



Measurement invariance in the Satisfaction with Life Scale in Chilean and Ecuadorian older adults



Berta Schnettler^{a,f,*}, Edgardo Miranda-Zapata^b, Germán Lobos^c, María del Carmen Lapo^d, Cristian Adasme-Berrios^e, Clementina Hueche^f

^a Facultad de Ciencias Agropecuarias y Forestales, Universidad de La Frontera, Chile

^b LICSA, Núcleo Científico y Tecnológico en Ciencias Sociales, Universidad de La Frontera, Temuco, Chile

^c Facultad de Economía y Negocios, Universidad de Talca, Chile

^d Universidad Católica de Santiago de Guayaquil, Ecuador

^e Facultad de Ciencias Sociales y Económicas, Universidad Católica del Maule, Talca, Chile

^f Centro de Excelencia en Psicología Económica y del Consumo, Núcleo Científico y Tecnológico en Ciencias Sociales, Universidad de La Frontera, Chile

ARTICLE INFO

Article history:

Received 27 October 2016

Received in revised form 23 January 2017

Accepted 24 January 2017

Available online xxxx

Keywords:

Life satisfaction

Measurement invariance

Culture

Older adults

Developing countries

ABSTRACT

The Satisfaction with Life Scale (SWLS) has been validated in numerous countries. However, there are still few studies that evaluate its cross-cultural measurement invariance. The measurement invariance of the SWLS across older adults from Chile and Ecuador was evaluated in this study using multi-group confirmatory factor analysis. Participants consisted of 756 older adults from Chile (mean age = 71.38, SD = 6.48, range = 60–92) and 817 older adults from Ecuador (mean age = 73.70, SD = 7.45, range = 60–101). Results show partial measurement invariance with invariance of all but one factor loading (item 3), invariance of all but two thresholds (items 4 and 5) and invariance of all but two uniqueness (items 4 and 5) for the SWLS across Chilean and Ecuadorian older adults samples. Therefore, the SWLS would not be a valid instrument for cross-cultural comparisons of the levels of life satisfaction across older adults from Chile and Ecuador. These results emphasize the importance of establishing measurement invariance of the scale before comparing the SWLS scores across different cultures or countries.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Satisfaction with life is the cognitive factor of subjective well-being (SWB) (Diener & Ryan, 2009), or a positive assessment one makes of their overall life, or of specific domains within their life (Diener, Emmons, Larsen, & Griffin, 1985). The Satisfaction with Life Scale (SWLS, Diener et al., 1985) is one of the most widely used scales to measure the global cognitive assessment of satisfaction with one's life and has been validated in numerous countries (Atienza, Balaguer, Corte-Real, & Fonseca, 2016; Dimitrova & Domínguez, 2015; Oishi, 2006; Whisman & Judd, 2016). However, few studies have evaluated the cross-cultural measurement invariance of the SWLS. This poses a concern for researchers, that a cross-culturally valid instrument is necessary before samples from different cultures can be compared (Byrne & Stewart, 2006).

Research shows that people compare actual life circumstances with ideal life circumstances when evaluating life satisfaction, supporting the need for cross cultural comparisons (Zanon, Bardagi, Layous, & Hutz,

2014). The differences in life satisfaction across cultures may mirror meaningful differences in the quality of life, reflecting what specific cultures believe constitutes a good life. On the contrary, differences may be caused by measurement error due to cultural differences in interpretation of said scale items (Zanon et al., 2014).

In addition to the scarce number of studies that have assessed cross-cultural measurement invariance of the SWLS, the limited evidence available is not conclusive. Oishi (2006) found that item 5 was not invariant across Chinese and US university students. Tucker, Ozer, Lyubomirsky, and Boehm (2006) reported weak invariance when comparing US and Russian groups (combining university students and community samples), strong invariance when comparing US and Russian student samples, and a lack of variance when comparing US and Russian community samples.

