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Resilience and coping as predictors of general well-being in the elderly: A structural equation modeling approach

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Objectives: The aims of this article are: (a) to test for the validity of the three constructs involved in the structural model; (b) to test for the effects of both coping strategies and resilient coping on well-being in a sample of elderly, by means of a structural model with latent variables; (c) to empirically study whether a brief scale of resilient coping could predict well-being over and above that predicted by the coping resources.
Methods: The research is a survey design. The sample consisted of 225 non-institutionalized elderly people living in the city of Valencia (Spain). The three constructs measured were: well-being, resilient coping, and coping strategies.
Results: The analyses consist of a series of alternative structural models with latent variables with resilience, problem-focused coping, and emotion-focused coping as the potential predictors of well-being as measured by Ryff's well-being scales. Due to parsimony reasons, the model retained is that with a single predictor of well-being: resilient coping.
Conclusion: A latent variable measuring resilient coping is able to predict a significant and large part of the variance in well-being, without the need of including coping strategies. Results impact on well-being literature of the elderly is discussed.

Keywords: elderly; well-being; coping strategies; resilience; structural equation modeling

Introduction

Well-being is a complex construct concerning optimal experience and functioning. Two general perspectives on well-being coexist: the hedonic approach, which focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance; and the eudaimonic approach, which focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning (Ryan & Deci, 2001). There is an increasing awareness among the researchers that well-being is not the absence of mental illness (Cacioppo & Berntson, 1999), which is consistent with the WHO definition of health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.

One of the most widely used models of well-being was presented by Ryff (1989) and Ryff and Keyes (1995) in the context of developing a lifespan theory of human flourishing, describing well-being not simply as the attaining of pleasure, but as 'the striving for perfection that represents the realization of one's true potential' (Ryff, 1995, p. 100). Ryff's model is a multidimensional approach to the measurement of psychological well-being that taps six distinct aspects or facets: autonomy, personal growth, self-acceptance, purpose in life, environmental mastery, and positive relations with others. These dimensions are measured by the Psychological Well-Being Scales, which have been widely analyzed (Abbott et al., 2006; Clarke, Marshall, Ryff, & Wheaton, 2001; Meléndez, Tomás, Oliver, & Navarro, 2009; Tomás, Meléndez, & Navarro, 2008).

Well-being has been related to numerous potential antecedents, such as personality traits, emotions, physical health, social class, wealth, and social support, as a review on well-being research discusses (Ryan & Deci, 2001). One of the constructs that can determine well-being is coping. According to Boerner (2004) and Folkman, Newman, Lamb, and Shipley (1986), it arises as a key factor in adaptation, may influence the appraisal of one's situation, and enables to deal adequately with the demands. Coping consists of cognitive and behavioral efforts to manage the specific demands that tax or exceed a person's resources (Lazarus & Folkman, 1984).

There is a broadly accepted conceptualization of the structure of coping, with distinctions between problem- and emotion-focused coping (Aldwin & Revenson, 1987; Baker & Berenbaum, 2007; Skinner, Edge, Altman, & Sherwood, 2003). Problem-focused coping involves efforts to modify the problem at hand and typically includes elements, such as generating options to solve the problem, evaluating the pros and cons of different options, and implementing steps to solve the problem (Lazarus & Folkman, 1984). Emotion-focused coping is usually defined as aiming to manage the emotional distress that is associated with the situation (Lazarus & Folkman, 1984).

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According to Jonker, Comijs, Knipsehcer, and Deeg (2009) coping resources are important predictors of well-being. Khoo and Bishop (1997), using structural equation modeling, obtained evidence that, in addition to direct effects on psychological and physical well-being, stress influenced well-being indirectly through its effects on coping strategies. In the same vein, Cappeliez and Robitaille (2010) found two coping variables, tenacious goal pursuit and flexible goal adjustment, as indicators of a latent coping variable, which directly affected the lack of well-being and also were significant mediators of the relationship between reminiscence and well-being in the elderly. Of particular interest for the purposes of this study, they found a significant and large negative effect of these coping resources on lack of well-being measured through indicators of depression, life satisfaction, and anxiety.

