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Coping assessment from the perspective of the person-situation interaction: Development and validation of the Situated Coping Questionnaire for Adults (SCQA)

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Abstract

Background: Although coping strategies are considered to contribute to resilience to adversity, their use is not stable, but varies depending on the specific adversity. However, to date, most of the questionnaires assessing coping do not consider its situational character. The objective of this study is to develop and validate the Situated Coping Questionnaire for Adults (SCQA), which assesses coping in the face of five different kinds of adverse contexts to take into account its situational dimension. Methods: A total of 430 Spanish adults (256 from the general population, 77 people suffering from cancer or HIV, and 97 parents of children with cancer or developmental problems) completed the SCQA and two resilience questionnaires (the Brief Resilience Scale and the 10-item Connor-Davidson Resilience Scale) for validation purposes. Results: Confirmatory factor analyses showed the superiority of the personsituation model; the situation influences the degree to which people use specific coping strategies; however, coping is also stable to some extent. Regression analyses showed that coping strategies contribute to predict resilience, supporting the validity of the SCQA. The questionnaire and its sub-scales showed adequate reliability. Conclusion: The SCQA is deemed a reliable and valid means of situated coping assessment for use in several populations.

Keywords: Coping strategies; coping assessment; resilience; personsituation interaction; bi-factor models.

Resumen

Evaluación de estrategias de afrontamiento desde la perspectiva de la interacción persona-situación: desarrollo y validación del Cuestionario Situado de Afrontamiento para Adultos. Antecedentes: aunque se considera que las estrategias de afrontamiento contribuyen a la resiliencia frente a la adversidad, su uso no es estable, sino que varía en función del tipo de adversidad. Sin embargo, la mayoría de los cuestionarios de afrontamiento no tienen en cuenta su carácter situacional. El objetivo de este estudio es desarrollar y validar el Cuestionario Situado de Afrontamiento para Adultos (SCQA por sus siglas en inglés), que evalúa afrontamiento en cinco contextos diferentes. Método: 430 adultos españoles (256 población general, 77 personas con VIH o cáncer y 97 padres de niños con cáncer o problemas de desarrollo) completaron el SCQA y dos cuestionarios de resiliencia (Brief Resilience Scale y Connor-Davidson Resilience Scale-10) con propósitos de validación. Resultados: los análisis factoriales confirmatorios mostraron la superioridad del modelo persona-situación; la situación influye en la utilización de distintas estrategias de afrontamiento, sin embargo, estas también son relativamente estables. Los análisis de regresión mostraron que las estrategias de afrontamiento contribuyeron a predecir resiliencia en la dirección esperada, aportando evidencias de validez. El cuestionario y sus subescalas mostraron adecuada fiabilidad. Conclusión: el SCQA ha mostrado ser un cuestionario fiable y válido para evaluar afrontamiento desde una perspectiva situacional y en múltiples poblaciones.

Palabras clave: estrategias de afrontamiento, evaluación de afrontamiento, interacción persona-situación, modelos bi-factoriales.

Since people differ in the way they cope with stressful situations and, as not all coping strategies are equally effective, it is important to assess the types of coping strategies that individuals use to help them cope with stress. The assessment of coping, however, is not an easy task, as it is a complex concept with a long history (Folkman & Moscowitz, 2004; Carver & Connor-Smith, 2010). Despite its complexity, most researchers and practitioners agree that coping, by its very nature, is not a trait, as it implies "a constant change of cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Nevertheless, this fact does not imply a lack of generalization of coping strategies across time and situations, though the results of studies on temporal stability and situational consistency are not convergent (Kohlmann, 1993; McCrae, 1984; Steed, 1998).

Coping has often been assessed with standardized general scales, which assume that people use the same strategies to cope with stressful situations over time and across situations. This assumption reduces the complexity of coping assessment (Kato, 2015; Schwarzer & Schwarzer, 1996), as it implies assuming that the weight of the situation in determining coping responses is almost

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negligible, which may not be the case (Schwarzer & Schwarzer, 1996; Steed, 1998). On the other hand, some researchers have used scales for specific situations, such as chronic pain, marriage, emergency work, finance, parenting, occupation, etc. (Steed, 1998), or other assessment procedures, such as self-recording or narrative interviews (McCrae, 1984). This type of assessment can be more precise in some ways, but it makes it more difficult to assess transsituational consistency. Both types of procedures (general and situational) have their limitations, which we attempt to overcome in this study by developing a questionnaire which considers both the situational and personal dimensions of coping.

Research on the relation between coping strategies and different stressful situations has focused either on studying the influence of a particular situation on the degree of use of different coping strategies, or on studying the differences in the degree of use of a particular coping strategy in different stressful situations (Mattlin, Wethnigton, & Kessler, 1990). The combination of both, different strategies and different situations, has not yet been considered in research. Nevertheless, different situations can activate an individual's preferred coping strategies to different degrees, depending on the differential person's coping history in every stressful situation. That is, each person is probably prone to using different coping strategies in different problem situations. This fact would constitute an additional source of variability in coping questionnaires and could contribute to improve the prediction of coping effects. Given the practical interest in improving this prediction, as well as the methodological relevance of controlling the source of variability introduced by the situation when assessing coping strategies, we decided to develop a coping questionnaire which takes into account the person-situation interaction and to study its potential contributions to coping assessment and understanding. We posit, therefore, that it is possible to use general coping assessment scales without missing the role that the type of situation plays in determining how people cope with stress. This can be done by systematically varying and combining coping strategies and situations in the design of the scale, and by testing the adequacy of such models using bi-factor structural equations (Guftafsson & Åberg-Bengtsson, 2010). Nevertheless, in order to build the questionnaire, it is necessary to first decide which coping strategies and stressful situations to include in such a scale.

Although coping responses are virtually infinite (Skinner, Edge, Altman, & Sherwood, 2003), researchers have tried to organize the variety of coping strategies in different taxonomies, such as hierarchical models with higher order categories that allow organizing the different specific coping strategies in more manageable dimensions or styles. Different coping styles have been proposed (Schwarzer & Schwarzer, 1996; Carver & Connor-Smith, 2010), but a well-known distinction, put forward by Lazarus and Folkman (1984) is between problem-focused and emotion-focused coping (PFC and EFC respectively). PFC is directed at the stressor to evade it or to diminish its impact, whereas EFC pursues minimizing distress. This two-dimension model, which will be tested in our study and compared with other models, comprises a myriad of coping strategies within the coping styles. A selection of strategies to be included in our assessment instrument is thus necessary.

A recent meta-analysis of coping measures (Kato, 2015) showed that some of the strategies included in the reviewed scales have good predictive power for positive and negative outcomes. Regarding the positive outcomes, well-being correlates with active coping and planning (that is, trying to solve the problem; r = .25),

positive reinterpretation and growth (positive thinking; r = .32), seeking social support (help-seeking; r = .24) and acceptance (not thinking about the problem when it is unsolvable; r = .18). On the other hand, negative affect is related to thinking repetitively about the problem (rumination; r = .38), behavioral disengagement (isolation: r = .40) and focusing on venting emotions (emotional expression; r = .28). Lastly, depression, anxiety and general distress correlate with self-blame (r = .43, r = .32 and r = .43, respectively). Based on these findings, we decided to include the above-mentioned coping strategies in our questionnaire. They will be organized first in the two coping styles proposed by Lazarus and Folkman (1984). However, help-seeking and isolation tackle social-focused coping (SFC), which has been extensively addressed in literature (Folkman & Moscowitz, 2004). They could then constitute a third dimension, and we consequently decided to also test a model with three coping styles.

Regarding stressful situations, researchers have tried to characterize them depending on the type of stress involved –threat, loss or challenge (McCrae, 1984)–, or on their objective characteristics –work-related problems, problems with close persons' relationships, own health problems, close persons' health problems and economic problems (Mattlin et al., 1990). As we intended to build a coping questionnaire that considered typical stressful situations, we decided to utilize the latter classification, which corresponds to the types of problems that are more cited in the literature as stressful.

