generalizable and quite ready measurable phenomenon" (p. 262). This researcher obtained similar GFPs analyzing broadly and narrowly defined personality scales, as well as from self-reports and report provided by others. Finally, Loehlin obtained GFPs from eight quite different personality inventories and computed their correlation with a set of criterion variables. In this regard, the correlation with communication skills was 0.20, the correlation with friendliness was 0.24, and the correlation with creativity was 0.29. Using a longitudinal design, Flores-Mendoza, Escorial, Herrero, and Colom (2018) showed that greater externalizing behaviors assessed in childhood predict lower P scores ($r = -0.24$) and higher socialization difficulties ($r = 0.20$) evaluated fifteen years apart.

In view of the considerations described so far, the present study predicts that individuals will vary in their vulnerability to situations that evoke emotional distress according to their P scores: the lower the P scores, the higher the vulnerability. Two are the main goals of this study. First, to compare supermarket workers of different sections characterized with high or low contact with clients. This is relevant here because this defines an external factor that the worker cannot control in any way. According to previous studies (Moreno et al, 2004), we predict that greater levels of contact with clients will reveal higher scores on burnout than lower levels of contact with clients. The second aim focuses on the individual instead of on the situation. Here we predict that lower P scores, resulting from a combination of the traits considered by the Big Five Model –extraversion, agreeableness, conscientiousness, emotional stability, and openness– (Ashton, 2018; Chamorro-Premuzic, 2014), will increase vulnerability in the work setting considered here (supermarket) regardless of the supermarket section. In short, the design conceived for the present study allows testing the strength of the situation against the relevance of the individual in ex-

plaining the emergence of burnout symptoms assessed through standard and well validated inventories.

Method

Participants

In this study, twenty-six employees of a supermarket located in the West area of the 'Comunidad de Madrid' completed a set of questionnaires assessing the variables of interest. Thirteen were cashiers and thirteen worked in other departments. Their age ranged from 22 to 42 years ($M = 30.3$, $SD = 4.78$). Overall, there were 11 men and 15 women. Regarding their educational level, 58 % had completed secondary education, 23 % were undergoing or had completed university studies, 11 % had finished high school, and 8 % had completed primary education. Regarding their achieved grades (possible range 0-10), most were in a range of 6-7 (62 %) and 5-6 (27 %). The number of years that participants had been working in the service sector varied from 2 to 14 years. Almost 60 % of the participants had been in the current position for at least 2 years (See Table 1 in the Results Section, where data on these variables are presented, separated according to cashiers / section managers).

All participants were informed of the objectives and tasks of the study and signed an informed consent form, after being guaranteed their data protection, anonymization of results and possibility of leaving the study at any time if they so wished, in accordance with the Declaration of Helsinki.

Measures

Sociodemographic questionnaire. A brief questionnaire was administered asking about the following variables: Educational level of the participants and their parents (1 = primary education, 2 = compulsory education, 3 = high school, and 4 = university studies), Average grades (from 0 to 10), Years working, and Years in the current position.

MBI-GS (Maslach Burnout Inventory, General Survey; Maslach, Jackson, & Leiter, 1996; adapted for Spain by Moreno-Jiménez, Rodríguez-Carbajal, & Escobar, 2001). This inventory includes 16 items answered using a scale of 7 points ranging from 0 (never) to 6 (always). The three scales included in the MBI-GS are: exhaustion, cynicism, and professional efficacy. The MBI-GS evaluates the construct as a crisis at the work place, but not necessarily with respect to work colleagues. Exhaustion is measured through five items (e.g., "I feel tired when I get up in the morning and I have to face another day on the job"). Cynicism is measured through five items (e.g., "I have become more cynical about whether my work contributes anything"). And Professional efficacy is measured through six items (e.g., "In my opinion, I am good at my job"). The Cronbach's alpha value obtained in the present research was 0.91, slightly higher than the obtained in other studies with supermarket workers: Baldissarri, Andrighetto, and Volpato (2014) reported a value of 0.8 and Moreno et al. (2014) computed a value of 0.82.

CBB (Short Questionnaire of Burnout; in Spanish: Cuestionario Breve de Burnout; by Moreno, Bustos, Matallana, & Miralles, 1997). It includes 21 items that are answered using a 5-point scale ("1" never, "2" rarely, "3" sometimes, "4" frequently and "5" on most occasions). The history of the syndrome, its elements and its consequences are explored. This questionnaire yields an overall evaluation of the construct, as well as of its antecedents and its consequences. The cut-off point is set at 25 points, from which it is considered that the individual presents the syndrome. Its relationship with the MBI has been studied and the results suggested that it does not seem adequate for the direct evaluation of the specific components of the syndrome. Nevertheless, it provides an assessment of some *burnout* elements. This questionnaire also measures the possible consequences of burnout in environments beyond the workplace (e.g., "Work is affecting my family and personal relationships"). The α value found in the present study was 0.90. Again, this value is slightly higher than the reported in other studies: Moreno-Jiménez et al. (1997) computed a value of 0.74.

NEO-FFI (Neo Five-Factor Inventory; Costa & McCrae, 1999). This widely administered test taps the personality traits of the Big Five model. It includes 60 items

answered on a scale ranging from "0" (Totally disagree) to "4" (Strongly agree). The five traits that the NEO-FFI assesses are (the α values obtained in the present study are shown in parentheses): *Extraversion* ($\alpha = 0.88$), *Agreeableness* ($\alpha = 0.93$), *Conscientiousness* ($\alpha = .88$), *Neuroticism* or Emotional Instability ($\alpha = 0.74$), and *Openness* ($\alpha = 0.87$).

Procedure

After signing the informed consent, 30 workers were given a booklet with all the questionnaires described above, explaining how to complete their personal data and inventories. Participation was voluntary and they did not receive any financial compensation. Twenty-six questionnaires were returned on time.

Analyses

First, mean scores were computed for the variables of interest. Furthermore, a global score corresponding to the *P factor* was calculated summing the scores in extraversion, agreeableness, conscientiousness, emotional stability

(neuroticism reversed), and openness. Although the best way to estimate P scores is computing a factor analysis (Loehlin, 2012), here, because of the small sample size, we simply considered the obtained raw scores to obtain a general summary score for each participant. Although this is not the ideal scenario to obtain the most refined scores, it has been shown that the correlation between factor and raw scores are usually quite high. Thus, for instance, the correlation between the IQ scores obtained from the simple summation of the Wechsler subtests' scores and the scores on a general factor (*g*) obtained after computing a factor analysis from the Wechsler subtests is higher than 0.9 (Jensen, 1980).

Second, the differences in means between groups (cashiers vs section managers) in the variables of interest were calculated. Nevertheless, the effect size (*d*) was also calculated. The obtained effect sizes were interpreted according to Cohen (1992): an effect size of between 0.2 and 0.3 would be a small effect; around 0.5, an average effect; and from 0.8, a large effect. Finally, the correlation matrix was computed. Non-parametric Spearman correlations were reported.

Table 1.

Sociodemographic variables and psychological measures; descriptive statistics (means and standard deviations), non-parametric statistic, p values and effect sizes (Cohen's d).

	Cashier (n = 13)		Section (n = 13)		Non-parametric contrast (Mann-Whitney)	Sig.	Cohen's d
	Mean	SD	Mean	SD	U	p	d
SOCIODEMOGRAPHIC							
Educational level	2.54	0.97	2.46	0.97	80.00	.79	0.08
Academic grades	1.77	0.44	2.38	1.55	76.00	.61	0.42
Father's educational level	2.77	0.72	2.23	0.83	53.50	.08	0.66
Mother's educational level	2.85	0.90	2.23	0.92	53.50	.09	0.67
Time working	7.23	3.99	6.46	2.11	78.50	.75	0.31
Years in current position	3.54	2.99	2.46	2.06	67.50	.33	0.49
PSYCHOLOGICAL MEASURES							
MBI	9.23	2.37	9.26	2.06	84.00	.98	0.01
CBB	55.31	11.66	53.07	6.81	81.50	.87	0.29
Extraversion	32.23	7.11	32.46	8.14	83.00	.93	0.03
Agreeableness	27.54	7.48	22.77	10.98	71.00	.48	0.45
Conscientiousness	32.92	3.64	28.61	5.63	43.50	.03	0.80
Neuroticism (-) (Emotional stability)	24.00	4.65	26.15	5.81	59.50	.19	0.38
Openness	27.92	7.78	27.31	6.85	72.50	.53	0.09
P Factor	144.61	21.17	137.31	26.37	72.00	.52	0.28

Table 2.

Correlational matrix (Spearman correlations, $N = 26$). Cronbach's alpha values are shown at the diagonal).

	MBI	CBB	E	A	C	N-(ES)	O	P factor
MBI	.91	0.72**	-0.18	-0.66**	-0.16	-0.25	-0.47*	-0.65**
CBB		0.90	-0.50**	-0.47*	-0.02	-0.30	-0.33	-0.58**
E			0.88	-0.01	0.09	0.42*	0.52**	0.62**
A				0.93	0.33	0.24	0.34	0.68**
C					0.88	0.25	0.52**	0.45**
N-(ES)						0.74	0.27	0.47*
O							0.87	0.78**

Note. MBI-GS: Maslach Burnout Inventory, CBB: Short Questionnaire of Burnout, E: Extraversion, A: Agreeableness, C: Conscientiousness, N-(ES): Neuroticism (-) (Emotional stability), O: Openness, * $p < .05$, ** $p < .01$.

Results

Table 1 shows the descriptive statistics separately for each group factor (cashiers and section workers), along with the non-parametric contrast of means with p values and effect sizes (d).

The non-parametric contrast of means for all the sociodemographic variables and psychological measures revealed an absence of significant differences ($p > 0.05$) between cashiers and section workers (bakery, fishmongers, butchery, etc.), except *Conscientiousness*, where the Cashiers group showed a significantly higher mean than the Section group. Looking at the computed effect sizes (d), moderate sizes for parents' educational level (father 0.66; mother 0.67), years in the current position (0.49) and *Agreeableness* (0.45) can be observed. *Conscientiousness*

shows a large effect size (0.8).

These are the main results (Table 2): (1) burnout scales show a high correlation (0.72); (2) MBI-GS shows high correlations with *Agreeableness* and *Openness*; (3) higher CBB scores are associated with lower scores in *Extraversion* and *Agreeableness*; (4) some personality traits show moderate correlations (*Extraversion* $\times$ *Neuroticism* = 0.42, *Extraversion* $\times$ *Openness* = 0.52, *Conscientiousness* $\times$ *Openness* = 0.52), which support the probable relevance of P (Loehlin, 2012; Van der Linden et al., 2017); and (5) P scores show remarkable negative correlations with the burnout inventories (-0.65 with MBI-GS and -0.58 with CBB).

Figure 1 depicts the scatterplots representing the relationships between (a) burnout inventories (top panel), (b) P and MBI-GS (bottom left), and (c) P and CBB (bottom right).

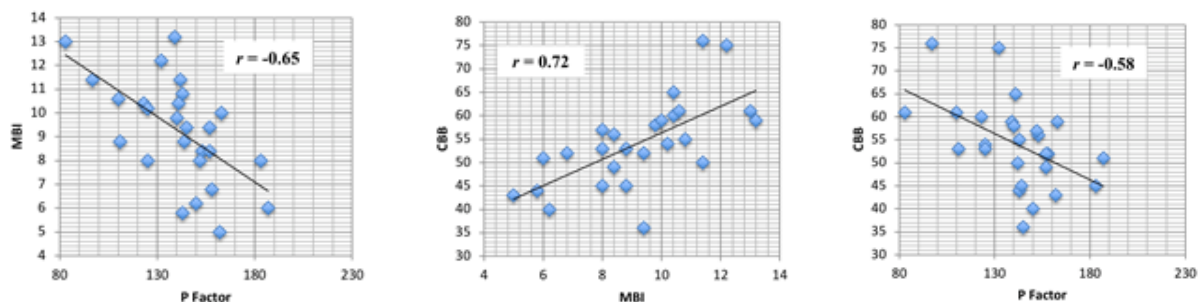


Figure 1. Figure caption: Scatterplots for MBI and CBB scores (top panel), P and MBI scores –bottom left–, and P and CBB scores –bottom right– ($N = 26$).

In sum, the reported results suggest that workers with higher scores on the burnout scales also show more vulnerable personalities (lower P scores) regardless of their working position in the supermarket, which suggests that individual factors may be more relevant than situational factors in explaining burnout symptoms.

Discussion and Conclusions

Here we have shown that the general factor of personality (GFP or P) obtained from the simple combination of the traits included in the Big Five Model are remarkably correlated with burnout scores obtained after administering two different standardized measurement scales (MBI-GS and CBB): the higher the P, the lower the burnout scores. Greater P values involve higher scores in extraversion, agreeableness, conscientiousness, emotional stability, and openness. This key finding suggests that individuals show distinguishable vulnerability levels to the burnout experience.

Nevertheless, the situation may also have one relevant role when accounting for the obtained burnout scores. We tested the potential relevance of the situation comparing cashiers and other sections' workers of a supermarket. The high emotional component associated with the cashier position may promote emotional burnout (Moreno et al., 2004). The processes of interaction with customers exceed 80 % of their working hours and across this long period cashiers must keep under control and manage their emotions, expressing the positive ones and inhibiting the negative ones. This systematic and persistent socio-emotional management can easily promote a dissonance between the cashier's emotional state and the demanding situation. However, we failed to observe substantial differences in burnout scores between the groups considered in the present study. This negative result underscores the relevance of the individuals' psychological architecture in coping with emotionally demanding situations. Here, this architecture was quantified through the individuals' P scores.

These key findings invite to think about tailored prevention programs aimed at minimizing the likelihood of presenting the burnout syndrome with regards to the in-

creased vulnerability of the workers. Individual differences in this vulnerability can be easily quantified measuring the traits comprised by the Big Five Model and computing *P scores*. This would be especially relevant for situations in which the most vulnerable individuals do not have any chance of avoiding stressful situations at the work place.

We suggest that the guidelines for these tailored prevention programs could be based on the knowledge accumulated so far in differential epidemiology. In this regard, Deary, Weiss, and Batty (2010) summarized and discussed the relationships between individual differences in personality and varied physical and mental health outcomes. They focused on four areas: (1) Personality and physical health, (2) Personality and precursors of the disease, (3) Personality relationships with behavior and sociodemographic risk factors that impact on health, and (4) Personality as a health risk biomarker.

It is now well established that individual differences in personality predict a host of health factors. Thus, for instance, high neuroticism and low conscientiousness are associated with high levels of certain markers of inflammation, morbidity, and mortality. Graham et al. (2017) analyzed 15 databases from several countries in which 44,095 individuals were considered, to find out whether individual differences in the Big Five traits predict premature mortality. Their results showed that *Neuroticism* ($d = 0.64$), *Conscientiousness* ($d = 0.54$), *Extraversion* ($d = 0.57$) and *Agreeableness* ($d = 0.57$) are relevant predictors across datasets.

These findings accumulated in differential epidemiology suggest intervention strategies should be aimed at attenuating the negative impact of having more vulnerable personalities. Basic psychological differences predict health inequalities, and, therefore, "the eventual aim of differential epidemiology is to reduce or eliminate these inequalities and provide information to help people toward their own optimal health through the life course" (Deary et al., 2010, p. 53).

Within the context of the study reported here, there are work situations that may promote and increase the likelihood of developing undesirable syndromes related to emo-

tional exhaustion. However, the situation is just one component of the equation relevant for understanding human behavioral differences. Individuals are not blank slates and their psychological architecture must be explicitly considered (Pinker, 2016; Plomin, DeFries, Knopik, & Neiderhiser, 2016).

Prevention programs could be especially designed for the most vulnerable personalities. Deary et al. (2010) made some proposals in this regard: (1) targeted surveillance (regular and costly monitoring may be directed at those most at risk), (2) tailor and develop effective interventions for certain individuals (intervention for low conscientiousness individuals should be accompanied with incentives in the short-term, regular monitoring and reminders, along with behavior modification by the health-care provider), (3) fitting drugs and personality profiles (a given drug that interferes activity levels and causes drowsiness is not appropriate for individuals with high extraversion scores), and (4) improve the relationships between health-care practitioners and individuals (individuals with lower agreeableness scores may require a greater investment of time before they trust the health-care provider).

Lower levels of *Extraversion*, *Agreeableness*, *Conscientiousness*, *Emotional Stability*, and *Openness* (higher P scores, for short) would increase the negative effects of high emotional situations that could promote professional burnout. The development and explicit training of social skills aimed at reducing the negative impact would benefit the workers, but also the institution in which they behave.

The results reported here invite to think about strategies aimed at preventing the appearance of the symptoms associated with the burnout syndrome. This strategy may increase its efficiency considering a personalized approach, adapted to the psychological architecture of the individuals. There are studies showing that intervention effects interact with personality differences: one size cannot fit all (Chow, Wagner, Lüdtke, Trautwein, & Roberts, 2017). The results reported here are consistent with this interaction: vulnerable workers, due to their personality profiles, should be supported in reducing the likelihood of presenting burnout signs in stressful environ-

ments. Moreover, due to the limited sample size in this study, it would be desirable to verify the findings in a greater sample in future studies.

Limitations and Future Directions

The present work has incorporated the analysis of the general personality factor to the study of burnout in supermarket workers. However, given the very small sample of participants in the study, it was not possible to calculate P using the most recommended factorial analysis method. In addition, the generalizability of the results obtained must remain pending until it is replicated in future studies. We hope that, in the future, other research on burnout will incorporate the analysis of this P factor in studies with a sufficiently large sample to validate those obtained with this sample of supermarket workers. It would be desirable to expand the limited focus of this study and add other professions that suffer from this syndrome (e.g., nurses, teachers, etc.), incorporating the proposed methodology of the P analysis.

Acknowledgements

The authors would like to thank Dr. Roberto Colom for his suggestions to improve the revised version of this manuscript and Dr. María Fernández Cahill for proofreading this manuscript.

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- ment Review*, 12, 237–268. [https://doi.org/10.1016/S1053-4822\(02\)00048-7](https://doi.org/10.1016/S1053-4822(02)00048-7)

PERSONAL GROWTH INITIATIVE AND SUBJECTIVE WELL-BEING: THE MEDIATION ROLE OF MEANING IN LIFE

INICIATIVA DE CRECIMIENTO PERSONAL Y BIENESTAR SUBJETIVO: EL ROL MEDIADOR DEL SIGNIFICADO EN LA VIDA

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Cómo referenciar este artículo/How to reference this article:

Freitas, C. P. P., Cankaya, E. M., Damásio, B. F., Haddad, E. J., Kamei, H. H., Tobo, P. R., & Koller, S. H. (2018). Personal Growth Initiative and Subjective Well-being: The Mediation Role of Meaning in Life [Iniciativa de crecimiento personal y bienestar subjetivo: el rol mediador del significado en la vida]. *Acción Psicológica*, 15(2), 39–50. <https://doi.org/10.5944/ap.15.2.22002>

Abstract

This study investigated the mediating effect of meaning in life on the relationship between personal growth initiative

and subjective well-being. The sample was composed of a total of 1,899 Brazilian participants who voluntarily took part in this study by completing the study survey. Based on the results of the structural equation modeling, the relationship between personal growth initiative and

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Retrieved: May 3, 2018.

Aceptado: October 26, 2018.

subjective well-being was found to be partially mediated by the presence of meaning in life. Age was found to influence the mediation, as older participants reported greater personal growth initiative and meaning in their lives. Limitations of the study, as well as directions for future research are discussed.

Keywords: Personal growth initiative; Meaning in life; Subjective well-being.

Introduction

Positive psychology is the scientific study of the mechanisms that facilitate the optimal functioning of people, institutions, and societies for improving quality of life (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). Positive psychology emerged as a reaction to the overwhelming emphasis given in the field of psychology to examining the negative aspects of human functioning and human pathology (Gable & Haidt, 2005). Positive psychology encourages psychologists and researchers to adopt a more balanced understanding of human experiences and functioning, and reminds them not only to explore human pathology and ill-functioning, but also to examine human strengths, virtues, and well-being (Seligman & Csikszentmihalyi, 2000). One of the core positive psychology concepts that has started to receive greater scientific attention from scholars is subjective well-being (SWB; Diener, Suh, Lucas, & Smith, 1999).

A growing body of research has been conducted on SWB over the last decades, thanks to advances in the field of positive psychology. SWB is defined as one's cognitive and affective evaluations of one's quality of life (Diener, Suh, Oishi, 1997). The construct consists of three components: (1) an individual's level of life satisfaction, and the presence of (2) positive mood and (3) negative mood (Diener et al., 1999). While life satisfaction constitutes the cognitive aspect of SWB, positive and negative moods constitute SWB's affective domain. Diener et al. (1999) describe individuals with high levels of SWB as those who possess greater levels of life satisfaction (e.g., positive judgments about their life), positive affect (e.g., gratitude,

hope) and low levels of negative affect (e.g., anger, sadness).

This study sought to extend the research on SWB by exploring the role of two psychological constructs –personal growth initiative (PGI) and meaning in life (MIL)– in promoting SWB.

The Relation Between PGI and SWB

An essential indicator of healthy personality is continued personal development and growth throughout one's lifespan (Robitschek, 1998). PGI is a construct composed of distinct cognitive and behavioral dimensions; it is defined as the ability to intentionally change personal beliefs and behaviors to grow as a person (Robitschek, 1998; Robitschek et al., 2012). The PGI construct includes four components: readiness for change, planfulness, using resources, and intentional behavior. While readiness for change (identifying opportunities for personal growth) and planfulness (planning strategies for self-improvement) characterize the cognitive mindset of PGI, the dimensions of using resources (searching for support to achieve personal growth) and intentional behavior (developing actions for self-improvement) capture the behavioral aspect of the construct (Robitschek et al., 2012).

The core characteristic of PGI is intentionality and active engagement in the process of self-improvement (Robitschek, 1998). The intentional growth process reinforces engagement in behaviors that aim to fulfill one's potential and optimize functioning in life. Highly intentional efforts to grow and develop are also seen to promote various aspects of well-being, including SWB (Robitschek & Keyes, 2009). Consistent with PGI theory, the findings of prior research support PGI as a predictor of several well-being structures (e.g., emotional, social, and psychological) (Robitschek & Keyes, 2009; Robitschek & Kashubeck, 1999) and revealing positive associations between PGI and components of SWB (e.g., life satisfaction, positive mood) (Robitschek & Keyes, 2009). Low levels of PGI, on the other hand, have been related to lower levels of anxiety, depression, and emotional distress (Robitschek & Kashubeck, 1999).

MIL and its relation to SWB and PGI

The literature contains differing conceptualizations of MIL, as well as perspectives on how to achieve life meaning (Steger, Frazier, Oishi, & Kaler, 2006). Despite these variations, the feeling that one's life is meaningful has been accepted as an essential determinant of optimal human functioning (Steger et al., 2006). Recently, a conceptual model of MIL that incorporates both the cognitive and motivational dimensions of the construct was proposed, and MIL was defined as "the sense made of, and significance felt regarding, the nature of one's being and existence" (Steger et al., 2006, p. 81).

MIL has been viewed as an important indicator of greater well-being (Cohen & Cairns, 2012; Steger, Shin, Shim, & Fitch-Martin, 2013). The findings of prior research show a positive association between higher levels of MIL and a wide range of well-being indicators (Cohen & Cairns, 2012; Kashdan & Steger, 2007; Steger, Oishi, & Kashdan, 2009; Steger, Oishi, & Kesebir, 2011; Steger et al., 2006; Yalçın & Malkoç, 2015). Furthermore, finding life meaningless has been associated with ill-being, negative emotions and depression (Park, Park, & Peterson, 2010; Steger et al., 2006).

MIL has two components: presence of meaning and search for meaning. While the presence-of-meaning dimension measures cognitive appraisals that one's life is meaningful, search for meaning assesses one's general tendency to seek meaning in life (Steger et al., 2006). These two dimensions of MIL are independent and distinct from each other (Steger et al., 2006). More specifically, presence of meaning was found to be positively related to well-being and positive emotions, whereas search for meaning was positively associated with negative affect and a lower level of well-being (Steger et al., 2006).

Presence of MIL is interpreted as construct with positive life and psychological outcomes, since it has been found to positively associated to personal resources, such as self-esteem (Steger et al., 2006), hope and forgiveness (Yalçın & Malkoç, 2015), and several well-being indicators and components, like happiness (Cohen & Cairns, 2012; Steger et al., 2009), life satisfaction (Kashdan & Steger, 2007; Steger et al., 2006, 2009; Steger et al., 2011), positive affect (Steger et al., 2006, 2009, 2011; Yalçın &

Malkoç, 2015) and subjective well-being (Doğan, Salmaz, Tel, Salmaz, & Temizel, 2012). Also, presence of MIL is negatively associated with depression (Park et al., 2010) and negative affect (Park et al., 2010; Steger et al., 2006, 2009, 2011; Yalçın & Malkoç, 2015).

On the other hand, high levels of search for MIL are associated to lower levels of personal resources and well-being indicators (Kashdan & Steger, 2007; Steger et al., 2006, 2009, 2011; Yalçın & Malkoç, 2015). Search for MIL had shown negative relations with forgiveness (Yalçın & Malkoç, 2015), love, joy, self-esteem (Steger et al., 2006), happiness (Cohen & Cairns, 2012; Steger et al., 2009), life satisfaction (Kashdan & Steger, 2007; Steger et al., 2006, 2009, 2011; Yalçın & Malkoç, 2015), positive affect (Steger et al., 2006, 2009, 2011; Yalçın & Malkoç, 2015) and subjective well-being (Doğan et al, 2012). Moreover, positive associations were found between search for MIL and depression, neuroticism, and negative affect (Steger et al., 2006).

Given the fact that presence of MIL is linked to desirable life and psychological outcomes and search for MIL is often reported to associated with undesirable outcomes (Steger et al., 2009), presence of MIL is viewed as an indicator of adaptive adaptive functioning and has been utilized when examining MIL in relation to positive psychological constructs (i.e., Battersby & Phillips, 2016; Yalçın & Malkoç, 2015).

MIL is also included as an essential concept in the growth literature (Taubman-Ben-Ari, Ben Shlomo, & Findler, 2012). This is because the growth process involves changes in the meaning one attaches to one's life (Taubman-Ben-Ari & Wientroub, 2008). Moreover, in an earlier Australian study, personal growth was reported to be an important source of MIL across lifespan (Prager, 1996). Very recently, personal growth has been identified as an important source of MIL in two qualitative inquiries conducted with samples of undergraduate and graduate students (Hill et al., 2013, 2015). Empirical research lends support to the theoretical assumption of a relationship between MIL and personal growth by revealing a strong positive association between them (e.g., Ivtzan, Chan, Gardner, & Prashar, 2013; Kashdan & Steger, 2007). Specifically, presence of MIL is positively associated with

PGI (Ivtzan et al., 2013) and growth behavior (Kashdan & Steger, 2007).

The Current Study

Despite the theoretical and preliminary empirical relations among PGI, MIL, and SWB, and their relevance to optimal functioning, no studies were found that examine the underlying mechanism among them simultaneously. In light of the proposed theoretical relations among PGI, presence of MIL, and SWB elaborated in the preceding paragraphs, a meditational model was hypothesized to describe their inter-relationships.

Given the independent variable of this study, SWB, and the fact that the two distinct components of MIL, presence of MIL and search for MIL, found to have opposite patterns of correlations with well-being in previous research studies, only the presence of MIL was examined as an indicator of life meaning in this study. More specifically, we hypothesized PGI as a predictor of SWB, and explored whether presence of MIL serves as a mediator on the relation between PGI and SWB. We expected to find that greater levels of PGI promote greater degree of presence of MIL, both of which, in turn, can predict greater levels of SWB.

Method

Participants

The participants consisted of 1,899 Brazilians whose age ranged from 18 to 88 years ($M = 38.7$, $SD = 16.1$). The majority of participants were female (64 %), with a mean age of 38.6 ($SD = 16.1$). Based on the Brazilian Institute of Geography and Statistics (IBGE) guidelines (IBGE, 1999), 756 of participants (40 %) were classified as young adults, 838 of participants (44 %) were mid-adults, and 305 of participants (16 %) were elders. With respect to the marital status of participants, 46 % of the sample was single, 30 % was married, 8 % was divorced, 11 % was in a stable relationship, and the remaining 3 % of the sample was widowed.

Participants were reached through various recruitment methods, including personal and media invitations, outreach by a research recruitment company, and recruitment within social and occupational institutions. While 62 % of the completed questionnaires were gathered through a web-based platform, the remaining 38 % of completed survey responses were collected in paper-and-pencil form.

Instruments

Sociodemographic questionnaire. This questionnaire was used to assess socio-demographic characteristics of the sample.

Personal Growth Initiative Scale – II (PGIS-II, Robitschek et al., 2012, Brazilian version adapted by Freitas, Damásio, Kamei, Tobo, Koller, & Robitschek, 2018). The PGIS-II aims to evaluate the intentional growth and change process. The instrument is a 16-item Likert-type scale item (ranging from 0 – Disagree strongly to 5 – Agree strongly). In this sample, the coefficient alpha of the total scale was $\alpha = .91$, and PGI dimensions were as following: Planfulness, $\alpha = .86$, Readiness for Change, $\alpha = .78$, Intentional Behavior, $\alpha = .77$, and Using Resources, $\alpha = .75$. The goodness-of-fit indexes of the instrument for the higher-order four-factor solution were considered acceptable, suggesting the adequacy of the scale: CFI = .95, TLI = .93, RMSEA = .10 (90% I.C. = .09 – .10).

Meaning in Life Questionnaire (MLQ, Steger et al., 2006; Brazilian version adapted by Damásio & Koller, 2015). The MLQ is a 10-item scale that evaluates search for MIL, the intentional effort of individuals to find meaning in their lives, and presence of MIL, the cognitive appraisals of individuals whether life is meaningful. Each subscale (SMLQ and PMLQ) has five items and can be assessed separately from each other, which provides greater convenience for theoretical and empirical utilization of the measurement (Steger et al., 2006). Participants rated their agreement with each item on a 7-point Likert-type scale (ranging from 1 – absolutely untrue to 7 – absolutely true). In the current study, the MLQ presented satisfactory value of coefficient alpha for the subscale search for MIL ($\alpha = .89$) and presence of MIL ($\alpha = .88$).

and goodness-of-fit indexes (CFI = .95, TLI = .94, RMSEA = .15 (90 % C.I. = .15 – .16)).

Subjective Well-being. A composite score of SWB (CSWB) was calculated through a higher-order factor that results from the combination of life satisfaction, positive and negative affect (Busseri & Sadava, 2011; Linley, Maltby, Wood, Osborne, & Hurling, 2009). Life satisfaction was assessed through Satisfaction with Life Scale (SWLS, Diener, Emmons, Larsen, & Griffin, 1985, Brazilian version adapted by Gouveia, Milfont, Fonseca, & Coelho, 2009). The SWLS is a 5-items scale evaluates the general positive cognitive appraisals with satisfaction in life. The positive and negative affect were assessed through Positive and Negative Affect Schedule (PANAS, Watson, Clark, & Tellegen, 1988; Brazilian version adapted by Galinha & Pais-Ribeiro, 2005). The PANAS is a two-factor scale, composed of 20 items. While 10 items of the instrument evaluate the general tendency of feeling positive emotions PANAS-PA, the remaining 10 items assess the general tendency to feel negative emotions PANAS-NA. In the sample of this study, the higher-order three-factor solution showed satisfactory goodness-of-fit indexes (CFI = .95, TLI = .95, RMSEA = .06 (90 % I.C. = .05 – .06)).

Data analysis

Descriptive statistics were calculated using the raw scores of the participants in each scale. To calculate the raw scores of all variables, the items of each construct were summed and divided by the number of items of each scale. To calculate CSWB raw score, the NA items were inverted. After this procedure, the items of NA, PA and SWL were summed. This sum was divided by total number of items of SWL, PA and NA. The zero-order correlations among PGI, CSWB and presence of MIL, as well as the partial correlation of these variables controlling for age, were calculated using the factorial scores of the variables. The factorial scores of each construct were obtained through confirmatory factor analysis.

In this study, only the presence of MIL subscale was included in the mediation analysis and used as an indicator of the latent variable, MIL. As elaborated in the preceding paragraphs, the presence of MIL subscale is distinct from

the search for MIL subscale, as it is associated with well-being and positive emotions. A mediation structural equation model (SEM) was implemented to evaluate a theoretical model in which levels of the presence of MIL mediated the relationship between PGI with CSWB. Age was inserted as a covariable into the SEM. The weighted least squares mean and variance adjusted (WLSMV), a recommended estimation method for *non-normally distributed* ordinal data, was used as estimation method (Muthén & Muthén, 2010). To evaluate the mediation effects, the 95 % confidence interval (CI) of the mediated effect was calculated via bootstrapping (1000 resampling).

The global model was assessed using the following model fit indices: the root mean square error of approximation (RMSEA), the comparative fit index (CFI) and the Tucker-Lewis index (TLI). According to these guidelines, the RMSEA value should be lower than .08 (with the 90 % confidence interval not exceeding .10), and the CFI and TLI values should be greater than .90 (Brown, 2006).

Results

Presence of MIL as a mediator of the relation between PGI and SWB

Table 1 shows the descriptive data and zero-order correlations among the study variables. As expected, significant positive relationships were found among PGI, presence of MIL, and CSWB, which were at the moderate and large level (Cohen, 1988).

Among the socio-demographic variables, age was the only background variable significantly related to all of the latent variables of the study. Thus, it was included in the subsequent analyses and evaluated as a covariate in the SEM model.

Table 1.

Descriptive Statistics and Zero-Order Correlations among Study Variables.

	M (SD)	1	2	3
1. PGI	3.7 (0.7)	—	.45*	.38*
2. PMIL	5.2 (1.4)	.46*	—	.49*
3. CSWB	2.1 (0.6)	.39*	.51*	—
4. Age	38.6 (16.1)	.14*	.30*	.17*

Note. N = 1,899 * $p \leq .001$. PGI = Personal Growth Initiative; PMIL= Presence of Meaning in Life; CSWB = Composite of Subjective Well-Being.

The results of the SEM are shown in Figure 1. As can be seen, PGI is positively related to presence of MIL ($\beta = .50, p < .001$) as well as to CSWB ($\beta = .35, p < .001$). The path from presence of MIL to CSWB is also positive ($\beta = .62, p < .001$). With regard to age as a covariate, significant positive path coefficients from age to PGI ($\beta = .15, p < .001$), and age to MIL ($\beta = .25, p < .001$) were observed. The fit indices of the model are satisfactory, as follows: [$\chi^2 = 5868.4^*$, $df = 8950$, $\chi^2/df = 0.65$, CFI = .94, TLI = .94, RMSEA (90% CI) = .05 (.049 – .050)], suggesting the plausibility of the model.

The results of mediation analysis reveal that presence of MIL partially mediated the relation between PGI and CSWB. The value of the standardized regression weight

and the value of the standardized regression weight of the specific indirect effect of PGI on CSWB, via MIL, was .310 ($p < .001$, 95% C.I. = .258 - .362). The presence of MIL accounted for almost half of the direct relationship between PGI and CSWB (47.18 %).

Discussion

In this study, we examined the theoretical relationships among PGI, presence of MIL, and SWB, and tested a mediation model to reveal the underlying interactions among these psychological constructs. Considering their theoretical associations, we proposed PGI and presence of MIL as predictors of SWB and assessed whether presence of MIL serves as a mediator of the relationship between PGI and SWB.

As expected, the correlation analyses showed significant positive associations among the study variables. The results of SEM further provided support to our hypothesis that PGI was positively associated with presence of MIL, which in turn enhanced SWB measured through a composite score of satisfaction with life and positive and negative affect. Lastly, mediation analysis revealed that

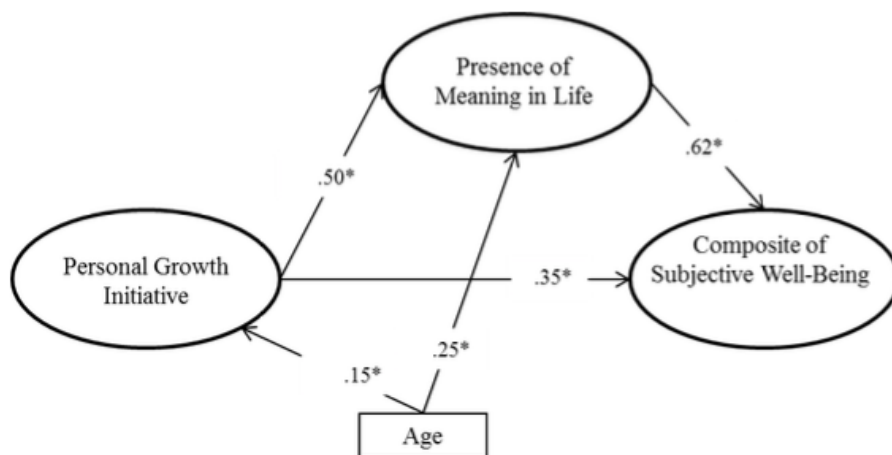


Figure 1. The structural model inter-relating PGI, presence of MIL, CSWB and Age. * $p < .001$. The items that compose each dimension are not shown to keep the chart simple and parsimonious. The effects between PGI and CSWB are the direct effects after controlling for the mediated effects.

of the total effect of PGI on CSWB was .657 ($p < .001$), presence of MIL partially mediated the relationship

between PGI and SWB, suggesting that individuals who devote greater intentional effort to self-development and growth are those who experience greater presence of MIL, and as a result they will encounter greater levels of SWB.

Much of the empirical research has examined PGI and MIL in relation to the eudaimonic aspect of well-being, likely because the pursuit of personal growth and meaningfulness has been considered a fundamental component of eudaimonia concerned with the fulfillment of one's potential (Ryff, 1989; Steger et al., 2006, 2013). The focus of the present study is on SWB, an aspect of hedonistic well-being. According to the hedonistic view, well-being refers to pleasure or happiness characterized by the presence of positive affect and the absence of negative affect. A distinction between these two well-being perspectives is that the hedonistic tradition focuses on one's evaluation of one's emotions, whereas the eudaimonic tradition is concerned with one's evaluation of one's life functioning in general (Navascués, Calvo Medel, & Bombin Martín, 2016; Ryan & Deci, 2001). Although PGI and MIL have been viewed as eudaimonic in nature, their inverse relationship with negative emotions, and positive relationship with positive emotions, reported in several empirical research studies (e.g., Sood & Gupta, 2014; Yalçın & Malkoç, 2015; Yang & Chang, 2014; Weigold, Porfeli, & Weigold, 2013) provide evidence that PGI and MIL are congruent with the hedonistic tradition (Steger et al., 2013). In the present study, the significant positive relationships among PGI, presence of MIL, and SWB lend further support to their relevance within the hedonistic perspective and suggest that individuals who make a greater conscious effort toward their personal development tend to report higher levels of pleasure. The same applies to those who feel their lives are meaningful.

Why do high levels of PGI and presence of MIL contribute to an increase in SWB? An answer to this question might be framed in terms of the theories of PGI and MIL. According to the PGI theory, individuals with greater levels of intentional growth tend to perceive life events and experiences as opportunities, and they engage in growth-seeking behaviors to benefit from those opportunities (Robitschek et al., 2012). For instance, when confronted with adversity, individuals with high PGI would be more likely to view adverse events or experiences as

challenges that can spur self-development and growth, which leads them to maintain positive emotions and minimize negative ones (i.e., frustration, sadness, anger, etc.). Presence of MIL, on the other hand, may foster greater levels of SWB, because individuals who feel their lives are meaningful tend to adopt a positive outlook on the world, to effectively engage and cope with everyday life, and to successfully regulate their emotions (Steger et al., 2013), all of which is associated with greater happiness and life satisfaction. Therefore, the more meaning people encounter in their life, the greater happiness they experience.

The mediating effect of presence of MIL on the relationship between PGI and SWB is important to highlight, as presence of MIL accounted for 47.18 % of the relationship, suggesting that it is an important route from PGI to SWB. This finding is not surprising, considering the fact that individuals with high levels of PGI have an overarching aim in life to grow and develop as humans, and they strive hard in the pursuit of this aim (Robitschek & Kashubeck, 1999), which may in turn comprehend their life meaning. In other words, the conscious, goal-directed effort to grow as a person may bring a sense of meaning to an individual's life, as the striving toward purpose in life has also been linked to greater presence of MIL (Steger et al., 2006).

Moreover, the partial mediation effect of presence of MIL on PGI and SWB accounted for nearly half of the variance in the mediation model. This finding implied the existence of other factors in this relation. For example, individuals with high levels of PGI tend to search for support and resources in order to achieve personal growth (Robitschek et al., 2012). Initial evidence suggested a significant association between support resources and SWB (Chang et al., 2017; Luyckx & Robitschek, 2014; Robitschek & Keyes, 2009). Therefore, future studies should investigate the mediating role of other variables such as social support or relevant personal resources in the relationship between PGI and subjective well-being.

Finally, age was positively associated with presence of MIL and PGI, but not with SWB. The significant positive effect of age on PGI and MIL suggests that greater levels of PGI and presence of MIL are experienced later in life. Age differences have been reported with regard to PGI

(e.g., Rapheal & Paul, 2012; Luyckx & Robitschek, 2014), indicating a positive association of higher levels of PGI and its dimensions with older age. The influence of age on MIL is also consistent with prior research, in which older participants were found to make more sense of their life experiences, despite dealing with the loss of loved ones, health problems, and physical decline (Battersby & Phillips, 2016; Steger et al., 2009). The impact of age on PGI and MIL may be due to the fact that as people get older, they have better knowledge of what strategies can help them to grow and boost their self-improvement process, and they have more clarity about what brings meaning to their lives. Moreover, as people age, they are more likely to experience higher levels of professional and personal stability (e.g., financial stability, maturity), which in turn may have a positive impact on levels of MIL and PGI. On the other hand, no effect of age on SWB was reported, supporting the idea that SWB is stable over the lifespan (Park et al., 2010).

Limitations and directions for future research

The results of this study should be interpreted cautiously, as it has some limitations. First, an important limitation is related to the exclusive use of self-report instruments in assessing psychological constructs, which may produce bias by leading participants to respond in a positive way. Second, there are shortcomings related to the cross-sectional design of the study. Because of the nature of the study, no cause and effect relationships can be determined between the study variables. Thus, future research utilizing a longitudinal design may strength our knowledge with regard to the impacts of PGI and MIL on SWB over time. Another limitation is related to the sample for this study, which was composed of a single ethnic population — Brazilian participants. Although our sample was diverse, with a wide age range from 18 to 88 years, and included participants from different Brazilian states, it may not be representative of other populations. Further studies aiming to replicate and advance our findings using ethnically diverse samples are needed.

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Conclusion

Despite its limitations, the current study presents a significant contribution to the existing literature on SWB and its relation to the personal positive characteristics PGI and MIL. The findings show a mediating effect of presence of MIL on the relationship between PGI and SWB, assessed through a composite score of positive affect, negative affect, and life satisfaction. The results of this study should be taken into consideration when developing evidence-based interventions to promote the positive development of individuals.

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THE ROLE OF PSYCHOLOGICAL STRENGTHS, COPING STRATEGIES AND WELL-BEING IN THE PREDICTION OF ACADEMIC ENGAGEMENT AND BURNOUT IN FIRST-YEAR UNIVERSITY STUDENTS

EL PAPEL DE LAS FORTALEZAS PSICOLÓGICAS, LAS ESTRATEGIAS DE AFRONTAMIENTO Y EL BIENESTAR EN LA PREDICCIÓN DEL ENGAGEMENT Y DEL BURNOUT ACADÉMICO, EN ESTUDIANTES UNIVERSITARIOS DE PRIMER CURSO

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Cómo referenciar este artículo/How to reference this article:

Merhi, R. Sánchez-Elvira-Paniagua, A., & Palací, F. J. (2018). The Role of Psychological Strengths, Coping Strategies and Well-Being in the Prediction of Academic Engagement and Burnout in First-Year University Students [El papel de las fortalezas psicológicas, las estrategias de Afrontamiento y el bienestar en la predicción del engagement y del burnout académico, en estudiantes universitarios de primer curso]. *Acción Psicológica*, 15(2), 51–68. <https://doi.org/10.5944/ap.15.2.21831>

Abstract

Two of the most significant challenges that higher education institutions are currently addressing is the

prevention of students' failure and drop-out, and the promotion of students' retention, success, and wellbeing. Within the framework of the demands-resources model, the present study explored the role that different variables play in predicting academic engagement and burnout, two

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Retrieved: May 6, 2018.

Aceptado: July 26, 2018.

relevant and distinct characteristics that have been previously related to students' well-being and academic performance. We applied a multivariate approach with this aim in mind to analyse the contribution of relevant psychological strengths in academic environments (resilience, personal initiative, and academic motivation), the perception of academic demands, procrastination and different coping strategies when approaching studies (persistence, avoidance and anxiety), student's affect and academic satisfaction. The contribution of the efficacy subscale of academic burnout as an independent personal resource and the consideration of the so-called core burnout were also assessed. A sample of 173 first-year students of 20 face-to-face teaching universities participated in this study. The results showed, on the one hand, the positive nature of academic engagement, predicted by personal resources, characterised by intrinsic motivation and efficacy, as well as academic persistence, high levels of well-being and academic satisfaction. On the other hand, the predictors of academic burnout were mainly the perception of academic demands, procrastination, and negative affect, besides, in a negative sense, low levels of engagement and intrinsic motivation. Likewise, core burnout showed the same pattern of predictors as burnout, except for engagement and intrinsic motivation.

Keywords: Academic burnout; Academic engagement; Psychological strengths; Academic demands; First-year students; Student's well-being.

Introduction

Preventing dropouts and promoting not only student retention but also academic success is an essential objective shared by international organisations and governments, researchers and universities (Michavila et al., 2012; Tinto, 2012). In this sense, the first year at the university seems to represent the most critical period for student retention. Although this moment of the transition to a different stage of life may involve positive changes and emotions, it may also increase the levels of uncertainty, anxiety and academic stress (Casuso, 2011; White, Slempp, & Murray, 2017), due to the necessary adaptation for a

new and unfamiliar environment that presents different demands and responsibilities and requires putting many personal resources into play (Tinto, 2012). Research on student dropout and failure in higher education (HE) consistently reveal that most cases occur during the first two academic years (Crue Universidades Españolas, 2018; European Commission, 2015). An extensive body of research on this problem has been conducted in the fields of education and psychology.

Increasing attention is being placed on students' well-being as the main objective of HE institutions (Harvard, 2016). Positive psychology, oriented toward optimal human functioning, personal development, and welfare, contributes to this issue by focusing on the main role of human strengths and resources (Seligman & Csikszentmihalyi, 2001). According to its postulates, positive education entails incorporating students' well-being as a priority objective in education (Salanova & Llorens, 2016; Seligman & Adler, 2018). Therefore, it will be necessary to investigate which variables and conditions promote and enhance, not only students' performance but also their well-being and which pose a threat. It is also essential to pay particular attention to the interaction of personal strengths and resources with academic demands, and their impact in significant areas, such as academic success and failure (Williams, Horrell, Edmiston, & Brady, 2018), and psychological welfare (Harvard, 2016).

The Demands-Resources (D-R) Model applied to the Educational Field

The demands-resources model (Bakker & Demerouti, 2013; Schaufeli & De Witte, 2017), mostly applied in job settings (Schaufeli & Taris, 2014), could be a useful framework for addressing the research on personal resources that may help students to cope with their academic demands successfully increasing their wellbeing. The model assumes that environmental characteristics can be divided into two categories: resources (capacities of each to face tasks in a specific context) and demands (aspects of a specific context that require significant physical, cognitive and/or emotional effort) (Schaufeli & Taris, 2014). Accumulating evidence shows that an increase in (job and academic) resources correlates with an increase in well-being, whereas their loss -or the risk of their loss- may

cause their decrease (Halbesleben, 2010; Mäkikangas, 2016; Schaufeli & De Witte, 2017). Resources also cushion the negative effect, per se, of demands; consequently, we could assume that the greater the resources, the higher the likelihood of addressing the demands, to where they may even be considered as challenges to overcome. A proper balance of resources to face demands will represent better levels of work, academic and psychological outcomes.

In academic environments, personal resources (e.g., intrinsic motivation, efficacy perception, etc.) would then relate to how students face demands (e.g., workload) and represent a source of well-being and success themselves (Carmona-Halty, Salanova, Llorens, & Schaufeli, 2018). Even though the number of studies focused on students' resources and personal strengths that lead them to face their academic demands successfully is increasing (e.g., Salanova, Martínez, Bresó, Llorens, & Grau, 2005; Schaufeli & Taris, 2014), according to White et al. (2017) the D-R model has been scarcely applied to university students (e.g., Barr, Sessa, Summer, & Bragger, 2015; Mokgele & Rothman, 2014). Nevertheless, D-R postulates could be well-suited to this field (Schaufeli & Taris, 2014). Likewise, work contexts, performance in academic settings also requires the use of individuals' resources to overcome those demands with which students must cope, such as tests/evaluations, deadlines, relationships with colleagues and supervisors, and so on (Mokgele & Rothman, 2014).

In line with these postulates, it is crucial to determine which personal strengths and resources should be mainly considered in academic settings to enhance students' well-being and success. Conversely, more research is needed to establish which characteristics could increase students' perception of demands that boost discomfort and the risk of dropping out.

The present study is centred in two main psychological characteristics that have proven to present strong evidence of their positive vs negative impact on individuals' performance and well-being, both in work and academic settings: engagement and burnout, respectively (Leiter & Maslach, 2017; Taris, Ybema, & Van Beek, 2017). Accordingly to the D-R model, we aimed to identify those

personal resources, demands and learning coping processes that lead to developing academic engagement and burnout in first-year university students.

Psychological Resources and their Relationships with Academic Engagement

Engagement has been widely addressed and conceptualised in the literature (e.g., Halbesleben, 2010; Leiter & Maslach, 2017; Martínez & Salanova, 2003). A common and shared conceptualization among positive psychologists defines engagement as a persistent positive psychological state over time composed of vigour, corresponding to high levels of mental energy and persistence in the face of obstacles; dedication or enthusiasm towards the task or set of relevant tasks performed; and absorption, or ability to concentrate deeply, with a feeling that time "flies by" (Salanova, Bresó & Schaufeli, 2005). In education, results repeatedly confirm the positive impact of academic engagement on student retention (Garbanzo, 2007), well-being (Carmona et al., 2018) and academic performance (Michavila et al., 2012), identified as the most important characteristics for preventing student failure and dropout (Tinto, 2012).

Academic engagement has been previously related to different motivational, cognitive and emotional psychological resources. Considered, primarily, as a positive motivational construct (Schaufeli, Salanova, González-Romá, & Bakker, 2002), engaged students are highly intrinsically motivated (Ryan & Deci, 2000). That would explain their high persistence in the face of difficulties (Salanova, Martínez et al., 2005; Tinto, 2012), their greater academic satisfaction and, even, their better academic performance (Garbanzo, 2007).

Engagement has also been linked to other personal resources that have proven relevant in the domains of organisations and academia, such as personal initiative (Frese & Fray, 2001), a behavioural pattern characterised by the self-initiated, proactive and persistent performance that is objectives-driven and action-oriented. Significant positive relationships with students' performance and psychological well-being have also been found in students

with high levels of personal initiative (Lisbona, Palací, Salanova, & Frese, 2018).

Another important resource related to students' engagement levels is the perception of efficacy (Tinto, 2012), defined as the degree of preparation that the person self-evaluates as possessing in a specific field (Bandura, 2001). Thus, students who perceive themselves to be more efficacious attribute their failures to a lack of effort, rather than to insufficient capacity, are more likely to initiate study behaviours due to a higher expectation of success, and are prone to set more self-improvement goals requiring more persistence and determination, raising their academic motivation and subsequently, their engagement (Pérez et al., 2018; Salanova, Martínez et al., 2005). Consequently, the self-perception of efficacy could be a positive and necessary precursor for engagement. From a longitudinal perspective, Salanova, Bresó, and Schaufeli (2005) propose a positive spiral through which the perception of efficacy and engagement wield a positive, reciprocal and continuous influence.

Engagement and resilience have also been related (Martínez, Peñalver, & Meneghel, 2016). Given the inherent difficulties and challenges that characterise university life, resilience, defined as the ability to recover and cope with adversity with a more positive perception of problems and difficulties (You, 2016), can be valued as a significant personal strength. Furthermore, resilient students present higher levels of intrinsic motivation (Martínez et al., 2016), well-being (Grant & Kinman, 2012), academic performance (Martin & Marsh, 2006) and retention (European Commission, 2015).

Also, engaged students seem to make use of more proactive coping strategies (e.g., Grant & Kinman, 2012; Sánchez-Elvira-Paniagua, Fernández, & Amor, 2006). In this sense, good management of demands and challenges has been related to these active coping strategies, such as persistence, by mediating those demands that impact on variables such as academic performance (O'Connor, Nguyen, & Anglim, 2016; Salmela-Aro & Read, 2017). To the contrary, academic engagement has a negative association with academic procrastination (González-Brignardello & Sánchez-Elvira-Paniagua, 2013). Academic procrastination is defined as the tendency to intentionally delay the

start, execution and completion of academic tasks and duties "despite expecting to be worse off for the delay" (Steel & Klingsieck, 2016, p. 37).

Demands in Academic Settings and their Relationship with Academic Burnout

Academic burnout is defined as a persistent negative mental state regarding studies, mainly characterised by emotional exhaustion accompanied by discomfort, cynicism or detachment from studies and lack of academic self-efficacy in students without psychological disorders (Llorens, García-Renedo, & Salanova, 2005; Maslach & Leiter, 1997).

The experience of academic burnout has been consistently linked to the greater perception of academic demands (Mokgele & Rothman, 2014) and academic stress (Casuso, 2011), and usually interpreted as a consequence (García-Ros, Pérez-González, Pérez-Blasco, & Natividad, 2012). Situations such as university transition, academic overload, lack of time, social relations and performance on academic tests may be considered as academic demands, which are likely to generate stress if students perceive that they lack proper resources and/or strategies to face them (Casuso, 2011; García-Ros et al., 2012; White et al., 2017). According to the transactional model of Lazarus and Folkman (1987) and the D-R model (Bakker & Demerouti, 2013), people will perceive stress and, eventually, burnout, when they consider that the demands exceed their resources or capacities. Burnout not only entails distress but also impaired academic performance (Schaufeli, Martínez, Marqués-Pinto, Salanova, & Bakker, 2002) and a greater tendency toward dropping out, as well (Martínez & Marqués, 2005).

Furthermore, academic burnout has been associated with fewer resources (Schaufeli & Taris, 2014) and harmful learning strategies such as procrastination (González-Brignardello & Sánchez-Elvira-Paniagua, 2013), which has been inversely related to self-regulatory processes, self-efficacy, subjective well-being and academic performance (Kim & Seo, 2015; Klaassen, Krawchuk, & Rajani, 2008; Steel, 2007; Steel & Klingsieck, 2016).

Remembering what has been exposed before, we could postulate that academic engagement would be facilitated by a set of positive motivational, emotional and cognitive, personal resources that contribute toward perceiving fewer demands in the environment and a greater capacity for facing them properly. The outcome would be a positive impact on students' well-being and performance that would consolidate the resources and, eventually, result in greater engagement. On the contrary, academic burnout could be induced by a higher perception of demands and insufficient resources for coping with them, and poorer coping strategies for dealing with the demands properly, deleteriously affecting students' performance and well-being.

The previous relationships discovered between engagement and burnout with relevant personal resources and perceived demands guided the selection of the variables investigated in the present study.

Academic Engagement and Burnout: Opposite poles?

Engagement and burnout have been postulated as two states that show different and, in many cases, opposite relationships with different psychological variables inherent to academic performance. As seen before, previous evidence highlights that engagement relates more to personal resources and burnout to the perception of existent demands and stress (Taris et al., 2017).

However, some discrepancies currently exist regarding the conceptualisation and measurement of engagement and burnout (e.g., Schaufeli & De Witte, 2017; Taris et al., 2017). Although some researchers argue that they represent opposite extremes of the same construct (e.g., Maricotui, Sulea, & Lancu, 2017), others point out that research is not unequivocally conclusive in this regard (e.g., Schaufeli & De Witte, 2017).

Whereas there is evidence of a clear antagonism of the dimensions that comprise the so-called "core" of engagement and burnout: vigour vs exhaustion and dedication vs cynicism (Schaufeli & Salanova, 2007), nevertheless, the perception of lack of efficacy as a component of burnout

poses another controversy among researchers. It has been postulated, first, that the measurement of burnout using a subscale with reversed-positive items of efficacy may not reliably assess this characteristic (Schaufeli & Salanova, 2007); and, second, that it could be a necessary precursor, more so rather than a real component, of burnout (Salanova et al., 2004). Also, the perception of efficacy could precede engagement levels, acting as a resource and a possible mechanism for self-motivation, in those who perceive themselves as capable of facing a task often put more of their resources into action, are more persistent and set further-reaching goals (Salanova et al., 2004). In that case, it would be interesting to explore the contribution of the perception of efficacy in developing engagement and burnout alike.

Objectives

Based on the previous evidence and within the framework of the demands-resources model, the main objective of the present study was to explore, under a multivariate approach, the contribution of a set of relevant personal resources, academic demands, learning and coping strategies, affect and satisfaction in the prediction of students' engagement and burnout in their first university year, before their first exams. Another objective was to look for the likely contribution of efficacy as an independent psychological resource.

Personal resources were expected to predict engagement, whereas burnout, and core burnout specifically, was expected to be mostly predicted by the perception of more academic demands.

Method

Sample

One hundred and seventy-three incoming first-year students from 20 Spanish face-to-face (traditional learning) universities (68.8 % female), mostly enrolled in Social and Legal Sciences, volunteered to participate in this study. The mean age was 22.99 years old (ranging from 18 to 58 years, SD = 7.62; see Table 1). This average

age was high due to some extreme values; nevertheless, 71.7 % of our sample was between 17 and 21 years old.

Table 1.

Sample description.

Male	31.2 %
Female	68.8 %
Arts & Humanities	9.8 %
Social and Legal Sciences	59.0 %
Engineering and architecture	19.1 %
Health Sciences	5.2 %
Sciences	6.9 %
From 17 to 21 years-old	71.7 %
From 22 to 25 years-old	12.1 %
26 or more years-old	16.2 %
N	173

Instruments

A Spanish online battery of tests was designed to be voluntarily completed. The battery included socio-demographic, academic and psychological variables, as described below. Internal reliability found in previous studies was adequate (García-Ros et al., 2012; Notario-Pacheco et al., 2011; Salanova, Bresó, & Schaufeli, 2005; Salanova, Schaufeli, Llorens, Peiró, & Grau, 2000; Sandín et al., 1999).

Socio-demographic variables. Ad-hoc items were used to collect information about students' age, gender, university, the branch of knowledge, current academic year and total number of ECTS (European Credit Transfer System) in which they were enrolled.

Academic engagement. Engagement was measured with the student version of the Utrecht Work Engagement Scale, UWES (Salanova et al. 2000). It is comprised of 15 items and a Likert-type scale ranging from 0 (never) to 6 (always). It consists of three dimensions: vigour (e.g. "when I study, I feel like I am bursting with energy"), dedication (e.g., "I am proud of my studies") and absorption (e.g., "I am immersed in my studies"). The global reliability coefficient in our study was .92 and .83, .84, .84 for absorption, dedication & vigour subscales, respectively.

Academic burnout. Burnout was measured with the Maslach Burnout Inventory-Student Survey, MBI-SS (Schaufeli, Salanova et al., 2002) in its Spanish adaptation (Salanova, Martínez et al., 2005). It is comprised of 15 items grouped into three dimensions: exhaustion (e.g., "I feel used up at the end of a day at university"), cynicism (e.g., "I doubt the significance of my studies") and efficacy (e.g., "During class I feel confident that I am effective in getting things done") (reverse positive items). The MBI-SS uses a Likert-type scale ranging from 0 (never) to 6 (always). The global reliability coefficient was .86 and .84, .86, .84 for exhaustion, cynicism and efficacy subscales, respectively. Core burnout, comprising the dimensions of exhaustion and cynicism, showed a .83 reliability coefficient.

Psychological resources

Reasons for degree selection. Students were asked about the reasons why they chose their current studies, through 14 items, and a Likert-type scale ranging from 1 (not important at all) to 4 (very important). Items were grouped into two subscales: intrinsic ("for personal satisfaction") and extrinsic ("it is a way to increase the chances of getting a promotion") motives. The reliability coefficients were .86 for intrinsic motives and .71 for extrinsic ones.

Academic motivation. Intrinsic and extrinsic motivation subscales (Batería de Escalas de Aprendizaje Auto-regulado, Sánchez-Elvira-Paniagua et al., 2006). It consists of a 13-item Likert-type scale ranging from 1 (not at all) to 4 (almost always). "I put a lot of effort into my studies" or "the fear of not fulfilling my studies is what motivates me the most" represent examples of two items. The reliability coefficients were .73 for identified intrinsic motivation, .55 for pure intrinsic motivation, and .74 for extrinsic motivation.

Personal initiative. Measured with the Self-reported Initiative Scale (Frese, Fay, Hilburger, Leng, & Tag, 1997) in its Spanish adaptation (Las-Hayas, Lisbona, & Palací, 2018). It is comprised of seven items (e.g., "I solve problems without waiting to see what's next") and a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). The scale reliability coefficient was .81.

Resilience. Connor-Davidson Resilience Scale (Connor & Davidson, 2003), in its Spanish adaptation (Notario-Pacheco et al., 2011). It is comprised of 10 items and a Likert-type scale ranging from 0 (not at all) to 4 (almost always). One example of an item is "I believe that I am a strong person when I face the challenges and vital difficulties". The scale reliability coefficient was .89.

Learning and Coping Strategies

Academic procrastination. The Academic Procrastination questionnaire (González-Brignardello & Sánchez-Elvira-Paniagua, 2013) is comprised of 18 items (e.g., "I work in a non-systematic way (disorderly)" and a Likert-type scale ranging from 1 (absolutely not) to 5 (totally). The scale reliability coefficient was .90.

Coping strategies. Measured with the Bateria de Escalas de Aprendizaje Autorregulado (Sánchez-Elvira-Paniagua et al., 2006). Due to the objectives of this study, three of their subscales were selected, comprised of 19 items: persistence (e.g., "I strive for studying subjects, whether I like them or not"), avoidance strategies in the face of difficulties (e.g., "I usually throw in the towel facing significant difficulties when studying") and academic anxiety (e.g., "I feel nervous while I'm studying"). The reliability coefficients for each subscale were .83, .88 and .60, respectively.

Academic Demands

They were measured with the Cuestionario de Estrés Académico en la Universidad (University Academic Stress Questionnaire; García-Ros et al., 2012). According to the objectives of this study, only two subscales were selected, comprised of 13 items and a Likert-type scale ranging from 1 (no stress) to 6 (much stress): academic obligations (e.g., "doing exams") and academic records and future perspectives (e.g., "to obtain high grades in the subjects"). The reliability coefficients were .81 for academic obligations and .79 for academic records and future perspectives.

Satisfaction and Affect

Affect. The Positive and Negative Affect Schedule (Watson & Clark, 1988) in its Spanish adaptation (Sandín et al., 1999). It is comprised of 20 items grouped into two subscales, positive and negative affect. Students were asked about how intensely they experienced last week each of 20 feelings (e.g., enthusiastic, ashamed) with a Likert-type scale ranging from 1 (very slightly) to 4 (extremely). The reliability coefficients were .88 for positive affect and .91 for negative affect. Likewise, the affect balance measure (positive affect - negative affect) was calculated.

Degree of satisfaction with the studies. It was measured with a single ad-hoc item ("indicate the satisfaction level with your studies") and a Likert-type scale ranging from 1 (none) to 5 (very much).

Procedure

The faculty of the participating universities distributed the link to the battery of online questionnaires. The test was administered prior to the first semester evaluation period, between November and December. The Qualtrics© software used allowed for responding to the instruments using a computer, tablet or phone, and included explicit, informed consent.

Statistical Analyses

Pearson correlation coefficients were conducted to analyse the relationships of academic engagement and burnout with the rest of the variables of the study. Subsequently, to determine what variables predicted the levels of engagement and burnout, two multiple regression analyses, method forward, were carried out. Those variables with a correlation with the criterion ones equal to or higher than .35 were introduced in the model as predictor variables. All statistical analyses were performed with the SPSS 24 software.

Table 2.

Descriptive analyses and correlations between engagement and burnout, core burnout and their subscales.

	<i>M</i> (<i>SD</i>)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Engagement (1)	4.69 (1.00)	—	-.53**	-.33**	.88**	.82**	.91**	-.10	-.55**	.63**
Burnout (2)	3.10 (.90)		—	.91**	-.35**	-.49**	-.55**	.70**	.77**	-.71**
Core burnout (3)	3.03(1.05)			—	-.20**	-.32**	-.34**	.86**	.72**	-.36**
Absorption (4)	4.31 (1.18)				—	.56**	.72**	-.03	-.40**	.45**
Dedication (5)	5.58 (1.04)					—	.63**	-.04	-.62**	.54**
Vigour (6)	4.19 (1.23)						—	-.17*	-.45**	.65**
Exhaustion (7)	3.80 (1.31)							—	.28**	-.13
Cynicism (8)	2.16 (1.18)								—	-.50**
Efficacy ^a (9)	3.22 (1.12)									—

Note. ** $p < .01$ (bilateral), * $p < .05$ (bilateral).

Results

Correlational Analyses

Correlational analyses between engagement, burnout and core burnout scales and its subscales were carried out.

Engagement and burnout were significantly and negatively correlated (-.53), though that correlation did not allow us to conclude that the constructs were opposite. Also, the correlation between engagement and core burnout were substantially smaller (-.33). That was because efficacy correlated higher with engagement (.63) than with core burnout (-.36). The efficacy subscale (measured in its original, positively-worded items) presented significant correlations with both global measures and its subscales, except exhaustion (-.13); additionally, positive and significant correlations with vigour, dedication and absorption were found, and negative correlations with cynicism. The strongest correlation was with vigour (.65) (Table 2). Given that efficacy correlated with engagement subscales more than with the burnout ones (except for absorption) and given the theoretical background previously explained, the efficacy subscale (here considered as the belief in ones' abilities and skills to cope and deal satisfactorily with study demands) was hereafter considered an independent personal resource and a predictor variable instead of a burnout subscale, for this study.

Table 3 shows the correlations obtained between the global scales of engagement, burnout and core burnout and the set of variables studied. Engagement showed

moderate to high positive and significant correlations with all the personal resources, except extrinsic motivations, with the correlations with pure intrinsic motivation (.69) and efficacy (.63) being the highest. These correlations were also significant, but inverse, with burnout, although their value was significantly reduced when core burnout was considered, with low effect sizes.

Regarding the ways students coped with their studies, our results revealed that the higher the engagement, the greater the persistence and lower the procrastination, avoidance and anxiety. On the contrary, the higher the burnout, the higher levels of procrastination, avoidance and anxiety when facing academic tasks and the less persistence. These correlations decreased to some extent when core burnout was considered, except for academic anxiety, which experienced a slight increase.

Engagement did not show significant correlations with the perception of academic demands, unlike burnout, which showed positive and significant correlations, and core burnout, which showed even higher correlations.

Finally, engagement was positively correlated with positive affect but not with negative affect, in a different way to burnout, which correlated significantly both with negative affect and inversely with positive affect, and core burnout, which presented an even increased correlation with negative affect. Due to this pattern, burnout and core burnout alike presented significant, inverse correlations with a positive balance of affect.

Table 3.

Descriptive analyses and correlations between engagement and burnout, core burnout and their subscales.

	<i>M (SD)</i>	Engagement	Burnout	Core burnout
<i>Reasons for degree selection</i>				
Intrinsic motivations	3.28 (.63)	.49**	-.37**	-.26**
Extrinsic motivations	2.26 (.65)	.12	.02	.08
<i>Personal resources</i>				
Personal initiative	3.37 (.71)	.57**	-.41**	-.16*
Pure intrinsic motivation	2.7 (.64)	.69**	-.48**	-.30**
Identified intrinsic motivation	3.71 (.37)	.59**	-.42**	-.28**
Extrinsic motivation	2.79 (.72)	.24**	.09	.22**
Resilience	3.67 (.82)	.45**	-.37**	-.25**
Efficacy	3.22 (1.12)	.63**		-.36**
<i>Learning and coping Strategies</i>				
Academic procrastination	3.05 (.85)	-.41**	.52**	.40**
Persistence	3.12 (.54)	.64**	-.38**	-.23**
Anxiety	1.50 (.49)	-.08	.49**	.52**
Avoidance	2.45 (.76)	-.39**	.45**	.34**
<i>Academic demands</i>				
Academic obligations	3.52 (.78)	-.02	.50**	.54**
Future perspectives	3.02 (.96)	-.02	.39**	.51**
Enrolled ECTS	56.06 (17.25)	-.04	.03	.11
<i>Satisfaction and Affect</i>				
Degree Satisfaction	3.95 (.82)	.54**	-.50**	-.42**
Positive affect	2.54 (.62)	.53**	-.49**	-.38**
Negative affect	2.09 (.76)	-.06	.45**	.51**
Affect balance	.45 (1.14)	.32**	-.57**	-.54**

Note. ** $p < .01$ (bilateral), * $p < .05$ (bilateral).

Given the correlations obtained, we can conclude that in general engagement and burnout demonstrated a pattern of inverse relations with personal resources and coping strategies, academic demands, affect and satisfaction levels. Besides, core burnout presented stronger relationships with academic demands and negative affect than with burnout. Finally, it should be noted that engagement and both burnout measures did not correlate with the number of enrolled ECTS.

Predictive Analyses of Engagement, Burnout, and Core Burnout

Three multiple regression analyses, method forward, were carried out using engagement, burnout and core burnout levels as criterion variables (considering the positive-worded efficacy scale as an independent variable). Those variables with a correlation with the criterion ones equal to or higher than .35 were introduced as pre-

dictor variables in each model. All variable scores were standardised (Table 4).