Folkman (1984) postulated that problem-focused coping strategies are more likely to be used to maintain psychological well-being in situations in which the aspect of the environment producing the challenge can be altered. In contrast, emotion-focused coping strategies are more likely to be used when the problem is inalterable. Therefore, different coping strategies may have different effects on different dimensions of well-being. In coping literature it is commonly accepted emotion-focused coping strategies are maladaptive processes (Baker & Berenbaum, 2007).

Finally, resilience, defined by Masten (2001) as a phenomenon or process reflecting positive adaptation despite experiences of significant adversity or trauma, would be a positive and adaptive way to face stressful events (Dyer & McGuinness, 1996). Resilience is influenced by environmental factors, resulting in greater resilience when people are empowered to deal with difficult situations (Rutter, 1999). Resilience involves an inference based on findings concerning individual differences in response to stress or adversity. It must be an important factor in aging research since this is a period of life in which subjects must cope with different stressful events, such as: the lack of personal autonomy, the decline in cognitive functions, and the augmented probability to cope with the death of significant others as well as their own death (Ryff, Singer, Love, & Essex, 1998). Indeed, resilience has been positively connected to well-being by Mikulincer and Florian (1998). Similarly, Christopher (2000) found that a higher degree of resilience and greater life satisfaction were the strongest predictors of psychological well-being. In a recent study, Nygren et al. (2011) studied the effects of resilience and several indicators of well-being, such as sense of coherence or purpose in life, on physical and mental health, and found large correlations between resilience and well-being in a sample of older adults. Rowe and Kahn (2000) defended that resilience may activate and maintain well-being. In particular, the relationship between resilience and well-being has been widely studied in the elderly as indicators of successful aging (Wagnild, 2003).

In summary, psychological well-being has been widely studied across all lifespan. However, the study of well-being among the elderly may be of particular interest given that a lower efficiency of the capabilities and an increase of dependence are commonly associated with aging and considered like a stressful situation that may affect well-being (Jonker et al., 2009). Studies on aging and well-being have centered on variations of the components of well-being across ages (e.g., Diener & Lucas, 2000; Mroczek & Kolarz, 1998; Ryan & La Guardia, 2000; Ryff, 1991). There is far less research on potential determinants of psychological well-being in the elderly population, specifically on the effects of coping and resilience factors.

The aims of this article are: (a) to test for the validity of the three constructs involved in the structural model; (b) to test for the effects of both coping strategies and resilient coping on well-being in a sample of elderly by means of a structural model with latent variables; and (c) to empirically study whether a brief scale of resilient coping could predict well-being over and above that predicted by the coping resources.

Method

Sample and procedure

The sample composed of 225 elderly people. The sample was recruited during education seminars for the elderly that took place in four premises of pensioners association in and around the city of Valencia (Spain). The elderly were asked to complete a survey that included resilience and other psychological variables in the premises. People were non-institutionalized and had no cognitive impairment. Women comprised the majority of the sample (68%). Their mean age was 72.3 (SD = 6.83), and the range was from 60 to 95 years old. 63.8% of the sample were married; 29.9% were widows or widowers; 3.6% were singles; while the remaining 2.7% did not specify their marital status. Regarding educational level, 57.6% of the elderly people had primary studies; 21.7% had no studies; and 20.7% had secondary or university studies.