Dimitrova and Domínguez (2015) reported partial scalar invariance across emerging adults and adult samples from Argentina, Mexico, and Nicaragua, with the intercepts of items 2 and 3 being noninvariant. Ponizovsky, Dimitrova, Schachner, and Van de Schoot (2013) demonstrated measurement invariance of the SWLS scale across three immigrant groups of various age groups. Casas et al. (2012) reported weak invariance in four of the items of the scale, except in item 5, across adolescent samples from Brazil, Chile and Spain. Zanon et al. (2014) did not

* Corresponding author at: Facultad de Ciencias Agropecuarias y Forestales, Universidad de La Frontera, PO Box 54-D, Temuco, Chile.

E-mail address: berta.schnettler@ufrofrontera.cl (B. Schnettler).

find equivalence when studying Brazil and US university student samples, finding that items 4 and 5 were noninvariant across both countries.

A more recent study performed by Whisman and Judd (2016) showed partial scalar invariance with a sample of adults from 50 to 79 years old in the United States, England, and Japan; finding that items 4 and 5 were noninvariant across the countries. Similarly, Aienza et al. (2016) reported partial scalar invariance, with item 5 varying across Spanish and Portuguese adolescents. These authors suggest that the SWLS exhibits some cultural sensibility, but further research is needed to analyze its cross-cultural equivalence.

Some authors suggest that the failure to meet criteria for different invariance levels may be due to differences in interpretations and conceptualization of SWLS items (Oishi, 2006; Tucker et al., 2006; Zanon et al., 2014). Some authors link this with cultural differences (Aienza et al., 2016; Oishi, 2006; Zanon et al., 2014) and others with age (Casas et al., 2012; Tucker et al., 2006; Whisman & Judd, 2016; Wu, Chen, & Tsai, 2009). Given that cross-sectional and longitudinal studies suggest life satisfaction is age-sensitive (Clench-Aas, Nes, Dalgard, & Aarø, 2011; Wu et al., 2009), it is important to assess the cross-cultural invariance of the SWLS during different life stages.

The SWLS scale has been used with elderly samples in Europe (Cybulski, Krajewska-Kulak, & Jamiolkowski, 2015; Hajek & König, 2016), Asia (Nogay & Akinci, 2012; Zhang & Zhang, 2015), North America (Fuller-Iglesias & Antonucci, 2016; Ratigan, Kritz-Silverstein, & Barrett-Connor, 2016), South America (Lobos & Schnettler, 2016; Schnettler, Lobos, Lapo, Adasme-Berrios, & Hueche, 2017), Oceania (Segerstrom, Combs, Winning, Boehm, & Kubzansky, 2016) and Africa (Bester, Naidoo, & Botha, 2016). However, there are no available studies assessing cross-cultural invariance of the scale in elderly samples from developing Spanish-speaking countries. This is relevant given that it is suggested that life satisfaction is more important for successful aging than the presence or absence of illness or disabilities (Ratigan et al., 2016). The older adult population is also expected to increase in the future (Ratigan et al., 2016), both in developed and developing countries (Bester et al., 2016; Schnettler et al., 2017).

The present study examines the measurement invariance of the SWLS across older adult samples from two countries in South America using multigroup confirmatory factor analysis (CFA).

2. Methods

2.1. Sample and procedure

Two samples of older adults participated in the study: one from Chile and one from Ecuador. The inclusion criterion was individuals age 60 years or older without physical (functional) or mental (dementia) disabilities. The Chilean sample consisted of 756 older adults from 30 communes of the Maule Region of central Chile (66.3% women, mean age = 71.38, SD = 6.48, range = 60–92). The majority of the sample had elementary (54.5%) and secondary (26.9%) education levels. Only 6.8% and 4.0% had university and technical education, while 7.8% had no academic studies.

The Ethics Committee of the Universidad de Talca approved the study in Chile. Participants were recruited through Senior Centers to answer the questionnaire either in the Center or in their residence. The questionnaire was personally administered by trained interviewers in November 2013 and January 2014.