Seven predictors explained 68 % of the variance of engagement. These predictors were, fundamentally, intrinsic motivational factors, concerning both the reasons for choosing the degree and the levels of academic motivation. A perception of efficacy, the use of persistence as an active coping strategy, positive affect and satisfaction with studies also contributed to engagement prediction. Therefore, a pattern associated with personal resources and active coping, with beneficial consequences for students, was found in the prediction of engagement levels.

Six predictors explained 63 % of the variance of burnout. On the one hand, the experience of burnout was positively predicted by the perception of academic obligations, academic procrastination and negative affect; and on the

Table 4.

Multiple regression analyses for the prediction of engagement and core burnout.

Criteria	Predictors	Adjusted R ²	F	df	β	T
Engagement		.68	52.15***	7		
	Pure intrinsic motivation				.22	3.35***
	Degree satisfaction				.17	3.41***
	Efficacy				.16	2.73**
	Persistence				.19	3.29***
	Intrinsic motivations for degree selection				.12	2.46*
	Identified intrinsic motivation				.16	2.92**
Burnout	Positive affect	.63	49.82***	6	.12	2.3*
	Engagement				-.22	-3.27**
	Academic obligations				.35	6.08***
	Academic procrastination				.23	4.46***
	Identified intrinsic motivation				-.21	-3.59***
	Negative affect				.16	2.75**
	Degree satisfaction				-.15	-2.58*
Core burnout		.48	32.55***	5		
	Academic obligations				.26	3.50***
	Degree satisfaction				-.22	-3.70**
	Academic procrastination				.21	3.58***
	Future perspectives				.18	2.56*
	Negative affect				.17	2.35*

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

other hand, negatively by engagement, identified intrinsic motivation and degree satisfaction. Accordingly, a pattern associated with academic stress and poor learning strategies, and also disengagement, dissatisfaction and demotivation, predicted burnout levels significantly. When core burnout was considered, the percentage of variance explained decreased to 48%. Main predictors were also the experience of academic demands, negative affect, procrastination and dissatisfaction with studies. Therefore, core burnout was predicted by the perception of demands but not by the lack of personal resources, according to previous studies and hypotheses.

Discussion

The present study aimed to explore, in depth, the role of some relevant psychological characteristics in predicting the levels of engagement and burnout

experienced by first-year students of face-to-face teaching universities before their first semester exams, using a multivariate demands-resources approach. For this purpose, relevant variables previously related to engagement and burnout, and supported by empirical evidence of their impact on well-being and academic performance, were considered (psychological resources, academic coping strategies, academic demands, affective states and academic satisfaction).

Our data demonstrated by using a multivariate approach that the engagement levels of first-year university students were strongly predicted by a set of relevant personal resources, mainly driven by intrinsic motivations and efficacy. The predictive value of having chosen a degree for intrinsic reasons is worth highlighting. In previous studies, this motivation was related to academic performance and dropout prevention (e.g., Vizoso & Arias-Gundín, 2016). Also, persistence (as a proactive way of coping with studies), positive affect and academic

satisfaction were significant predictors of the levels of engagement experienced by students before their first exams.

To the contrary, academic burnout was mainly predicted by the perception of academic demands and procrastination, and inversely by engagement (a motivational construct per se; Schaufeli, Martínez et al., 2002), and intrinsic motivation; finally, dissatisfaction with studies and negative emotions were significant predictors, as well, of the burnout experienced by students. Low levels of engagement (explained by a set of relevant personal resources as previously mentioned), would highlight the significant link between academic burnout and lack of resources, in line with other studies (e.g., Schaufeli & Taris, 2014).

These analyses are also congruent with the demands-resources model, in which resources are related to greater well-being and, conversely, demands show a direct link to dissatisfaction (e.g., Bakker & Demerouti, 2013; Mäkikangas, 2016).

Additionally, academic core burnout revealed similarities and differences with global burnout, although burnout was predicted by a greater percentage of the variance. Both constructs were mainly predicted by the perception of academic demands and procrastination, and also by dissatisfaction and negative affect. Nevertheless, engagement and identified intrinsic motivation did not predict core burnout levels when efficacy was considered an independent personal predictor, congruently with its strong relationship with these personal variables. These results are similar to those reported in previous studies (Bedewy & Gabriel, 2015; García-Ros et al., 2012; Schaufeli & Salanova, 2007; Salanova et al., 2004). Nonetheless, only 48 % of core burnout variance could be explained in our study. Therefore further studies would have to gain a better understanding of this construct and its predictors.

In summary, our multiple regression analyses confirmed the hypotheses that different variables predict engagement and burnout, mainly the perception of personal resources (e.g., Barr et al., 2015) or academic demands (e.g., Mokgele & Rothman, 2014), respectively.

Likewise, the study contributes to the current debate (Taris et al., 2017) as to whether engagement and burnout are two poles of the same construct. Moreover, to whether efficacy beliefs, as measured by the burnout scale, should be better considered a triggering factor in developing engagement and burnout, instead of a real component of the latter (e.g., Maricotui et al., 2017; Schaufeli & De Witte, 2017).

First, our results indicate, in coherence with previous studies (e.g., Goering Shimazu, Zhou, Wadac, & Sakai, 2017; Leiter & Maslach, 2017), that although engagement and burnout were inversely related, they were not strictly antagonistic. Likewise, low scores in one dimension do not necessarily imply high scores in the other (Schaufeli & De Witte, 2017).

Second, our results revealed that although the positively worded efficacy scale was significantly and inversely related to the so-called core burnout, it was even more strongly and positively related to engagement (global scale and subscales). These results are congruent with Schaufeli & Salanova (2007), who caution when assuming that a reversed efficacy scale is a reliable assessment tool of the perception of inefficiency that characterises burnout. As these authors claim, efficacy and inefficacy beliefs should not be considered opposite constructs, and suggest that the former could be an element of engagement and the latter of burnout; in this case, different assessment instruments would be required. In parallel, according to the discussion raised by several authors as to whether efficacy actually represents a component of burnout or is instead a necessary precursor (e.g., Taris et al., 2017), several authors have postulated, on the one hand, that a previous crisis of efficacy could lead to burnout instead of being a real component of the same (e.g., Salanova, Bresó, & Schaufeli, 2005). On the other hand, another proposal is an "extended" engagement comprising the original dimensions and the efficacy subscale –stated positively– (Schaufeli & Bakker, 2001; Schaufeli & Salanova, 2007). In our study, efficacy beliefs, considered an independent resource, predicted engagement but not core burnout. Our results deserve further attention concerning the role and measurement of efficacy in the experience of engagement and burnout.

A clear limitation of our design is its transversal nature since it does not allow for establishing any causal relationships between the analysed variables. Nevertheless, our data encourage exploring the hypothesis that the factors involved in student's welfare and academic success will coexist in a continuous transaction that researchers such as Bresó, Schaufeli, and Salanova (2011) have identified as positive and negative spirals. Thus, personal resources, such as intrinsic motivation, personal initiative or efficacy, would lead to implementing better coping strategies and the experience of positive emotions (Bandura 1997; Fredrickson, 2004), which, the latter, would reinforce the individual psychological resources (Pérez et al., 2018). On the contrary, low levels of personal resources would contribute to procrastination and maladaptive coping with academic demands (Salmela-Aro & Read, 2017; O'Connor et al., 2016), followed by the experience of higher levels of stress (Bedewy & Gabriel, 2015) and negative emotions (Aguayo-Muela & Aguilar-Luzón, 2017), that would negatively affect personal resources.

Another limitation is that the age of our student sample was slightly higher than the average for first-year students, due to a few extreme values, although in our distribution 71.7 % of the sample was between 17 and 21 years old. Additionally, a larger number of sample subjects would allow us a more precise analysis of the intervening variables.

The exclusive use of self-report measures is another limitation of the study, given the potential influence of the acquiescence bias on results. Besides, because participation in our study was voluntary, more likely that students were more motivated were eager to participate, whereas those who were less motivated were not. Nevertheless, our sample yielded a wide range of scores for the analysed variables.

Finally, given the relevance of the variables involved in engagement and burnout, and their role in the well-being and satisfaction of first-year students, some future studies and actions we propose include:

To expand in longitudinal studies and to test explanatory analysis models would allow for analysing the spirals

models or virtuous and vicious circles to a greater extent, from a broader perspective.

To develop institutional actions to enhance students' engagement by promoting intrinsic motivation and efficacy beliefs, guiding them in their development of positive learning strategies, such as persistence, while simultaneously reducing the risk of students' burnout by orientating them to neither procrastinate nor avoid difficulties, and coping better with stress. The ultimate aim would be to increase students' psychological well-being and academic performance, reduce dropouts and improve retention (Seligman & Adler, 2018), especially during their first academic year.

To focus primarily on the first academic year at the university as a critical period (Michavila et al., 2012; Tinto, 2006, 2012) during which initial expectations are confronted (Merhi, 2011), according to data on student dropout rates (e.g., Crue Universidades Españolas, 2018; European Commission, 2015).

To provide students proper orientation in an early stage (e.g., in secondary education) that encourages them to choose a degree from among those that motivate them more intrinsically (Garbanzo, 2007; Vizoso & Arias-Gundín, 2016).

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HOPE AND SATISFACTION WITH LIFE: TESTING THE MEDIATING ROLES OF SELF-ESTEEM IN THREE ASIAN CULTURES

ESPERANZA Y SATISFACCIÓN CON LA VIDA: PROBANDO LOS ROLES MEDIADORES DE LA AUTOESTIMA EN TRES CULTURAS ASIÁTICAS

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Cómo referenciar este artículo/How to reference this article:

Bernardo A. B. I., Khan, A., & Salanga, M. G. C. (2018). Hope and Satisfaction with Life: Testing the Mediating Roles of Self-Esteem in three Asian Cultures [Esperanza y satisfacción con la vida: probando los roles mediadores de la autoestima en tres culturas asiáticas]. *Acción Psicológica*, 15(2), 69–82. <https://doi.org/10.5944/ap.15.2.23456>

Abstract

The relationship between well-being and the personal strength of hope has been elaborated by the identification of internal (self) and external (family, peers, spiritual) locus-of-hope dimensions. Du, Bernardo, and Yeung (2015) showed that self-esteem (personal and relational) mediates the relationship between locus-of-hope and life satisfaction. Locus-of-hope's goal-related thoughts involve self-evaluation that may either enhance or diminish self-worth, which then influences life

satisfaction. We tested the mediated model in three cultural groups: Malaysians, Macau Chinese, and Filipinos. Participants completed scales measuring locus-of-hope, personal and relational self-esteem, and life satisfaction. Path analysis showed significant indirect effects in all cultures: (a) internal locus-of-hope on life satisfaction, mediated by personal self-esteem, and (b) external-family locus-of-hope on life satisfaction, mediated by relational self-esteem. Other significant indirect effects were found in specific cultural groups. Cross-cultural similarities and differences are discussed with reference to how distinct cultures give different

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Retrieved: June 30, 2018.

Aceptado: August 25, 2018.

meanings to forms of agency associated with the personal strength of hope, creating distinct pathways towards life satisfaction.

Keywords: Hope theory; Locus-of-hope; Self-esteem; Relational self-esteem; Satisfaction with life; Culture; Personal strengths.

Introduction

Hope is one of the personal strengths that has been associated with well-being and many other positive outcomes (Alarcon, Bowling, & Khazon, 2013; Ciarrochi, Parker, Kashdan, Heaven, & Barkus, 2015). However, a cultural reading of the theory suggests that hope has been defined using a form of agency that is more important in individualistic cultures, and that other forms of shared agency are associated with hope in more collectivistic cultures (Bernardo, 2010). In the current study, we explore this notion of different forms of hope and how they relate to self-esteem and life satisfaction in three Asian cultures. In doing so, we hope to contribute to discussions of how there are dimensions of personal strengths that might vary across cultures and how cultural dimensions should be considered in better understanding how personal strengths relate to positive outcomes in diverse cultural contexts.

Hope, locus-of-hope, and well-being

Hope theory provides the most popular definition of hope in the psychology literature; the theory defines hope as positive thoughts related to an individual's commitment and approaches to attaining important life goals (Snyder, 2002). In its emphasis on the individual's determination and strategies towards goal attainment, hope is more than optimism or having a positive outlook. Using this definition of hope and its popular measure of dispositional hope (Snyder et al., 1991), extensive research studies have documented how hope is positively associated with well-being (Feldman, Rand, & Kahle-Wroblewski, 2009; Marques, Lopez, & Pais-Ribeiro, 2011) and in moderating the effects of various threats to well-being (Ashby, Dickinson, Gniska, & Noble, 2011; Visser, Loess, Jeglic, & Hirsch, 2013). Hope is also associated with numerous positive outcomes in different life domains including

learning in schools (Feldman & Kubota, 2015; Gilman, Dooley, & Florell, 2006; Marques et al., 2011), career exploration (Hirschi, Abesselo, & Froidevaux, 2015), healthy behaviors (Berg, Rapoff, Snyder, & Belmont, 2007), family cohesion (Merkaš & Brajša-Žganec, 2011), and many others. On the other hand, lower levels of hope are associated with negative mental health (Jovanovic, 2013), suicidal ideation (Chang, 2017), and more severe psychological symptoms brought about by traumatic experiences (Chang et al., 2017).

Viewing hope through a cultural lens

Applying a cultural lens, Bernardo (2010) suggested that hope theory implicitly assumes that positive goal directed thoughts refer only to the individual person's capacities and abilities; he further asserted that goal attainment could also involve actions of external agents, which relates to a view of shared agency common in more collectivist and/or interdependent cultures. The cultural reading was premised on some important distinctions between collectivist and individualist societies. Hofstede (1980) originally proposed contrasting societies on the basis of individualism and other dimensions, and he conceptualized individualist societies as one where ties among individuals are loose and operationalized this with reference to values and preferences of workers (e.g., valuing personal time and choice, etc.). He also defined collectivist societies as the opposite, wherein people are strongly integrated into groups. Although psychologists continue to debate the validity of using individualism-collectivism dimensions to classify cultures and societies (see e.g., Takano & Osaka, 2018) particular as societies undergo cultural change (Hamamura, 2018), most psychologists have come to conceptualize individualism and collectivism not simply as opposites but as worldviews that differ in the values, goals, and issues that they make salient to individuals (Kagitcibasi, 1997; Triandis, 1995). More importantly, psychologists have identified core domains of concepts that relate to individualism and collectivism beyond workplace behaviors. For example, across many studies reviewed by Oyserman, Coon, and Kemmelmeier (2001), individualism was related to seven major domains (independence, personal goals, competition, uniqueness, privacy, self-knowledge, and direct communication), while collectivism was related to eight domains

(relatedness, belonging, duty, group harmony, advice seeking, adjusting to contexts, hierarchical relations, and group work). These domains are also reflected in various individual level measures of individualism and collectivism (e.g., Singelis, Triandis, Bhawuk, & Gelfand, 1995; Shulruf, Hattie, & Dixon, 2007).

Some of the core concepts salient in individualist societies underlie the premises of Snyder's (2002) hope theory. For example, individualism is conceptualized as a worldview that is organized around the individual's personal goals, qualities, and control (Kagitcibasi, 1997; Markus & Kitayama, 1991; Triandis, 1995). Bernardo (2010) argued that this emphasis on personal goals and personal control seems to be assumed in the Snyder's (2002) hope theory, which implies that the attainment of goals depends on the individual's personal determination and strategies. Bernardo invoked Marcus and Kitayama's (2003) distinction between disjoint and conjoint models of agency. A disjoint model of agency implies that actions are defined independent of other people, are expressions of the individual's own purposes and preferences, and downplay other people's roles. In comparison, a conjoint model of agency implies that an individual's actions may be defined collectively, and relate to roles, responsibilities, and expectations of or related to significant others. Goal intentions and tendencies are defined interpersonally, goal pursuit and attainment could also be an interdependent process. Hope theory seems to assume a disjoint model agency, which is typical in American middle-class communities and other societies that emphasize individualism (Marcus & Kitayama, 2003), while being silent about goal pursuit that involves the conjoint forms of agency that is said to be more typical in Asian and other collectivist societies. Therefore, the cultural reading of hope theory suggests that the theory may be incomplete, as it does not recognize that hopeful thoughts might involve the role of external agents and pathways involving these agents.

To extend hope theory, Bernardo (2010) proposed internal and external locus-of-hope dimensions of hope-related cognitions. Thus, in addition to the dispositional hope defined in hope theory (Snyder, 2002), three external locus-of-hope dimensions were proposed that refer to hopeful cognitions related to the attainment of goals

through conjoint agency with family, peers, and spiritual forces (i.e., external-family, external-peer, and external-spiritual loci-of-hope); the original conception of hope is referred to as internal locus-of-hope. The proposals were aligned with the core dimensions of relatedness, advice seeking, and group action associated with collectivism (Oyserman et al., 2002; Triandis, 1995). Moreover, well-being in collectivist societies tend to refer to processes involving the fulfillment of social roles and obligations and avoiding failures that might affect the groups collective status (Marcus & Kitayama, 1991), again emphasizing processes that extend beyond the individual person.

Consistent with these assumptions, early work suggests that the external locus-of-hope dimensions are associated with individual level collectivism and interdependent self-construals, whereas internal locus-of-hope is associated with individualism and independent self-construals (Bernardo, 2010; Du & King, 2013). Studies with various Asian samples have found that the proposed external locus-of-hope dimensions are related to positive psychological outcomes (Bernardo & Estrellado, 2014, 2017b; Bernardo, Salanga, Khan, & Yeung, 2016; Bernardo, Wang, Pesigan, & Yeung, 2017), including in young adolescents (Bernardo, 2015). Recent studies have further shown how external locus-of-hope dimensions buffer the effects of stress on well-being (Bernardo & Resurreccion, 2018; Datu & Mateo, 2017). But some studies also point to how particular external locus-of-hope dimensions related to negative psychological outcomes like maladaptive coping strategies (e.g., Bernardo & Estrellado, 2017a), and that these vary across different Asian cultural groups (Bernardo, Yeung, Resurreccion, & Khan, 2018). Such diverse results across cultural samples suggest that the particular dimensions of this personal strength might have very cultural-specific meanings and impacts on well-being. As such, it is important to explore hope locus-of-hope dimensions function as personal strengths in diverse cultural groups.

Pathways from locus-of-hope, self-esteem, to life-satisfaction

One of the proposed mechanisms relating the personal strength of hope to well-being relates to the mediating role of self-esteem. As regards the internal and external locus-

of-hope dimensions, Du et al. (2015) proposed that the social cognitive processes associated with the locus-of-hope dimensions draw attentional focus to aspects of one's self and self-evaluations. In particular, hope theory and the locus-of-hope extension assume that the personal strength of hope is essentially a cognitive mechanism, which requires the individual to assess the hope agent's capacity and strategies related to attainment of one's goals. Thus, in the case of internal locus-of-hope, the focus is drawn to the individual's personal abilities, strengths, and efficacy towards goal attainment, which all relate to one's self-esteem (Snyder, 2002). The positive evaluations of oneself are then associated with more positive cognitive appraisals of one's subjective well-being or satisfaction with life (E. D. Diener & M. Diener, 2009; Douglas & Duffy, 2014). But in collectivist societies, the person is an integrated part of social units (family, peers), and as such, the assessment of the hope agent, so the focus is also drawn to the individual's status relative to these important social groups, which is reflected in one's relational self-esteem (Du, King, & Chi, 2012), which is also an important contributor to well-being (Du, King & Chi, 2017; Du, Li, Chi, J. Zhao, & G. Zhao, 2018). Thus, as demonstrated in Du et al. (2015), internal locus-of-hope's relationship with life satisfaction was actually mediated by both personal and relational self-esteem.

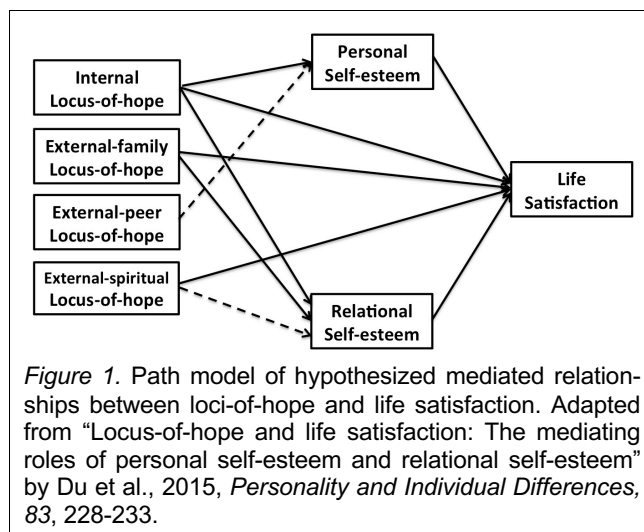
But the external locus-of-hope dimensions are assumed to relate to self-esteem in more complex ways. It is possible, for example, that emphasizing the role of family and peers in attaining important life goals might indicate and therefore call attention to one's personal inadequacies or inabilities related to pursuing these goals; in this sense, hopeful thoughts that highlight the role of others, might undermine one's personal self-esteem. But the same external locus-of-hope related thoughts could also call attention to one's self-worth related to group-level roles in important relationships, or to one's relational self-esteem (Du et al., 2012). In other words, relying on the agency of family and peers in pursuing life's goals indicates that one has good relationship status with these significant groups. These contrasting processes were reflected in Du et al.'s results (2015); external-peer locus-of-hope negatively predicted personal self-esteem, and indirectly life satisfaction; but external-family locus-of-hope positively pre-

dicted relational self-esteem, and indirectly, life satisfaction.

Du et al. (2015) tested the mediating roles of personal and relational self-esteem on the association between loci-of-hope and life satisfaction with a Chinese sample, which is an important contribution in personal strengths research by way of testing relevant processes and outcomes in non-Western samples. But even among Asian cultural groups there are likely to be variations in how the locus-of-hope dimensions relate to subjective well-being (Bernardo et al., 2018). In line with the need to further explore the cultural dimensions of how personal strengths contribute to well-being, there is a need to further explore whether the models validated in one cultural group also apply to other cultural groups.

The current study

In this study, the model validated in Du et al. (2015) with a Chinese sample was tested with a Malaysian, a Filipino, and another Chinese sample. The model is depicted in Figure 1 which shows that there are three indirect effects relating specific loci-of-hope and life satisfaction. We discuss the hypotheses related to these three indirect effects below.



The first indirect effects involve internal locus-of-hope and life satisfaction, mediated by personal self-esteem and

by relational self-esteem. As discussed earlier, the thought processes related to the personal strength of hope direct one's attention to the self as the agent of goal pursuit, and a positive evaluation of the self's capacity to meet goals is assumed to be associated with life satisfaction. Among individuals in collectivist societies, the appraisal of the self involves not just personal self-esteem but also relational self-esteem, which reflects an assessment of one's status with significant others. Thus, the first hypothesis in the study is:

(a) Personal self-esteem and relational self-esteem both mediate the relationship between internal locus-of-hope and life satisfaction.

The second indirect effect refers to the positive relationship between external-family locus-of-hope and life satisfaction, mediated by relational self-esteem. The thought processes related to this external locus-of-hope refer to the capacity and pathways towards goal attainment provided by one's family members and draws attention to how good one's status is with one's family. A positive appraisal of these two constructs concepts is expected to be associated with higher life satisfaction. Based on Du et al.'s (2015) findings, external-family locus of hope was associated with one's relational self-esteem. Thus, the second hypothesis focuses on the mediating role of relational self-esteem:

(b) Relational self-esteem mediates the relationship between external-family locus-of-hope and life satisfaction.

In theory, the indirect effect of external-peer locus-of-hope could be similar to that of external-family locus-of-hope, but Du et al.'s (2015) finding instead showed a negative relationship with life satisfaction. This negative association was mediated by personal self-esteem. As discussed earlier, thinking about how peers help in one's goal attainment seems to call attention to the limitations in one's personal capacities; that is, depending on peers might indicate one is not capable of meeting one's goals. This negative self-appraisal is then associated with lower life satisfaction, as indicated in the third hypothesis:

(c) Personal self-esteem mediates the (negative) relationship between external-peer locus-of-hope and life satisfaction.

There were no indirect effects associated with external-spiritual locus-of-hope found by Du et al. (2015), but they found a direct relationship between external-spiritual locus-of-hope and life satisfaction. They noted that this result contradicted an earlier study with a similar Chinese sample (Du & King, 2013), which they attributed to diversity in religious beliefs among the Chinese, many of whom are atheists. The current study allows us to explore whether there are also mediated relationships between external-spiritual locus-of-hope and life satisfaction with the two samples that come from countries known to be very religious. Most people in Malaysia and the Philippines consider themselves religious (most Malaysians are Muslim, most Filipinos are Christian); in contrast, the majority of Chinese individuals in our sample in Macau do not have religious affiliations. We do not propose additional hypotheses related to this, although we expect different patterns to emerge between the Macau sample on the one hand, and the Malaysian and Philippine samples on the other.

The preceding point underscores the importance of further validation of Du et al.'s (2015) findings. The three cultural groups in the study are all typically considered collectivist societies that emphasize the interdependent self-construal in cross-cultural comparisons (e.g., Oyserman et al., 2002), but there are also differences such as the religious beliefs of the culture, which could affect the resultant model. We note that there are other known differences among the three samples. Previous studies also describe Malaysians and Filipinos as having lower long-term orientation or being less inclined towards values associated with future rewards than Chinese people (e.g., Hofstede & Minkov, 2010), but we expect that it is common collectivist orientation among the samples that will primarily determine the results.

To summarize, we test three indirect effects with three samples of university students from three cities: Johor Bahru in Malaysia, Macau in China, and Manila in the Philippines. In attempting to replicate Du et al.'s (2015) results, we hope to clarify which mediated pathways linking the personal strength of hope to life satisfaction are specific to particular cultural groups, and which are generalizable across the three groups. Although admittedly limited in cultural diversity, we hope that the re-

sults of the study contribute to broader discussions of how cultural dimensions influence the positive impact of personal strengths.

Method

Participants

Participants were 685 university students from three cities (Johor Bahru, Macau, & Manila). The universities in Johor Bahru and Macau were public universities and the one in Manila was a private university. All universities were comprehensive universities offering a range of courses and program; all had selective admission policies. Participants were recruited through the respective research subject pools of each university; all gave their informed consent to participate and were given course credit for their participation. For Johor Bahru ($N = 200$), the participants' mean age was 17.95 ($SD = 3.27$) and 62.00 % were female. For Macau ($N = 208$), the mean age was 18.90 ($SD = 1.23$), 60.60 % were female. For Manila ($N = 277$), the mean age was 19.46 ($SD = 1.69$), 63.20 % were female.

Measures

For the Manila sample, English versions of all the measures were used. For Johor Bahru, the measures were translated from English to Malay following the forward translation process; a professional bilingual translator translated the English scales to Malay, and a bilingual researcher then reviewed the translation. For the Macau sample, previously validated Chinese translations (Du et al., 2015) of the scales were used. Internal consistency/reliability for each of the scales for each sample are reported in Table 1, all of which were .69 or better.

Locus-of-hope scale. The 40-item scale (Bernardo, 2010) had four subscales: internal, external-family, external-peer, and external-spiritual locus-of-hope. Each subscale had eight items that expressed a thought about goal attainment, and there were eight filler items. Sample items

for each subscale are "I meet the goals I set for myself" (internal), "My parents have lots of ways of helping me attain my goals" (external-family), "I have been able to meet my goals because of my friends' help" (external-peer), "God has many different ways of letting me attain my goals" (external-spiritual). Participants responded used a scale from 1 (*definitely false*) to 4 (*definitely true*).

Rosenberg self-esteem scale. The commonly used scale (Rosenberg, 1965) has five positive items (e.g., "I take a positive attitude toward myself") and five reverse-scored items. Participants responded using a scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

Relational self-esteem scale. The scale (Du et al., 2012) had 8 items that measured a sense of self-worth through relationships with significant others (e.g., "I think my family is proud of me"). Participants also responded using a scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

Satisfaction with life scale. The 5-item scale (E. D. Diener, Emmons, Larsen, & Griffin, 1985) was a cognitive measure of subjective well-being (e.g., "In most ways my life is close to my ideal"). Responses used a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Data analysis

Descriptive statistics were computed for each sample, and bivariate correlations were computed to check for multicollinearity. For each sample, a path model that specified the direct and mediated relationships identified in Du et al. (2015) was tested; the path model is summarized in Figure 1. Although not depicted in Figure 1, the four exogenous variables (locus-of-hope subscales) were allowed to correlate with each other, as were the error terms of the two endogenous mediating variables because the two self-esteem factors are assumed to share method variance (cf., Cole, Siesla, & Steiger, 2007). The model was tested in a path analysis (AMOS v24), and the following indexes were considered to determine the suitability of the model: χ^2 , χ^2/df ratio, comparative fit index (CFI), Tucker-Lewis index (TLI), Bollen's incremental fit index (IFI), and root-mean-square error of

approximation (RMSEA). The direct and indirect effects were also examined using bootstrapping analysis, using 10000 bootstrapped samples to test the significance of the indirect effects.

Results

Descriptive statistics

Table 1 summarizes the descriptive statistics for each sample. Interestingly, the pattern of significant correlations in the Macau sample is consistent with the results found in Du et al. (2015), which also involved a Chinese sample. But the pattern of correlations in the Johor Bahru and Manila samples were different from that in Du et al. (2015), with more significant correlations in Johor Bahru and fewer in the Manila samples compared to the Chinese

sample in Du et al. (2015). However, differences in correlations do not necessarily imply different roles of personal and relational self-esteem as mediators of the relationships between locus-of-hope and life satisfaction. The path analyses provide a more direct test of whether Du et al's (2015) model is replicated in the three new cultural samples.

Path analyses

The model tested following the statistical procedures described in the previous section, and in addition the modification indices were considered. There were no suggested modifications for the model with the Macau and Manila samples; however, for the Johor Bahru samples, the modification indices suggested a link between external-spiritual locus of hope and personal self-esteem. This suggestion was considered because it could be theoretically meaningful in consideration of the fact that Malay-

Table 1.

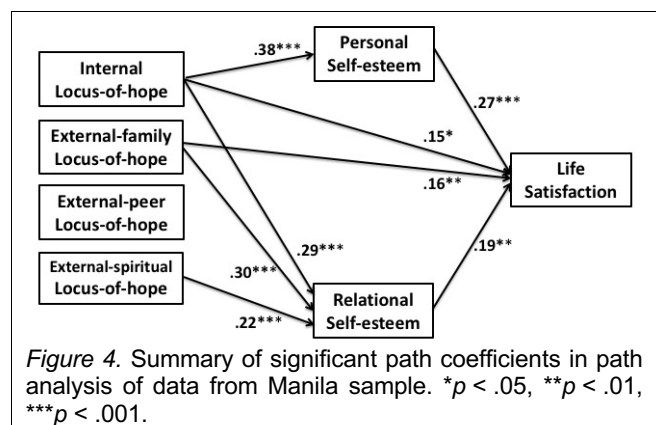
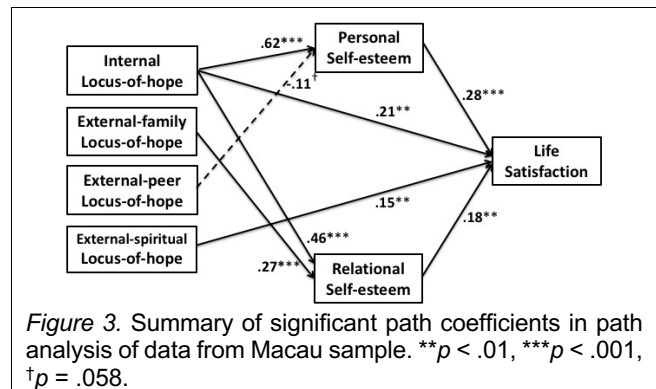
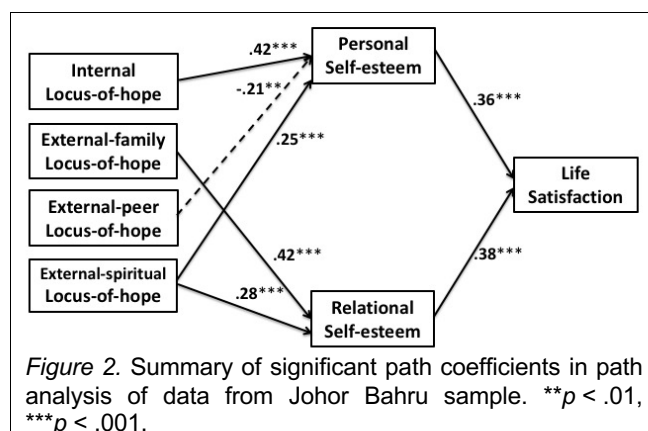
Descriptive statistics for variables in the three cultural samples.

Johor Bahru	α	M	SD	Pearson's r					
				(2)	(3)	(4)	(5)	(6)	(7)
(1) Internal locus-of-hope	.82	3.17	0.47	.64***	.66***	.57***	.47***	.47***	.45***
(2) External-family	.87	3.36	0.51		.57***	.56***	.42***	.58***	.44***
(3) External-peer	.83	2.97	0.52			.45**	.25**	.40**	.30***
(4) External-spiritual	.92	3.35	0.68				.46**	.52***	.45***
(5) Personal self-esteem	.69	3.43	0.46					.40***	.58***
(6) Relational self-esteem	.81	3.19	0.46						.49***
(7) Life satisfaction	.84	5.39	1.10						
Macau	α	M	SD	Pearson's r					
				(2)	(3)	(4)	(5)	(6)	(7)
(1) Internal locus-of-hope	.73	2.94	0.36	.30***	.37***	.01	.58***	.54***	.47***
(2) External-family	.83	2.77	0.47		.46***	.17*	.23**	.43***	.31***
(3) External-peer	.82	2.72	0.43			.21**	.14*	.36***	.27***
(4) External-spiritual	.88	2.28	0.58				.05	.06	.17*
(5) Personal self-esteem	.83	2.78	0.46					.52***	.50***
(6) Relational self-esteem	.81	3.08	0.46						.45***
(7) Life satisfaction	.81	4.49	1.06						
Manila	α	M	SD	Pearson's r					
				(2)	(3)	(4)	(5)	(6)	(7)
(1) Internal locus-of-hope	.76	3.27	0.34	.36***	.26***	.11	.39***	.42***	.38***
(2) External-family	.92	3.32	0.53		.35***	.33***	.13*	.47***	.33***
(3) External-peer	.88	2.86	0.50			.19**	.01	.22***	.15*
(4) External-spiritual	.96	3.45	0.68				.12*	.38***	.18**
(5) Personal self-esteem	.82	3.66	0.47					.51***	.44***
(6) Relational self-esteem	.81	3.43	0.41						.46***
(7) Life satisfaction	.79	5.02	1.02						

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

sians are known to be highly religious, and the link could clarify a possible culture-specific indirect relationship between this locus-of-dimension and life satisfaction. So a second model was tested for the Johor Bahru sample and this was compared to the original model. We summarize the fit indices for each sample before we compare the findings across the three samples.