Measures

Participants completed three psychological scales and some socio-demographic indicators, previously presented in the sample section. Specifically, they completed:

(a) The Coping Strategies Questionnaire, a 42-item self-report measure designed to assess seven basic coping styles: (1) problem-solving coping, (2) negative auto-focused coping, (3) positive reappraisal, (4) overt emotional expression, (5) avoidance coping, (6) social support seeking, and (7) religious coping. The questionnaire has been developed and validated in Spain by Sandín and Chorot (2003). A confirmatory

factor analysis (CFA) was estimated on these seven dimensions of coping to test a two-factor solution of problem- and emotional-focused coping. Problem coping included problem-solving coping, positive reappraisal, and social support seeking. Emotion-focused coping included negative auto-focused coping, overt emotional expression, avoidance coping, religious coping, and social support seeking. This two-factor model has been defended in the literature (Aldwin & Revenson, 1987; Baker & Berenbaum, 2007; Skinner et al., 2003), although it only reasonably fitted the data ($\chi^2_{12} = 53.52$ $p < 0.0001$, CFI = 0.87, GFI = 0.92, SRMR = 0.091; RMSEA = 0.126). The GFI is adequate and the other indices are not far from their cut-off criteria, therefore the fit model cannot be considered good. However, the validation of the scale in Spanish elderly population found the model as the best representation among the available competing models, and it is therefore retained (Tomás, Sancho, & Melendez, 2011). This has been reinforced by the fact that once coping factors were included in the overall model, model fit was reasonable.

(b) The Brief Resilient Coping Scale (BRCS; Sinclair & Wallston, 2004), a four-item measure designed to capture tendencies to cope with stress in a highly adaptive manner: Originally developed in English, it has been back-translated into Spanish for the purposes of this study as a Spanish version was not available. According to Sinclair and Wallston (2004), a single factor of resilient coping emerges from the four indicators of the BRCS. Thus, a one-factor CFA was estimated on these four items, with excellent fit indices ($\chi^2_2 = 2.13$, $p = 0.34$, CFI = 0.99, GFI = 0.99, SRMR = 0.02; RMSEA = 0.01).

(c) Ryff's scales of psychological well-being: These scales conceptualize and measure well-being with six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. There are several versions available depending on the number of items. All versions have been extensively validated in their original English versions (e.g., Ryff, 1989; Ryff & Keyes, 1995; Ryff, Keyes, & Shmotkin, 2002). The scale has also been adapted and validated in Spain (e.g., Tomás et al., 2008; Tomás, Meléndez, Oliver, Navarro, & Zaragoza, 2010). In this research the version of 29 items has been used (Díaz et al., 2006). A CFA was estimated with a single factor of psychological well-being underlying the six dimensions of the scales. There was not a good data-fitting for the six factor solution ($\chi^2_9 = 50.2974$, $p < 0.001$, CFI = 0.846, GFI = 0.911, SRMR = 0.089, RMSEA = 0.144). In order to improve model fit the least reliable dimensions (autonomy and positive relations with others) were removed and the CFA was tested again. This is not only an empirical model, but also a theoretical one, given that several authors have considered and found that self-acceptance, environmental mastery, personal growth, and purpose in life are the core dimensions of psychological well-being (Abbott et al., 2006; Kafka & Kozma, 2002; Ryff, Keyes, & Shmotkin, 2002; Springer & Hauser, 2006). This modified CFA adequately fitted the data ($\chi^2_2 = 0.24$, $p = 0.88$, CFI = 1, GFI = 1, SRMR = 0.007, RMSEA = 0.000).

Statistical analyses

The statistical analyses included several multivariate procedures. Specifically, CFAs to test for the factorial validity and reliability of the three constructs of interest (resilient coping, coping resources, and well-being), and structural equation models (SEMs) to test for the effects among the constructs, have been estimated in the EQS 6.0 (Bentler, 1995). There were 14 out of 225 participants with missing data in at least one of the variables in the models. This percentage of missingness may well be ignored (Enders, 2006). Estimates with and without imputation of missing data were equal and therefore the models presented are those without missing data imputation.

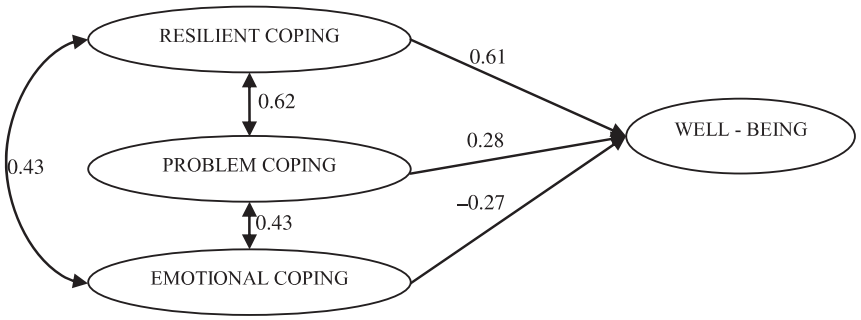
The plausibility of any CFA and/or SEM model is assessed using several fit criteria (Hu & Bentler, 1999; Tanaka, 1993). Given that the size of the sample greatly influences the decision to accept or reject a model based on statistical grounds, a number of fit criteria have emerged to be used to assess the structural model. The following criteria were used: (a) chi-square statistic (Kline, 1998; Ullman, 1996); (b) the comparative fit index (CFI; Bentler, 1990) of more than 0.90 (and, ideally, greater than 0.95; Hu & Bentler, 1999); (c) the root mean squared error of approximation (RMSEA) of 0.08 or less (and, ideally less, than 0.05) (Steiger & Lind, 1980); (d) the GFI and AGFI as measures of proportion of variance covariance explained for the model, with values of more than 0.90 as indicative of adequate fit (Hoyle & Panter, 1995); and (e) the standardized root mean squared residuals (SRMRs) of 0.08 or less (and, ideally less than 0.05) (Hu & Bentler, 1999). Based on the recommendations of Hu and Bentler (1999), the size of our model, using maximum likelihood estimating procedure, suggests that a CFI of at least 0.95, an RMSEA less than 0.06, and an SRMR less than 0.08, together, would indicate a good fit between the hypothesized model and the data. Additionally, when alternative statistical models are compared through the article, Akaike's information criterion (AIC) is used. The AIC is regarded as an information theory goodness of fit measure applicable when maximum

likelihood estimation is used (Burnham & Anderson, 1998). It is employed to compare different models: the lowest values are optimal.

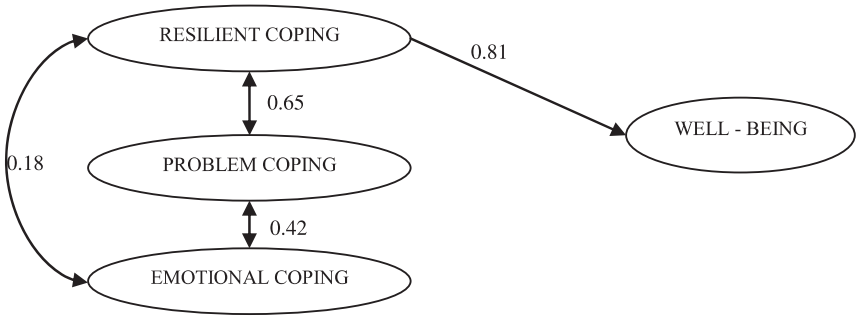
Results

Given that the building blocks (structural part) of the overall structural model fit the data reasonably well, three *a priori* models relating all indicators and factors were established. These models were estimated with structural equation modeling techniques, using latent variables, to test the relationships among the proposed factors free of error of measurement. Each latent variable, or factor, comprises several indicators or measures, as described in the previous section. This sequence of three *a priori* models and the structural coefficients relating the latent factors are presented in Figure 1. Jöreskog (1993) distinguishes between strictly confirmatory, alternative models, and models generating situations in the SEMs framework. Alternative models have been used in this study. In this situation several competing models are specified and, based on the analysis of an empirical data set, one of these models is selected. Each of the alternative models tests a particular theoretical hypothesis about the effects of the antecedents (resilient coping, problem-focused coping, and emotion-focused coping) of well-being. The logic of the three models is as follows:

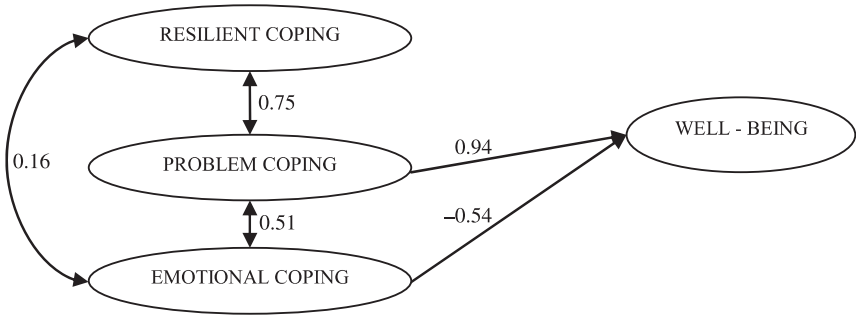
- Model 1 or complete model: Resilient coping, problem-focused coping and emotion-focused coping affect psychological well-being. The logic of this model is simple. There are several potential explanatory factors of well-being measured in this study, as the literature review points out.



Model 1. Complete model.



Model 2. Resilient coping predicting Well-being.



Model 3. Coping resources predicting well-being.

Figure 1. Sequence of nested models.
Note: For the sake of clarity, indicators of the latent factors are not presented.

- Model 2. Resilient coping is the only factor predicting psychological well-being. Model 2, when compared to model 1, offers evidence on the 'added' value of coping resources on the prediction of well-being.
- Model 3. Problem-focused coping and emotion-focused coping are the only factors affecting psychological well-being. Model 3, when compared to model 1, offers evidence on the 'added' value of resilience on the prediction of well-being.

As alternative models have been tested, the fit assessment must address the question of which model should be retained that better fits the observed data while having parsimony into account. Two analytical strategies to compare alternative models are possible: a statistical and a practical assessment of fit. Statistical assessment consists of testing chi-square differences between nested models. Chi-square differences are not adequate for non-nested models. Additionally, researchers (Cheung & Rensvold, 2002; Little, 1997) have pointed out that chi-square differences are sensitive to sample size and non-normality. As a consequence, there is an increasing tendency to assess fit in a more practical way, combining different criteria (Byrne, 2006). In particular, we should retain the more parsimonious model if (a) there is a good fit of the model, and (b) the differences between fit indices (e.g., CFI, GFI) of alternative models are negligible, not more than 0.05, according to Little (1997), or no more than 0.01, according to Cheung and Rensvold (2002). Table 1 offers goodness-of-fit indices for the three *a priori* models. Fit indices for each individual model offered a quite clear picture: the three models fitted the data reasonably well. Among the three models, the best fitting model considering all fit indices was model 1, the complete model that considers the effects of the three factors on well-being. However, the other two, models 2 and 3, are more parsimonious and had a very close fit to the complete model, especially model 2, with minimum differences among indices. Fit superiority of model 2 over model 3 may clearly be seen when AIC's for both models are compared (−11.462 for model 2 vs. 2.501 for model 3). The values of R^2 for the three models also aid to understand the model choice: R^2 model $1 = 0.60$, R^2 model $2 = 0.64$, and R^2 model $3 = 0.66$. The gain in percentage of variance explained for between models 2 and 3 is negligible. Therefore, it seems that resilience is a better predictor than problem- and emotion-focus coping factors. A different question is whether resilient coping is as good to predict well-being on its own, as it is together with the other factors (coping resources). In other words, is model one (complete model) better than model two (only resilience predicts well-being) once parsimony has been taken into account? Using a statistical strategy, it was found that the chi-square difference between both models was statistically significant, which supported model 1 as a better representation of the data. However, from a practical fit assessment both models fit the data equally well, even considering the worst scenario, that is differences of less than 0.01 (Cheung & Rensvold, 2002): $\Delta CFI = 0.009$ or $\Delta GFI = 0.004$. According to all these considerations model two is retained as a more parsimonious representation of the data.

