THE ROMANIAN VERSION OF THE SATISFACTION WITH LIFE SCALE

ANA-MARIA CAZAN

University Transilvania of Brasov,
Faculty of Psychology and Education Sciences

Abstract
The Satisfaction with Life Scale (SWLS) is one of the most widely used scales for the measurement of subjective well-being. The present study presents the translation of the SWLS in Romanian and examines its psychometric properties in a sample of 342 Romanian students. Results showed that the SWLS had good internal consistency; the Alfa Cronbach coefficient obtained for the entire scale is .82. There are no gender differences. Confirmatory factor analysis showed support for a unidimensional factor structure, the indicators showing a good model fit. The solution with one factor was obtained by all the researchers who tested the structure of SWLS after its translation in different languages. These results suggest that the Romanian SWLS is a valid and reliable measure of life satisfaction. Although the SWLS is extensively studied and shows good psychometric properties including validity, internal consistency, and test–retest reliability, there are still important issues that need to be addressed. Future investigations should consider assessing the temporal stability of this instrument.

Cuvinte cheie: Analiză factorială confirmatorie, psihologie pozitivă, satisfacția cu viața, stare de bine.

Keywords: Confirmatory factor analysis, positive psychology, satisfaction with life, well-being.

Autor corespondent:
Ana-Maria Cazan
Email: ana.cazan@unitbv.ro

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1. INTRODUCTION

The Satisfaction with Life Scale (SWLS) is one of the most widely used scales for the measurement of subjective well-being. Life satisfaction has been studied extensively for the last decades (Clinciu, 2011). “Measures of life satisfaction are sensitive to entire spectrum of functioning, and thus, provide indications of both well-being and psychopathology” (Proctor, Linley, & Maltby, 2009). The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) has been widely utilized to measure global life satisfaction, being also an indicator of well-being. According to Pavot and Diener (2004), subjective well-being comprises an emotional component (positive and negative affect) and cognitive component (satisfaction with life, marriage, work, and leisure). Thus, satisfaction with life is the cognitive component of well-being.

Life satisfaction was also studied as predicted variable, recent studies showing that self-esteem and social support partially mediate the relationship between emotional intelligence and life satisfaction (Runcan & Iovu, 2013). Perceived stress and coping resources are also useful in predicting life satisfaction (Matheny, Roque-Tovar, Curlette, 2008).

The Satisfaction with Life Scale is mentioned in many recent studies, being translated and adapted for divers populations, such as Turkish (Durak, Durak, & Gencoz, 2010), Chinese (Xing, 2005), Malay (Swami & Chamorro-Premuzic, 2009), Norway (Clench-Aas, Nes, Dalgard, & Aarø, 2011), French (Blais, Vallerand, Pelletier, & Briere, 1989), Japanese (Sumi, 2008) or Portuguese (Sancho, Galiana, Gutierrez, Francisco, & Tomas, 2014).

2. OBJECTIVES

The aim of this study was the translation the Romanian version of Satisfaction with Life Scale. Our main objectives were:

- to analyze the psychometric properties of the scale
- to evaluate the unidimensional factor structure of the SWLS in a Romanian sample using confirmatory factor analysis.

3. METHOD

3.1. PARTICIPANTS/SUBJECTS

The participants were 342 students, 258 girls and 81 boys, with a mean age of 20 years, from several faculties of Transilvania University of Brasov.
3.2. INSTRUMENTS/APPARATUS/STIMULI/MATERIALS

We used the Satisfaction with Life Scale (Diener et al., 1985). The scale includes five items rated on a seven-point Likert scale (1 = Strongly disagree, 7 = Strongly agree). The Satisfaction with Life Scale was developed to assess satisfaction with the respondents’ life as a whole. According to the SWLS, higher scores indicate greater life satisfaction.

4. RESULTS

The Satisfaction with Life Scale was translated in Romanian and tested on a sample of 342 students. The reliability of the translated version is very high, the Alfa Cronbach coefficient obtained for the entire scale is .82, the correlations of each item with the total score are higher than .50 (Table 1). Similar findings were reported by Diener et al (1985), Yardley and Rice (1991).