For Johor Bahru, the original model was found to have an adequate fit with the data: $\chi^2(4) = 11.09$, $p = .026$, $\chi^2/df = 2.77$, CFI = .99, TLI = .93, IFI = .99, RMSEA = .09, 90 % CI [.03, .16]. However, the modification indices suggested that a link between external-spiritual locus-of-hope and personal self-esteem will improve the fit. After modifying the model to include this suggested link and to remove the non-significant paths, we tested this revised model and also found a good fit with the data: $\chi^2(7) = 11.40$, $p = .122$, $\chi^2/df = 1.63$, CFI = .99, TLI = .98, IFI = .99, RMSEA = .06, 90 % CI [.01, .11], although the χ^2 -difference test indicated no statistically significant difference between the original and respecified model ($p = .958$). For the two other samples, the modification indices did not suggest any changes; the model with the non-significant paths removed had good fit with both the Macau: $\chi^2(6) = 8.92$, $p = .178$, $\chi^2/df = 1.49$, CFI = .99, TLI = .97, IFI = .99, RMSEA = .05, 90 % CI [.01, .11] and Manila samples: $\chi^2(6) = 6.67$, $p = .351$, $\chi^2/df = 1.11$, CFI = .99, TLI = .99, IFI = .99, RMSEA = .02, 90 % CI [.01, .08].



As mentioned above, for each sample, some of the predicted relationships in the model were not significant; so the original model of Du et al. (2015) was not exactly replicated in any of the three samples, even as the model had adequate to good fit in the three samples. The summary of significant paths for each sample are shown in Figures 2 to 4, and we can see that many of the key features of the original model were supported in all three samples. First, personal self-esteem mediated the relationship between internal locus-of-hope and life satisfaction in all three samples. For Johor Bahru, standardized indirect effect = .15, 95 % bias-corrected CI [.08, .26]. For Macau, standardized indirect effect = .26, 95 % bias-corrected CI [.16, .36], and for Manila, standardized indirect effect = .16, 95 % bias-corrected CI [.10, .22]. Second, relational self-esteem mediated the relationship between external-family locus-of-hope and life satisfaction in all three samples. For Johor Bahru, standardized indirect effect = .16, 95 % bias-corrected CI [.08, .26]. For Macau,

standardized indirect effect = .05, 95 % bias-corrected CI [.01, .10], and for Manila, standardized indirect effect = .06, 95 % bias-corrected CI [.02, .11].

The two other significant indirect effects in Du et al. (2015) were supported in two of the three cultural samples. Relational self-esteem mediated the relationship between internal locus-of-hope and life satisfaction in the Macau (standardized indirect effect = .26, 95 % bias-corrected CI [.16, .36]), and Manila (standardized indirect effect = .16, 95 % bias-corrected CI [.10, .22]) samples. But for the Johor Bahru sample, internal locus-of-hope was not related to relational self-esteem. Personal self-esteem mediated the negative relationship between external-peer locus-of-hope and life satisfaction in the Johor Bahru (standardized indirect effect = -.08, 95 % bias-corrected CI [-.16, -.02]) and Macau (standardized indirect effect = -.03, 95 % bias-corrected CI [-.08, -.001]). But external-peer locus-of-hope was not associated with personal self-esteem in the Manila sample. So in summary, 10 of the 12 hypothesized indirect effects from Du et al.'s (2015) model (i.e., four indirect effects for each of the three samples) were supported by the data.

There were country-specific significant indirect effects that were not hypothesized but could still be interpreted as consistent with the general assumptions of model. In particular, the indirect effect external-spiritual locus-of-hope on life satisfaction was mediated by relational self-esteem in the Manila (standardized indirect effect = .04, 95 % bias-corrected CI [.01, .09]) sample and the indirect effect external-spiritual locus-of-hope on life satisfaction was mediated by both personal and relational self-esteem in the Johor Bahru sample (standardized indirect effect = .20, 95 % bias-corrected CI [.11, .29]). We noted that Du et al. (2015) actually predicted a negative indirect effect of external-spiritual locus-of-hope on life satisfaction mediated by relational self-esteem but did not find this to be significant in their Chinese sample, and instead they found direct effects. In contrast, the significant indirect effects found in our current study were both positive.

Discussion

The cross-cultural study was conducted to replicate a mediated model relating hope and life satisfaction in three Asian cultural samples. In doing so, we aimed to explore how cultural factors might relate to how hope, self-esteem, and life satisfaction relate to each other. We first note that two indirect effects found in Du et al. (2015) were replicated in all three samples. In all three cultures, internal locus-of-hope indirectly predicts life satisfaction, mediated by personal self-esteem. This particular finding is one that will also be predicted by the original hope theory (Snyder, 2002) and may be a universal principle about the personal strength of hope. The second replicated indirect effect shows that external-family locus-of-hope predicts life satisfaction but mediated by relational self-esteem. This alternative pathway draws from a form of hope that relates to shared agency with one's family. This form of hopeful thoughts give rise to positive self-worth as it this self-appraisal refers to one's role and responsibilities with significant others. In all three samples from cultures that emphasize interdependent self-construals, this relational self-esteem also relates to life satisfaction. We cannot claim that this path from external-family locus-of-hope to life satisfaction is specific only to interdependent cultures, and future research that tests the same pathways with more individualist cultures can test this proposition.

We note that in two samples (Macau and Manila), internal locus-of-hope was also associated with relational self-esteem, which suggests that hopeful thoughts about one's ability and means to meet life goals also gives rise to positive appraisals of oneself as part of their significant social relations. Consistent with Du et al.'s (2015) findings, internal locus-of-hope is positively related to both personal and relational self-esteem, which suggest that being a person who is capable of working towards one's goals is related to the self-evaluation of being valued in one's social group. Previous studies on academic outcomes suggest that Chinese and Filipino students' achievement strivings and outcomes associated with one's social relationships (Bernardo, 2019; King, Ganotice, & Watkins, 2014). Moreover, attaining one's academic goals further cements relationships (King, McInerney, & Watkins, 2012). But data from the Malaysian sample did not support that pathway, which may suggest that being

valued by their social groups is unrelated to thoughts about their own ability to meet their life goals. Another significant indirect effect as found with the Malaysian and Macau sample, where a negative relationship between external-peer locus-of-hope and life satisfaction mediated by personal self-esteem. In this case, thoughts about the role of one's peers in meeting life goals seem to be associated with less positive self-appraisals. Interestingly, no negative association was found between external-family locus-of-hope and personal self-esteem, which suggests that the role of one's family members and one's friends in meeting goals have different implications to one's self-worth, with only the latter having a negative implication to self-worth. This result replicated Du et al. (2015) but was not observed with Filipino participants for whom external-peer locus-of-hope was unrelated with any self-evaluation.

Du et al. (2015) found no significant mediated pathways from external-spiritual locus-of-hope and life satisfaction with his Chinese sample, but found a significant direct pathway, and the same was true with our Macau sample. But for the Malaysian and Filipino samples, strong beliefs about the role of their deity in attaining important goals was related to positive self-evaluations, and indirectly to life satisfaction. According to a global survey (Crabtree, 2010), 96% the population in both countries consider their religion to be an important part of their lives. In such cultural contexts, believing in the deity's role in goal attainment is associated with seeing oneself as a good person. In contrast, in the Macau Chinese cultural context where most people are not religious, the same belief relates to life satisfaction but it is not associated with the individuals' positive self-evaluations. This specific result highlights a cultural source that could account for the different results among the three Asian samples, and underscores the importance of referring to specific cultural meanings associated with goal-attainment and self-worth.

The first cultural assumption of the study was that shared or conjoint models of agency relate to different forms of hope among individuals from collectivist cultures. The indirect associations between specific external locus-of-hope dimensions and life satisfaction already provide evidence for how these culturally valued models of agency also contribute to life satisfaction. Interestingly, the external locus-of-hope construct suggests that the per-

sonal strength of hope can also be a shared strength for individuals in some cultures. Hope as a personal strength still indirectly predicts life satisfaction in our three Asian samples, but in addition specific forms of shared strengths also predict life satisfaction in these cultures. The notion of shared strengths seems worth exploring further in interdependent cultures where relationships with significant others such as parents, teachers, and peers also tend to predict life satisfaction (Chang, Yang, & Yu, 2017). Recently, other Asian scholars have suggested and developed measures for social hope (Jin & Kim, 2018) which pushes even further the notion of strengths at a collective level.

We acknowledge that our cultural arguments are constrained by some important limitations of our study. Most importantly, we did not actually measure specific cultural sources that can account for different results across the three samples. There might have been other covariates of hope, self-esteem, and life satisfaction that we did not measure or control for in our study. Our research design also involved a cross-sectional survey and a better test of our mediated models should have involved longitudinal data, which could be undertaken in future research studies. As we mentioned earlier, our attempt to do a cross-cultural replication of the mediated model involved all Asian cultures and a stricter test of the model should have involved a wider variety of cultures from various continents. Recently, positive outcomes have been associated with external locus-of-hope dimensions in North American samples (Munoz, Quinton, Worley, & Helman, 2018; Wagshul, 2018). Indeed, it will be most interesting to see whether the findings related to the external locus-of-hope mediated pathways will be replicated in more individualist cultures.

These limitations of our study notwithstanding, we believe our results clearly point to how established theories and empirical findings on the personal strength of hope need to be expanded to give due importance to how individuals from different cultures might construct the meaning of concepts like agency in goal-pursuit and self-worth. In psychologists' attempts to better understand the resources that allow individuals to flourish, it might be worth remembering that these resources do not just comprise personal strengths, but also important shared strengths).

Author notes

This research was supported by a grant from the University of Macau Research Development and Administration Office (Project No.: SRG014-FSH13-ABIB).

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LOW (NOT HIGH) TRAIT ANGER IS A PERSONAL STRENGTH IN ADOLESCENTS

BAJA (NO ALTA) IRA RASGO ES UNA FORTALEZA PERSONAL EN ADOLESCENTES

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Cómo referenciar este artículo/How to reference this article:

Alcázar-Olán R. J., González-Fragoso, C., Jiménez-Rodríguez, D., & Rojas-Solís, J. L. (2018). Low (not High) Trait Anger is a Personal Strength in Adolescents [Baja (no alta) Ira Rasgo es una fortaleza personal en adolescentes]. *Acción Psicológica*, 15(2), 83–94. <https://doi.org/10.5944/ap.15.2.21748>

Abstract

Low trait anger (the tendency to stay calm to cope with frustrating everyday situations) is a personal strength because it constitutes a good life for oneself and for others, and it is related to mental health. Its counterpart is high trait anger, defined as intense and chronic irritability, which usually has detrimental effects. The purpose of this study was to test three hypotheses in adolescents with high (n = 94) and low trait anger (n = 140), with a mean age of

13.06 (SD = 0.77). Hypotheses 1 and 2 addressed the parents' behavior (parenting practices), and hypothesis 3 assessed social skills, anger and aggression. In particular, compared to adolescents with high trait anger, those with low trait anger: (a) experience less imposition and psychological control (i.e., less negative parenting) from both, mother and father; (b) experience more communication, autonomy, and behavioral control (i.e., more positive parenting) from mother and father; and (c) present more social skills, reflected in lower levels of anger-out, lower aggression toward other individuals, and higher levels of anger self-control. The findings, as a

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Retrieved: July 12, 2018.

Aceptado: September 25, 2018.

result, supported the three hypotheses. Aggression and social skills did not differ according to gender. However, female participants experienced higher levels of trait anger than did male participants.

Keywords: Aggression; Anger; Parental practices; Personality; Social skills.

Introduction

People differ in their tendencies to experience anger (Kuppens, 2005; Wilkowski & Robinson, 2010). Some individuals are highly reactive. They get angry even under minimal provocation, expressing their anger in destructive manners, hurting themselves or other individuals, and these reactions are more frequent, intense, and long-lasting compared to the way that most people would react. Individuals with these characteristics have been identified as people with high trait anger (Deffenbacher et al., 1996; Spielberger, 1999). Other individuals represent the opposite side. They keep calm even when they are facing frustrating situations, seeking nonviolent solutions and analyzing problems with neutrality. Although they may get angry, they feel this emotion less often, for shorter periods of time, and they usually adopt the point of view of other people to understand an interpersonal conflict. Individuals with these characteristics have been identified as people with low trait anger (Deffenbacher et al., 1996; Spielberger, 1999). Since individuals with high and low trait anger usually differ in substantial manners (Deffenbacher et al., 1996; Owen, 2011; Spielberger, 1999; Tafrate, Kassonove, & Dundin, 2002), trait anger is a useful construct to delimit individual differences where some people are more chronically prone to anger than others.

This paper is about trait anger in adolescents, understanding adolescence as a transitional period from 11 to 19 or 20 years old, between childhood and adulthood, that implies physical, cognitive and psychosocial changes (Papalia, Olds, & Feldman, 2009). Two perspectives support that low trait anger is a positive trait in adults and adolescents, compared to high trait anger. First, based on the character strengths and virtues model (Gillham et al.,

2011; Park, Peterson, & Seligman, 2004; Peterson & Seligman, 2004), low trait anger is a strength because: (a) it contributes to the fulfillment of situations that constitute a good life, for oneself and for others; (b) it is related to mental health; (c) it is trait-like, that is, it has a degree of generality across situations and stability across time; (d) it is embodied in consensual paragons, that is, we value people who do not express every negative emotion they experience; (e) it has a “negative” antonym (high trait anger), and (f) it represents a positive trait across history and across cultures.

Second, empirical evidence reveals constructive correlates of low trait anger in adolescents (Alcázar-Olán & Deffenbacher, 2013; Alcázar-Olán, Jurado, & Reyes, 2015; Quinn, Rollock, & Vrana, 2014), suggesting again that it is a positive trait. Specifically, compared to individuals with high trait anger, those with low trait anger: (a) have their anger triggered by fewer situations; (b) become angered less often; (c) become slightly or moderately angered; (d) experience anger for shorter periods of time; (e) avoid or distract from negative, angry recall of past and from potential future mistreatment, disrespect and provocations; (f) rarely engage in aggressive expressions of anger, and (g) cope or handle their anger in adaptive, constructive ways (Alcázar-Olán & Deffenbacher, 2013; Alcázar-Olán et al., 2015; Quinn et al., 2014).

While differences between individuals with high and low trait anger have been replicated (Alcázar, Deffenbacher, Hernández-Guzmán, & Wilson, 2011; Deffenbacher, Alcázar-Olán, Kocur, & Richards, 2014; Deffenbacher, Lynch, Oetting, & Yingling, 2001), some interpersonal aspects warrant further investigation.

In particular, anger is an interpersonal emotion where the adolescent's immediate environment (e.g., parents' behavior and their rearing styles) has an impact on the behavior and emotions of adolescents (Kitamura, Ohashi, Murakami, & Goto, 2014; Van Lissa, Keizer, Van Lier, Meeus, & Branje, 2019; Yang, Bin, Yi, & Le-ping, 2009). In reciprocity, adolescents' reactions also impact their parents. Based on studies about experiencing and expressing anger, where high and low trait anger are chronic, and relatively stable (Deffenbacher, 1993; Deffenbacher et al.,

2014; Takebe, Takahashi, & Sato, 2016), it is valid to assume that parent-adolescent interactions differ in individuals with high and low trait anger. It is relevant to explore parenting practices that contribute to rearing adolescents with low trait anger, unlike practices associated with rearing adolescents with high trait anger.

Although the trait anger construct has received little attention with regard to parenting practices, research on parenting practices and emotions in adolescents reveal helpful insights. For instance, negative parenting (e.g., inconsistent behavior and punitive reactions) is associated with anger, aggression, and externalizing problems in children (Becht, Prinzie, Dekovic, Akker, & Shiner, 2016; Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010; Tao, Zhou, & Wang, 2010). Moreover, low levels of emotional warmth and high levels of rejection and control from the parents are accompanied by high levels of anger/hostility in adolescents (Muris, Meesters, Morren, & Moorman, 2004).

Based on these findings, this research tested two hypotheses about trait anger and parenting practices. Specifically, compared to adolescents with high trait anger, those with low trait anger experience: (a) less negative parenting practices (e.g., less imposition or blaming about something) and (b) more positive parenting practices (e.g., more autonomy and communication with their parents).

Parental practices might be related not only to low and high trait anger, but also to the social skills and anger management strategies employed by adolescents. For instance, parental punitive reactions predict externalizing problems, including anger (Tao et al., 2010). On the contrary, positive parenting practices are associated with higher levels of prosocial skills (Koblinsky, Kuvalanka, & Randolph, 2006). Based on the assumption that low trait anger is a personal strength (Peterson & Seligman, 2004), this research assessed a third hypothesis. Compared to adolescents with high trait anger, those with low trait anger display higher levels of social skills, which are reflected in lower levels of anger and aggression toward other individuals, and higher levels of anger self-control.

A usual assumption is that men are more aggressive than women. A classic meta-analytic study showed that

men are somewhat more aggressive than women on average (Bettencourt & Miller, 1996), but another review found that differences are inconsistent across studies (Eagly & Steffen, 1986). Other meta-analytic studies did not find gender differences on anger and aggression (Archer, 2004; Campbell, 2006). Given the lack of clear tendencies about anger and gender, this study did not make specific predictions.

Regarding gender and parenting practices, both parents have more communication and supervision concerning friends with girls than with boys (Betancourt Ocampo, 2007). However, another study found that mothers supervise in a greater extent than fathers do (Calvete, Gámez-Guadix, & Orue, 2010), indicating contradiction in the findings. The mother exerts more psychological control on girls than on boys, while the father exerts this type of control in the same extent on both genders (Betancourt Ocampo, 2007). This research included gender as a demographic variable to explore differences in parenting practices.

Based on the assumption that low trait anger is a personal strength, the aim of the study was to compare adolescents with high and low trait anger regarding parenting practices, social skills (assertion/aggression), and their anger expression and control. It also explored gender differences with regard to these variables.

Method

Participants

The initial sample had 710 participants (329 male and 381 female). The mean age was 13.06 ($SD = 0.77$). Participants were students from second and third year in a public middle school, located in the state of Hidalgo, which is 90 minutes from Mexico City. Most of the students had siblings (93.4 %), and 59.6 % lived in the same house with their mother, father, and siblings.

From the full sample ($n = 710$), based on the goals of the study, researchers recruited only those with high and low trait anger, and who lived with their mother and father.

This was relevant to assess parenting practices from both parents. Low trait anger was operationally defined as scoring in the lower quartile (score < 16) in the Trait Anger Scale (see Instruments), and high trait anger as scoring in the upper quartile (score > 24) in the Trait Anger Scale. Lower and higher quartiles are the standard criteria to detect individuals with low and high trait anger (Deffenbacher et al., 1996; DiGiussepe & Tafrate, 2003). This yielded 140 participants (73 male, 67 female) with low trait anger, and 94 (35 male, 59 female) with high trait anger.

Instruments

Multicultural Latin American Inventory of Anger Expression and Hostility for Adolescents of Middle School Level. This Spanish-language inventory measures the experience and expression of anger (Alcázar-Olán, Deffenbacher, & Escamilla-Tecalco, 2016). The anger experience dimension has two scales (trait and state anger), while the anger expression dimension has three scales (anger control-in, anger control-out, and anger-out). The Trait Anger Scale (10 items, $\alpha = .86$) assesses how often the individual feels anger or the propensity to feel this emotion across time and situations; for example, "I am hotheaded." The score from the Trait Anger Scale was the independent variable, used to create the high and low anger groups (high scores = upper quartile; low scores = lower quartile). The other scales (state anger, anger control-in, anger control-out, anger-out) and the instruments described below were the dependent variables.

The State Anger Scale (10 items, $\alpha = .91$) assesses anger intensity and the desire to express anger physically or verbally; for example, "I want to hit someone." The Anger Control-In Scale (7 items, $\alpha = .88$) measures the attempts to reduce one's anger through relaxation; for example, "I breathe deeply to relax." The Anger Control-Out Scale (5 items, $\alpha = .78$) refers to controlling one's behavior during anger episodes; for example, "I stay calm." The Anger-Out Scale (6 items, $\alpha = .75$) assesses the direct anger expression toward other individuals; for example, "I show my anger to other people." Answer choices range from 1 (*almost never*) to 4 (*almost always*). Higher scores reflect higher frequency of the emotion or content of the item.

The inventory has construct validity for Mexican adolescents (Alcázar-Olán et al., 2016).

Children's Assertive Behavior Scale. The scale measures assertiveness and aggression, and it was published in English by Michelson and Wood (1982). The original English version was translated into Spanish by Aguilar (1995), who contacted 10 experts to review the translation. Then, Lara and Silva (2002) refined the Aguilar's translation by adding three judges, experts in assertiveness and aggressiveness. The latter version was used in this study. The assertive style refers to respecting one's own rights and the rights of others, while the aggressive style refers to behavior and attitudes to damage others and lack of consideration toward other people. The scale evaluates the children's reactions, with an aggressive or assertive style, in two types of situations. Each situation is presented to the child and s/he chooses the answer about what s/he would normally do or say.

The first type of situations (20 items) are about giving or receiving compliments and complaints. As examples, we cite original items of Michelson & Wood (1982):

"Someone you were supposed to meet arrives 30 minutes late, which makes you upset; the person says nothing about why s/he is late. You would usually:

- (a) Say 'I am upset that you kept me waiting like this.'
- (b) Say 'I was wondering when you'd get here.'
- (c) Say 'This is the last time I'll wait for you.'
- (d) Say nothing to the person.
- (e) Say 'You are a jerk! You are late.'" (Michelson & Wood, 1982, p. 10).

The second type of situations (seven items) are related to things that anger the child or blame them for something. For example:

"You know that someone is feeling upset. You would usually:

- (a) Say 'You seem upset; can I help?'
- (b) Be with them and not talk about their being upset.
- (c) Say 'What's wrong with you?'
- (d) Not say anything and leave them alone.

(e) Laugh and say ‘You’re just a big baby!’” (Michelson & Wood, 1982, p. 10).

Unlike Michelson and Wood (1982), the scores for the Mexican version of the scale were coded as stated in Lara and Silva (2002, p. 54) as: 1 = assertive response, 2 = partially passive response, 3 = completely passive response, 4 = partially aggressive response, and 5 = completely aggressive response. Lower scores indicate assertiveness, and higher scores aggressiveness.

The use of the Children’s Assertive Behavior Scale is appropriate for the present study, given the following reasons: (a) the scale was adapted to Mexican samples (Aguilar, 1995; Lara & Silva, 2002) including ages between 9 and 17 years old (Lara & Silva, 2002); (b) the scale has construct validity and acceptable reliability, $\alpha = .80$ (Lara & Silva, 2002); and the items appropriately discriminate (*t*-tests) individuals with high from those with low scores (Lara & Silva, 2002).

Parental Practices Scale. Andrade and Betancourt (2008) constructed this scale in Spanish to measure behavior and practices that Mexican adolescents perceive in their parents. The scale has valid constructs to assess parental practices from both, mother and father (Andrade & Betancourt, 2008). Regarding the father, the scale has four factors. First, Communication and Behavioral Control (16 items, $\alpha = .97$), which assesses whether the adolescent informs about his/her activities to his/her father (communication), and the knowledge the father has about the activities done by the adolescent or knowledge about his/her everyday life (behavioral control); for example, “My father and I talk about my problems” (communication), and “My father knows about the things I do in my spare time” (behavioral control). Second, Autonomy (8 items, $\alpha = .94$), which refers to the respect the father shows toward the decisions made by the adolescent; for example, “My father respects my opinion, even if it is different from what he thinks.” Third, Imposition (8 items, $\alpha = .90$) that measures the extent to which the father imposes his beliefs or behavior upon the adolescent; for example, “My father thinks he is right in everything.” Fourth, Psychological Control (8 items, $\alpha = .90$), which assesses detrimental behavior from the father toward the adolescent, like criticiz-

ing and devaluing, or inducing guilt upon the adolescent; for example, “My father blames me for anything.”

Regarding the mother, the scale has five factors. First, Communication (11 items, $\alpha = .92$); for example, “My mother and I talk like good friends.” Second, Autonomy (7 items, $\alpha = .86$); for example, “My mother supports my decisions.” Third, Imposition (8 items, $\alpha = .81$); for example, “My mother wants me to be like she is.” Fourth, Behavioral Control (7 items, $\alpha = .84$); for example, “My mother knows what I do in the afternoons, after school.” Fifth, Psychological Control (8 items, $\alpha = .80$); for example, “My mother makes me feel useless.”

Communication, autonomy and behavioral control scales assess positive (healthy) parenting styles, while imposition and psychological control scales assess negative (unhealthy) parenting styles. The answer choices range from 1 (*never*) to 4 (*always*); higher scores indicate higher frequency of the behavior and practices assessed.

Procedure

Both the institutional review processes and the middle school authorities approved the research. None of the scales required reverse scoring. Researchers trained 16 research assistants, undergraduate students of psychology (four teams consisting of four people), who administered all the instruments in Spanish. The assistants introduced the topic of research and requested the participation of the students, clarifying that the participation was anonymous and voluntary, and that they could decline participating at any moment. When the students had completed the questionnaires, they raised their hands while seated, and one of the assistants collected the questionnaire and thanked them for their participation. The teachers were present at least during the reading of the instructions, and one of the researchers supervised and helped when needed. Each group had approximately 50 students, and the administration of the questionnaires took 50 minutes in each group.

The design of the study was 2 x 2 (gender x anger groups) and used a multivariate analysis of variance (MANOVA) with the Wilks’ Lambda (λ) statistic and eta squared (η^2) as measure of effect size. This was interpreted with Cohen’s criteria: .01-.04 small, .04 to .14 moderate,

Table 1.

Anger, gender and parental practices in adolescents.

Measures	Male		Female		ANOVA <i>F</i> (1, 421)	Effect Size (η^2)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Assertive/aggressive behavior						
Aggression when giving/receiving compliments	36.11	8.22	34.87	8.20	2.40	.006
Aggression in anger/guilt situations	17.67	5.35	17.83	5.27	0.09	.000
Positive/healthy parenting						
Communication and behavioral control (father)	2.82	0.77	2.63	0.89	5.18*	.012
Communication (mother)	3.10	0.67	3.07	0.83	0.17	.000
Behavioral control (mother)	3.09	0.65	3.24	0.66	5.72*	.013
Autonomy (father)	3.14	0.65	3.02	0.77	2.79	.007
Autonomy (mother)	2.99	0.61	2.84	0.73	4.63*	.011
Negative/unhealthy parenting						
Imposition (father)	1.77	0.53	1.67	0.57	3.44	.008
Imposition (mother)	1.96	0.60	2.01	0.62	0.96	.002
Psychological control (father)	1.31	0.42	1.36	0.50	0.81	.002
Psychological control (mother)	1.48	0.50	1.61	0.67	5.17*	.012
Anger experience						
Trait anger	18.67	6.10	20.47	6.82	7.97*	.019
State anger	11.67	3.06	12.00	3.64	1.03	.002
Anger expression						
Anger control-in	18.63	6.12	18.06	5.97	0.90	.002
Anger control-out	12.29	3.86	11.67	3.88	2.65	.006
Anger-out	10.56	2.95	11.12	3.60	2.95	.007

Note. * $p < .05$.

and greater than .14 large (1988). When multivariate effects were found, univariate effects were analyzed.

Results

The 2 x 2 MANOVA showed significant effects for group and gender, $\lambda_s = .087$ and $.836$, $F_s(16, 215) = 141.01$ and 2.64 , $ps < .001$ and $.01$, and $\eta^2_s = .913$ and $.164$, but not for the interaction, $F(16, 215) = 0.96$. Since the MANOVA was significant for the group and gender, the next step was to identify the main effects for these variables through univariate ANOVA's. These effects are presented in Tables 1 and 2. With regard to gender, from the 16 measures, the univariate analyses revealed differences in five variables (Table 1). Mother and father had more communication with and gave greater autonomy to male than to female adolescents. However, the mother exerted more psychological and behavioral control on female than on male adolescents. Effect sizes

were moderate. Female adolescents experienced higher trait anger than male adolescents (Table 1).

The univariate analyses also yielded substantial differences in parenting practices between adolescents with high and low trait anger (Table 2). Compared to those with high trait anger, adolescents with low trait anger perceived less imposition and psychological control (less detrimental messages) from both mother and father. In addition, adolescents with low trait anger experienced more communication, autonomy, and behavioral control (more knowledge about the adolescent's life) with their mother and father than adolescents with high trait anger. Effect sizes were small to moderate.

In terms of anger expression and social skills (Table 2), compared to adolescents with high trait anger, those with low trait anger exhibited less aggressive reactions when giving/receiving compliments and when they were blamed for something, and they showed lower expressions of anger toward other individuals (anger-out), which was

Table 2.

Low and high trait anger groups, aggression, and parental practices.

Measures	Low TA		High TA		ANOVA F (1, 232)	Effect Size (η^2)
	M	SD	M	SD		
Assertive/aggressive behavior						
Aggression when giving/receiving compliments	33.27	7.67	38.46	9.71	20.71***	.082
Aggression in anger/guilt situations	15.62	4.89	20.17	5.60	43.19***	.157
Positive/healthy parenting						
Communication and behavioral control (father)	2.89	0.82	2.58	0.87	7.24**	.030
Communication (mother)	3.20	0.75	2.93	0.87	5.97*	.025
Behavioral control (mother)	3.25	0.67	3.02	0.66	6.76*	.028
Autonomy (father)	3.24	0.65	2.89	0.82	12.75***	.052
Autonomy (mother)	3.07	0.65	2.69	0.80	15.99***	.064
Negative/unhealthy parenting						
Imposition (father)	1.66	0.53	1.85	0.62	6.17*	.026
Imposition (mother)	1.90	0.55	2.09	0.71	5.47*	.023
Psychological control (father)	1.23	0.45	1.47	0.53	14.16***	.058
Psychological control (mother)	1.37	0.51	1.86	0.76	34.16***	.128
Anger experience						
State anger	10.82	1.65	13.91	5.02	45.77***	.165
Anger expression						
Anger control in	20.15	6.31	16.62	5.66	18.98***	.076
Anger control out	13.47	4.29	10.61	3.31	29.73***	.114
Anger out	9.71	2.82	13.24	3.83	65.52***	.220

Note. TA = Trait anger. * $p < .05$, ** $p < .01$, *** $p < .001$.

also reflected in higher levels of anger control-in (i.e., relaxing) and higher anger control-out (managing one's behavior when angry). Effect sizes were moderate to large.

Discussion

This research studied low trait anger as a personal strength in adolescents. The findings supported that compared to adolescents with high trait anger, those with low trait anger experience less imposition and psychological control (being blamed) from their parents (Hypothesis 1), more autonomy, communication and behavioral control from their parents (Hypothesis 2), and more social skills, reflected in lower levels of anger-out, lower aggression toward other individuals, and higher levels of anger self-control (Hypothesis 3). The findings may be discussed from two perspectives.

First, the results are consistent with the literature that examined the characteristics of individuals with high versus low trait anger (Alcázar-Olán & Deffenbacher, 2013; Deffenbacher et al., 1996; Quinn et al., 2014). However, the contribution of the present study is that of characterizing one of the environments (parenting practices perceived by the adolescents) to experience low trait anger. Since parents are the immediate interpersonal context of their offspring, parents influence the emotions felt by their children and adolescents (Cummings & Smith, 1993; Shortt et al., 2010). Moreover, given that parent-adolescent interactions are relatively permanent, then it is plausible to conceive that parental practices may contribute to chronically experiencing high or low trait anger (Kitamura et al., 2014).

Second, the results and previous findings (Alcázar-Olán & Deffenbacher, 2013; Alcázar-Olán et al., 2015; Quinn et al., 2014) indicate that compared to adolescents with high trait anger, those with low trait anger showed more social skills, anger self-control, and lower aggression toward others. The results support that low trait anger is a positive trait (Park et al., 2004; Peterson &

Seligman, 2004) because it was measurable and differentiated from high trait anger, it was related to positive outcomes, and it had an antonym that was “negative” (high trait anger). Therefore, the low trait anger construct deserves attention and further study from the strengths and virtues model (Park et al., 2004; Peterson & Seligman, 2004). For instance, new research may identify the mechanisms of interpersonal variables (e.g., family, peers or community contexts) that contribute to develop low trait anger, that is, anger management strategies as personality traits, which result in more social skills and lower aggression in adolescents.

Current and previous findings (Kitamura et al., 2014; Yang et al., 2009) indicate an association between rearing styles and trait anger in adolescents. Based on these results, it is valid to address the mechanisms of this relationship. For example, why do parenting styles result in low or high trait anger in adolescents? We propose that negative/unhealthy parenting produces negative affect in adolescents and, subsequently, this results in high trait anger. This might be particularly true when negative/unhealthy parenting is pervasive, thus producing constantly high levels of both, negative affect and trait anger. Although it is hard to establish cause-effect relationships, our perspective is that adolescents might be reacting (through high negative affect and trait anger) to the negative/unhealthy parenting behavior. This explanation is consistent with Berkowitz’s view that negative affect (unpleasant feelings produced by aversive events), like negative parenting behavior, is the origin or trigger of anger (Berkowitz, 1983, 2001).

Moreover, the absence of negative affect may be useful to explain low trait anger in adolescents. Specifically, positive/healthy parenting may reduce negative affect, and the reduction of negative affect leads to low trait anger in adolescents. Future research may examine these pathways.

Aggression and social skills did not differ by gender. Men and women appear more similar than different on these variables, which supports other studies (Archer, 2004; Campbell, 2006). In relation to gender and parenting practices, this research replicated a previous finding (Betancourt Ocampo, 2007), that both parents have more

communication with boys than with girls. Another finding that was replicated is that mothers exert more psychological and behavioral control on female than on male adolescents (Betancourt Ocampo, 2007). These findings indicate positive rearing practices for males in a greater extent than for females, who received more negative parenting behavior (e.g., psychological control). The gender and cultural context might help to understand the results because some societies give more privileges and positive attention to males than females (Ridgeway, 2011), and these patterns might be reflected in the rearing practices. This may help to comprehend another finding: female adolescents experienced higher trait anger than male adolescents.

This research has some limitations, for example, the use of self-reporting. However, this strategy is appropriate to investigate internal states like anger. The assessment of aggression, social skills and parenting practices should include observational methods in future studies. Another limitation is that we assessed adolescents’ perceptions about their parents, but not their actual parenting practices. Therefore, the adolescents might be over or underreporting their parents’ behavior. Moreover, adolescents with high trait anger might perceive the parents’ behavior in a more negative manner, compared to adolescents with low trait anger.

The study of perceptions, however, is not necessarily misleading. For instance, the perceptions (as opposed to objective measures) are critical in determining the psychopathology in children. Children with internal and external symptoms generally have negative perceptions of their parents (Yahav, 2006). Another study found that adolescents with high trait anger perceive angrier parents, compared to adolescents with low trait anger (Alcázar-Olán & Deffenbacher, 2013). Research about the relationships between parents and their offspring (Finley, Mira, & Schwartz, 2008; Rohner, 2000; Rohner, Khaleque, & Cournoyer, 2005) show that perceptions are as important or more important than actual parent behavior.