Once one of the alternative models has been chosen, a close scrutiny of parameter estimates (analytical results) is needed. These parameter estimates are shown in Figure 2. Analytical results have two separate components. On the one hand, factor loadings, which link the observed variables (squares) to the hypothesized constructs or factors (ellipses), and on the other hand, the structural relationships among these constructs. Theoretical constructs are not observable, thus before testing the model empirically, a set of indicators must be defined for each factor. There must be reliable correspondence between indicators and constructs. The factor loadings relating each observed variable with its construct gave us an idea of their homogeneity with the latent factors they tap. All loadings relating indicators to their factors were statistically significant ($p < 0.001$), with standardized values well above 0.3 (see Figure 2).

Finally, Figure 2 offers the direct effect of resilient coping on well-being. This direct effect on well-being was statistically significant ($p < 0.001$) and positive ($\beta = 0.742$). The positive sign of the effect indicates that those elderly high on resilience had a better assessment of their well-being than those low on resilience. The magnitude of the relationship may be considered large, accounting on its own for 55.1% of the well-being variance.

Conclusion and discussion

This study evaluated hypotheses about the relationships of coping strategies and resilience with well-being. These hypotheses were tested within a structural equation modeling framework. SEMs offer evidence

Table 1. Goodness-of-fit indices for the three *a priori* models.

Model	Hypothesis tested	χ^2	df	AIC	CFI	GFI	SRMR	RMSEA	$\Delta\chi^2$	Δdf	p
1	*Resilient, rational and emotional coping*	149.040	83	−16.960	0.923	0.898	0.076	0.062			
2	*Resilient coping*	158.538	85	−11.462	0.914	0.894	0.082	0.064	9.498	2	<0.01
3	*Rational and emotional coping*	170.500	84	2.501	0.899	0.884	0.079	0.070	21.46	1	<0.01

Note: All chi-squares and statistically significant ($p < 0.001$).

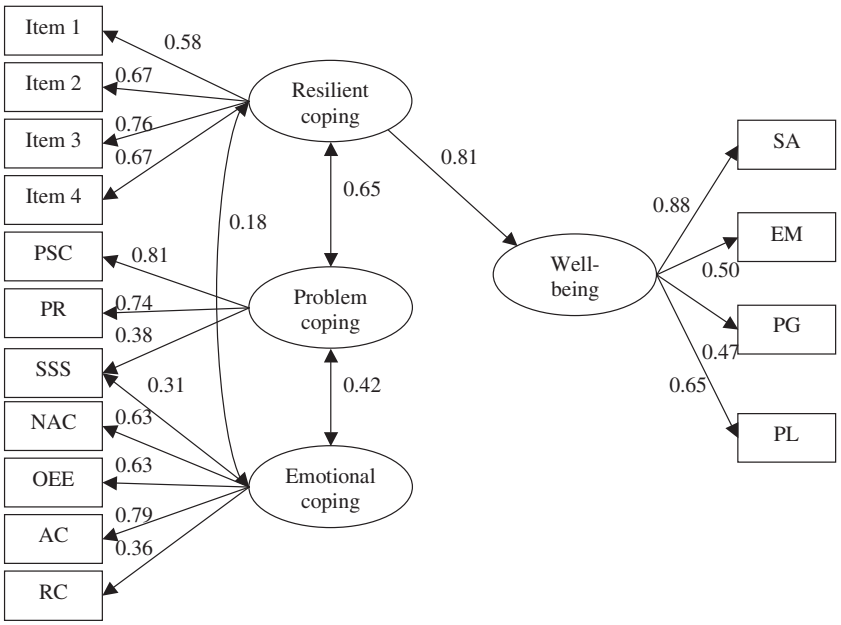


Figure 2. Best-fitting model to predict well-being.
Notes: PSC = problem-solving coping; PR = positive reappraisal; SSS = social support seeking; NAC = negative auto-focused coping; OEE = overt emotional expression; AC = avoidance coping; RC = religious coping; SA = self-acceptance; EM = environmental mastery; PG = personal growth; PL = purpose in life.

on two related, but distinguishable, research questions: (a) the measurement part of the model, which indicates the relationships of the indicators with their underlying constructs; and (b) the structural part of the model that deals with the relationships among constructs.

Firstly, the results of the measurement part of the model will be discussed, as well as their relations to empirical evidence in the literature. Concretely, the measurement part of the model offers evidence of factorial validity for the items in the resilience scale (BRCS); factorial validity of the coping dimensions; factorial validity of Ryff's well-being scales; and, additionally, it offers evidence of discriminant validity of these dimensions.

Regarding resilience, the four indicators of the BRCS (Sinclair & Wallston, 2004) loaded high on their theoretical factor. That is, convergent validity of the items seems adequate. Moreover, there were no cross-loadings to other factors in the model, in particular there were no cross-loadings with coping, which gives an idea of the discriminant validity of these items. This evidence is in line with the original validation by Sinclair and Wallston (2004) although it is even stronger, given that: (a) it has been tested by confirmatory means, while the authors used exploratory factor analyses; and (b) the factorial validity has been tested within a model with other related dimensions, such as coping, and it adds evidence of good discriminant validity for the scale.

Coping strategies measurement model shows a second-order structure. That is, the indicators of coping were scales that, according to the literature, should offer evidence of a second-order structure with two oblique dimensions: problem- and emotion-focused coping as originally proposed by Folkman and Lazarus (1980). All the coping strategies loaded on the hypothesized second-order factors, and the correlation between problem- and emotion-focused coping was positive and moderate. These results are in accordance with Lazarus (2006) idea that problem- and emotion-focused coping are complementary strategies rather than two fully distinct and independent dimensions. However, there was an exception since social seeking support loaded on both coping factors. This was an expected result inasmuch as several authors also found that social support seeking was highly related with both types of strategies, problem and emotion-focused (Lazarus & Folkman, 1984; Tobin, Holroyd, Reynolds, & Wigal, 1989). Also attending to the content of the social support seeking items, there were three items clearly indicating an active, more problem-focused coping (such as asking someone for counseling or asking someone to think about ways to solve the problems), while other three were centered on emotional coping (such as telling others my feelings or talking to others to calm me down).

In addition, the measurement model informs about the relations between the two dimensions of coping and resilience. Both problem-focused and emotion-focused were positively related to resilience, but whereas the correlation between emotion-focused and resilience was weak, this was not the case with problem-focused coping that had a large correlation with resilient coping. The present result agrees with the hierarchical regression analyses presented by

Campbell-Sills, Cohan, and Stein (2006), who found an absolute standardized coefficient between task-oriented coping and resilience ($\beta = 0.39$), twice larger than the one found for the relationship between emotion-oriented coping and resilience ($\beta = -0.18$). This offers evidence that resilient (elderly) people may have an active style to cope with adversity.

To end with the empirical evidence offered by the measurement part of the model, results show an overall factor of well-being based on its four core dimensions: purpose in life, self-acceptance, environmental mastery, and personal growth. Indeed, Ryff and Keyes (1995) concluded that a second-order factor model is the best fitting model. In addition, Springer and Hauser (2006) reported that the highest latent variable correlations across all samples were consistently those among purpose in life, self-acceptance, environmental mastery, and personal growth. Furthermore, Kafka and Kozma (2002) and van Dierendonck (2004) also offered empirical evidence on the presence of an overall second-order factor of well-being compressing the items of these four well-being dimensions. In the same vein, Abbott, Ploubidis, Huppert, Kuh, and Croudace (2010), found a second-order factor underlying the aforementioned four dimensions, together with two more independent factors, autonomy and positive relations with others. Our results also support this second-order structure for the well-being dimensions.