The different coping strategies and styles materialize in specific behaviors (Kato, 2015). Some of these behaviors are more effective to solve certain kinds of problems than others; thus, the utilization of more adaptive coping strategies will result in positive adaptation or recovery despite experiences of significant adversity, which is the definition of resilience (Leipold & Greeve, 2009; Luthar, 2006). Therefore, we decided to use resilience as a criterion variable to study the validity of our measure. The utilization of the PFC style has been found to be related to better outcomes (Alok et al., 2014). and thus we expect a positive relation with resilience. Regarding the EFC style, it has been found to be associated with poorer outcomes (Herman & Tetrick, 2009), and thus we expect it to have a negative relation with resilience. Lastly, concerning SFC, mixed results have been found in relation to its association with positive and negative outcomes (Folkman & Moscowitz, 2004) and thus we will explore the direction of such relation in our study.

In summary, the main objective of this study is to develop a situated coping questionnaire, and to test whether it is possible to use a general coping scale considering the role of the type of situation. To achieve the intended objective, we will compare six factor models for which the sources of variance will be the inclusion or not of higher order coping styles and situations. Our general hypothesis is that coping styles and the situation both contribute to explain coping behaviors. Therefore, we expect that the models that consider the situations and the higher order coping styles will show a better fit to data than the same models without the type of situation. We will also explore the psychometric properties of the questionnaire, in terms of reliability and criterion-related validity.

Methods

Participants

The study sample consisted of 430 adults. Three different groups of participants were recruited in order to gather a sample

with enough variability in relation to the degree of stress they had confronted. The first subsample (n = 256), termed "general" population", was composed by people who might have experienced stress, but that as a group could not be assigned to a particular category of people at risk. The second subsample (n = 77) were adults who were suffering from VIH or cancer, and the third (n =97) were parents of children with serious problems: either cancer or developmental or sensorial problems. We included these clinical samples because it is well-known that facing health problems or being a parent of a child with a health-related condition or a disability can be an important source of stress (e.g., Conti, Maccauro, & Fulcheri, 2011; Vrijmoet-Wiersma et al., 2008). Of the total sample, 69.8% were women. Regarding age, 33.3% of the sample was in the age interval between 20 and 30 years, 22.8% between 31 and 40 years, 26.3% between 41 and 50 years, 14.9% between 51 and 60 years, and 2.8% were above 60 years old. As for educational level, 70.46% had a university degree and 29.53% had primary, secondary or professional education.

Instruments

The Situated Coping Questionnaire for Adults (SCQA). This questionnaire was developed for this study. Four experts with theoretical knowledge who worked in the field of coping examined the coping literature. They then worked together to develop an item for each of the eight selected coping strategies (rumination, emotional expression, self-blaming, self-isolation, thinking avoidance, help seeking, problem-solving, and positive thinking) in each of the five selected types of adverse situations (work-related problems, problems with close people -family, friends-, own health problems, close person's health problems, and economic problems). Thus, 40 items were written in Spanish which assess to what extent the coping strategies used by adults generalize across situations or vary depending on the type of faced adverse situation. Later, a psychometric expert reviewed the items phrasing and made improvements. The items are answered on a 5-point Likert scale, in which participants determined the degree of agreement with each statement (1 = I totally disagree,5 = I totally agree). An English translation of the items for two of the five situations of the SCQA can be found in Table 1.

10-item Connor-Davidson Resilience Scale (10-item CD-RISC; Campbell-Sills & Stein, 2007). This measure assesses resilience as the personal qualities that enable one to thrive in the face of adversity. It is composed of 10 items with five response options (0 = Never; 5 = Almost always) and a direct scoring (the higher the score, the higher the resilience). The scores of the Spanish version showed adequate reliability when used in samples of university students (α = .85; intraclass correlation coefficient, ICC = .71; Notario-Pacheco et al., 2011), and fibromyalgia patients (α = .88; ICC = .89; Notario-Pacheco et al., 2014).

Brief Resilience Scale (BRS; Smith et al., 2008). It is a 6-item self-report resilience scale with a 5-point response scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). A higher score indicates a higher degree of resilience, understood as the ability to bounce back from stress. The English version scores loaded on one factor, and showed good internal consistency (α ranging from .80 to .91) and test-retest reliability (ICC ranging from .61 to .69). The Spanish version (Rodríguez-Rey, Alonso-Tapia, & Hernansaiz-Garrido, 2015) also showed adequate internal consistency ($\alpha = .83$) and test-retest reliability (ICC = .69).

Procedure

Ethics approval for this study was granted by the Research Ethics Committee at the authors' University. To gather the participants, several nongovernmental organizations were contacted and asked to send the potential participants an email containing information about the study, along with a link to the informed consent and the questionnaires. The sample of general population was recruited by email using a snowball approach in which students and University colleagues were asked for collaboration to spread the link to the informed consent and the questionnaire. Those willing to participate completed the questionnaires online.

Data analysis

happening again

The database contained no missing data, since the online platform did not allow participants to continue with unanswered items. Analyses were performed to identify participants without variance, and none was found.

Factorial validity. We developed and compared six models, all of which included the eight coping strategies considered in our questionnaire. Model 1 (M1) included neither coping styles nor the types of stressful situations, and the coping strategies were allowed to correlate. Model 2 (M2) included two coping styles (PFC and EFC), and Model 3 (M3) included three (PFC, EFC and SFC), but they did not take into account the situations. Model 4 (M4) considered the five types of stressful situations, but did not include coping styles, allowing for correlations among first-order strategies. Model 5 (M5) included two coping styles and the five situations. Finally, Model 6 (M6) included three coping styles

The Ei	Table 1 nglish translation of items of two of the situations included in The Situat Coping Questionnaire for Adults
When I	have had problems at work that made me feel very upset:
	repeatedly thought about the problem, and about how much I wish that it worken different
	tried to think about other things, or to do something which helped me not the problem
I have i	solated myself so that I did not have to share my concerns with anyone
I have the help me	tried to tell someone alse about my problem to someone else, so that he/she co
I have t	ried to find a solution to the problem by myself, without giving up
I have a	act impulsively, following my feelings or emotions
I have b	blamed myself for not having been able to prevent the problem
	ried to look at the positives, trying to learn from what happened to prevent it friing again
When colleag	I have had serious problems in my relationship with a relative, friend ue:
	repeatedly thought about the problem, and about how much I wish that it would ppened
	rried to think about other things, or to do something which helped me not think he problem
I have i	solated myself so that I did not have to share my concerns with anyone
I have the help me	tried to tell someone alse about my problem to someone else, so that he/she co
I have the prol	tried to find out by myself what I can tell them or what I can do in order to so blem
I have a	acted impulsively, following my feelings or emotions, without thinking twice
I have b	plamed myself for not having be able to prevent the problem
I have t	ried to look at the positives, trying to learn from what happened to prevent it from

and the five situations. M4, M5 and M6, following Guftafsson and Åberg-Bengtsson's (2010) proposal, who suggested that it is possible to use a combination of hierarchical and bi-factor models to disentangle sources of variance when trying to measure a construct. In this type of models, the score on each item may depend, on the one hand, on the degree in which the person is prone to use a particular strategy in different situations and, on the other hand, on the degree in which a particular situation activates the different coping strategies. If people tend to use certain strategies no matter the situation –if their use generalizes across situations–, then the coping strategies category would explain most of the item variance. Nevertheless, depending on the degree in which the type of situation matters, the item variances would be explained by each situation.

Goodness of fit statistics for the confirmatory factor analyses of the different models								
	χ^2	df	р	χ^2/df	TLI	CFI	RMSEA	
M1 (8f)	1805.62	712	<.001	2.53	.89	.88	.06	
M2 (8f1, 2F2)	3082.36	731	<.001	4.21	.76	.75	.08	
M3 (8f1, 3F2)	2086.85	732	<.001	2.85	.86	.85	.06	
M4 (8f1, 5FS)	1482.27	672	<.001	2.20	.92	.91	.05	
M5 (8f1, 2F2, 5FS)	2147.14	695	<.001	3.08	.85	.83	.07	
M6 (8f1, 3F2, 5FS)	1755.17	694	<.001	2.53	.89	.88	.06	

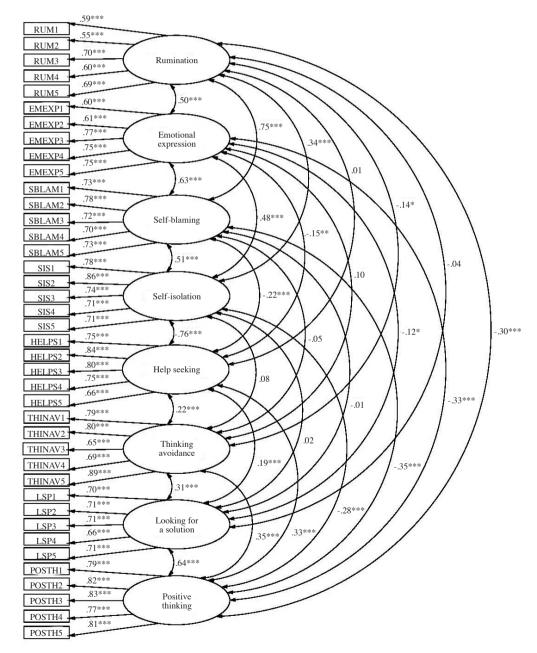


Figure 1. SCQA Model 1. Initial confirmatory standardized solution. *** p<.001; ** p<.01; * p<.05

The six models were estimated through confirmatory factor analyses. As Likert scores can be considered as ordered categorical scores, estimates were obtained using the weighted least squares means and variance adjusted method (WLSMV). Absolute fit indexes (χ^2 , χ^2/df), relative fit indexes (TLI) and noncentrality fit indexes (CFI, RMSEA) were used to assess model fit, as well as criteria for acceptance or rejection based on the degree of adjustment described by Hair, Black, Babin, and Anderson (2010).

Reliability. McDonald's ω coefficients were calculated for each specific SCQA scale and for the three general styles, as they are adequate when measures are ordered categorical indicators (McDonald, 1999).

Criterion validity. Several regression analyses were performed with resilience as criterion (assessed by the BRS and the CD-RISC) and the three coping styles and eight strategies as predictors. No evidence was found of multicoplinearity between the independent variables (all VIF and tolerance values were, respectively, < 2.5 and > .40; Allison, 1999). Residuals were examined for non-normality, heteroscedasticity and influential outliers (via Cook's distance D), and none seemed problematic.

Analyses were carried out with SPSS v.22 and MPlus-7.3.

Results

Factorial validity

Table 2 shows fit indexes for the six models, and Figures 1, 2 and 3 show the standardized estimates and squared multiple correlations of M1, M4 and M6. All the weights (λ) related to coping strategies and styles were significant (*p*<.001) for all models.

For M1, M2 and M3, chi-square statistics were significant, but the ratios χ_2/df and RMSEA were inside the limits that allowed the models to be accepted, except for M2. The remaining indices fell short of the limits of acceptance. This was an expected result, as our hypothesis was that the type of adverse situation would have an influence. A comparison of M2-M3 and M5-M6 shows that a three-dimension organization of coping strategies is preferable to a two-dimension one, which is also supported by the high correlation between the two strategies conforming the third factor, SFC (r = -.76; see Figure 1). As can be seen in Table 2, the situated models had better fit than their analogous non-situated ones. M4 had the best fit of all, and most of the weights related to each situation (see Table 3), but not all, were significant. M6, also

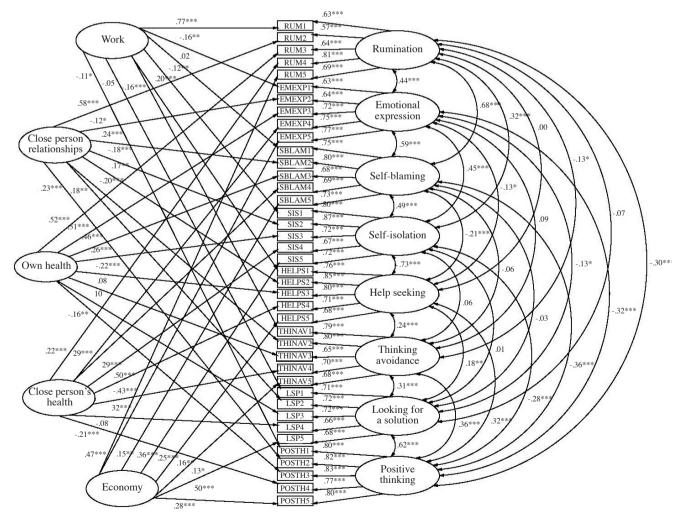


Figure 2. SCQA Model 4. Confirmatory bi-factor standardized solution *** p<.001; ** p<.01; * p<.05

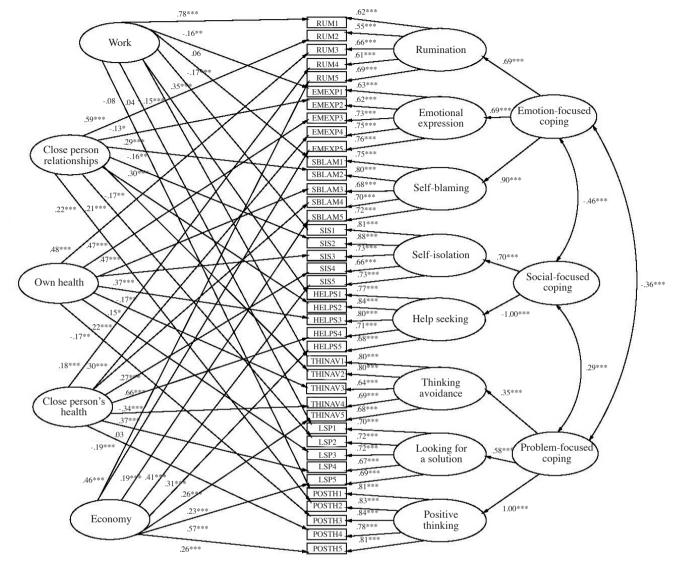


Figure 3. SCQA Model 6. Confirmatory bi-factor standardized solution. *** p<.001; ** p<.01; * p<.05

situated but including three coping styles, had a slightly worse fit to the data than M4, but much better than M5. Due to the usefulness

-	A Model 4 tions with		lized we	0	0				
Stressful	Coping strategy								
situation	RM	EE	SB	SI	HS	TA	PS	РТ	
WRP	.77***	15**	.02	12*	.20	16	05	11*	
PCP	.58***	12*	.24***	18***	.17**	20***	.18**	.23***	
OHP	.52***	.51***	.46***	.26***	22***	.08	.10	16**	
CPHP	.23***	.29***	.29***	.50***	43***	.32***	08	20***	
EP	.47***	.15**	.36***	.25***	.16**	.13*	.50***	.28***	

Note: RM = Rumination. SI = Self-isolation. EE = Emotional Expression. SB = Self-blame. TA = Thinking Avoidance. HS = Help-seeking. PS = Problem Solving. PT = Positive thinking. WRP = Work-related problems. PCP = Problems with close people. OHP = Own health problems. CPHP = Close person's health problems. EP = Economic problems. *** p<.001; ** p<.05 and manageability of higher order classifications, we decided to include the three coping styles shown in M6 (PFC, EFC, and SFC) in the following analyses with the purpose of providing the psychometric properties of their scores.

Reliability

McDonald's ω coefficients, computed for the coping styles and strategies of this questionnaire, were as follows: EFC style, $\omega = .92$; PFC style, $\omega = .98$; SFC style, $\omega = .97$; rumination, $\omega = .94$; emotional expression, $\omega = .91$; self-blaming, $\omega = .93$; problem solving, $\omega = .91$; positive thinking, $\omega = .94$; thinking avoidance, $\omega = .90$; help seeking, $\omega = .94$; and self-isolation, $\omega = .93$.

Criterion validity

Table 4 shows the results of the regression analyses. As expected, EFC and PFC contributed significantly to predict general resilience in the expected direction, no matter which resilience questionnaire was used. SFC, however, only had a significant weight in the case of CDRISC. When the specific coping strategies were used as predictors, general resilience was predicted significantly–explained variance ranges between 33% and 51%–, with rumination (negatively) and positive thinking (positively) being the strategies that most contributed to predict resilience in all situations.

Discussion

The main objective of this study was to develop a situated coping questionnaire, the SCQA, and to test whether it was possible to use a general scale without missing the role that the type of situation plays in determining how people cope with stress. We also sought to ascertain the psychometric properties of such a questionnaire, in terms of factorial validity, reliability and criterion-related validity.

Our results have provided evidence that adding the type of stressful situation to the equation is very important, as, in all cases, the situated model fit the data better than the corresponding non-situated one. Moreover, the significance of the measurement weights which link the observed variables to the situations (Figures 2 and 3) vary to a great degree depending on the considered situation. This means that people differ in the degree they use a certain coping strategy depending on the type of adverse situation. For instance, the weights in Table 3 show that people tend to isolate themselves, avoid thinking, not seek help, and not think positively in the face of a close person's health problems, but the following pattern is found when facing a relationship problem with a close person: they seek help and think positively, and do not isolate themselves or avoid thinking.

Furthermore, our results also showed that coping strategies do not reflect the effect of the two general coping factors usually suggested in the coping styles literature, and that even the threefactor model, though much better, does not adequately capture the correlations between the eight strategies. However, even though the use of second-order factors may imply losing information, they also allow summarizing a large amount of it in general tendencies and thus may be useful for clinical and research purposes. So, the

Table 4 Regression analyses. Predictors: coping styles and strategies. Criteria: BRS and 10-item CD-RISC									
Criterion	\mathbb{R}^2	Coping styles							
		EFC	PFC	SFC					
BRS	.31***	44***	.26***	ns					
CDRISC	.42***	25***	.51***	.10**					
				(Coping	strategies	;		
		RM	EE	SB	SI	HS	TA	PS	РТ
		0.5 4 4 4	11**	ns	ns	ns	ns	ns	.30***
BRS	.33***	3/***							
BRS CDRISC		3/*** 12**	11**	ns	ns	.08*	ns	.16***	.52***

three second-order factor model can be retained, as its fit was only slightly below the fit of the best. This suggests that the two coping styles proposed by Lazarus and Folkman (1984) –PFC and EFC–should be complemented with a third one, which explains the social aspects of coping (SFC) and needs be considered in future studies (Folkman & Moskowitz, 2004). The reliability of the eight coping strategies scales' scores was good, as well as the reliability of the three coping styles scales', and therefore they can be used for research and clinical purposes.

Finally, evidence stemming from our results supports the idea that resilience is related to coping styles as expected –positively to PFC and negatively to EFC–, a result that parallels those of Villasana, Alonso-Tapia, and Ruiz (2016) and which provides validity to the SCQA. Regarding SFC, its relation to resilience is only significant –though low– when it is assessed as the personal qualities that enable one to thrive in the face of adversity (CD-RISC), but non-significant when it is assessed as the ability to bounce back after difficulties (BRS). Thus, consistent with the literature (Folkman & Moskowitz, 2004), the relation between SFC and resilience is unclear and should be further explored.

The present study has provided the Spanish-speaking community with a reliable and valid tool which can be used in a variety of populations. Moreover, it contributes to the current coping literature by showing that the person-situation interaction can be successfully taken into account when measuring coping. The consideration of the type of adverse situation is indeed of paramount importance for coping assessment, a fact that should be taken into account both by researchers and mental health professionals. Regarding its clinical implications, our study suggests that psychologists must take into account that people's coping strategies may change across situations, so they should not assume that what an individual learns in one context will be automatically transferred to others. Additionally, in order to help people cope with stress, professionals should encourage the utilization of the strategies included in the PFC style, and specially positive thinking -as this is the strategy which is related to resilience in a higher degree- and discourage the utilization of the strategies comprised in the EFC style, rumination and emotional expression above all. Regarding the SFC, it should be promoted as it is associated with higher personal resources to thrive in the face of adversity.

This study has some limitations. Firstly, the recruitment and participation were made online, so only those with access to and knowledge about computers, e-mails and web-browsing were able to access the study, which could imply a sample biasing (e.g., more than 70% of the sample had university education). Secondly, even though different problematic situations have been included in the SCQA, we have only included in our sample general population people with health-related conditions and individuals whose children have a health-related problem. In future studies, it would be appropriate to also include people experiencing the other three difficult situations (economic problems, work problems, and problems in their relations with close people). Thirdly, as our data are correlational, the fact that the situation contributes to activate different strategies and to different degrees for each person is only a hypothesis, which needs to be tested through longitudinal research. Fourthly, the hypothesis that coping contributes to resilience needs to be tested, as the causal link cannot be established in our data, which only allow its prediction. Lastly, there are other coping strategies that people can use besides the

ones included in the SCQA. So, it would be interesting to study how the person-situation model found in this study applies to the other coping strategies.

In conclusion, although more research is necessary, the SCQA has shown to be a reliable and valid means of assessment of several coping strategies with a heterogeneous sample in a variety of stressful situations. Nevertheless, more research is needed, both to confirm the psychometric properties of the scale in similar or different samples (e.g., in other Spanish-speaking countries) and to study coping and its relations to other constructs from a holistic perspective that advances current knowledge and impacts the development of psychological interventions.

References

- Allison, P. D. (1999). *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press.
- Alok, R., Das, S., Agarwal, G., Tiwari, S., Salwahan, L., & Srivastava, R. (2014). Problem-focused coping and self-efficacy as correlates of quality of life and severity of fibromyalgia in primary fibromyalgia patients. *Journal of Clinical Rheumatology*, 20(6), 314-316.
- Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, 20(6), 1019-1028.
- Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. Annual Review of Psychology, 61, 679-704.
- Conti, C. M., Maccauro, G., & Fulcheri, M. (2011). Psychological stress and cancer. *International Journal of Immunopathology and Pharmacology*, 24(1), 1-5.
- Folkman, S., & Moscowitz, J. T. (2004). Coping pitfalls and promise. Annual Review of Psychology, 55, 745-774.
- Guftafsson, J. E., & Åberg-Bengtsson, L. (2010). Unidimensionality and interpretability of psychological instruments. In S. E. Embretson (Ed.), *Measuring Psychological Constructs: Advances in Model-Based Approaches* (pp. 97-121). Washington, DC: American Psychological Association.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Pearson-Prentice Hall.
- Herman, J. L., & Tetrick, L. E. (2009). Problem-focused versus emotionfocused coping strategies and repatriation adjustment. *Human Resource Management*, 48(1), 69-88.
- Kato, T. (2015). Frequently used coping scales: A meta-analysis. Stress and Health, 31(4), 315-323.
- Kohlmann, C. (1993). Rigid and flexible modes of coping: Related to coping style? Anxiety, Stress and Coping, 6(2), 107-123.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York, NY: Springer.
- Leipold, B., & Greeve, W. (2009). Resilience: A conceptual bridge between coping and development. *European Psychologist*, 14(1), 40-50.
- Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), *Development Psychopathology: Risk, disorder and adaptation* (2nd ed., pp. 740-795). New York, NY: Wiley.

- Mattlin, J. A., Wethnigton, E., & Kessler, R. C. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior*, *31*(1), 103-122.
- McCrae, R. R. (1984). Situational determinants of coping responses: Loss, trait, and challenge. *Journal of Personality and Social Psychology*, 46(4), 919-928.
- McDonald, R. P. (1999). *Test theory. A unified treatment*. Mahwah, NJ: Erlbaum.
- Notario-Pacheco, B., Martínez-Vizcaíno, V., Trillo-Calvo, E., Pérez-Yus, M. C., Serrano-Parra, D., & García-Campayo, J. (2014). Validity and reliability of the Spanish version of the 10-item CD-RISC in patients with fibromyalgia. *Health and Quality of Life Outcomes*, 12(1), 14-22.
- Notario-Pacheco, B., Solera-Martínez, M., Serrano-Parra, M. D., Bartolomé-Gutiérrez, R., García-Campayo, J., & Martínez-Vizcaíno, V. (2011). Reliability and validity of the Spanish version of the 10-item Connor-Davidson resilience scale (10-item CD-RISC) in young adults. *Health and Quality of Life Outcomes*, 9(1), 63-68.
- Rodríguez-Rey, R., Alonso-Tapia, J., & Hernansaiz-Garrido, H. (2015). Reliability and validity of the Spanish brief resilience scale (BRS). *Psychological Assessment*, 28(5), e101-e110.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E. M, Christopher, P. J., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194-200.
- Schwarzer, R., & Schwarzer, C. (1996). A critical survey of coping instruments. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping* (pp. 107-132). New York, NY: Wiley.
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129(2), 216-269.
- Steed, L. G. (1998). A critique of coping scales. Australian Psychologist, 33(3), 193-202.
- Vrijmoet-Wiersma, C. M., van Klink, J. M. M., Kolk, A. M., Koopman, H. M., Ball, L. M., & Maarten Egeler, R. (2008). Assessment of parental psychological stress in pediatric cancer: A review. *Journal of Pediatric Psychology*, 33(7), 694-706.
- Villasana, M., Alonso-Tapia, J., & Ruiz, M. (2016). A model for assessing coping and its relation to resilience in adolescence from the perspective of "person-situation interaction". *Personality and Individual Differences*, 98, 250-256.