Another limitation was the small range of age of the participants ($M = 13.06$, $SD = .77$), which corresponds to the beginning of the adolescence. Therefore, the results correspond only to this age, and not to all the adolescents (ages between 11 and 19).

Although the parents may exert an influence on the emotions of their adolescents, the design of the study limits drawing cause-effect conclusions. An alternative explanation is a circular perspective, where parents and adolescents have reciprocal influence that results in low (or high) trait anger in adolescents. The findings lead to conclude, at most, that low trait anger is related to positive parenting practices (as perceived by the adolescents), and that it is related to higher levels of social skills, and lower anger and aggression.

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CHARACTER STRENGTHS, SOCIODEMOGRAPHIC CHARACTERISTICS, AND LIFE SATISFACTION IN MEXICAN STUDENTS

FORTALEZAS DEL CARÁCTER, CARACTERÍSTICAS SOCIODEMOGRÁFICAS Y SATISFACCIÓN CON LA VIDA EN ESTUDIANTES MEXICANOS

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Cómo referenciar este artículo/How to reference this article:

Ruvalcaba-Romero N. A., Gallegos-Guajardo, J., Alfaro-Beracoechea, L. N., & Orozco-Solís, G. (2018). Character strengths, sociodemographic characteristics, and life satisfaction in Mexican students [Fortalezas del carácter, características sociodemográficas y satisfacción con la vida en estudiantes mexicanos]. *Acción Psicológica*, 15(2), 95-106. <https://doi.org/10.5944/ap.15.2.22207>

Abstract

The main purpose of this study was to identify the existing relationship between character strengths and life satisfaction, as well as some sociodemographic aspects

related to gender differences. Both the Virtue and Strength Inventory (IVYF; Cosentino & Castro, 2008) and the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen & Griffin, 1985) were administered to 343 undergraduate students whose primary major of study pertained to health professions. Results indicated that for

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Retrieved: May 3, 2018.

Aceptado: July 25, 2018.

women, love and gratitude are the strengths that explained 21.3 % of the variance regarding satisfaction with life, while love and social intelligence predicted 44.5 % of life satisfaction for men. Results are discussed under the light of cultural differences.

Keywords: Character strengths; Life satisfaction; Gender differences; Mexican adults.

Introduction

Positive psychology offers a way to go beyond pathology prevention by focusing on the promotion of mental health (Kobau et al., 2011). The work of positive psychology is orientated towards helping individuals function at their optimal state, and it is encouraged through actions that cultivate positive emotions and the improvement of skills, resources and psychological strengths (Kobau et al., 2011; Martínez-Martí, 2006; Seligman, Steen, Park, & Peterson, 2005). The purpose of this epistemological proposal is the overall improvement of all individuals and communities by simultaneously seeking enhancement of wellbeing and quality of life and preventing the development of physical and mental health problems (Ferragut, Blanca, & Ortiz-Tallo, 2014; Kobau et al., 2011).

Within its developmental process, positive psychology has paved way for a wide field of research with the following four focus areas: subjective, individual, institutional, and collective –in groups– (Consentino, 2009; Kobau et al., 2011). The subjective area is focused on the study of satisfaction, happiness, gratitude, and experiences that foster wellbeing; the individual area focuses on positive character traits such as values, talent, and human strengths; the institutional area's focus is on the identification of organizations that promote the development of skills and positive subjective experiences; and finally, in the collective/group area, the focus is on positive relationships (Seligman & Csikszentmihalyi, 2000).

The study of positive personality traits has been a prominent topic that has gathered major attention in the last few years, as it diverges from the traditional focus on negative indicators and risk factors (Consentino, 2009).

These character traits include a variety of predispositions, such as creativity, courage, and optimism, which help an individual to interact positively with his or her environment. Peterson and Seligman (2004) were the authors who strongly promoted the study of good character from the beginning of positive psychology, which is built with different components and levels of complexity. Virtues are central characteristics of personality, which have been valued positively by thinkers and religious figures throughout history (Dahlsgaard, Peterson, & Seligman, 2005; Peterson & Seligman, 2004). Strengths, placed in the next level of the hierarchy, are defined as psychological characteristics that make up and manifest basic virtues of the human being (Peterson & Seligman, 2004). Situational themes, found in the most basic level, are specific habits that take place during the practice of certain strengths (Consentino, 2009).

Peterson and Seligman (2004) developed a classification for human strengths and virtues which seeks to unify the existing personality classifications in diagnostic manuals and provide a scientific tool to evaluate interventions designed within positive psychology. Seeking to identify universal values (common human virtues among different cultures, theories, and authors), Peterson and Seligman created this classification from the analysis of different cultures and religions. The authors proposed the existence of 24 global strengths in the following six virtues: wisdom and knowledge (which include creativity, curiosity, open-mindedness, love of learning, and perspective); courage (consisting of bravery, persistence, integrity, and zest); humanity (includes love, kindness, and social intelligence); justice (citizenship, fairness, and leadership); temperance (involves forgiveness, humility/modesty, prudence, and self-regulation); and transcendence (a group made up of appreciation of beauty and excellence, gratitude, hope, humor, and spirituality).

Character strengths have been associated with an increase in positive emotions, the propensity to compromise, the development of enriching relationships, the motivation to reach personal goals, and a feeling of living a meaningful and fulfilling life (Eguiluz & Plasencia, 2014; Ferragut et al., 2014; Seligman, 2011). In this way, human strengths are considered psychologically satisfactory, making the relationship between character strengths and life satisfac-

tion, another main subject of this theoretical proposal, evident as a factor of wellbeing (Castro & Cosentino, 2016; Seligman, 2011).

One factor that influences differences in character strengths is gender, as noted by the observation that females were more likely to display love, gratefulness, and solidarity, while males usually demonstrated more self-regulation and bravery (Castro & Cosentino, 2016; Buschor, Proyer, & Ruch 2013; Shimai, Otake, Park, Peterson, & Seligman, 2006). However, other studies have reported higher scores for men in zest, prudence, self-regulation, and optimism (Reyes & Ferragut, 2016), and higher scores for women in appreciation of beauty, kindness, love, and gratitude (Heintz, Kramm, & Ruch, 2019). Taking these differences into account, gender might be a variable influencing the variability in the association between character strengths and other factors.

Character strengths and life satisfaction

The interaction between character strengths and satisfaction with life is an area that has been deeply studied in several population sectors, due to the psychologically enriching character of human strengths (Eguiluz & Plasencia, 2014). Life satisfaction is defined as the assessment a person places upon his or her life, resulting in the balance they perceive between their accomplishments and initial expectations (Pavot & Diener, 1993).

The first research conducted on this subject discovered that among adults of the United States, the character strengths of hope, vitality, love, gratitude, and curiosity were strongly associated with a greater satisfaction with life (Park, Peterson, & Seligman, 2004). Meanwhile, character strengths such as modesty, appreciation of beauty, creativity, perspective, and love for learning, were weakly related to this contentment with life. Following initial works, the study of the relationship between human strengths and satisfaction with life became a targeted research area in myriad places around the world.

In studies conducted with adults from countries like Croatia, Germany, Slovenia, Switzerland, and the United States, it is again found that kindness, hope, vitality, love,

gratitude, optimism, and curiosity appear to be the character strengths that have the strongest correlation with life satisfaction (e.g., Boehm, Lyubomirsky, & Sheldon, 2011; Brdar & Kashdan, 2010; Buchanan & Bardi, 2010; Buschor et al., 2013; Gradišek, 2012; Peterson et al., 2007; Proyer, Gander, Wyss, & Ruch, 2011). Nevertheless, some slight differences were observed in different studies. For example, in studies of German-speaking adults living in Switzerland, it is reported that the strengths with a stronger relationship with satisfaction of life were hope, vitality, love, social intelligence, and perseverance (Martínez & Ruch, 2014). Furthermore, in Peterson, Ruch, Beermann, Park, and Seligman (2007) work, where adults from the United States and Switzerland participated, it is mentioned that for Americans, gratitude is the factor with the highest predictive value of life satisfaction, while for the Swiss, perseverance appeared to occupy this position.

Similarly, Gradišek (2012) mentioned in a study conducted with school teachers that humor is also a strength heavily related to life satisfaction. On the other hand, it was found that for young adults, hope predicted higher satisfaction with life, in comparison to samples from adults, in which love and citizenship were found to be the most significant predictors (Isaacowitz, Vaillant, & Seligman, 2003).

In Latin America, there are only a few studies that have studied this relationship. Results from a study conducted in Colombia conveyed that the strengths that hold the highest association with satisfaction of life were vitality, gratitude, hope, perseverance, and love (Porto & Fonseca, 2016). As for Mexico, Eguiluz and Plasencia (2014) reported that the strengths that showed the strongest correlation with life satisfaction were love, appreciation for beauty, gratitude, and hope. Meanwhile, the strengths that exhibited a weaker association with life satisfaction were modesty, self-regulation, love for knowledge, perseverance, prudence, and forgiveness.

Another example which demonstrated cultural differences for Latin America is the study carried out by Vela, Scott, Ikonompoulos, González, and Rodríguez (2017). This study explored the role of character strengths in Mexican-American students. Results revealed that op-

timism, grit, and gratitude were significant predictors of life satisfaction.

As aforementioned, there are significant differences in the character strengths associated with life satisfaction among populations. One factor that may explain this disparity relates to the cultural differences that exist between the countries where this relationship has been examined. According to some authors, one cultural element that influences the orientation to happiness and life satisfaction is the perspective about the participation of the individual in the social context (Ahuvia, 2001; Park & Huebner, 2005; Park, Peterson, & Ruch, 2009). As mentioned by Ahuvia (2001), countries with higher levels of socioeconomic development tend to favor a more individualistic posture, while developing countries tend to promote a more collectivist approach. Hofstede (2011) defines individualistic cultures as those with loose ties between the individuals that make up the society, where a person is expected to satisfy his or her own needs and pursue personal happiness above social obligations. On the contrary, according to the author, collectivist cultures integrate individuals into strong social groups since birth, where happiness and life satisfaction is achieved through the sense of meaning and belonging.

Current study

As literature demonstrates, the relationship between character strengths and satisfaction with life is a subject that has been profoundly studied in various countries, mainly due to the influence it has on mental health and the optimal state of wellbeing in individuals. Nevertheless, despite the relevance that this interaction has regarding the promotion of health, there have only been a few studies that have explored this relationship in Latin America, particularly in Mexico and especially at the predictive level. Likewise, the relationship based on gender differences has not been explored yet. Therefore, this study has adopted the goal of exploring these areas in greater detail. Considering that Mexico is a collectivist country, it was hypothesized that the character strengths related to the virtues of humanity and transcendence are the ones that cause a higher impact on satisfaction with life.

Method

Participants

For the current study, a convenience sample was used. It was composed of 343 undergraduate students pursuing a bachelor's degree in a variety of health-related areas of study, with an age range between 17 and 30 years old ($M = 20.91$, $SD = 2.95$). The group consisted of 30 % males and 70 % females.

Instruments

Sociodemographic form. Sociodemographic data was evaluated through a form in which age, occupation, gender, area of residence, marital status, and education level were taken into account.

Virtues and Strengths Inventory (IVyF; Cosentino & Castro, 2008). This measure is an inventory that was developed to evaluate six virtues and 24 character strengths according to classification made by Peterson and Seligman (2004). This measure includes 24 items that describe a person that exhibits the specific characteristics that pertain to the strength to be evaluated. This measure simultaneously describes a person with a lack of those characteristics. For example, an individual who encompasses the strength of gratitude is described as the following: "I see myself as a lucky person because I believe I have been blessed in life; every day I have a profound feeling of gratitude. Furthermore, I express my gratitude with the people who are good to me." For the same strength, the corresponding description for an individual who lacks the quality of gratitude is as follows: "There are few things for which I feel grateful, and I don't feel the need to say thank you or express my gratitude with the people that are good to me". The response options are comprised of a 5-point Likert scale that ranges from option 1 ("I am very similar to person 1") to option 5 ("I am very similar to person 2"). This instrument has proven to have adequate psychometric properties evaluated through test-retest stability, exhibiting correlation coefficients for each response that oscillate between .73 and .92 (Cosentino, 2009).

Satisfaction with Life Scale (SWLS; Diener et al., 1985). This measure is a unifactorial scale with five items and seven Likert type answer choices ranging from 1 (“Strongly disagree”) to 7 (“Strongly agree”). The instrument was designed to measure global cognitive judgments of satisfaction with one’s life. Some sample items include item 1 (“In most ways my life is close to my ideal”) and item 5 (“If I could live my life over, I would change almost nothing”). This measure usually requires only about a couple of minutes of a respondent’s time. It has reported adequate psychometric properties (Padrós, Gutiérrez, & Medina, 2015). A Cronbach’s alpha of $\alpha = .722$ was obtained in this study.

Procedure

The measures were administered during an ordinary school schedule and on a written paper-and-pencil format.

The measures were collected in the classrooms with prior informed consent. Afterwards, data was captured and analyzed using the SPSS software v. 21. Descriptive statistics were calculated, and Pearson correlations and linear regression analyses were performed.

Results

The descriptive results for each of the variables in this study divided by gender are found in Table 1. For both genders, self-regulation reported the lowest scores.

With the purpose of identifying the relationship between character strengths and some sociodemographic variables, Pearson correlation coefficients were calculated. Results are reported in Table 2. As it can be ob-

Table 1.

Satisfaction with life and character strengths descriptive statistics (in ascending order).

	Male					Female			
	Mean	S.D.	Min	Max		Mean	S.D.	Min	Max
Life Satisfaction	5.15	.984	2.4	7	Life Satisfaction	5.36	.926	2	7
Self-regulation	3.05	.957	1	5	Self-regulation	3.02	1.069	1	5
Spirituality	3.14	1.295	1	5	Citizenship	3.35	.909	1	5
Love	3.20	1.239	1	5	Humility	3.45	.864	1	5
Persistence	3.21	1.008	1	5	Forgiveness	3.49	.907	1	5
Humility	3.28	.946	1	5	Spirituality	3.52	1.095	1	5
Citizenship	3.31	1.002	1	5	Love of learning	3.56	.901	1	5
Forgiveness	3.32	.942	1	5	Humor	3.58	.905	1	5
Humor	3.39	1.048	1	5	Hope	3.58	1.073	1	5
Love of learning	3.44	.944	1	5	Bravery	3.70	.908	1	5
Hope	3.49	.969	1	5	Persistence	3.72	1.033	1	5
Prudence	3.60	.876	1	5	Love	3.74	1.005	1	5
Zest	3.62	.845	1	5	Social Intelligence	3.81	.927	1	5
Bravery	3.72	.922	1	5	Prudence	3.82	.838	1	5
Fairness	3.75	1.067	1	5	Creativity	3.83	.911	1	5
Leadership	3.76	.889	1	5	Zest	3.89	.832	1	5
Social Intelligence	3.77	1.136	1	5	Leadership	3.89	1.037	1	5
Appreciation of beauty	3.79	.891	2	5	Appreciation of beauty	3.98	.905	1	5
Open mindedness	3.79	.988	2	5	Open mindedness	4.01	.923	1	5
Integrity	3.81	1.089	1	5	Curiosity	4.05	.851	1	5
Gratitude	3.82	.978	1	5	Fairness	4.08	.918	1	5
Kindness	3.91	.922	1	5	Perspective	4.08	.729	2	5
Curiosity	4.00	.888	1	5	Gratitude	4.13	.849	1	5
Creativity	4.01	.904	1	5	Integrity	4.19	.795	1	5
Perspective	4.09	.830	2	5	Kindness	4.23	.705	2	5

served, only the variable of social intelligence showed a statistically significant correlation with both age and educational level. Spirituality and Integrity reported a weak but positive and statistically significant correlation with age, and in the same way, Citizenship with educational level. On the other hand, Curiosity reported a negative and statistically significant correlation with education level.

Table 2.

Statistically significant correlations with the variables of age and educational level.

Strengths	Age	Education Level
Spirituality	.107*	
Integrity	.114*	
Social Intelligence	.157**	.108*
Citizenship		.108*
Curiosity		-.180**

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

Aiming to identify the character strengths with the highest association with life satisfaction, Pearson correlations were also performed, and the results are reported in An, which includes the correlation coefficients of men on the top portion and women on the bottom portion (see Appendix 3).

Table 3.

Linear regression analysis of character strengths on satisfaction with life (Male).

	R ²	F	β	p
Model 1	0.445	4.314***		
Social Intelligence			.405***	.001
Love			.293*	.011
Forgiveness			.187	.117
Humor			.141	.212
Kindness			-.124	.321
Gratitude			.086	.496
Fairness			-.080	.505
Creativity			.060	.559
Zest			.060	.592
Citizenship			-.058	.583
Leadership			-.049	.653
Hope			.028	.805
Spirituality			.001	.991

Note. * $p < .05$, ** $p < .01$, *** $p < .00$.

In order to explore the predictive level of each of the character strengths on life satisfaction, variables with significant statistical relevance were entered into a linear regression analysis. Results are reported in Tables 3 and 4. It was observed that for women, the only variables that remained statistically significant were gratitude and love; for men, love and social intelligence reported the highest predictive levels for life satisfaction.

Table 4.

Linear regression analysis of character strengths on satisfaction with life (Female).

	R ²	F	β	p
Model 1	0.213	4.475***		
Gratitude			.172*	.017
Love			.152*	.024
Curiosity			.136	.068
Integrity			.127	.077
Spirituality			.091	.181
Self-regulation			.065	.334
Hope			.052	.453
Perspective			.039	.589
Social Intelligence			.032	.648
Leadership			.018	.797
Zest			.004	.955
Persistence			.003	.966

Note. * $p < .05$, ** $p < .01$, *** $p < .00$.

The analysis that explored how character strengths predict life satisfaction revealed that social intelligence ($b = .40$) and love ($b = .29$) predicted 44 % of the variance of satisfaction with life in men, while gratitude ($b = .17$) and love ($b = .15$) predicted 21 % of the variance of satisfaction in life in women. The remaining character strengths lost significance in both models.

Discussion

The purpose of this study was to explore the relationship between character strengths and life satisfaction in Mexican undergraduate students and to further examine gender differences. According to the results presented, it is important to notice that the magnitudes of the significant correlations between satisfaction with life and character strengths were higher in men than in women. The stronger

correlations between satisfaction with life and character strengths in women were found in gratitude ($r = .32$), integrity ($r = .26$), love ($r = .24$), curiosity ($r = .24$), and zest ($r = .22$), while in men, the stronger correlations with life satisfaction were found in social intelligence ($r = .50$), love ($r = .43$), hope ($r = .35$), humor ($r = .33$), and forgiveness ($r = .30$). These results contradict the findings of other authors (Castro & Cosentino, 2016; Buschor et al., 2013; Shimai et al., 2006), and although the size of the sample may be a factor to consider, it could also reveal that in the current sample, character strengths may have more significant weight in life satisfaction for men than for women.

According to this sample, the results suggest that the virtues that predict satisfaction with life are those related with humanity and transcendence, as was hypothesized. It was observed that people give special importance to strengths related to interpersonal relationships that may enhance social support. These results could be related with the idea of Ahuvia (2001), who stated that collectivist characteristics in developing countries usually give special importance to the social group and social support as elements that promote life satisfaction.

On the other hand, satisfaction with life implies recognition of whether good living conditions and personal goals have been achieved. Therefore, in women, gratitude as the recognition and appreciation for what has been received and achieved is consistent with those who experience life satisfaction and well-being (Lambert, Fincham, Stillman, & Dean, 2009).

When comparing the results to other studies (i.e., Park et al., 2004; Peterson et al., 2007), there is an evident similarity in which the character strengths of love and gratitude were also the most related to life satisfaction, while the love for knowledge was the least related construct. Nevertheless, in both analysis of correlations and linear regression, social intelligence, defined as the ability to understand and manage emotions in relation to others (Peterson & Seligman, 2004), was found to also be strongly related in our male sample, revealing and reaffirming the idea that men place particular importance on interactions with other individuals when evaluating the quality of their lives.

Social intelligence and love also scored highly and positively with life satisfaction in the study of Martínez-Martí and Ruch (2014), which is similar to the results reported in the present study. Other character strengths that were associated with life satisfaction within this study sample were hope, vitality, and perseverance, reporting positive relationships for both men and women.

When comparing the results of the present study with studies that have been conducted in Latin America and Mexico, similarities in the emphasis of love and gratitude as character strengths highly related with life satisfaction were found (Porto & Fonseca, 2016; Vela et al., 2017). The authors also found associations of life satisfaction with vitality, hope, and perseverance; however, in the present study, these strengths which showed a positive and significant correlation did not result to be significant in the linear regression analysis that was conducted. Furthermore, these strengths did not reveal a predictive value on life satisfaction. A similar study by Eguiluz and Plasencia (2014) concluded that appreciation for beauty maintained a strong positive correlation with satisfaction with life, but in the present study, it did not hold a predictive value nor a significant association.

Taking into account that the current sample exclusively contains only undergraduate students, the results of this study showed that age has been positively correlated with the development the character strengths of social intelligence, integrity, and spirituality. Additionally, educational level reported to be positively associated with social intelligence and citizenship, but held a negative association with curiosity. These results are different from those reported in the study of Isaacowitz et al. (2003), which explored the predictive value of hope on life satisfaction with young adults from the United States. Unlike the study aforementioned, hope did not result as a significant factor in this regression analysis, while love did have a predictive value for the current sample. These results shed light on the possible cultural differences that may influence satisfaction with life in Mexican young adults.

Additionally, the findings of the present study are different from those found in the first approximations to the construct, where all the character strengths were related to life satisfaction (Park et al., 2004). Thus, it is possible that

there may be differences in the weight given to the character strengths related to interpersonal relationships and social support in Mexican culture. Cultural differences regarding the effect of character strengths over satisfaction with life have been approached in the study of Boehm et al. (2011), who concluded that individualist cultures enhance life satisfaction through personal achievement, while collectivist cultures are oriented to avoid self-focused gratifications.

It is important to interpret these findings taking into account some limitations encountered in the current study, such as the number of participants in the sample and their specific characteristics. Future research should increase a broader sample in terms of age, career paths, and socioeconomic level in order to determine if there are existing differences based on occupational status. Longitudinal studies are also suggested to explore the differences of these relationships over time.

In conclusion, the current study reveal that some character strengths, particularly love and social intelligence as part of the humanity virtue, and the strength of gratitude, from the transcendence virtue, contribute positively to life satisfaction. Future research should study other dimensions of subjective and psychological well-being such as the experience of positive emotions, self-esteem, and mastery of the environment in accordance to character strengths and virtues across all age groups within the Mexican population.

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Appendix

Character strengths and Life satisfaction correlation analysis. Male on the top section and female on the bottom section.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Life Satisfaction	1	.068	.239*	.005	.234*	.429**	-.062	.261**	.256*	.038	.499**	.298**	.225*
2. Appreciation of beauty	.066	1	-.003	-.119	.341**	-.007	.048	.223*	.076	.167	.062	-.039	.262**
3. Fairness	.002	.078	1	.049	.149	.382**	-.106	.324**	.202*	.180	.277**	.462**	.106
4. Persistence	.195**	-.042	.102	1	.053	.055	.136	.059	.068	.187	-.028	.014	-.030
5. Creativity	.087	.123	.186**	.156*	1	.142	.116	.310**	.292**	.398**	.287**	.067	-.001
6. Love	.244**	.072	.035	.140*	.112	1	-.034	.205*	.264**	-.007	.263**	.291**	.234*
7. Self regulation	.146*	.061	.076	.210**	.145*	-.015	1	.031	.050	.161	.085	-.052	-.136
8. Gratitude	.321**	.058	.240**	.129*	.241**	.140*	.127*	1	.252*	.159	.262**	.151	.156
9. Leadership	.147*	.015	.106	.190**	.220**	.185**	.085	.122	1	.011	.365**	.201*	.003
10. Open mindedness	.081	.166*	.083	.242**	.192**	.085	.293**	.175**	.203**	1	.236*	.127	-.072
11. Social Intelligence	.168**	.085	.022	.244**	.191**	.186**	.071	.144*	.236**	.003	1	.192	.256*
12. Forgiveness	.041	.084	.208**	-.043	.105	.073	.152*	.133*	.041	.103	.085	1	.228*
13. Spirituality	.206**	-.010	.065	.128*	.088	.164*	.061	.290**	.111	-.015	.122	.147*	1
14. Citizenship	.062	.019	.059	.046	-.050	.152*	-.036	.069	.198**	.070	.234**	.081	.127
15. Bravery	.041	.059	-.078	.130*	.228**	.115	.057	.112	.196**	.090	.297**	-.045	.041
16. Curiosity	.242**	.138*	.103	.153*	.308**	.103	.059	.247**	.306**	.256**	.165*	.085	.028
17. Kindness	.022	.271**	.259**	.088	.198**	.199**	.051	.327**	.105	.183**	.105	.165*	.186**
18. Hope	.205**	.008	.164*	.168**	.169**	.182**	.120	.214**	.120	.243**	.030	.147*	.105
19. Integrity	.258**	.011	.170**	.243**	.166*	.089	.199**	.274**	.174**	.197**	.191**	.099	.152*
20. Perspective	.176**	.123	.217**	.128*	.240**	.067	.225**	.126	.200**	.261**	.120	.185**	-.060
21. Prudence	.092	.078	.203**	.175**	.120	.028	.186**	.211**	.006	.274**	.048	.205**	.094
22. Humor	.097	.032	-.015	.064	.149*	.137*	-.020	.169*	.127	-.098	.131	.139*	.173*
23. Humility	.032	-.087	.270**	.095	.030	-.115	.107	.201**	-.104	.144*	-.053	.116	.078
24. Love for knowledge	-.102	.014	.096	.013	.162*	.045	.048	-.007	.056	.218**	-.013	.048	-.096
25. Zest	.221**	.069	.113	.349**	.296**	.193**	.191**	.331**	.125	.164*	.227**	.096	.157*

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

Character strengths and Life satisfaction correlation analysis. Male on the top section and female on the bottom section (continued).

	14	15	16	17	18	19	20	21	22	23	24	25
1. Life Satisfaction	.220*	.111	.177	.261**	.350**	.102	.172	-.037	.327**	-.128	.114	.249*
2. Appreciation of beauty	-.051	.149	.153	.235*	-.020	.219*	.162	-.044	.029	-.192	.017	.084
3. Fairness	.120	.010	.267**	.429**	.247*	.385**	.163	.097	.275*	.164	.069	.191
4. Persistence	.095	.118	.068	.075	.100	.156	.050	.130	-.126	.171	.140	.100
5. Creativity	.119	.282**	.302**	.364**	.144	.392**	.308**	-.033	.306**	-.232*	.201	.212
6. Love	.275**	-.012	.184	.396**	.330**	.283**	.149	.084	.310**	.084	.006	.189
7. Self regulation	.036	.130	.059	.028	.071	.193	.096	.181	-.068	-.052	.158	.157
8. Gratitude	.161	.246*	.407**	.463**	.190	.176	.319**	.009	.266*	-.077	-.020	.525**
9. Leadership	.334**	.151	.205*	.269**	.185	.109	.276**	-.124	.170	-.200	.164	.247*
10. Open mindedness	-.056	.323**	.311**	.356**	.098	.357**	.307**	.170	.021	.127	.285**	.095
11. Social Intelligence	.330**	.333**	.210*	.472**	.370**	.250*	.387**	-.185	.330**	-.204	.101	.207
12. Forgiveness	.012	-.012	.121	.208*	.380**	.129	.312**	.157	.024	.009	.178	.232*
13. Spirituality	.099	.084	.026	.264**	.218*	-.024	.195	.085	.044	-.037	-.119	.008
14. Citizenship	1	-.036	.068	.151	.123	-.001	.075	.062	.386**	-.287**	-.241*	.092
15. Bravery	.027	1	.197*	.326**	-.082	.188	.350**	-.115	.168	-.151	.374**	.178
16. Curiosity	.066	.225**	1	.346**	.164	.261**	.302**	.078	.301**	-.050	.058	.376**
17. Kindness	.096	.010	.255**	1	.298**	.335**	.459**	.005	.352**	-.007	.070	.296**
18. Hope	.143*	.068	.246**	.078	1	.156	.246*	.079	.253*	.148	.062	.237*
19. Integrity	.123	.154*	.186**	.162*	.265**	1	.243*	.036	.122	-.002	.314**	.322**
20. Perspective	-.104	.136*	.380**	.268**	.169**	.258**	1	.064	.157	-.078	.110	.297**
21. Prudence	.089	.083	.182**	.163*	.220**	.272**	.208**	1	-.135	.094	.073	.287**
22. Humor	.152*	-.007	.092	.116	.071	-.001	.047	-.113	1	-.244*	.056	.140
23. Humility	-.141*	-.110	.070	.110	.040	.207**	.062	.265**	-.081	1	.034	-.133
24. Love for knowledge	.031	.107	.254**	.064	.126	-.043	.042	.147*	.056	.114	1	.148
25. Zest	.209**	.193**	.292**	.283**	.237**	.270**	.192**	.128	.202**	.051	.085	1

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

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MODELO DE ENVEJECIMIENTO ACTIVO: CAUSAS, INDICADORES Y PREDICTORES EN ADULTOS MAYORES EN CHILE

ACTIVE AGING MODEL: CAUSES, INDICATORS AND PREDICTORS IN CHILEAN ELDERLY PEOPLE

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Cómo referenciar este artículo/How to reference this article:

Fernández, F., Nazar, G. y Alcover, C.-M. (2018). Modelo de envejecimiento activo: causas, indicadores y predictores en adultos mayores en Chile [Active Aging Model: Causes, Indicators, and Predictors in Chilean Elderly People]. *Acción Psicológica*, 15(2), 109–128. <https://doi.org/10.5944/ap.15.2.22903>

Resumen

Con el aumento de la población adulta mayor a nivel mundial, existe un creciente interés por comprender los factores implicados en el envejecimiento activo. No obstante, lo extendido del uso del constructo y de investigaciones en la materia, aún persisten complejidades en su operacionalización y factores predictores. En el presente estudio se

diseñó un modelo de envejecimiento activo utilizando un modelo MIMIC (Múltiple Causas y Múltiples Indicadores), una variante de ecuaciones estructurales, en una muestra de 204 adultos mayores chilenos. La funcionalidad física y cognitiva, junto a variables asociadas a la tonalidad afectiva, aparecen como causas, mientras que la ausencia de sintomatología depresiva y la condición de activo en el mercado laboral, aparecen como indicadores de envejecimiento activo. El modelo mostró un ajuste satis-

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Recibido: 18 octubre de 2018.

Aceptado: 23 de noviembre de 2018.

factorio, $\chi^2(80) = 107.8$, $p = .34$, CFI = .942, TLI = .942 y RMSEA = .0416, $p = .74$, y permitió generar un indicador de envejecimiento activo, a partir del cual se identificaron sus predictores. Las variables sociales mostraron una alta capacidad predictiva ($R^2 = .214$), seguidas por las variables de estilo de vida ($R^2 = .154$) y características individuales ($R^2 = .137$). El modelo propuesto se considera un aporte relevante en la operacionalización de envejecimiento activo.

Keywords: Envejecimiento activo; Modelo de envejecimiento; Adulto mayor; Promoción de salud.

Abstract

With the increase in the elderly population worldwide there is an increasing interest for understanding the factors involved in the successful or active aging. However, despite the use of the construct and studies on the issue, complexities persist in its operationalization and its predicting factors. In the present study, a model of active aging using a MIMIC model (Multiple Causes and Multiple Indicators) a variant of structural equations was used, in a sample of 204 Chilean elderly. Both physical and cognitive functionality, together with variables associated to affective tone appear as causes, whereas the absence of depressive symptoms and the active role in the labor market appear as indicators of active aging. The model showed a good fit, $\chi^2(80) = 107.8$, $p = .34$, CFI = .942, TLI = .942 y RMSEA = .0416, $p = .74$ and allowed generating an indicator of active aging, from which its predictors were identified. Social variables showed high predictive capacity ($R^2 = .214$), followed by variables related to lifestyle ($R^2 = .154$) and individual variables ($R^2 = .137$). The proposed model is considered as a significant contribution in the operationalization of the active aging.

Palabras clave: Active aging; Aging model; Elderly; Health promotion.

Introducción

A nivel mundial la población adulta mayor ha experimentado un crecimiento exponencial en las últimas seis décadas. La proporción de países y regiones (195 en todo el mundo) que a nivel global envejecen con porcentajes de envejecimiento (65 años y más) superiores al 7.0 % aumentó del 19.0 % (37/195) en el año 1960 al 46.7 % (91/195) en 2017 (Li, Han, Zhang y Wang, 2019). En Chile, el índice de envejecimiento (número de personas de 65 años y más por cada 100 menores de 15 años) creció de 22.3 en 1992 a 56.8 en 2017 (INE, 2017). Estos cambios sociodemográficos generan un creciente interés de gobiernos e instituciones por diseñar e implementar políticas que contribuyan a mejorar la calidad de vida de las personas mayores. Simultáneamente, la comunidad científica busca comprender la complejidad del proceso de envejecimiento, qué lo caracteriza y cómo ha evolucionado en las últimas décadas.

En la literatura geriátrica predominaron las teorías que consideraban el envejecimiento como un proceso caracterizado por el deterioro y el declive de funciones en las personas, así como por su inevitable y gradual retiro de las relaciones sociales y la sociedad (Cumming y Henry, 1961). Sin embargo, esta concepción se transformó en un paradigma más positivo de la vejez (Zaidi y Howse, 2017). Así, la perspectiva centrada en lo biológico y la ausencia de enfermedad (Rowe y Kahn, 1987) se complementó con modelos que integran aspectos subjetivos y de naturaleza psicosocial (Rowe y Kahn, 1997), los cuales reconocen la amplia variabilidad del proceso de envejecimiento y las barreras estructurales que discriminan a las poblaciones más vulnerables (Organización Mundial de la Salud [OMS], 2002).

En consecuencia, la OMS acuña el concepto de envejecimiento activo (EA) a finales de los años 90. Este nuevo concepto plantea una visión más global que las del envejecimiento exitoso (Rowe y Khan, 1987) y el envejecimiento saludable (World Health Organization [WHO], 1990), y lo considera como un proceso que se desarrolla de una forma positiva, acompañado durante toda la vida de oportunidades continuas de *salud, participación y seguridad*, con el fin de mejorar la calidad de vida de las personas (OMS, 2002).

El interés por comprender el EA ha generado una amplia variedad de estudios que intentan precisar su conceptualización (e.g., Bousquet et al., 2015; Cosco, Prina, Perales, Blossom y Brayne, 2014; Depp y Jeste, 2006) y comprender sus criterios y predictores (Fernández-Ballesteros et al., 2010; Peel, McClure y Bartleet, 2005; Pruchno et al., 2010). Sin embargo, no existe un acuerdo generalizado de lo que lo define ni de cómo operacionalizarlo (Liotta et al., 2018). Junto a esto, se han identificado diversidad de indicadores o criterios de EA, lo que incide en las estimaciones de su prevalencia (Depp y Jeste, 2006; Peel et al., 2005), y genera confusión entre indicadores y predictores (Fernández-Ballesteros et al., 2010).

Si bien el proceso de envejecimiento tiene un componente biológico que lo hace similar en distintos grupos y poblaciones, la noción de EA debe considerar la particularidad de los contextos locales y culturales.

La presente investigación tiene como principal objetivo poner a prueba un modelo de EA e identificar sus predictores utilizando una muestra de adultos mayores de zonas urbanas de una región del centro sur de Chile. A continuación, tras presentar los principales modelos teóricos y la evidencia empírica que los sustenta, se formula una propuesta contextualizada de un modelo biopsicosocial de EA, el cual se somete a una primera comprobación empírica.

Tradicionalmente, el envejecimiento se ha caracterizado por un declive fisiológico y cognitivo inevitable, además del retiro gradual de las personas de la sociedad (Cumming y Henry, 1961). Rowe y Kahn (1987) desafiaron esta concepción al rechazar que solo pueda ser entendido solo en términos de pérdida. Propusieron el concepto de envejecimiento exitoso (EE) y lo diferenciaron del «envejecimiento normal» y «patológico», que al ser demasiado categóricos no permitían reconocer la amplia variabilidad con que las personas envejecen. El EE se caracteriza por una baja probabilidad de enfermar, buen funcionamiento físico y mental y compromiso activo con la vida, condiciones que se ven potenciadas por variables ambientales y estilo de vida, tradicionalmente subestimados en el estudio del envejecimiento.

Posteriormente, Baltes y Baltes (1990; Baltes, 1997) propusieron el modelo de Selección, Optimización y Compensación (SOC), basado en la perspectiva más amplia del ciclo vital. El modelo concibe el EE como un proceso que implica la selección de metas, la optimización de medios para alcanzar esas metas y la búsqueda de compensaciones cuando están ausentes los medios disponibles para lograrlas. A diferencia de Rowe y Kahn (1987), quienes enfatizaban la importancia de aspectos psicológicos y estilos de vida en la promoción del EE, Baltes y Baltes (1990) privilegian la adaptación a los cambios y el papel del aprendizaje en la reducción o ralentización del declive mental y psicológico propio de la edad. El EE se refiere a cómo las personas afrontan las pérdidas y cambios negativos, y a cómo priorizan metas y crean contextos que les permitan dar sentido a sus vidas.

Las dimensiones del constructo pueden ser de naturaleza objetiva, como la probabilidad de enfermar y el funcionamiento físico y mental (Rowe y Kahn, 1997), o subjetiva, como la auto-percepción de cuán exitoso considera su proceso de envejecer (Strawbridge, Wallhagen y Cohen, 2002).

Más recientemente, la conceptualización de la OMS (2002) adopta un enfoque biopsicosocial con el concepto de EA, el cual enfatiza el involucramiento activo de las personas mayores y su participación continua en la sociedad. Cosco et al. (2014) y Depp y Jeste (2006) identificaron una amplia variedad de formas de operacionalizar el constructo, tanto en el tipo como en el número de dimensiones incluidas (Cosco et al., 2014). La mayoría incluye la funcionalidad física y el funcionamiento cognitivo, junto a variables psicosociales como bienestar, satisfacción con la vida y participación social. En menor medida se consideraron recursos personales (como autonomía e independencia y rasgos de personalidad), factores extrínsecos (finanzas o elementos del medio ambiente) y la propia evaluación del grado en que se envejece con éxito. Por su parte, los enfoques biomédicos incluyen indicadores como la ausencia de enfermedad, el funcionamiento físico, la ausencia de discapacidad y el funcionamiento cognitivo (e.g., McLaughlin, Jette y Connell, 2012), mientras que los enfoques más psicosociales consideran indicadores de bienestar y satisfacción con la vida (e.g., Baltes y Baltes, 1990). El número de indicadores variaba entre uno y

cinco, siendo la utilización de un sólo indicador lo más frecuente, y como ya se ha señalado, el fisiológico es el indicador más utilizado (Cosco et al., 2014).

La cantidad de indicadores para evaluar EA influye en su prevalencia, con una relación inversa entre ambos, es decir, a mayor cantidad de indicadores, menor prevalencia (Depp y Jeste, 2006).

La operacionalización del constructo y su medición en la población ha permitido identificar los predictores de EA (Fernández-Ballesteros et al., 2010; Depp y Jeste, 2006; Peel et al., 2005). Sin embargo, existe cierta confusión dado que algunos estudios identifican indicadores que en otros se consideran predictores; así, por ejemplo, la participación laboral puede considerarse indicador de EA, pero también puede ser una variable que lo predice.

En la revisión de predictores de EA se han identificado la menor edad (Blanco, 2010; Fernández-Ballesteros et al., 2010), mayor educación y nivel de renta, y vivir en pareja (Pruchno et al., 2010). Otros predictores comprenden el estilo de vida, en el que se incluye el consumo moderado de alcohol, la realización de actividad física y la dieta (Dahany et al., 2014; Fernández-Ballesteros et al., 2010; Pruchno et al., 2010), así como ciertas condiciones de salud, como ausencia de obesidad, de dislipidemia, de hipertensión y de diabetes (Hodge, English, Giles y Flicker, 2013). Otras evidencias apoyan la relación entre EA e inteligencia y capacidad cognitiva (Blanco, 2010), y variables psicológicas como el bienestar psicológico (Dahany et al., 2014) y la autoeficacia (Blanco, 2010). Por otra parte, se ha reconocido la influencia del entorno físico y social, especialmente del apoyo social que perciben los adultos mayores (Gallardo-Peralta, Conde-Llanes y Córdova-Jorquera, 2016; Pruchno et al., 2010), la generatividad (Villar, López y Celdrán, 2013) y espiritualidad (Dahany et al., 2014).

Considerando las definiciones previas de EE y EA y el enfoque del ciclo vital, esta investigación plantea una propuesta de modelo de EA basada en los siguientes supuestos: (a) el envejecimiento es un proceso complejo, de carácter multidimensional, que debe incluir necesariamente elementos físicos, cognitivos, psicológicos y de participación social, los que en su conjunto permitan dar cuenta de

la amplia variabilidad individual en el proceso de envejecimiento; (b) la conceptualización del EA requiere considerar elementos objetivos como la ejecución en un ámbito específico (e.g., funcionamiento cognitivo), así como aspectos subjetivos (e.g., la percepción de bienestar); y (c) la evaluación del EA no solo debe considerar el funcionamiento del momento presente, sino considerar la perspectiva del pasado y la historia de vida de la persona.

El modelo de EA propuesto considera que el EA es una variable latente, no observable directamente, que es causada por las dimensiones constituyentes del constructo, que sí pueden ser medidas de forma directa: funcionalidad física, cognitiva y psicológica, y participación social de la persona. En este caso, se utiliza un modelo de medición denominado formativo, en el cual la selección de determinadas variables, denominados determinantes o causas, operacionaliza cómo se conceptualiza el constructo, no siendo posible eliminar ninguno de ellos sin afectar sustantivamente la definición de éste; la causalidad va dirigida desde el indicador al constructo. Por el contrario, en el modelo de medición reflexivo, utilizado en el análisis factorial exploratorio y confirmatorio, los indicadores son causados por el factor y pueden ser reemplazados sin afectar de manera sustantiva al constructo (Diamantopoulos y Winklhofer, 1996).

Para estimar el modelo de medición formativo propuesto, se utilizó SEM usando el denominado análisis MIMIC (*Multiple Indicators Multiple Causes Model*). Este modelo matemático indica que para identificar los valores de la variable latente es necesario contar tanto con *múltiples causas* como *múltiples indicadores* para el constructo. La idea básica es que el EA es una variable latente única, que tiene por *causa* por las dimensiones de la variable, y que cuenta como *indicadores* a los criterios de lo que es considerado un EA positivo (Jöreskog y Goldberger, 1975). Se prefiere el método MIMIC a otras formas alternativas de estimar el modelo formativo, ya que solo involucra utilizar un modelo de medición con variables relacionadas directamente al constructo y no un modelo estructural con variables no relacionadas, que pueden afectar de forma espuria el resultado del modelo (Freeze y Raschke, 2007).

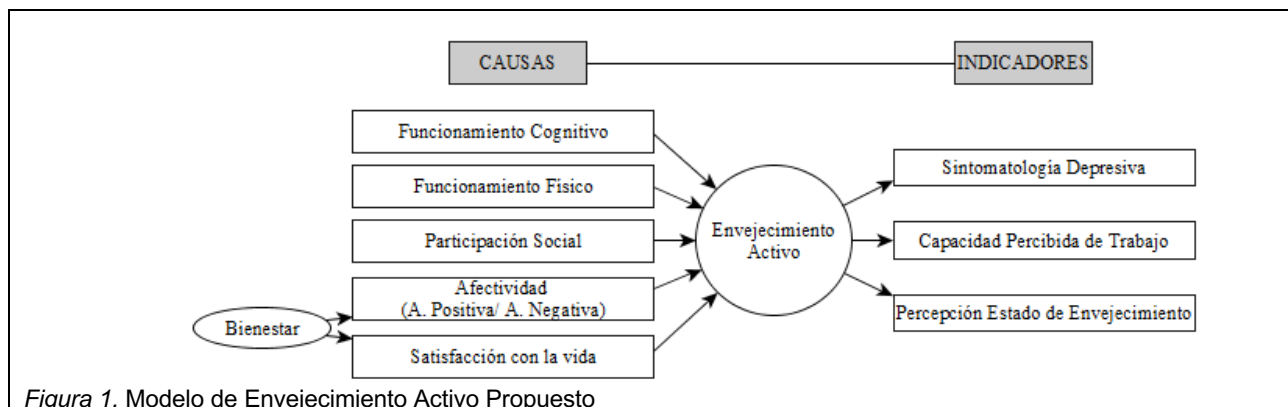


Figura 1. Modelo de Envejecimiento Activo Propuesto

A partir de la revisión de literatura, el modelo considera como *causas* de EA: (a) funcionamiento cognitivo, entendido como la respuesta global de diferentes áreas intelectuales; (b) funcionamiento físico, referido a las capacidades físicas de la persona mayor que determinan su autonomía e independencia en su contexto (Rowe y Kahn, 1997; Cosco et al., 2014); (c) participación social y laboral, entendidas como el involucramiento activo en grupos o en la actividad laboral (OMS, 2002); y (d) bienestar, específicamente afectividad y satisfacción con la vida, que alude al grado en que una persona juzga de un modo global su vida (Diener, Emmons, Larsen y Griffin, 1985).

Como indicadores se incluyeron: (a) sintomatología depresiva y presencia de sentimientos de desánimo, variable incluida en el modelo dada la evidencia de que este grupo presenta mayor sintomatología depresiva respecto a grupos etarios menos longevos (Cerquera y Meléndez, 2010); (b) capacidad percibida de trabajo, toda vez que existen, especialmente en países latinoamericanos, barreras culturales que potencian los estereotipos negativos de la capacidad de las personas mayores (Figueroa y Nazar, 2015), lo que dificulta su acceso y mantenimiento en el mercado laboral (Alcover y Topa, 2018); en consecuencia, mantener la actividad laboral más allá de la edad legal de retiro se considera un indicador de EA; y (c) percepción de estado de envejecimiento a través de la consulta a un tercero significativo al participante, con el objetivo de contrarrestar el potencial sesgo del autorreporte.

La Figura 1 presenta gráficamente el modelo propuesto con el EA como variable latente y sus respectivas *causas* e *indicadores*.

Una vez formulado el modelo y habiéndose transformado el EA de una variable latente a una observable, este estudio se propuso analizar el potencial predictivo de ciertas variables identificadas en estudios empíricos de otros contextos (Blanco, 2010; Dahany et al., 2014; Fernández-Ballesteros et al., 2010; Hodge et al., 2013; Pruchno et al., 2010). Estos predictores fueron: (a) variables sociodemográficas: sexo, edad, escolaridad, estado civil, situación de pareja, religión y previsión de salud; (b) antecedentes generales de salud: presencia de sobrepeso y obesidad, dislipidemia, hipertensión y diabetes; y (c) estilo de vida: dieta, actividad física, consumo de tabaco, alcohol y otras drogas, y horas de sueño y descanso.

Método

Participantes

Los participantes fueron adultos mayores entre 60 a 75 años de edad que habitaban zonas urbanas de una región del centro sur de Chile. Se accedió a la muestra a través de centros de salud y de centros comunitarios y, a modo de facilitar la aplicación de instrumentos, fueron excluidas del estudio personas con discapacidad visual y auditiva severa.

La muestra total estuvo compuesta por 204 personas, 132 mujeres y 72 hombres, con un promedio de edad de 66.18 años. La mayoría de los participantes se encontraban casados (60.80 %) y en convivencia con sus parejas

(64.85 %). En relación a la condición laboral, aproximadamente la mitad de los participantes se encontraban jubilados (47.25 %), dedicando las mujeres principalmente el tiempo a labores domésticas (74.23 %), mientras que la mayor parte de los hombres (65.40 %) refirieron trabajar a tiempo completo o parcial. En relación al nivel educativo, el 48.27 % de los participantes contaban con educación básica o media completa, en contraste con el 35.5 % que tenía estudios incompletos. El 17.2 % había finalizado estudios superiores. En relación a la previsión de salud, el 74.9 % de los participantes se encontraba afiliado a la red de salud pública, mientras que el grupo restante se distribuyó de forma equitativa entre la previsión dependiente de la defensa nacional y los sistemas privados. Respecto a la religión, la mayoría de los participantes refirió tener una religión (77.35 %). Sobre la condición objetiva de salud, reportaron diagnóstico de hipertensión (60.78 %), dislipidemia (46.61 %) y diabetes (26.51 %). Respecto del estilo de vida, se encontraron indicadores positivos como ausencia de consumo de tabaco (82.35 %), abstinencia de alcohol (51.37 %) o su consumo moderado (3.43 %).

Procedimiento

La recolección de datos se llevó a cabo durante el segundo semestre del año 2015 y primer semestre del año 2016 y fue realizada por evaluadores entrenados en los domicilios o centros de salud de los participantes. Previo a la recolección de datos el estudio fue sometido a evaluación y fue aprobado por el Comité de Ética del Departamento de Psicología de la Universidad de Concepción.

Instrumentos

La funcionalidad física fue evaluada a través del Índice de Barthel (ver en Cid-Ruzafa y Damián-Moreno, 1997) instrumento que informa la capacidad de una persona para realizar diez actividades de la vida diaria (comer, trasladarse entre la silla y la cama, uso del baño, ducharse, desplazarse subir/bajar escaleras, vestirse/ desvestirse, control de heces y control de orina), y que permite obtener una estimación cuantitativa de su grado de independencia. La prueba se evalúa en una escala de 0 a 10 puntos o de 0 a 15 puntos, según corresponda a cada ítem. Estudios reportan un alfa de Cronbach de 0.90-0.92 (Shah, Vanclay y

Cooper, 1989, citado en Cid-Ruzafa y Damián-Moreno, 1997) y en esta investigación fue de 0.606. Estudios de validez han reportado relaciones significativas con indicadores de motricidad y evaluaciones clínicas (Cid-Ruzafa y Damián-Moreno, 1997).

El funcionamiento cognitivo fue evaluado a través del *Mini Mental State Examination* (Folstein, Robins y Helzer, 1983) instrumento de *screening* de deterioro cognitivo que consta de 11 ítems: orientación temporal, orientación espacial, recuerdo inmediato, atención o cálculo, recuerdo diferido de palabras, nominación de dos objetos, repetición de una frase, comprensión de una orden verbal y una escrita, escritura de una oración y copia de un diagrama. En Chile se encuentra validada en su versión modificada obteniendo una sensibilidad 93.6 y una especificidad de 46.1, y su puntuación de corte para descartar deterioro cognitivo es de 21 puntos (Quiroga, Albala y Klaasen, 2004).

En la evaluación de *bienestar* se utilizaron las escalas de Satisfacción con la Vida SWLS "Satisfaction with Life scale" (Diener et al., 1985) y la Escala de Afecto Positivo y Negativo (Positive Affect and Negative Affect Schedule, PANAS; Watson, Clark y Tellegen, 1988). La escala SWLS es una medida global sobre el grado percibido de satisfacción con la vida, está compuesta por siete ítems (ejemplo de ítem: "En la mayoría de los aspectos, mi vida se acerca a mi ideal") con siete opciones de respuesta que van desde "Fuertemente en desacuerdo" hasta "fuertemente de acuerdo". El puntaje corresponde a la sumatoria de las puntuaciones de cada ítem y varían entre 5 y 35 puntos. En esta investigación el alfa de Cronbach fue de .88. El PANAS comprende dos escalas: Afecto Positivo (AP) y Afecto Negativo (AN) de 10 ítems referidos a adjetivos asociados a sentimientos y emociones habituales (ejemplo de ítem: en qué medida se siente "interesado, molesto, entusiasmado"). Las opciones de respuesta van desde "muy levemente" o "nada en absoluto" hasta "extremadamente" ordenadas en una escala Likert con una numeración de 1 a 5. La puntuación total alcanzada se obtiene sumando los valores de respuesta asignados a cada ítem de ambas escalas, con puntuaciones que varían entre 5 y 50 puntos. En este estudio los datos de confiabilidad indican un alfa de Cronbach de .80.

Se utilizó la Escala Abreviada de Depresión Geriátrica de Yesavage (Hoyl et al., 1999) para la evaluación de sintomatología depresiva, instrumento ampliamente utilizado para tamizaje de depresión, cuya última versión está compuesta por 5 ítems con respuestas dicotómicas de *Si* o *No*. Su validación en adultos mayores indica un índice kappa de concordancia entre instrumentos de .78 y consistencia interna de .72 (Hoyl, Valenzuela y Marín, 2011). Datos de confiabilidad en este estudio indican un alfa de Cronbach de .57.

En la medición de la capacidad percibida de trabajo se usó una medida mono ítem del Work Ability Index (De Zwart, Frings-Dresen y Van Duivenbooden, 2002), instrumento que evalúa la capacidad de trabajo en sus componentes objetivos y subjetivos. Específicamente, para este estudio se midió la percepción que la persona tiene de su capacidad actual de trabajo en comparación con su nivel máximo de capacidad. Se utilizó el ítem: *Compare su capacidad para el trabajo actual con la más alta que haya tenido. Suponga que la mayor capacidad para el trabajo que ha tenido en su vida tiene un valor de 10 puntos. ¿Cuántos puntos daría a la capacidad para el trabajo que tiene actualmente?* El instrumento cuenta con validez interna (Eskelinen et al., 1991 y Nygard et al., 1991, citado en De Zwart et al., 2002), y estos últimos autores realizaron un análisis a través de la prueba test-retest donde también se confirmó su confiabilidad (De Zwart et al., 2002).

La percepción del proceso de envejecimiento por un tercero fue medida a través de una pregunta realizada a un tercero significativo como un familiar u otra persona cercana al participante, y la cual debía ser respondida en una escala de 1 a 10. Esta pregunta se realizó mediante una llamada telefónica, en la que los encuestadores consultaban “¿cree usted que (*nombre del participante*) muestra un EA? Los encuestadores tenían instrucciones de utilizar preguntas auxiliares en caso de que las personas consultadas tuvieran dudas respecto al ítem. Algunas de las preguntas sugeridas fueron: ¿Cree usted que (*nombre del participante*) tiene un elevado bienestar? ¿Piensa usted que eso lo lleva a ser o no una persona activa hoy en día? Cabe señalar que dichas preguntas buscaron orientar a las personas sobre el sentido de la pregunta inicial, cuya respuesta fue la única considerada para los análisis.

Se consultó también sobre la participación en grupos (religiosos, deportivos y social comunitarios) y la situación laboral actual (trabajador dependiente, independiente, jubilado/pensionado, cesante y sin actividad laboral; y el tiempo de dedicación en caso de trabajar).

En cuanto a los predictores de EA, se elaboraron cuestionarios sobre información sociodemográfica (sexo, edad, nivel educacional, estado civil, situación de pareja y previsión de salud), y otro destinado a indagar sobre antecedentes de salud y estilo de vida, específicamente dieta, actividad física, horas de sueño y descanso, consumo de alcohol y tabaco. En el caso de la dieta se consultó por tipo de alimentos y frecuencia de consumo y se calificó siguiendo las indicaciones de las guías alimentarias chilenas (Olivares, Zacharías, González y Villalobos, 2013). En el caso del tabaco, la consulta estaba dirigida a la frecuencia de consumo y en el caso del alcohol a la frecuencia y tipo de consumo. Para la actividad física se preguntó por la frecuencia y se usó como criterio la norma de la World Health Organization (WHO, 2010). Como predictor también se incluyó el apoyo social percibido y en su evaluación se utilizó el cuestionario MOS (Medical Outcomes Study; Sherbourne y Stewart, 1991) instrumento que evalúa apoyo social cuantitativo (tamaño de la red social) y cualitativo (apoyo emocional/informacional, apoyo instrumental, interacción social positiva y apoyo afectivo dimensiones). Está compuesto por 20 preguntas cuyas opciones de respuesta se conforman por una escala tipo “Likert” del 1 al 5, exceptuando la primera pregunta que informa sobre el tamaño de la red social. Este instrumento se encuentra validado en el idioma español en usuarios de dos centros de salud de atención primaria españoles, donde se obtuvo una consistencia interna con alfa de Cronbach entre .85 y .94 (Revilla et al., 2005).

Análisis de datos

Para controlar la presencia de datos faltantes, se utilizó imputación múltiple por ecuaciones encadenadas, usando 10 bases de datos imputados generadas por 30 iteraciones. Tanto para la imputación de datos, como para el análisis del Modelo MIMIC (Jöreskog y Goldberger, 1975) se utilizó el programa estadístico “R”, mientras que el programa SPSS en su versión 23 fue utilizado para la caracterización de la muestra y el análisis de dominancia (Azen y Bu-

Tabla 1

Descriptivos de causas e indicadores del modelo de envejecimiento activo

			Mujeres	Hombres	Total
			%	%	%
Causas					
Funcionamiento Cognitivo	MMSE	Con deterioro cognitivo	2.94	1.47	4.41
		Sin deterioro cognitivo	61.76	33.82	95.58
Funcionamiento Físico	Índice de Barthel	Dependencia Moderada	2.45	1.96	4.41
		Dependencia Escasa	9.31	4.41	13.72
		Independencia	52.94	28.92	81.86
Indicadores					
GDS5	Sintomatología Depresiva	Presencia	17.15	8.97	26.12
		Ausencia	47.54	26.32	73.87
Participación social	Religiosos		24.31	11.67	35.98
	Comunitaria		21.22	10.29	31.51
	Deportivo		7.40	3.09	10.46
	Voluntario		2.54	0.90	3.43
	Otros		5.39	2.45	7.84
			Media Total	DE	Min - Max
Bienestar	PANAS	Afectividad Positiva	29.78	7.04	5-50
		Afectividad Negativa	19.64	7.23	5-50
		Satisfacción con la vida	24.59	5.00	5-35
Capacidad Percibida de Trabajo	WAI	Capacidad Percibida de Trabajo	7.07	2.11	

desco, 2003). El análisis de dominancia considera que la importancia de un predictor o de un grupo de predictores depende de la diferencia en la varianza explicada entre un modelo que considera a este predictor o grupo de predictores, versus uno que no lo considera. Un predictor X domina a otro Y si en cada modelo donde el predictor X se encuentra la diferencia en varianza al eliminarlo es mayor que la diferencia que se produce al eliminar el predictor Y.

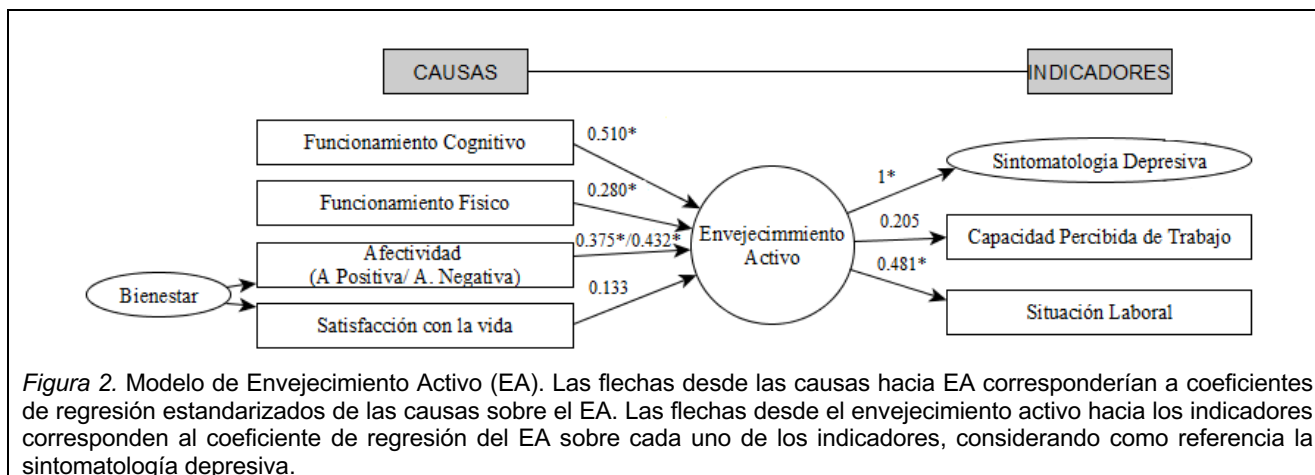
Resultados

El análisis de la funcionalidad física y cognitiva de la muestra indica que los participantes están mayoritariamente en la categoría de independencia (52.9%) y no presentan deterioro cognitivo (95.58 %). Domina la afectividad positiva ($M = 29.7$, $\text{Min} = 10$, $\text{Máx} = 50$, $SD = 7.04$) y percepción de satisfacción con la vida ($M = 24.59$, $\text{min} = 7$, $\text{máx} = 35$ y $SD = 5$). La sintomatología depresiva está presente en un 26.12 % los participantes. Se evaluó la capacidad de trabajo percibida de los participantes obteniendo una media de 7.07, en una escala de 0 a 10 puntos (ver Tabla 1).

El modelo consideraba la participación en grupos y la situación laboral cuyos resultados se presentaron previamente.

A través del análisis MIMIC del modelo de EA propuesto, se configuró un índice de EA por medio de la suma ponderada de los coeficientes de cada una de las causas de EA. El valor de dichos coeficientes se determinó cuando se logró que estos alcanzaran su máximo valor en base a las regresiones que se realizaron entre todo el conjunto de variables que componen el modelo, haciendo del constructo latente una variable observable. El índice de EA resultó tener una distribución normal y obtuvo una media de 9.71.

Respecto al método MIMIC, las relaciones entre las variables que se consideraron *causas* y la variable de EA fueron en su mayoría estadísticamente significativas. De



la contribución que cada variable da a la composición de la variable de envejecimiento, la que mayor peso tiene es la variable de funcionamiento cognitivo ($r = .51$, $p < .001$). Por el contrario, la relación que se establece entre EA y satisfacción con la vida, resultó ser la más débil y no significativa de todos los parámetros ($r = .13$, $p = .065$). Respecto a la afectividad negativa, los resultados arrojan que se relaciona inversamente ($r = -.432$, $p < .001$) con la variable de EA.

En cuanto a la relación entre EA y sus consecuencias, la relación resulta ser de igual manera fuerte y significativa para todos los parámetros, a excepción de la percepción de la capacidad de trabajo ($r = .2$, $p = .065$). Cabe señalar que, de todos los parámetros observados, la sintomatología depresiva resultó tener una relación perfecta con EA, sin embargo, estos resultados deben ser considerados con cautela dada la baja confiabilidad de la escala. La Figura 2 presenta el modelo MIMIC de causas e indicadores de EA.

En los análisis preliminares en los que se estimó el valor de los parámetros que componían el modelo MIMIC y sus respectivas significancias, los resultados arrojaron que los indicadores de participación social no guardaban una relación significativa con los otros componentes del modelo. Por ello, las variables de participación social, es decir, participación en grupos comunitarios y situación laboral, fueron tratadas como indicadores en el modelo. Finalmente, tras realizar nuevas estimaciones, la situación laboral quedó establecida como indicador, mientras que la

participación en grupos se introdujo dentro de los predictores. Por otra parte, de los indicadores que originalmente formaban parte del diseño, la variable percepción del proceso de envejecimiento por parte de un tercero, no logró ser explicada por ninguna de las variables consideradas como causas, obteniendo resultados bajos de estimación que tampoco figuraron como significativos, por lo que esta variable fue tratada de manera independiente y fuera del modelo.

Respecto a la bondad de ajuste del modelo propuesto, se obtuvo un $\chi^2(80) = 107.8$, $p = .34$, no significativo. Los indicadores de ajuste relativo son buenos, con un índice de ajuste comparativo (CFI) de .942 y un índice de ajuste no normado o índice Tucker-Lewis (TLI) de .942. Finalmente, el error cuadrático medio de aproximación es $RMSEA = .0416$, $p = .74$, que al igual que el χ^2 no resulta significativo. Estos resultados revelan que el modelo propuesto se ajusta a los datos observados.

Predictores de EA

Una vez que se obtuvo el indicador de EA, y con el fin de estimar la relación predictiva que algunas variables guardan con este indicador, se realizó un análisis de dominancia (ver Tabla 2), que permitió determinar la importancia relativa de grupos de predictores sobre EA. Para co-

Tabla 2

Análisis de dominancia sobre predictores de Envejecimiento Activo

Predictores	R2	Grupo A	Grupo B	Grupo C
Nivel 0	0.000	0.211	0.312	0.230
Grupo A	0.211	-	0.203	0.165
Grupo B	0.312	0.102	-	0.117
Grupo C	0.230	0.146	0.199	-
Promedio Nivel 1	-	0.124	0.201	0.141
Grupo A – Grupo B	0.414	-	-	0.090
Grupo A– Grupo C	0.376	-	0.128	-
Grupo B– Grupo C	0.429	0.075	-	-
Promedio Nivel 2	-	0.075	0.128	0.090
Grupo A– B – C	0.505	-	-	-
Promedio Total	-	0.137	0.214	0.154

Nota. La columna R2 corresponde al coeficiente de determinación para el modelo de la fila correspondiente. La columna GA, GB y GC contienen la contribución de grupos respectivos al ser agregadas al modelo definido por la fila. *Grupo A:* Educación, Previsión de salud, Religión, Edad, Sexo. *Grupo B:* Estado civil, Situación de pareja, Convivencia, Apoyo social emocional, apoyo instrumental, Interacción social positiva, apoyo afectivo, Participación en grupos. *Grupo C:* IMC, Diabetes, Hipertensión, Dislipidemia, Frecuencia actividad física, Dieta, Consumo de alcohol, Actividad física, Hábitos de sueño, Consumo de tabaco.

menzar, se llevó a cabo la agrupación de los predictores según su naturaleza, identificando tres conjuntos: *Grupo A: Variables Sociodemográficas* (sexo, edad, educación, previsión de salud y religión), *Grupo B: Apoyo Social y redes* (estado civil, situación de pareja, participación en grupos y puntuaciones en la escala apoyo social con sus dimensiones de apoyo social emocional, instrumental, afectivo e interacción social positiva) y *Grupo C: Antecedentes de Salud y Estilo de Vida* (Índice de Masa Corporal, presencia de diabetes, hipertensión y dislipidemia, dieta, frecuencia actividad física, consumo de tabaco, alcohol y drogas y hábitos de sueño). El coeficiente de determinación de cada grupo permitió establecer que el grupo B que agrupa las variables de interacción social se relacionó más estrechamente con EA respecto a los otros dos grupos de predictores, ya sea en el nivel 1, Grupo A = 0.211, Grupo B = 0.312, Grupo C = 0.230) y en el nivel 2, donde fueron combinados dos grupos de predictores (Grupo AB = 0.414, Grupo AC = 0.376, Grupo BC = 0.429). También se obtuvo el coeficiente de los tres grupos en conjunto (Grupo ABC = 0.505) con los que se puede concluir que el grupo B, que comprende variables sociales, tiene mayor capacidad predictiva y una dominancia total sobre el grupo A que reúne variables sociodemográficas y el C que reúne variables asociadas a estilos de vida. A su vez, el grupo C tiene una dominancia sobre el grupo A.

Adicionalmente se analizó la capacidad predictiva sobre EA de cada uno de los predictores de manera individual (ver Tabla 3). Los resultados indican que los hombres son quienes en promedio figuran con un mayor nivel de EA $t(202) = -2.04, p = .041$. Respecto a la edad, quienes se encuentran en rangos etarios inferiores poseen un mayor EA $F(2,201) = -3.584, p \leq .001$, el cual disminuye a medida que la edad aumenta. La previsión de salud, indica que los afiliados a servicios de mayor costo muestran mayores índices de EA $F(6,197) = 2.219, p = .038$. En relación a la educación, los resultados indican que a un mayor nivel educativo, mayor es el índice de EA $F(5,198) = 4.354, p \leq .001$.

Se encontraron diferencias significativas en EA en relación al estado civil $F(3,200) = 4.274, p = .005$, siendo las personas divorciadas y las casadas quienes presentan mayor EA respecto a los solteros. Tanto la participación en grupos comunitarios $t(202) = 2.336, p = .019$, como la participación en “otros grupos” que resultaron también ser de tipo comunitario $t(202) = 3.476, p = .001$, mostraron relación con EA, sin embargo la dirección de esta relación indica que quienes no participan en grupos son quienes mayor EA presentan.

Tabla 3

Descriptivos de causas e indicadores del modelo de envejecimiento activo

Predictor	Grupo	F	Sig.	Media	DE
Educación	Básica Incompleta	4.354	<.001*	9.245	0.98
	Básica Completa			9.769	0.75
	Media Incompleta			9.695	0.67
	Media Completa			9.793	0.68
	Superior Incompleta			10.193	0.39
	Superior Completa			10.020	0.62
Previsión de salud	Fonasa A	2.219	.038*	9.482	0.98
	Fonasa B			9.749	0.69
	Fonasa C			9.548	0.75
	Fonasa D			9.943	0.57
	ISAPRE			10.132	0.56
	FFAA			9.726	0.56
	No sabe			9.663	0.92
Rango edad	60-64	-3.584	<.001*	9.860	0.70
	65-69			9.849	0.70
	70-75			9.371	0.75
Estado civil	Soltero	4.274	.005*	9.369	0.66
	Casado			9.773	0.76
	Viudo			9.676	0.71
	Divorciado			10.167	0.51
Frecuencia actividad física	Nunca	4.551	.003*	9.598	0.79
	A lo menos 3 veces a la semana			9.918	0.48
	Una vez a la semana			10.101	0.63
	Cada 15 días			9.482	1.33
Consumo de alcohol	Consumo no protector	4.650	.009*	9.891	0.64
	Consumo protector			9.903	0.33
	Abstemia			9.582	0.81
Sexo		T	Sig.	Media	DE
	Femenino	-2.040	.041*	9.655	0.75
	Masculino			9.875	0.70
Participación en grupos comunitarios	No participa	2.336	.019*	9.814	0.74
	Sí participa			9.557	0.71
Participación en otros grupos	No participa	3.476	.001*	9.783	0.69
	Sí participa			9.136	1.01
Actividad física	No realiza	-2.293	.003*	9.613	0.78
	Sí realiza			9.918	0.63
Consumo de Lácteos	Consumo No Protector de Lácteos	-2.442	.013*	9.535	0.80
	Consumo Protector de Lácteos			9.818	0.70
Hipertensión	No	2.481	.016*	9.887	0.66
	Sí			9.633	0.77
Diabetes	No	3.364	.001*	9.836	0.67
	Sí			9.445	0.85
Apoyo social		T	Sig.	R	
	Apoyo emocional/informacional	5.664	<.001*	.412	-
	Apoyo instrumental	4.023	<.001*	.277	-
	Interacción social positiva	5.638	<.001*	.407	-
	Apoyo afectivo	4.618	<.001*	.348	-

Nota. Fonasa corresponde a la cobertura de salud pública, la que se divide en tramos que van desde los menores a mayores ingresos. Isapres corresponde a la previsión de salud privada. FF.AA corresponde a la cobertura de salud de las personas vinculadas a las policías o servicios militares

El apoyo social, por su parte también resultó ser significativo, mostrando que, a mayor apoyo social, en cualquiera de sus dimensiones, mayor es el nivel de EA (r entre .348 y .41, $p < .001$).

El ejercicio físico, tanto su presencia $t(202) = -2.293$, $p = .003$, como frecuencia $F(4,199) = 4.551$, $p = .003$, resultó ser significativa como predictor de EA. Los resultados indican que quienes realizan actividad física presentan mayores índices de EA que quienes no la realizan. El consumo diario de lácteos resultó tener una relación significativa con EA $t(202) = -2.442$, $p = .013$, lo mismo que el consumo de alcohol $F(2,201) = 4.650$, $p = .009$, siendo el consumo regular y moderado el que mejor lo predice. La ausencia de diagnóstico de diabetes $t(202) = 3.364$, $p < .001$ e hipertensión $t(202) = 2.481$, $p = .016$ resultaron predictores de EA (ver Tabla 3). Respecto al tabaco ($p = .738$), los resultados no son significativos, al igual que los hábitos de sueño ($p = .714$) y el diagnóstico de dislipidemia ($p = .154$).

Discusión

El principal objetivo de este trabajo era poner a prueba empíricamente una propuesta de modelo de EA, que incluye *causas e indicadores*, elaborado a partir de la revisión de literatura sobre el constructo. La metodología de análisis MIMIC permitió crear un índice de EA transformando el constructo latente en una variable observable. A partir del análisis del modelo propuesto se confirmó la funcionalidad física y cognitiva, así como la presencia de afectividad positiva y ausencia de afectividad negativa como *causas*, de acuerdo a la nomenclatura MIMIC, de EA. A su vez, la ausencia de sintomatología depresiva y la condición de activo laboralmente representan *indicadores* de EA. Es importante destacar la ausencia de sintomatología depresiva como el indicador más robusto de EA.

Variables psicológicas como la habilidad para manejar dificultades y la ausencia de estrés ha sido asociada al EA (Dahany et al., 2014). Sin embargo, en este estudio aparece como criterio definitorio del constructo, dando cuenta que un elemento que distingue a un envejecimiento normal de uno exitoso necesariamente implica ausencia de senti-

mientos de minusvalía, de aburrimiento y un sentido de propósito vital. En la revisión de Annear et al. (2012) sobre los determinantes ambientales de EA, las medidas de resultado más utilizadas en los 83 estudios empíricos revisados incluían la salud mental, entre ellas la presencia de síntomas depresivos. Estos hallazgos reafirman la importancia de variables subjetivas y en particular de salud mental como criterios de un buen envejecer más allá de la funcionalidad física o la longevidad (Dahany et al., 2014).

Adicionalmente, la participación en el mercado laboral como indicador de EA es coherente, puesto que mantenerse trabajando o prolongar la vida laboral puede entenderse como un correlato conductual y objetivo de que una persona mayor está activa, motivada, implicada, es productiva y está involucrada socialmente (Alcover y Topa, 2018), aspectos centrales del constructo. Además, si las organizaciones laborales promueven la salud de los trabajadores mayores se logrará potenciar el envejecimiento activo (Magnavita, 2018), lo que su vez reducirá las decisiones de retiro temprano (Topa, Depolo y Alcover, 2018) y facilitará la continuidad en la actividad laboral y las decisiones de adoptar modalidades de empleo puente (Alcover, Topa, Parry, Fraccaroli y Depolo, 2014) y prolongar la vida laboral más allá de las edades habituales de jubilación.

Al contrario de lo propuesto en el modelo, la participación en grupos y la percepción del proceso de envejecimiento por parte de un tercero no aparecen como *causas ni indicadores* de EA. Respecto de la primera variable, es posible hipotetizar que quienes participan en grupos en mayor medida son aquellos que no trabajan. Aunque las actividades y las relaciones sociales forman parte habitualmente de las percepciones del EA, dado que la condición de activo en el mercado laboral es un indicador más potente, las personas que no trabajan tenderían a participar en grupos sociales y de ocio y obtendrían menores puntuaciones en EA. No obstante, esta participación social más limitada puede tener un efecto protector respecto a los sentimientos de soledad y de aislamiento social, reduciendo unos de los mayores riesgos de pérdida de funcionalidad en los adultos mayores (Shankar, McMunn, Demakakos, Hamer y Steptoe, 2017). Por su parte, la opinión de un tercero no aparece como una referencia externa válida para calificar qué tan bien envejece una persona reforzando el

rol de las variables subjetivas pero informadas por el propio sujeto. Este resultado es coherente con lo planteado por Strawbridge et al. (2002) sobre la importancia de conocer la percepción de la propia persona respecto de cuán exitoso considera su proceso de envejecer, así como con las medidas sobre el éxito subjetivo en el proceso de envejecer incluidas en el estudio de Pruchno et al. (2010).

En el modelo resultante, las variables funcionalidad física y cognitiva, así como la presencia de afectividad positiva y ausencia de afectividad negativa, actúan como causas en el modelo de causas –variable latente– indicadores de EA. Todas estas variables forman parte de los componentes de EA más ampliamente utilizados, tanto objetiva como subjetivamente, y pueden ser consideradas condiciones de base para un buen envejecer. Se espera que envejecer de un modo activo y más positivo que el natural, implica necesariamente mantener la autovalencia, ausencia de deterioro cognitivo y un tono emocional dominante más bien positivo (Meléndez, Tomás y Navarro, 2011).

Una vez configurado el índice de EA, se analizaron sus predictores y se concluyó que las variables que en mayor medida predicen EA son aquellas relacionadas con la dimensión social, particularmente el apoyo social y estar en pareja. Respecto del ambiente social, diversos modelos y estudios confirman esta relación (Gallardo-Peralta et al., 2016; Liotta et al., 2018; Pruchno et al., 2010), y la revisión de Annear et al. (2012) pone de manifiesto la importancia de la diversidad de contactos sociales, el tamaño de la red, la participación laboral y la compañía de amigos en la salud y en las tasas de mortalidad en personas mayores. Por otra parte, Pruchno et al. (2010) confirman el efecto del estatus marital como un antecedente de EA, y los hallazgos de Blanco (2010) informan de la importancia del apoyo social y su relación negativa con depresión. Sin embargo, otros estudios (e.g., Hodge et al., 2013) no encuentran evidencia de la asociación entre vinculación social, medida a través del número de personas en el hogar, frecuencia de visitas de familiares y amigos, número de horas de actividad social a la semana y EA. Esta disparidad de resultados puede atribuirse a que este último estudio evalúa contacto social más que percepción de apoyo social, y quizá también a los elementos culturales que caracterizan los distintos contextos donde se desarrollaron los estudios.

En el análisis detallado de cada una de las variables propuestas como predictoras, se encontró que personas de menor rango etario, mayores niveles de estudio y mejor cobertura de salud presentan mejores índices de EA, lo que es coherente con antecedentes presentados por la OMS (2002) y confirmado en otros estudios de la revisión de Depp y Jeste (2006). En cuanto al estilo de vida, los índices de EA mejoran en ausencia de diagnóstico de diabetes e hipertensión, al igual que ocurre en personas que realizan ejercicio físico de manera frecuente, no fuman y presentan consumo moderado de alcohol. Estos resultados son consistentes con los encontrados en la revisión de Peel et al. (2005), los hallazgos de Fernández-Ballesteros et al. (2010) y Pruchno et al. (2010) respecto del consumo de alcohol, y con los de Fernández-Ballesteros et al. (2010) respecto de la actividad física. Más recientemente, Hodge et al. (2013) encontraron que índices normales de masa corporal, no fumar, mantenerse activo físicamente y ausencia de enfermedades crónicas como hipertensión y asma estuvieron asociados prospectivamente con EA, resultados similares a los encontrados por Dahany et al. (2014).

Las conclusiones anteriores refuerzan las propuestas iniciales de EA (McLaughlin et al., 2012; Rowe y Kahn, 1997) que enfatizaban el funcionamiento físico y la ausencia de enfermedades y discapacidad como componentes centrales del constructo, y reafirman la importancia de los estilos de vida saludables en la promoción del EA.

Conclusiones

La mayor parte de las variables consideradas dentro de la estructura del modelo propuesto de *causas e indicadores* presentan poder explicativo y guardan relación significativa con EA. Una de las fortalezas del estudio reside en la integración de factores de distinta naturaleza en un modelo que intenta precisar el rol de cada uno y de ese modo contribuir a resolver el debate conceptual que ha caracterizado el estudio del EA.

La creación de un índice de EA, así como la evidencia aquí obtenida puede ser utilizada en el diseño de un instrumento de medición de EA y su parametrización, de ma-

nera que se cuente con datos estandarizados que puedan permitir la medida y comparación transnacional. La evaluación en la población general puede tener importantes aplicaciones prácticas, entre ellas estimaciones de prevalencia y el desarrollo de intervenciones que consideren la heterogeneidad y variabilidad del proceso de envejecimiento, permitiendo la creación de estrategias promocionales y preventivas para grupos de adultos mayores en función de sus características biopsicosociales y no exclusivamente según la edad. En la investigación futura será necesario incluir las influencias de factores ambientales que, junto con los considerados aquí, pueden intervenir también en el EA (Annear et al., 2012; Liotta et al., 2018); estos factores ambientales pueden ser la accesibilidad a los servicios, la calidad de las infraestructuras, el acceso al transporte público, el riesgo de delincuencia y conducta antisocial en el vecindario, la calidad del aire, el agua y otros factores del clima, así como el entorno urbano en el que se habita.

La investigación sobre el envejecimiento y la población adulta mayor puede contribuir a comprender mejor las interacciones de los múltiples factores que promueven y mantienen su bienestar y su salud, así como prevenir la aparición de enfermedades mentales (especialmente, la depresión) y físicas, con el consiguiente efecto positivo en las personas, las comunidades y las políticas públicas.

Entre las limitaciones de este estudio se encuentra lo acotado de la muestra y el uso de imputación de datos. Así mismo, al no tratarse de una muestra representativa y excluir residentes de zonas rurales, los resultados no pueden ser generalizables a todo tipo de poblaciones. El uso de algunas escalas, como la escala de depresión y el índice de Barthel, debe ser reevaluado, debido a que no obstante su extendida aplicación, ésta se realiza en contextos clínicos más que de investigación. Por último, el diseño transversal del estudio no permite establecer relaciones causales entre las variables, de modo que en el futuro este modelo deberá aplicarse en estudios longitudinales que permitan analizar no solo estas relaciones, sino la propia evolución dinámica del proceso de envejecer.

El envejecimiento es un proceso complejo y de amplia variabilidad individual, que en este estudio se intentó abordar atendiendo a su multidimensionalidad. Generar un

modelo comprensivo de EA, sustentado empíricamente, se espera aporte en entender un fenómeno de creciente interés, con implicancias directas para individuos y naciones, particularmente respecto a generar condiciones e implementar medidas tendientes a promover un EA de la población.

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ACTIVE AGING MODEL: CAUSES, INDICATORS AND PREDICTORS IN CHILEAN ELDERLY PEOPLE

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EXTENDED SUMMARY

Introduction

The elderly population has experienced exponential growth in the last six decades, which has generated an increasing interest to design and implement policies to improve the quality of life of older people.

From an aging perspective, traditionally centered on the biological and the absence of disease (Rowe & Kahn, 1987), new models have emerged that integrate subjective and psychosocial aspects (Rowe & Kahn, 1997), which recognize the wide variability of the process of aging. In this context, the concept of Active Aging (AA) emerged to depict aging as a process that develops in a positive way, accompanied throughout life by continuous opportunities for health, participation and safety, in order to improve the quality of life of older people (WHO, 2002).

The interest in understanding the AA has generated a wide variety of studies that attempt to specify its conceptualization (e.g., Bousquet et al., 2015; Cosco, Prina, Perales, Blossom, & Brayne, 2014) and understand their criterion and predictors (Fernández-Ballesteros et al., 2010; Pruchno, et al., 2010). However, there is no general agreement on what is central to the concept and how to operationalize it (Liotta, Canhao, Cenko, Cutini, Vellone, Ilario, et al., 2018). Along with this, a diversity of AA indicators have been identified, which affects its prevalence

(Depp & Jeste, 2006; Peel et al., 2005), and generates confusion between indicators and predictors (Fernández Ballesteros et al., 2010).

In the present study an active aging model was designed using a MIMIC (Multiple Causes and Multiple Indicators) model, a variant of structural equations, which considers that the AA is a latent variable, not directly observable, in which causes and consequences and subsequently their predictors, were established.

Based on the literature review, the model considered as causes of AA: (a) cognitive functioning; (b) physical condition; (c) social and labor participation; and (d) wellbeing, specifically life satisfaction. The indicators included: (a) depressive symptomatology; (b) work ability; and (c) perception of the state of aging through consultation with a significant third party.

Method

Participants were 204 older adults, 132 women and 72 men between 60 and 75 years of age, from a region of south central Chile. The majority of the participants were married (60.8 %), approximately half of the participants were retired (47.25 %) and 48.27 % completed basic or secondary education, in contrast to the 35.5 % who had incomplete studies. 74.9 % of the participants were affiliated to the public health system. They reported diagnosis

of hypertension (60.78 %), dyslipidemia (46.61 %) and diabetes (26.51 %), absence of tobacco use (82.35 %) and no alcohol consumption (51.37 %) or moderate consumption (3.43 %).

Data collection was carried out during the second semester of 2015 and the first semester of 2016 by trained evaluators. The MIMIC Model (Jöreskog and Goldberger, 1975), dominance analysis and linear regression were used in the data analysis process.

Results

The participants were mostly physically autonomous (52.90 %) and did not present cognitive impairment (95.58 %). Dominated in the sample the positive affectivity and perception of satisfaction with life. The depressive symptomatology was present in 26.12 % of the participants. The perceived work ability had a mean of 7.07, on a scale of 0 to 10 points. Through the MIMIC analysis of the proposed AA model, an AA index was configured. The relationships between the variables that were considered causes and the AA index were mostly statistically significant (cognitive functioning, $r = .51, p < .001$, and negative affect, $r = -.432, p < .001$).

Regarding the relationship between AA and its consequences, the relation turns out to be equally strong and significant for depressive symptomatology ($r = 1, p < .005$) and labor participation ($r = 0.48, p < .005$) with the exception of the work ability ($r = .20, p = .065$).

The goodness of fit of the proposed model, was not significant ($\chi^2(80) = 107.8, p = .34$). Relative adjustment indicators were good, with a comparative adjustment index (CFI) of .942 and a non-regulated adjustment index or Tucker-Lewis index (TLI) of .942. Finally, the mean square error of approximation was RMSEA = .0416, $p = .74$, which, like the χ^2 , was not significant. These results reveal that the proposed model fits the observed data. A dominance analysis was carried out to determine the relative importance of groups of predictors of AA: Group A: Socio-demographic variables (sex, age, education, health forecast and religion), Group B: Social Support and net-

works (marital status, participation in groups and social support scale) and Group C: Health and Lifestyle History (Body Mass Index, presence of diabetes, hypertension and dyslipidemia, diet, frequency of physical activity, consumption of tobacco, alcohol and drugs and sleep habits). It was established that group B, which groups social interaction variables, was more closely related to AA than to the other two groups of predictors.

Additionally, the predictive capacity on AA of each of the predictors was analyzed individually. The results indicate that men have a higher level of AA as well as participants in lower age ranges and those with a higher educational level. Those who perform physical activity had higher rates of AA, the same for those who have daily dairy consumption, regular and moderate alcohol consumption and no diagnosis of diabetes and hypertension.

Discussion

Based on the analysis of the proposed model, physical and cognitive functionality, as well as the presence of positive affect were confirmed as causes of AA. In turn, the absence of depressive symptomatology and the condition of active labor represent indicators of AA.

These findings reaffirm the importance of subjective variables and in particular mental health (Annear et al., 2012) as criteria of a healthy aging (Dahany et al., 2014). Participation in the labor market as an indicator of AA is coherent, as to extend working life can be understood as a behavioral correlate and objective that an older person is active and socially involved (Alcover & Topa, 2018), central aspects of the construct.

Once the AA index was set, its predictors were analyzed. The variables that most predict AA are those related to the social dimension, particularly social support. Several studies confirm this relationship (Gallardo-Peralta et al., 2016; Liotta et al., 2018; Pruchno et al., 2010), and the review by Annear et al. (2012) shows the importance of the diversity of social contacts, the size of the network, labor participation and the company of friends in health and in mortality in older people. In the detailed analysis of

each of the predictor variables, it was found that people of lower age range, higher levels of study, with healthy lifestyles and better health coverage have better rates of AA, which is consistent with antecedents presented by the WHO (2002) and confirmed in other studies (Fernández-Ballesteros et al., 2010; Peel et al., 2005; Pruchno et al., 2010).

Conclusion

Most of the variables considered in the proposed model of causes and indicators have explanatory power and are significantly related to AA.

Aging is a complex process and of wide individual variability, which in this study we tried to approach taking into account its multidimensionality. Generating a comprehensive model of AA, supported empirically, is expected to contribute to understanding a phenomenon of increasing interest, with direct implications for individuals and nations, particularly with regard to generating conditions and implementing measures to promote an AA of the population.

SOCIALIZACIÓN ORGANIZACIONAL ANTICIPATORIA Y SU RELACIÓN CON LAS ACTITUDES Y CONDUCTAS DE LOS OPOSITORES AL CUERPO NACIONAL DE POLICÍA

ANTICIPATORY ORGANIZATIONAL SOCIALIZATION AND ITS RELATIONSHIP WITH NATIONAL POLICE APPLICANTS' ATTITUDES AND BEHAVIORS

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Cómo referenciar este artículo/How to reference this article:

Marcos Lorenzo, A., Tirado, G. y Topa, G. (2018). Socialización organizacional anticipatoria y su relación con las actitudes y conductas de los opositores al Cuerpo Nacional de Policía [Anticipatory Organizational Socialization and its Relationship with National Police Applicants' Attitudes and Behaviors]. *Acción Psicológica*, 15(2), 129–146. <https://doi.org/10.5944/ap.15.2.24091>

Resumen

El objetivo principal del presente trabajo es analizar las relaciones entre los recursos externos y los recursos personales de los participantes en procesos de oposición para la Policía Nacional y sus actitudes y comportamientos en

relación con el referido proceso de preparación. En el estudio participó una muestra de 130 opositores a la Policía Nacional de España. Los hallazgos muestran que la socialización relativa a la historia de la organización y las creencias de autoeficacia pronostican el compromiso con la preparación, mientras que la socialización relativa al lenguaje de la organización pronosticaba el desempeño

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Recibido: 4 de agosto de 2018.

Aceptado: 15 de octubre de 2018.

excelente de los participantes en la oposición. Además, el optimismo pronostica el estrés, y el apoyo social, el optimismo y la autoeficacia pronostican la satisfacción. Los resultados se discuten de cara a sus implicaciones prácticas, orientadas a sugerir mejoras en los procesos formativos de los aspirantes a futuros policías nacionales.

Palabras clave: Socialización organizacional; Apoyo social; Recursos personales; Satisfacción con la preparación; Estrés de la preparación.

Abstract

The main aim of this paper was to analyze the relationships between external resources and personal resources of participants during their process to pass the Estate Exam for the National Police and the results related to their attitudes and behaviors in relation to the same preparation process. In the study, a sample of 130 candidates to enter the National Police from all over Spain participated. The findings show that socialization related to organizational history and self-efficacy beliefs predict commitment to the preparation process, optimism predicts experienced stress, social support, and optimism together with self-efficacy predict satisfaction and, finally, the anticipatory socialization relative to the language of the organization predicted the excellent performance of the participants. The results are discussed in terms of their practical implications.

Keywords: Organizational socialization; Social support; Personal resources; Satisfaction with the preparation process; Stress during the preparation process.

Introducción

“Para aprobar esta oposición no tienes que ser excelente en nada sino muy bueno en todo”. Este es el pensamiento de algunos preparadores de academia y opositores a Policía Nacional, y por consiguiente el nivel de exigencia durante el proceso de preparación es alto. Si además se tiene en consideración que la ratio de opositores por plaza oscila entre los 237 opositores por plaza en 2011 y los 21

opositores por plaza en 2016 (la ratio más favorable de los 21 años anteriores según publicaciones de academias de oposición), que en los últimos siete años se ha situado en torno a los 100 opositores por plaza.

Es decir, la competencia es dura, y además los aspirantes disponen cada vez de mayor preparación, ya que desde la convocatoria de 2016 es obligatorio en nivel de estudios de Bachillerato (anteriormente la ESO), o nivel Universitario (Escala Ejecutiva). Opositar al Cuerpo Nacional de Policía exige, además, mantener una forma física excelente, ya que parte de las pruebas de acceso son de esta naturaleza. Pero también consta de parte teórica y psicotécnica, lo cual implica un número importante de horas de trabajo muy variado, no siempre fácil de conciliar con trabajo y familia, y mucho menos con el ocio. Ante estos desafíos cabe preguntarse ¿Qué recursos acompañan a los opositores y les permiten mantenerse un periodo de preparación tan prolongado (en el mejor de los casos un año de los cuales nueve meses aproximadamente son de examen)? Este trabajo pretende profundizar en la experiencia de aquellas personas que, no perteneciendo todavía a la organización, caracterizada por fines, valores y conductas distintivas, comienzan un proceso de socialización anticipado con objeto de integrarse en ella. El objetivo es examinar los factores psicosociales que influyen en el proceso de socialización organizacional anticipatoria que afecta al opositor a la Policía Nacional.

Esta investigación toma como modelo teórico el de Demandas y Recursos de Bakker y Demerouti (2007, 2013, 2017), la Teoría de Conservación de los Recursos de Hobfoll (1998), y el modelo de recursos socializados (TRS) de Gruman y Saks (2010). Las demandas comprenden los aspectos físicos, psicológicos, organizacionales o sociales que requieren el esfuerzo de los empleados y están asociados a costes físicos o psicológicos (Bakker, Demerouti, Nachreiner y Schaufeli, 2001) en el desempeño de su trabajo. Los recursos se refieren a aquellos aspectos del trabajo que contribuyen al logro de las metas, a la reducción de las demandas y sus costes asociados, o al crecimiento y desarrollo personal.

El vínculo de las demandas y recursos con los resultados personales y organizacionales se establece a partir de dos procesos (Bakker y Demerouti, 2007; Demerouti y Bakker, 2011). De un lado, las demandas inician procesos

daños para el bienestar, con frecuencia asociados a los resultados indeseables, como el agotamiento o los problemas de salud. Por el contrario, los recursos están frecuentemente asociados a procesos motivacionales que impactan en los resultados deseables, como la satisfacción en el trabajo y las conductas de ciudadanía (Fernet, Austin, Trépanier y Dussault, 2013). Abundante investigación empírica y revisiones meta-analíticas respaldan el poder predictivo de las demandas y recursos sobre el bienestar y la salud de los empleados (Ahola, Hakanen y Schaufeli, 2008; Bakker, Demerouti y Sanz-Vergel, 2014; Bakker, Schaufeli y Van Rhenen, 2009; Crawford, LePine y Rich, 2010; Halbesleben, 2010; Hofmann, Morgeson y Nahrgang, 2011; Mauno, Kinnunen y Ruokolainen, 2007).

Una prometedora extensión de la teoría ha contemplado la inclusión de los recursos personales, que pueden favorecer el bienestar de los empleados (Bakker, Demerouti, Schaufeli y Van den Heuvel, 2010). Estos recursos personales hacen referencia a las creencias que los trabajadores tienen acerca de su control sobre el ambiente y existen evidencias de que algunos recursos personales, como la autoestima colectiva, o basada en la pertenencia al grupo, tiene efectos positivos sobre las actitudes y conductas de los trabajadores, por ejemplo, pronostica el *engagement* (Bakker, Demerouti, Schaufeli y Xanthopoulou, 2009). En esta revisión del modelo Demandas y recursos laborales, los recursos incluyen unas determinadas autoevaluaciones positivas relativas al desenvolvimiento y control de la persona en el entorno laboral, las cuales, mediante el aumento de la autoestima y la congruencia de rol, son capaces de lograr mejores resultados a nivel de satisfacción, motivación y rendimiento (Bakker y Demerout, 2013). En este punto diferencian los recursos personales y laborales y establecen que hay una interacción entre ambos que influye positivamente en los mencionados resultados, también a largo plazo.

La teoría de Conservación de los recursos (COR) de Hobfoll (1998), subraya que los recursos están definidos socioculturalmente. Es decir que los recursos son aquello que se valora personalmente y se procura utilizar y acumular de cara a las situaciones cambiantes y retos vitales a los que se enfrenta la persona. Así, es razonable esperar que las personas se vean favorecidas por unos recursos y enfrentadas a unas demandas específicas en la situación de

opositores. También en este sentido, la teoría de Conservación de los recursos (COR) de Hobfoll (1998), sostiene la idea de que invertir recursos en las tareas laborales aumenta la ganancia adicional de los mismos, de igual modo que la ausencia de ellos desemboca en su pérdida.

La mezcla que se pretende hacer en este artículo de estos modelos de demandas y control, y por otro, la socialización organizacional, tiene su inspiración en la Psicología Positiva, y la idea de ésta de extraer lo mejor de los recursos disponibles, siendo poco atendidos los recursos más allá del individuo que ya se reconocen en estudios sobre ciudadanía y cultura organizacionales, pero cuya integración no ha sido introducida en el contexto señalado. Así, se propone una forma de potenciar los resultados innovadora, al tomar en cuenta como recursos el empuje social extraordinario extraído de la fuerza del grupo, de esa impronta compartida que motiva a una superación que individualmente no tiene cabida, lo cual debe aprenderse desde el inicio de la preparación de los opositores y así se inculca desde los canales formales e informales.

Recursos personales y profesionales

Apoyo social

El apoyo social es el conjunto de recursos con los que un individuo puede contar que provienen de otras personas relevantes en términos de afiliación grupal (Cohen y Syme, 1985). A tenor de lo expuesto hasta este punto, es sencillo entender cómo el apoyo social, ese “*extra*” que el individuo puede tomar prestado de la organización, al que se aspira o ya se pertenece en mayor o menor grado dependiendo del grado de socialización, pudiendo convertirse en un factor protector o amortiguador de los efectos negativos de las demandas laborales de cara a los resultados. Dicho de otro modo, el efecto positivo de la socialización se interpondría entre la persona y, por ejemplo, el estrés e incluso los problemas de salud debidos a la tarea desarrollada en un contexto determinado (Amarneh, 2017; Bailón Muñoz, Luna del Castillo, Medina Moreno y Revilla Ahumada, 2005).

Autoeficacia

Las personas tienen una idea determinada acerca de cómo son capaces de desempeñar las tareas que se les están adscritas, a la que se denomina como autoeficacia. Así bien, Knight y Riggs (1994) propusieron que las creencias de este tipo se pueden ver afectadas por aquellas equivalentes que tiene el grupo en el que se inserta la persona, ya que los resultados del grupo u organización serán, parcial o total responsabilidad de las personas que la componen, como suyo será también el privilegio de reclamar su autonomía y propiedad, real o figurada (Knight y Riggs, 1994).

Optimismo

Esta variable distingue a aquellos individuos que tienen expectativas positivas acerca de sus resultados y/o hacen atribuciones positivas para los acontecimientos venideros, cuyo desarrollo se ve influenciado por fuerzas externas al propio individuo (Gruman y Saks, 2010). El recurso personal del optimismo implica que los individuos se orienten de una manera diferencial hacia los obstáculos, y por consiguiente que sean capaces de aplicar una resolución racional a los problemas diarios, cubriendo las demandas que se les plantean con estrategias alternativas (García-Naveira, Ortín y Ruiz-Barquín, 1998).

Socialización organizacional

La socialización organizacional es un proceso mediante el cual el individuo se adapta al contexto de la organización en la que se va a insertar apreciando, aprendiendo y asimilando un número de contenidos de naturaleza fáctica, social e informativa (Chao, Gardner, Klein, O'Leary-Kelly y Wolf, 1994). Tras este proceso los individuos han asumido un papel dentro de la organización y participan plenamente dentro de la misma, ya que han debido incorporar los valores, habilidades y en definitiva el comportamiento corporativo que se espera de ellos al efecto (Gruman y Saks, 2010). Cómo avanzan los individuos en este proceso determina que sean más o menos capaces de asimilar la influencia que la organización ejerce sobre ellos para convertirlos en miembros de la referida organización, configurando de este modo la posibilidad de adquirir una identidad social correspondiente que contri-

buya de manera positiva en sus resultados grupales y personales. La socialización organizacional es importante, por consiguiente, tanto para los que se inician en la organización como para los que ya son miembros de ella, porque connota el grado de integración y supone la presencia o ausencia del apoyo del grupo (real y percibido) hacia el individuo y viceversa. (Chao et al., 1994).

La teoría de recursos socializados (TRS) de Gruman y Saks (2010) hace especial hincapié en que los recursos tienen un marcado origen social (recursos de socialización compuesto por entrenamiento orientativo, características de la tarea, apoyo social y liderazgo) y personal (capital psicológico compuesto por autoeficacia, esperanza, optimismo y resiliencia), siendo los resultados de la socialización la satisfacción laboral, el compromiso organizacional, la rotación de personal y el desempeño laboral (Gruman y Saks, 2010). En resumen, el proceso de socialización anticipatoria del individuo en la organización es como un proceso de ganancia de recursos, es decir, el individuo al integrarse en el grupo irá incorporando más y más recursos para desarrollarse y finalmente integrarse en la organización.

Resultados de la socialización anticipatoria

Schaufeli y Salanova (2007) nos ofrecen una definición de engagement como un “*estado afectivo-emocional positivo de realización personal*” (Schaufeli y Salanova, 2007). En el estudio presente se considera como primer resultado efectivo de la socialización el *engagement* motivacional durante la oposición, en línea con el trabajo de Lisbona, Morales y Palací (2009), en el que se establece como resultado efectivo del proceso de socialización (Elias, Sudhir y Mehrotra, 2016).

Estrés

El estrés se trata a lo largo de este trabajo como una variable o conjunto de reacciones inespecíficas al ambiente, que se desarrolla en el individuo cuando los recursos son insuficientes para atender a la demanda. Estas reacciones están marcadas por un carácter perjudicial para el individuo a nivel de eficacia, desempeño dentro de la

organización, despliegue social y consecuencias sobre su salud (Ivie y Garland, 2011; Pérez-Fuentes, Molero Jurado, Martos Martínez y Gázquez Linares, 2018).

Satisfacción

Al conjunto de cogniciones, emociones y sentimientos de carácter positivo que evoca el trabajo en las personas se le denomina satisfacción laboral, concepto que alude directamente a los efectos que las ocupaciones particulares de las personas influyen en sus esquemas personales (Phua y Thompson, 2012).

En relación con el bienestar percibido por las personas, la satisfacción también ha sido definida como la dimensión más cognitiva de éste en contraste con dimensiones de corte afectivo (Bowling, Eschleman y Wang, 2010).

Desempeño excelente

Esta variable se define como el resultado positivo de productividad dentro de las organizaciones ligado a las acciones o comportamientos llevado a cabo por los individuos dentro de las organizaciones (Bernaards et al., 2014; Lepold, Tanzer y Jiménez, 2018). Más concretamente, en la psicología del trabajo y las organizaciones el desempeño excelente se establece como parte del desempeño de la tarea, siendo un desarrollo de aptitud importante para el núcleo principal de las actividades laborales del puesto de

trabajo (contextualizado) y de alta calidad (Bernaards et al., 2014).

Sobre la base de la literatura revisada hasta aquí, en el presente trabajo se considerarán recursos sociales o externos al individuo la socialización anticipatoria y el apoyo social. Los recursos personales consistirán en el optimismo y la autoeficacia. Como resultados se explorarán el compromiso, el estrés, la satisfacción y el desempeño excelente en la preparación de la oposición. A partir del análisis de la literatura se proponen las siguientes hipótesis.

Hipótesis 1: los recursos externos -la socialización anticipatoria y el apoyo social- y los recursos personales -optimismo y autoeficacia- pronostican el compromiso de los opositores con la preparación de la oposición.

Hipótesis 2: los recursos externos -la socialización anticipatoria y el apoyo social- y los recursos personales -optimismo y autoeficacia- pronostican el estrés de los opositores en la preparación de la oposición.

Hipótesis 3: los recursos externos -la socialización anticipatoria y el apoyo social- y los recursos personales -optimismo y autoeficacia- pronostican la satisfacción de los opositores con la preparación de la oposición.

Hipótesis 4: los recursos externos -la socialización anticipatoria y el apoyo social- y los recursos personales -optimismo y autoeficacia- pronostican el desempeño excelente de los opositores en la preparación de la oposición (ver Figura 1).

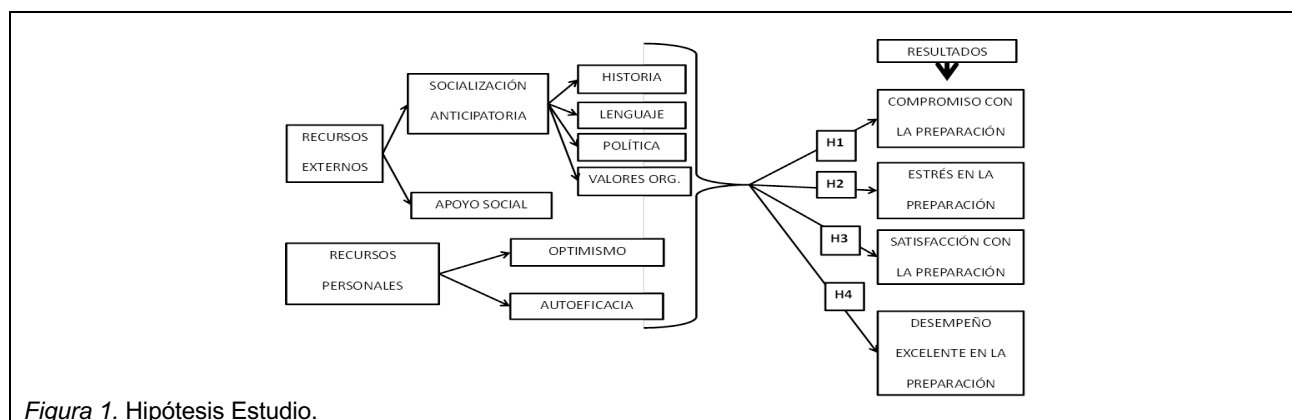


Figura 1. Hipótesis Estudio.