The structural part of the tested models offers evidence of the prediction of well-being in the elderly. The modeling approach, strictly confirmatory with alternative models, gives us the opportunity to study the predictive power of resilience and coping on well-being. It allows us to choose a model both effective and efficient to predict well-being. By parsimony reasons the best predictive model is that with a single predictor of well-being. That is, resilient coping is able to predict a significant and large part of the variance in well-being, without the need of including coping strategies. This result seems logical. In words of the authors of the BRCS, 'individuals who endorse these four items would be expected to be goal directed, believe in their ability to address adverse circumstances, and usually succeed at their selected challenges' (Sinclair & Wallston, 2004, p. 99), which in turns may predict well-being (e.g., autonomy, self-acceptance, and environmental mastery). Moreover, the same authors also pointed out that 'the items in this measure describe an effective, active problem-solving coping pattern that reflects the resilient coping patterns discussed in the literature' (Sinclair & Wallston, 2004, p. 99), and it is an established result that active problem-focused coping is strongly linked to well-being outcomes (see, e.g., the meta-analyses by Clarke, 2006, and Penley, Tomaka, & Wiebe, 2002, or the review by Carver & Connor-Smith, 2010). The large and positive correlations between resilience and well-being indicators found by Nygren et al. (2011) also agree with the evidence found in this study.

Windle, Markland, and Woods (2010), in a CFA framework, also offer indirect evidence on the connection between indicators of well-being (similar to the dimensions of self-acceptance and environmental mastery) and resilience. A counterintuitive result is that coping strategies do not add explained variance enough in the presence of resilient coping to be statistically relevant. There are a number of explanations to this result. For example, Cappeliez and Robitaille (2010) found a strong effect of coping on lack of psychological well-being (−0.54). However, resilience was not a variable included in the model. Therefore, it is not clear if this effect would stay significant when controlled by level of resilience. Indeed, results of model 2 that did not include the effect of resilience on well-being also found significant and large effects of the two coping factors on well-being. Firstly, Carver (2007) discussed several methodological issues that may make the establishment of a relationship between coping and health difficult, either physical or psychological, such as time lag for coping behaviors, whether coping is measured as a cluster or as a process, etc. Secondly, the relations among coping, resilience, and well-being could be more complex than simple prediction. Indeed, according to Leipold and Greve (2009), there may be a hierarchical differentiation between resilience and coping: coping in dynamical interaction with components, such as individual resources, social conditions, and the problem may result in resilience. Therefore, these authors point out the need of mediational analyses for this problem. Anyway, the evidence in the current research supports that resilient coping, a measure of only four items, predicts over and above coping strategies that are measured through seven dimensions and 42 items, seems of an extreme applied importance. According to this result, in studies on well-being in the elderly, controlling for and/or measuring resilience as a relevant factor seems a better approach than simply using multiple measures of coping. In the same way, applied programs addressed to improve elderly well-being should take into account the central role that resilient coping has played, instead of centering on coping strategies. Intervention on resilient coping may change attitudes toward their own aging, developing the personal growth and the purpose in life, central dimensions of well-being.

To conclude, we would like to discuss about the strengths and shortcomings of this study, as well as the directions for future research. This study has several limitations that are worth to note. First, the models in this study have been tested in a sample of non-institutionalized elderly people. Therefore, results may not be generalizable to the entire elderly population. Second, the research design is cross-sectional, which always limits our ability to draw causal conclusions from the data. Third, a certain number of other factors may moderate or mediate the relationships among coping, resilience, and well-being, which also opens the door for future research.

Despite these limitations, this study also has several merits. First and foremost, the present investigation increases understanding of an interesting phenomenon: resilience vs. coping in the prediction of well-being. Moreover, it increases our understanding in an understudied population, the elderly, a group that accumulates unfavorable and highly stressful experiences (Baltes, Lindenberg, & Staudinger, 1998). Second, the structural equation modeling strategy, based on alternative models of strictly confirmatory nature, and the use of latent variables free of error of measurement, are the best fitted techniques to be used in the context of cross-sectional designs.

Two future directions for research connected with the limitations of this study are evident. A larger and more inclusive sample of elderly could help to ascertain if the results generalize to the overall elderly population. A second direction for future research may be the consideration of mediation models, in which either resilience or coping may act as a mediator. For example, a model with personality and coping predicting resilience has been proposed and tested in young adults by Campbell-Sills et al. (2006). This particular mediation model should be ideally tested by means of a longitudinal panel study.

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