The sample from Ecuador consisted of 817 older adults from the province of Guayas in Ecuador (47.5% women; mean age = 73.70, SD = 7.45, range = 60–101). The majority of the sample had elementary (53.1%) and secondary (20.6%) education levels. Only 10.5% and 1.8% had university and technical education, while 14.0% had no academic studies.

The Ethics Committee of the Universidad Católica de Santiago de Guayaquil approved the study in Ecuador. The seniors were contacted in gerontology centers. Trained surveyors administered the

questionnaires personally in March and July of 2015. In both countries, participants signed informed consents before responding.

Pilot tests of the questionnaires were conducted prior to implementation with 40 older adults from each country. The pilot test followed the inclusion criterion for participants. The objective of the pilot test was to evaluate the content and clarity of the questionnaire. The same method of addressing the participants was used as in the definitive survey. As the results from the pilot tests were satisfactory, no changes were required.

2.2. Instrument

Seniors reported levels of satisfaction with life by completing the SWLS (Diener et al., 1985). The SWLS consists of five items grouped into a single dimension (1. In most ways my life is close to my ideal; 2. The conditions of my life are excellent; 3. I am satisfied with my life; 4. So far I have gotten the important things I want in life, 5. If I could live my life over, I would change almost nothing), with a response format type Likert of 6 points (1: disagree completely to 6: agree completely). A Spanish-language version of the SWLS scale was used in this study.

The SWLS construct validity was achieved by Vera-Villaruel, Urzúa, Celis-Atenas, and Silva (2012) using exploratory factor analysis (EFA) and CFA in two different adult samples from northern and central Chile. Vera-Villaruel et al. (2012) evaluated the convergent validity of the SWLS Spanish version by the correlation between the SWLS values and the Quality of Life domains included in the WHO-QOL-Bref Scale of the Health Organization (WHOQOL Group, 1998), affirming the SWLS is positively related to Quality of Life.

Utilizing CFA Schnettler et al. (2013) reported construct validity for the SWLS Spanish version in a sample of adults from southern Chile. Schnettler et al. (2015) using EFA and Partial Least Squares Path Modeling analysis also demonstrated the construct validity of the SWLS Spanish version in a sample of university students in southern Chile. These authors also found a high positive correlation between the SWLS and the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) scores. With a sample of older adults from the central zone in Chile, using EFA Lobos and Schnettler (2016) also achieved the construct validity of the Spanish version of the SWLS, reporting a positive and significant correlation between the SWLS and SHS scores.

Schnettler et al. (2017) examined the psychometric properties of the SWLS Spanish version in a sample of older adults from Ecuador using CFA. These authors concluded that the one-dimensional structure of the SWLS could be validated with an acceptable goodness-of-fit and a good level of internal consistency (Cronbach $\alpha = 0.838$). The SWLS score can range from 5 to 30, the higher the score, the greater the level of SWLS. The average score of the SWLS was 21.99 (SD = 4.19) in Chile and 21.74 (SD = 4.50) in Ecuador.

In order to test the convergent validity of the SWLS, the questionnaires included the SHS (Lyubomirsky & Lepper, 1999). This instrument consists of four items on a 7-point Likert scale. This study used the SHS Spanish version. The one-dimensional structure was validated with a good goodness-of-fit throughout CFA and an acceptable level of internal consistency (Cronbach $\alpha = 0.74$) in a study with Chilean older adults (Lobos, Grunert, Bustamante, & Schnettler, 2016). In this study the SHS showed acceptable levels of internal consistency both in Chile (Cronbach $\alpha = 0.77$) and in Ecuador (Cronbach $\alpha = 0.78$). The scale score is calculated based on the average score of all items, with higher scores showing greater happiness. The SHS average score in the Chilean sample was 5.25 (SD = 1.06) and 5.30 (SD = 1.02) in the Ecuadorian sample, out of a theoretical maximum of 7.

2.3. Data analysis

For descriptive analysis the Statistical Package for Social Sciences (IBM SPSS) v. 23 was used. The software Mplus v. 7.3 was used to test

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات