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Resilience And The Aging Process: Assessment Tools And Needs

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Abstract

Successful resilience is a variable often related to an optimal aging process and that might have a role on education. However, literature is rather limited when dealing with assessment instruments for the elderly in the Spanish language. The objective of this work is to examine the Brief Resilient Coping Scale (Sinclair & Wallston, 2004), a four item likert scale, in the Spanish elderly. This scale was administrated to a sample of 920 elderly Spanish participants, and the data set analysed in terms of exploratory and confirmatory factor analysis and internal consistency. The scale demonstrated good psychometric properties. Furthermore, the homogeneity indices were higher than in the recent literature, reinforcing the dimensional structure of the scale. These results have shown higher reliability than previous Spanish versions. Therefore, more research on the Brief Resilient Coping Scale is necessary in order to develop a valuable assessment instrument that could be very useful in the assessing of resilience in the Spanish-speaking elderly.

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1. Introduction

Resilience is a relatively new construct in the field of psychology that have emerged as a topic of great interest to scientists and the general public. However, this concept was mainly focused on children. As Masten, (1998) indicated “evaluations of how a child is doing in life generally reflect expectations based on pooled knowledge

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about child development that are culturally transmitted from one generation to the next". However, the literature is rather scarce about the role of resilience in the aging process. Regarding this point, one interesting case is the elderly. During the aging process one might deal with chronic illness and disability, loss of friends and family or daily difficulties that can reduce their levels of satisfaction. However, most of the elderly do not seem to be dissatisfied with their age (Montorio and Trocóniz, 1997; Davydov, Stewart, Ritchie and Chaudieu, 2010). To explain this paradox, one should address the phenomenon of "Resilience" referring to resources, or lack of them (Baltes, Lindenberg, and Staudinger, 1998; Bergeman and Wallace, 1999; Bonanno, 2004; Greve and Staudinger, 2006; Ryff, Singer, Love and Essex, 1998; Staudinger, Freund, Linden and Maas, 1999). Furthermore, Pesce et al. (2005) discussed the resilience concept as an interactive process involving personal issues, the environment, education and quality of life and the presence of protective factors. In terms of measurement, there are a large number of scales or instruments that have been developed to measure the resilience concept demonstrated high reliability and validity, for example, the Resilience Scale (Wagnild & Young, 1993) or the the Dispositional Resilience Scale (Bartone, 1989). However, in this paper we have been interested in the Brief Resilient Coping Scale (Sinclair and Wallston, 2004). This instrument is a dimensional adaptation tool from nine to four items. Obviously, its main advantage over other scales is its brevity in terms of number of items, a fact that clearly facilitate the completion of this part by the elderly. The purpose of this work was to develop a first approach on the properties of the Brief Resilient Coping Scale (Sinclair & Wallston, 2004) in a large Spanish sample. The first Spanish-language adaptation seems to show good levels of validity and reliability, as shown by Tomas, Melendez, Sancho and Mayordomo, (2012) in an initial validation of the Brief Resilient Coping Scale (BRCS) with a sample of 133 elderly Spanish. Bear in mind the importance of adapting these instruments to other languages, as the vast majority are developed for English speaking population. Furthermore, one should keep in mind that the Tomas et al. (2012) research work is an initial validation. Caution is advised not to make firm conclusions regarding results with a small sample size.

2. Method

2.1. Sample

The sample selected was composed of 920 retirees. The average age was 62,7 years (SD = 5.89), with an age range of 50-85. Educational Attainment: 19.4% had no education; 40,1% completed basic education, and 34.7% secondary level studies completed.

2.2. Procedure

Sampling procedure was incidental. Seniors were enrolled in university programs for older people from different Spanish universities during 2011-2012. Prior to the final preparation of the questionnaire, a pilot selection of 60 people was carried out, reviewing the responses, testing coding and meanings of the translated items of the original instrument. The questionnaire was self-administered under the supervision of trained psychologists, during one of the classes, with permission from both the University and the teacher responsible for the class. Participants were volunteers and completed the necessary informed consent documentation.