Método

Participantes

En el estudio participó una muestra de 130 opositores al CNP procedentes de toda España, cuya media de edad se situaba en los 29.3 años ($DT = 6.9$) y de los cuales el 76.2 % eran hombres. El 43 % además de estudiar trabaja en un puesto no relacionado con las oposiciones, dedicando una media de 7.32 horas ($DT = 3.9$) a la semana a la preparación de las pruebas físicas y una media de 23.64 horas ($DT = 16.9$) a la semana a la preparación de las pruebas académicas de la oposición. El 63.8 % poseía estudios universitarios y sólo el 29.2 % tenía familia en el CNP.

Instrumentos de evaluación

Datos sociodemográficos

Se preguntó a los participantes por su edad, sexo, provincia de procedencia, entre otros datos (horas de estudio y entrenamiento, preparación en solitario o por academia, etc.).

Socialización anticipatoria

Para evaluar esta variable se usó la escala socialización organizacional (Chao et al., 1994), que consta de 34 ítems, de los que en este cuestionario se incluyeron sólo las dimensiones historia, lenguaje, política y valores organizacionales. La fiabilidad de las dimensiones ha sido igual o mayor a $\alpha = .78$ en los estudios precedentes (Chao, et al., 1994). En el presente estudio la fiabilidad fue $\alpha = .64$ para historia, $\alpha = .74$ para lenguaje, $\alpha = .63$ para política y de $\alpha = .68$ para valores organizacionales. Ejemplos de los ítems utilizados son: “yo sería una buena fuente de información sobre el bagaje de la Policía” (historia), “entendiendo la mayoría de los acrónimos y abreviaturas de Policía” (lenguaje), “sé qué es importante en la Policía para que se haga algo” (política) o “las metas de la Policía son mis metas” (valores organizacionales).

Apoyo social

Para evaluar esta variable se utilizó la escala MOS (Medical Outcomes Study; Sherbourne y Stewart, 1991) sobre apoyo social percibido, validada al español por Bailón Muñoz et al. (2005). Se pregunta a los participantes sobre la frecuencia con que cuentan con el apoyo de personas como las descritas en los seis ítems con opciones de respuesta tipo Likert con cinco puntos (1= En ningún momento a 5 = continuamente). Ejemplos de ítem son: “¿con qué frecuencia dispone usted con los siguientes tipos de apoyo cuando los necesita”: “alguien cuyo consejo realmente desee”; “alguien con quien pueda relajarse”; “alguien que le informe y ayude a entender una situación”. En la validación de Bailón Muñoz y colaboradores (2005) la fiabilidad fue $\alpha = .94$, mientras que en este estudio es de $\alpha = .96$.

Optimismo

Se empleó la escala LOT (*Life Orientation Test*) de Scheier y Carver (1985), en su adaptación al castellano del LOT-R (García-Naveira et al., 1998), con siete ítems. En este estudio se invirtieron los ítems negativos y se empleó la medida global de optimismo que incluía los siete ítems, con una fiabilidad adecuada, $\alpha = .77$ comparada con $\alpha = .70$ del estudio original. Como ejemplo se puede tomar: “en tiempos difíciles, suelo esperar lo mejor”.

Autoeficacia

Para evaluar esta variable se utilizó la escala sobre creencias de eficacia personal (Knight y Riggs, 1994). Consta de seis ítems cuya fiabilidad es $\alpha = .64$, siendo en la original α entre .81 y .87 en diversas aplicaciones hechas en el mismo estudio y variando las profesiones y niveles organizacionales. Ejemplos de ítem son: “Cuando mi desempeño es pobre, se debe a mi falta de capacidades”, “tengo confianza en mi capacidad para sacar adelante mi oposición”.

Compromiso con la preparación de la oposición

Para evaluar esta variable se utilizó la escala que los autores llaman de implicación (componente cognitivo) del compromiso de Betanzos y Paz (2008), que mide el grado en que una persona está identificada psicológicamente con su trabajo y que consta de cinco ítems, cuya redacción se adaptó para centrarla en la oposición. Ejemplos de los ítems son: “la mayoría de mis intereses están centrados alrededor de mi oposición a la Policía”, “mis metas personales tienen que ver con mi preparación de la oposición a la Policía”. La fiabilidad del cuestionario original fue de $\alpha = .84$ y en el presente estudio es de $\alpha = .75$.

Estrés en la preparación de la oposición

Para evaluar esta variable se utilizó la escala de Ivie y Garland (2011) que incluye ítems referidos al estrés relacionado con el trabajo, con un total de 8 ítems. La fiabilidad global fue de $\alpha = .75$ comparada con $\alpha = .87$ del estudio original. Son ejemplos de ítem: “Siento que estoy que no puedo más”, “me encuentro de mal humor, irritable o impaciente a cerca de pequeños problemas”. La elección de dicha escala se hizo en función de su aplicación e implicación con la profesión de policía a la que aspiran los participantes.

Satisfacción con la preparación de la oposición

Para evaluar esta variable se usó el *Brief Index of Affective Job Satisfaction*, que contiene 4 ítems y que fue diseñado para valorar la satisfacción afectiva, como una respuesta emocional global y positiva hacia la ocupación o tarea en general (Phua y Thompson, 2012). El foco de atención de los participantes se centró en la tarea de preparación de la oposición, cambiando las expresiones originales referidas al puesto de trabajo por las adaptadas mencionando “estudios”, “preparatoria” u “oposición”. Pese a su extensión reducida, en el trabajo original se reporta una fiabilidad de $\alpha = .78$, y en el presente de $\alpha = .76$. Ejemplos de ítem son: “la mayoría de los días son entusiasta respecto a mi proceso de oposición”, “disfruto de mis estudios”, “siento que estoy que no puedo más”.

Desempeño excelente en la preparación de la oposición

Para evaluar esta variable se utilizó la versión traducida al español de la escala de rendimiento en la tarea, que forma parte del cuestionario IPW, *Individual Work Performance* (Koopmans, Bernaards, Hildebrandt, De Vet y Van der Beek, 2014). Esta escala incluye ítems que evalúan la capacidad de la persona para realizar la tarea de acuerdo a unos indicadores tales como calidad del trabajo realizado, planificación y organización, capacidad para priorizar. Los cinco ítems resultaron en una fiabilidad de $\alpha = .71$ comparada con $\alpha = .78$ del estudio original. Ejemplos de los ítems son: “he gestionado bien mi trabajo para que estuviera realizado a tiempo”, “la planificación de mi trabajo ha sido adecuada”.

Las escalas de respuesta fueron de tipo Likert con 5 puntos (1= *Totalmente en desacuerdo* a 5 = *Totalmente de acuerdo*).

Procedimiento

Los datos de la presente investigación fueron recogidos mediante la aplicación de un cuestionario que se denominó “Cuestionario sobre Salud Ocupacional”. Para contactar con los potenciales participantes se solicitó la colaboración de diversas academias que preparan a opositores para las pruebas de ingreso a la Policía Nacional. Los miembros del Equipo investigador propusieron el estudio a cinco academias mediante una carta, donde se explicaban las condiciones y objetivos del estudio. Solamente dos academias accedieron a participar. Los participantes fueron reclutados entre los estudiantes que estaban matriculados y asistían a clases preparatorias en dichas academias. A los candidatos se les reenvió por parte de las academias un email de invitación a participar anónima y voluntariamente, con el vínculo a la encuesta online. El cuestionario online no recogía datos personales, ni tampoco las IP de los ordenadores desde los que se respondía, ni conservaba la información sobre los tiempos de respuesta de los participantes, no obstante, la administración del cuestionario se debía realizar de una sola vez, no pudiendo retomarse ni modificarse con posterioridad.

Tabla 1

Estadísticos descriptivos y correlaciones (N=130)

	M	DT	1	2	a.	b.	c.	d.	3	4	5	6	7	8	9
1. Edad	30.23	6.89	-												
2. Socialización	13.62	2.29	.13	-											
a. Historia	3.48	0.78	.07	.68**	-										
b. Lenguaje	3.65	0.86	.22*	.71**	.47**	-									
c. Política	3.41	1.35	.09	.78**	.254**	.268**	-								
d. Valores org.	3.08	0.42	-.15	.26**	.08	.08	.03	-							
3. Apoyo social	4.24	0.82	-.13	.13	.09	.14	.09	.00	-						
4. Optimismo	1.64	0.82	.09	.05	.00	.04	.05	.03	-.25**	-					
5. Autoeficacia	3.99	0.51	-.15	.06	.06	.11	.02	-.05	.26**	.26**	-				
6. Compromiso	5.77	1.34	.16	.04	.18*	.05	.04	.11	.13	.15	.27**	-			
7. Estrés	2.37	0.58	-.12	.02	-.02	-.14	-.12	-.21*	-.11	-.48**	-.20*	.00	-		
8. Satisfacción	3.77	0.64	.02	.19*	.24**	.11	.13	.02	.33**	.33**	.40**	.18*	-.36**	-	
9. Desempeño exc.	3.26	0.81	.35**	.55**	.41**	.61**	.28**	.09	.05	.07	.14	.03	.00	.22*	-

Nota. * $p \leq .05$, ** $p \leq .01$.

Las invitaciones fueron enviadas por los administradores de las academias, sin que los miembros del equipo investigador tuvieran acceso a las direcciones de email de los potenciales participantes, a fin de mantener el anonimato del estudio. En la encuesta online, los participantes recibieron previamente a la cumplimentación, información sobre la garantía de anonimato y protección de datos a que se someterían sus respuestas, además de un sumario de los objetivos de la investigación, debiendo responder una pregunta sobre su consentimiento informado a participar en el estudio.

El cuestionario on line estuvo disponible para su realización por periodo de un mes, tras el cual se extrajeron los datos para su posterior análisis.

Análisis de datos

Mediante análisis preliminares se exploraron los datos sociodemográficos, la fiabilidad de los instrumentos y los supuestos básicos para los análisis multivariados. Seguidamente, se aplicaron análisis de regresión lineal jerárquica por pasos sucesivos. Tomando como variables dependientes el compromiso con la preparación de la oposición, el estrés en la preparación de la oposición, la satisfacción con la preparación de la oposición y el desempeño excelente en la preparación de la oposición. En cada análisis de regresión se introdujeron, por cada variable, tres

bloques de predictores para verificar el tipo de relaciones existentes con las variables criterio.

Resultados

Análisis correlacional y descriptivo

Se calcularon las medidas de tendencia central, dispersión y correlaciones de Pearson entre las variables de estudio expuestas en la Tabla 1.

Destaca en la muestra las puntuaciones de las variables de compromiso con la preparación ($M = 5.74$, $DT = 1.34$) y optimismo ($M = 1.64$, $DT = 0.82$), ya que la primera muestra la media más alta y la segunda desviación típica más alta, y la otra variable, la media más baja y la una desviación típica media a baja.

Comprobación de hipótesis

Para poner a prueba la Hipótesis 1, se introdujeron los predictores dentro de la cobertura de la variable socialización anticipatoria (historia, lenguaje, política, y valores organizacionales) y el modelo explica el 7 % de la varianza del compromiso con la preparación.

Después de introducir la variable apoyo social, el modelo explica el 9 % de la varianza. Finalmente, tras añadir las variables de recursos personales (optimismo y autoeficacia), el modelo global solo es capaz de explicar el 15 % de la varianza de la variable criterio. El cambio de R^2 al añadir el último bloque de los recursos personales tiene un valor de .07 lo que supone que el optimismo, la autoeficacia, el apoyo social y la socialización anticipatoria explican un 7 % de la varianza del compromiso con la preparación. El poder explicativo del modelo va aumentando al añadir variables, alcanzando unos valores aceptables y cumpliendo la garantía del nivel de significación. Las variables cuya contribución es estadísticamente significativa a la predicción de la ecuación son la autoeficacia y la dimensión historia como parte de la socialización anticipatoria (ver Tabla 2).

Tabla 2

Análisis de Regresión Lineal Jerárquica compromiso con la preparación de la oposición

Variables predictoras	Modelo 1 β^a	2 β^a	3 β^a
Socialización anticipatoria			
Historia	.26	.26	.25*
Lenguaje	-.16	-.17	-.19
Política	-.07	-.07	-.06
Valores org.	.11	.11	.12
Apoyo social		.14	.06
Optimismo			.06
Autoeficacia			.25*
R^2	.07	.09	.15
ΔR^2	.07	.02	.07
F	2.23	2.29	3.13*
ΔF	2.23	2.41	4.86*

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

Para poner a prueba la Hipótesis 2, se introdujeron los predictores dentro de la cobertura de la variable socialización anticipatoria (historia, lenguaje, política, y valores organizacionales) y el modelo explica el 9 % de la varianza del estrés en la preparación. Después de introducir la variable apoyo social, el modelo explica el 11 % de la varianza. Finalmente, tras añadir las variables de recursos personales (optimismo y autoeficacia), el modelo global es capaz de explicar el 33 % de la varianza del estrés en la preparación (ver Tabla 3).

Tabla 3

Análisis de Regresión Lineal Jerárquica estrés en la preparación de la oposición

Variables predictoras	Modelo 1 β^a	2 β^a	3 β^a
Socialización anticipatoria			
Historia	-.09	-.09	-.07
Lenguaje	.21	.22	.19
Política	-.15	-.15	-.18
Valores org.	.21	.21	.19
Apoyo social		-.12	.03
Optimismo			.46**
Autoeficacia			-.09
R^2	.09	.11	.33
ΔR^2	.09	.01	.22
F	3.14	2.89	8.52**
ΔF	3.14	1.83	20.31**

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

El cambio de R^2 al añadir el último bloque de recursos personales tiene un valor de .22 lo que supone que el optimismo, la autoeficacia, la socialización anticipatoria y el apoyo social explican un 22 % de la varianza del estrés en la preparación. La variable cuya contribución es estadísticamente significativa a la predicción de la ecuación es el optimismo.

Para poner a prueba la Hipótesis 3, se introdujeron los predictores dentro de la cobertura de la variable socialización anticipatoria (historia, lenguaje, política, y valores organizacionales) y el modelo resultante explica el 6 % de la varianza de la satisfacción con la preparación. Después de introducir el apoyo social, el modelo explica el 16 % de la varianza. Finalmente, tras añadir las variables de recursos personales (optimismo y autoeficacia), el modelo global es capaz de explicar hasta el 31 % de la varianza de la satisfacción con la preparación, con lo cual se va añadiendo poder explicativo a medida que ampliamos el modelo añadiendo variables.

El cambio de R^2 al añadir el último bloque de los recursos personales tiene un valor de .15 lo que supone que el optimismo, la autoeficacia, el apoyo social y la socialización anticipatoria explican un 15 % de la varianza de la satisfacción con la preparación. Las variables cuya contri-

bución es estadísticamente significativa a la predicción de la ecuación son la autoeficacia y optimismo (ver Tabla 4).

Tabla 4

Análisis de Regresión Lineal Jerárquica desempeño excelente en la preparación de la oposición

Variables predictoras	Modelo 1 β^a	2 β^a	3 β^a
Socialización anticipatoria			
Historia	.14	.14	.13
Lenguaje	.51**	.52**	.52**
Política	.11	.11	.12
Valores org.	.04	.04	.05
Apoyo social		-.05	-.09
Optimismo			-.09
Autoeficacia			.08
R^2	.40	.40	.42
ΔR^2	.40	.00	.02
F	21.02**	16.83**	12.70**
ΔF	21.02	.45	1.82

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

Para poner a prueba la Hipótesis 4, se introdujeron los predictores dentro de la cobertura de la variable socialización anticipatoria (historia, lenguaje, política, y valores organizacionales) y el modelo explica el 40 % de la varianza del desempeño excelente en la preparación. Después de introducir la variable apoyo social, el modelo explica el 40 % de la varianza. Finalmente, tras añadir las variables de recursos personales (optimismo y autoeficacia), el modelo global es capaz de explicar el 42 % de la varianza de la variable criterio. El cambio de R^2 al añadir el último bloque de recursos personales tiene un valor de .02 lo que supone que el optimismo, la autoeficacia, la socialización anticipatoria y el apoyo social explican un 2 % de la varianza del desempeño excelente en la preparación.

El modelo apenas mejora su eficacia de explicación al ir añadiendo bloques de variables, y pierde la significación que en primer momento se situaba a un nivel de sig. = .000, siendo por tanto la precaución adecuada tomar en consideración únicamente el modelo de socialización anticipatoria, que sería por tanto capaz de explicar un 40 % de la varianza del desempeño excelente en la preparación y siendo este dato significativo, como se acaba de comentar (ver Tabla 5).

Tabla 5

Análisis de Regresión Lineal Jerárquica satisfacción con la preparación de la oposición

Variables predictoras	Modelo 1 β^a	2 β^a	3 β^a
Socialización anticipatoria			
Historia	.22	.22	.21
Lenguaje	-.01	-.05	-.06
Política	.07	.06	.08
Valores org.	-.00	-.00	.02
Apoyo social		.32**	.19
Optimismo			.21*
Autoeficacia			.29**
R^2	.06	.16	.31
ΔR^2	.06	.09	.15
F	1.99	4.648*	7.63**
ΔF	1.99	14.39	12.88

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

La variable cuya contribución es estadísticamente significativa a la predicción de la ecuación reducida al primer bloque es la dimensión lenguaje como parte de la socialización anticipatoria.

Discusión

El objetivo principal del presente trabajo fue analizar las relaciones entre los recursos externos y los recursos personales de los participantes en procesos de oposición para la Policía Nacional y los resultados relativos a sus actitudes y comportamientos en relación con el mismo proceso de preparación. Los hallazgos muestran que la socialización relativa a la historia de la organización y las creencias de autoeficacia pronostican el compromiso con la preparación, el optimismo pronostica el estrés experimentado, el apoyo social, y el optimismo juntamente con la autoeficacia pronostican la satisfacción y, por último, la socialización anticipatoria relativa al lenguaje de la organización pronosticaba el desempeño excelente de los participantes en la oposición.

Estos hallazgos están en línea con los trabajos precedentes que destacan la importancia de analizar la satisfacción, el rendimiento y el bienestar de los nuevos policías a

partir de los procedimientos que se emplean para su selección (Annell, Lindfors y Sverke, 2015). Los presentes resultados parecen apoyar los estudios que emplean otras metodologías, como el metaanálisis, en los cuales no aparecen relaciones concluyentes acerca del mayor poder predictivo de los antecedentes personales vs. los antecedentes organizacionales en relación con la predicción del estrés de los oficiales de policía (Webster, 2014).

El presente estudio explora una línea de trabajo que también abordan investigadores de otras latitudes, como las investigaciones con cadetes de la Policía de China, en los que se analizan los antecedentes personales y familiares a la hora de pronosticar la interpretación que los cadetes hacen de sus futuros roles como policías (Cuvelier y Jia, 2015). Esta línea de investigación es muy prometedora, porque la auténtica evaluación del significado de la socialización anticipatoria a través de las actitudes y conductas de los aspirantes se puede hacer a partir de sus percepciones durante el proceso de ingreso o de pre-ingreso, como es el caso del presente trabajo. En este mismo sentido, es indudable que la influencia de los programas de formación de los estudiantes para policías o aspirantes a serlo tienen una influencia a largo plazo en sus conductas y en su posible desempeño, incluso a través de aquellas facetas más relacionadas con el desempeño físico de las tareas (Dimitrijević, Koropanovski, Dopsaj, Vuckovic y Jankovic, 2014). Es más, los programas de formación ya dentro de la propia Policía contemplan una formación integral en este sentido, incluyendo disciplinas físicas como son la educación física o la defensa personal, otras más teóricas abarcando conocimientos de Informática, Derecho o Psicología, entre otras, y materias procedimentales de Intervención Policial o Asistencia en Urgencias. Sería, por tanto, interesante ver cómo los recursos personales y externos tienen una influencia diferencial o uniforme en estas modalidades diferentes de aprendizaje y, más interesante para cualquier organización, cuáles son más sencillas de alentar y mejorar. En este sentido, algunos trabajos sugieren que otras intervenciones, por ejemplo, centradas en actividades artísticas, podrían ayudar a reducir el estrés y a prevenirlo (Martin et al., 2018).

En resumen, el análisis de los resultados nos lleva a plantear un posible escenario de afrontamiento de la etapa preparatoria que supone hincapié e influencia de algunos

de los factores estudiados, y menor grado de contribución de otros.

Así las cosas, para los opositores a Policía Nacional, uno de los recursos externos que reciben a la hora de tener mejores resultados tanto en su autoevaluación de desempeño como en su grado de compromiso es cuánto de socializados están respecto a la organización, es decir, cuánto y cómo son capaces de, anticipatoriamente, ir adquiriendo conocimientos, lenguaje o valores de la propia Policía. Asimismo, sus capacidades internas para evaluar la propia eficacia y su actitud optimista influyen en algunos de sus resultados (compromiso y satisfacción en el caso de la autoeficacia y estrés y satisfacción en el caso del optimismo). El apoyo social, sin embargo, no toma un papel tan importante como algunos estudios destacan, contribuyendo a explicar los resultados, pero juntamente con el resto de los recursos externos.

El presente estudio adolece, sin embargo, de importantes limitaciones que reducen la posibilidad de extrapolar nuestros resultados a otros ámbitos o al resto de los participantes en los procesos de oposición de Fuerzas y Cuerpos de Seguridad del Estado. En primer lugar, hemos de considerar el procedimiento de contacto con los participantes, los mecanismos de obtención de las respuestas y el carácter auto informado de las medidas incluidas en el estudio, entre otras limitaciones de tipo metodológico. Asimismo, la imposibilidad de continuar entrevistando a estos mismos participantes a lo largo de su proceso de preparación de las pruebas selectivas o durante su formación en la Academia, en caso de que obtuviesen el ingreso, limita la posibilidad de extraer conclusión alguna sobre procesos causales. Por último, hemos de señalar que el proceso analizado es extremadamente complejo y esta perspectiva adoptada aquí es simplemente una selección de variables, motivada teóricamente, pero a todas luces limitada y son muchas otras las variables explicativas que se podrían haber analizado, en el plano familiar, personal, grupal y social.

Implicaciones de intervención futura

En primer lugar, los hallazgos de este estudio son útiles de cara a promover intervenciones basadas en el incremento de la autoeficacia específica orientada a las diversas

facetas que implica preparar una oposición a la Policía, pero sobre todo a la posterior fase de formación e incorporación a esta organización, dado que la naturaleza del estudio de una oposición implica mucho trabajo en solitario y, en caso de acudir a los servicios de una academia más o menos especializada, una enseñanza competitiva con los compañeros, con un nivel de feedback muy variable y diseños evaluativos poco cuidados, mas en la fase posterior de formación de los alumnos de policía sí es más factible una incorporación de medidas de naturaleza psicológica en la preparación.

Así las cosas, habría que analizar cómo la autoeficacia influye en la conducta por varios caminos. De una parte, el conocimiento sobre la propia eficacia influye en la información que las personas seleccionan y en la integración que hacen de ella, o sea en los escenarios futuros o anticipados que construyen y ensayan, primero en su pensamiento y luego cómo los trasladan a la realidad. Las personas que se sienten autoeficaces visualizan escenarios de éxito y reflexionan sobre aquello que podría salir bien. Por lo tanto, las intervenciones se deberían diseñar para favorecer estas creencias específicas de eficacia frente a la gestión del tiempo, de las decisiones y las actividades en el desempeño de las tareas más desafiantes, difíciles o peligrosas, y también en relación con la gestión de la salud. De la otra parte, la evidencia parece mostrar que las personas autoeficaces atribuyen sus fracasos a la falta de esfuerzo suficiente o a las condiciones adversas, mientras que las ineficaces lo hace a falta de habilidad, con el consiguiente decremento de su motivación. Es posible potenciar este tipo de conocimiento en el aprendizaje de los nuevos policías como parte de la Deontología profesional y personal que se les inculca de manera formal y también informal, necesario también porque las consecuencias de los fallos que estos profesionales van a enfrentar en su trabajo pueden tener consecuencias de gran gravedad, así como sus aciertos producen resultados social y personalmente muy relevantes, y para ello la visualización y preparación para la gestión personal cobra capital importancia.

Además, las creencias de autoeficacia influyen sobre el estrés percibido y parecen reducir la ansiedad, mientras que las personas con baja autoeficacia magnifican la gravedad de las amenazas y están siempre vigilando, con lo

cual perjudican su desempeño cotidiano. En este mismo sentido, el incremento de la autoeficacia puede ayudar a quienes transitan las fases de preparación de la oposición y de incorporación a la organización policial a reducir la afectividad negativa y la ansiedad asociadas a la transición, a la vez que les permiten transformar las situaciones amenazantes en desafíos, que incrementan su motivación en vez de minarla. Como ya se ha mencionado, es de capital importancia para el futuro profesional de estas personas saber cómo asumir y gestionar las consecuencias de un trabajo bien o mal hecho, modulando su sensación de autoeficacia, sin olvidar la necesidad de atribuciones objetivas al respecto.

Por último, los hallazgos de este trabajo se podrían aplicar a los procesos de formación e ingreso en otros colectivos profesionales, como la Guardia Civil, las enfermeras, los médicos, y los profesores que también están caracterizados por un alto grado de estrés y competencia (Molina-Praena, Ramirez-Baena, Gómez-Urquiza, Cañadas y De la Fuente, 2018; Patel, Bachu, Adikey, Malik y Shah, 2018).

Sin embargo, la línea de trabajo más prometedora y en la que la propia institución de la Policía Nacional evidencia más interés, contando con publicaciones científicas como la reciente de Caballero y Sánchez (2018), en la que se toman como referencia algunos de los modelos explorando la incidencia del estrés en la salud mental y proponiendo un modelo de vulnerabilidad. Esta línea de investigación se adapta más al trabajo real del policía que a la preparación de la oposición, no obstante, la futura investigación se puede proponer abarcando y adaptándose mejor a la transformación completa del opositor al policía contando con la fase intermedia de estudiante de la Escuela de la Policía Nacional y del policía en prácticas en destino. Este tipo de pasos intermedios podrían proporcionar una idea más precisa del papel de cada una de las variables que se han estudiado en el presente artículo, así como irse adaptando a cada fase del proceso algunas de las condiciones que no han podido arrojar grandes diferencias en los resultados.

El resultado principal más llamativo y preocupante tanto de este como de otros estudios (Caballero y Sánchez, 2018), es el estrés, cuyas consecuencias a largo plazo son

objeto de acción en el entorno de los departamentos de Recursos Humanos de miles de empresas alrededor del mundo. También en el caso de la Policía Nacional existe un departamento con nivel de Subdirección General dedicado a los Recursos Humanos y la Formación, cuyo cometido implica la gestión de estas dos áreas (Planificación y Prospección de los Recursos Humanos y la Formación), además de la Asistencia Letrada a los funcionarios, la Coordinación Jurídica y Reclamaciones Administrativas, y la Prevención de Riesgos Laborales y Acción Social. Este sería el lugar en que se podría circunscribir una investigación más profunda, incluyendo datos estadísticos médicos además de aquéllos de satisfacción y autoeficacia con los que ya se ha contado en este estudio, pudiendo añadir potencia explicativa a los mismos. La futura investigación va más allá de la oposición, pero no debería alejarse de esta fase, ya que es un paso por el que todos los policías han de pasar y cuya repercusión a nivel de aprendizaje, socialización y estrés no debería soslayarse aunque se produzca fuera de la organización de destino.

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ANTICIPATORY ORGANIZATIONAL SOCIALIZATION AND ITS RELATIONSHIP WITH NATIONAL POLICE APPLICANTS' ATTITUDES AND BEHAVIORS

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EXTENDED SUMMARY

This research takes as a theoretical model the Demands and Resources of Bakker and Demerouti (2007, 2013, 2017), the Theory of Conservation of Resources of Hobfoll (1998), and the model of socialized resources (TRS) of Gruman and Saks (2010). The demands include the physical, psychological, organizational or social aspects that require the effort of employees and are associated with physical or psychological costs (Bakker et al., 2001) in the performance of their work. Resources refer to those aspects of work that contribute to the achievement of goals, to the reduction of demands and their associated costs, or to personal growth and development. The link of demands and resources with personal and organizational results is established from two processes (Bakker & Demerouti, 2007; Demerouti and Bakker, 2011). On the one hand, demands initiate

processes harmful to well-being, often associated with undesirable outcomes, such as exhaustion or health problems. On the contrary, resources are frequently associated with motivational processes that impact on desirable outcomes, such as job satisfaction and citizenship behaviors (Fernet, Austin, Trépanier, & Dussault, 2013).

Abundant empirical research and meta-analytical reviews support the predictive power of demands and resources on the well-being and health of employees (Ahola et al., 2008; Bakker et al., 2009; Bakker et al., 2014; Crawford et al., 2010; Halbesleben, 2010; Hofmann et al., 2011; Mauno, Kinnunen, & Ruokolainen, 2007). The theory of Conservation of resources (COR) of Hobfoll (1998), stresses that resources are cultural-defined. In other words, resources are what is valued personally and are sought to be used and accumulated in the face of the

changing situations and vital challenges that the person faces.

Organizational socialization is a process by which the individual adapts to the context of the organization in which they will be inserted, appreciating, learning and assimilating a number of contents of a factual, social and informative nature (Chao et al., 1994). After this process, individuals have assumed a role within the organization and participate fully within it, since they have had to incorporate the values, skills and ultimately the corporate behavior expected of them to that effect (Gruman & Saks, 2010).

Hence, the main objective of this paper is to analyze the relationships between external resources and personal resources of participants in opposition processes for the National Police and their attitudes and behavior in relation to the aforementioned preparation process. Based on the literature reviewed so far, social anticipation socialization and social support will be considered as social or external resources for the individual. Personal resources will consist of optimism and self-efficacy. The results will explore commitment, stress, satisfaction and excellent performance in the preparation of the opposition. From the analysis of the literature, the following hypotheses are proposed.

Hypothesis 1: external resources – anticipatory socialization and social support - and personal resources - optimism and self-efficacy - predict the commitment of the opposition to the preparation of the opposition.

Hypothesis 2: external resources-anticipatory socialization and social support-and personal resources - optimism and self-efficacy- predict the stress of opponents in the preparation of the opposition.

Hypothesis 3: external resources-anticipatory socialization and social support-and personal resources - optimism and self-efficacy- predict the satisfaction of opponents with the preparation of the opposition.

Hypothesis 4: external resources-anticipatory socialization and social support-and personal resources - optimism and self-efficacy- predict the excellent

performance of opponents in the preparation of the opposition.

The study included a sample of 130 NPC opponents from all over Spain, whose average age was 29.3 years (SD = 6.9) and of which 76.2 % were men. 43 % besides studying work in a position not related to the oppositions, dedicating an average of 7.32 hours (DT = 3.9) a week to the preparation of physical tests and an average of 23.64 hours (DT = 16.9) to the week to the preparation of the opposition's academic tests. 63.8 % had university studies, and only 29.2 % had family in the CNP.

The measures of central tendency, dispersion and Pearson correlations were calculated between the study variables. The scores of the commitment variables with the preparation (M = 5.74, DT = 1.34) and optimism (M = 1.64, DT = 0.82) are relevant, since the first shows the highest mean and the second standard deviation higher, and the other variable, the lowest average and the one average deviation to low.

The findings show that socialization relative to the history of the organization and beliefs of self-efficacy predict the commitment to preparation, while socialization relative to the language of the organization predicted the excellent performance of the opposition participants. In addition, optimism predicts stress, and social support, optimism, and self-efficacy predict satisfaction.

The main objective of this paper was to analyze the relationships between external resources and personal resources of participants in opposition processes for the National Police and the results related to their attitudes and behavior in relation to the same preparation process. The findings show that socialization relative to organizational history and self-efficacy beliefs predict commitment to preparation, optimism predicts experienced stress, social support, and optimism along with self-efficacy predict satisfaction and, finally, the anticipatory socialization relative to the language of the organization predicted the excellent performance of the opposition participants.

This study explores a line of work also addressed by researchers from other latitudes, such as the investigations with cadets of the Chinese Police, in which the personal

and family antecedents are analyzed when forecasting the interpretation that the cadets make of their future roles as police officers (Cuvelier y Jia, 2015). This line of research is very promising because the authentic evaluation of the meaning of anticipatory socialization through the attitudes and behaviors of the aspirants can be made from their perceptions during the admission or pre-admission process, such as the case of the present work. In this same sense, there is no doubt that the influence of the student training programs for police or aspiring policemen has a long-term influence on their behavior and their possible performance, even though those aspects most related to performance — physical task (Dimitrijević et al., 2014).

The present study suffers, however, from important limitations that reduce the possibility of extrapolating our results to other areas or to the rest of the participants in the opposition processes of State Security Forces and Bodies. In the first place, we must consider the procedure of contact with the participants, the mechanisms for obtaining the answers and the self-reported nature of the measures included in the study, among other methodological limitations. Likewise, the impossibility of continuing to interview these same participants throughout their preparation process of the selective tests or during their training in the Academy, in case they obtained the income, limits the possibility of extracting any conclusion about causal processes. Finally, we must point out that the analyzed process is extremely complex and this perspective adopted here is simply a selection of variables, theoretically motivated, but clearly limited, and there are many other explanatory variables that could have been analyzed, on a familiar, personal, group and social level.

Implications of future intervention

In the first place, the findings of this study are useful in order to promote interventions based on the increase of specific self-efficacy oriented to the various facets involved in preparing an opposition to the Police. Self-efficacy influences behavior in several ways. On the one hand, information about one's own effectiveness influences the information that people attend and the integration they make of it, that is, in the future or anticipatory scenarios that they construct and rehearse,

first in their thinking and then transfer them to reality. People who feel self-reliant visualize success scenarios and reflect on what could work. Therefore, interventions should be designed to favor these specific beliefs of effectiveness against the management of time, decisions and activities in the performance of the most challenging, difficult or dangerous tasks, and in relation to the management of health. On the other hand, the evidence seems to show that self-reliant people attribute their failures to lack of enough effort or to adverse conditions, while ineffective ones do so due to lack of ability, with the consequent decrease in motivation. Finally, self-efficacy beliefs influence perceived stress and seem to reduce anxiety, while people with low self-efficacy magnify the severity of the threats and are always watching, thereby damaging their daily performance. In this same sense, the increase of self-efficacy can help those who pass through the preparation phases of the opposition and of incorporation into the police organization to reduce the negative affectivity and anxiety associated with the transition, while at the same time allowing them to transform the threatening situations in challenges that increase their motivation instead of undermining it. Finally, the findings of this work could be applied to the training and admission processes in other professional groups, such as nurses, doctors, the Civil Guard and teachers who are also characterized by stress (Molina-Praena et al., 2018; Patel et al., 2018).