2.3. Instruments

Sinclair and Wallston, (2004) developed the Brief Resilient Coping Scale (BRCS). This resilience scale assimilates optimism, perseverance, creativity and positive growth in the face of adversity. The authors describe a resilient coping pattern as reflecting a model of active problem solving. The BCRS is a measurement tool that has proven resilience with adequate levels of reliability and validity. The original scale consists of 4 items and a single factor or dimension, with an index of internal consistency of $\alpha = .69$ and test-retest reliability of $.71$ ($n = 87$, $p < .001$). The goodness of fit indices showed an excellent fit: $X^2 = 2.13$, $p = .03$, $CFI = .99$, $SRMR = .02$ and $RMSEA = .01$ (Sinclair & Wallston, 2004). The format is Likert response with 6 anchor points, from 0 (does not describe me at all) to 5 (describes me very well). The maximum score is 20 points, the higher the score the greater resilience.

According to the authors of the original scale, low-resistance subjects are those whom obtain scores lower than 13, while those who scored above 17 are considered highly adaptable. This is a self-administered scale, which aims to assess the ability to handle stress in an adaptive manner. Originally developed in English but translated into Spanish for the purposes of this study. To BRCS original language is English, a translation into Spanish was carried out following Harkness & Schoua-Glusberg, (1998) procedure by the first of four people selected for the translation process. The second person took this Spanish translation and translated it back into English without knowledge of the original English version. The fourth person compared the two preliminary English translations and determined, statement by statement, if they were equivalent in meaning. For statements where there were discrepancies a panel was formed with the first, second and fourth persons. Modifications to the statements were agreed and amended to the Spanish version generating the final version of the questionnaire.

3. Analysis

To perform the analysis we used SPSS 19.0 for exploratory factor analysis (EFA) and AMOS 18.0 for confirmatory factor analysis (CFA). Assumptions were checked to ensure the application of factor analysis, high sample size, multivariate normality, linearity and correlation between variables (Comrey, 1973; Tabachnick & Fidell, 1989). We checked for internal consistency of the scale through Cronbach Alpha; items of homogeneity; KMO index and the Bartlett test of sphericity (Kaiser, 1974). For the confirmatory analysis the estimation criteria was maximum likelihood and the fit indices were: comparative fit index (CFI), Goodness of fit index (GFI); adjusted goodness of fit index (AGFI), Normed Fit Index (NFI); (Jöreskog, & Sörbom, 1979); indices should be more than .90 (Bentler, 1990; Hu & Bentler, 1999); and also the root means squared error of approximation (RMSEA) with an adequate value lower than $<.05$ (Steiger & Lind, 1980).

4. Results

4.1. Internal consistency, exploratory and confirmatory analysis

Cronbach's alpha of the BRCS scale (Sinclair and Wallston, 2004) was $\alpha = .84$, and the percentage of total variance explained of 67.96%. In relation to the validity of exploratory factor analysis (EFA), the Bartlett's test of sphericity was $p < .001$ with a value of chi-square 896.09 ($df = 6$) and the sample index value of Kaiser-Meyer-Olkin (KMO) was 0.73. The factor loadings from the exploratory factor solution were: "I look for creative ways to alter Difficult situations" (item 1) = .68, "Regardless of what happens to me, I believe I can check my reaction to it" (item 2) = .76, "I believe I can grow in positive ways by dealing with Difficult situations" (item 3) = .85, and "I Actively look for ways to replace the Losses I encounter in life" (item 4) = .70. The AFC has confirmed the existence of a single factor. The model presented an optimal fit, except for the RMSEA, which exceeds the recommended value = .08. The goodness of fit indices of the global scale were: $X^2 = 107.02$ $p < .001$ ($df = 2$), GFI = .95, CFI = .94, NFI = .94, and RMSEA = .22.

5. Conclusions

Resilience is a key concept not only in the study of human behavior, but also in the aging process and particularly related to education. Not surprisingly, assessment tools for this construct are necessary. In this work, the Brief Resilient Coping Scale (Sinclair & Wallston, 2004), a four item likert scale, was examined in a 920 Spanish elderly sample. The BRCS scale adaptation to a sample of Spaniards has shown, with certain limitations, adequate psychometric properties. Regarding the internal consistency of the instrument, this study has shown a higher reliability than that obtained by the validation made by Tomas et al., (2012), as well as the original instrument by Wallston and Sinclair, (2004). Bear in mind that more research is necessary, in this lines, with higher samples. Finally, it is important to note that adaptation and validation of an instrument with the BRCS characteristics gives us the possibility to develop a simple and enriching tool. This will provide us for knowledge about resilience and learning in aged populations.

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