Table 1. Cronbach's Alpha if Item Deleted for the SWLS

<table>
<thead>
<tr>
<th></th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>ssv_01</td>
<td>20.19</td>
<td>20.514</td>
<td>.669</td>
<td>.760</td>
</tr>
<tr>
<td>ssv_02</td>
<td>19.78</td>
<td>21.913</td>
<td>.552</td>
<td>.797</td>
</tr>
<tr>
<td>ssv_03</td>
<td>19.91</td>
<td>19.460</td>
<td>.742</td>
<td>.742</td>
</tr>
<tr>
<td>ssv_04</td>
<td>19.61</td>
<td>21.383</td>
<td>.568</td>
<td>.792</td>
</tr>
<tr>
<td>ssv_05</td>
<td>20.55</td>
<td>18.355</td>
<td>.549</td>
<td>.814</td>
</tr>
</tbody>
</table>

The correlations between the five items were also positive and statistically significant (p<.001).

Table 2. Inter-item correlations for SWLS

<table>
<thead>
<tr>
<th></th>
<th>ssv_01</th>
<th>ssv_02</th>
<th>ssv_03</th>
<th>ssv_04</th>
<th>ssv_05</th>
</tr>
</thead>
<tbody>
<tr>
<td>ssv_01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ssv_02</td>
<td>.507**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ssv_03</td>
<td>.659**</td>
<td>.560**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ssv_04</td>
<td>.487**</td>
<td>.342**</td>
<td>.535**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ssv_05</td>
<td>.484**</td>
<td>.342**</td>
<td>.520**</td>
<td>.409**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Regarding the construct validity, we did not obtain differences between boys and girls regarding the satisfaction with life: t(337) = .15, p = .88. Although women are overrepresented in this study, the result is important. The results are similar to those obtained by other others, who showed that the satisfaction with life is invariant across the sexes (Atienza, Balaguer, & García-Merita, 2003; Shevlin, Brunsden, & Miles, 1998).
The exploratory factor analysis revealed a one factor solution that explains 59.45% of the variation with the items presenting a saturation of this factor between 0.70 and 0.86.

In order to test the factorial structure of the SWLS, we use confirmatory factor analysis. The five items of the SWLS were expected to load onto a single latent factor. We tested two models, one model without correlated errors and a second model with one pair of correlated errors. To assess the model fit, several indexes were be considered (Table 3).

<table>
<thead>
<tr>
<th>Model</th>
<th>Correlated errors</th>
<th>$\chi^2$(df)</th>
<th>GFI</th>
<th>CFI</th>
<th>AIC</th>
<th>RMSEA (90%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Uncorrelated error</td>
<td>-</td>
<td>3.68</td>
<td>.977</td>
<td>.978</td>
<td>33.668</td>
<td>.005 (.000-.064)</td>
</tr>
<tr>
<td>2. correlated error</td>
<td>err4↔err5</td>
<td>2.804</td>
<td>.978</td>
<td>.980</td>
<td>34.80</td>
<td>.003 (.001-.070)</td>
</tr>
</tbody>
</table>

Note. GFI: Goodness-of-Fit Index, CFI: Comparative Fit Index, AIC: Akaike Information Criterion, RMSEA: Root Mean Square Error of Approximation, 90% CI: 90% confidence interval for RMSEA.

The modification indexes analysis revealed the necessity to correlated error 4 and 5, but the model did not improve significantly. We retained the second model, all the indicators showing a very good model fit. The structure of SWLS and the standardized estimates are presented in Figure 1. The standardized estimates of all items were significant and ranged from .60 to .78. This result supports the previous findings obtained from factor analysis (Diener et al. 1985; Pavot et al. 1991; Paolini et al. 2006;) and confirmatory factor analysis (Tucker et al. 2006; Durak, Durak, & Gencoz, 2010; Clench-Aas, et al., 2011) of the SWLS, conducted in different cultures. Thus, the solution with one factor was obtained by all the researchers who tested the structure of SWLS after its translation in different languages.

Figure 1. Confirmatory factor structure of Romanian SWLS
5. CONCLUSIONS

The results confirm previous research in the field, showing that the Satisfaction with Life Scale has a single factor structure. Despite the small number of items, SWLS is a good measure of well-being. Although the SWLS is extensively studied and shows good psychometric properties including validity, internal consistency, and test–retest reliability, there are still important issues that need to be addressed (Clench-Aas, Nes, Dalgard, & Aarø, 2011). Future investigations should consider assessing the temporal stability of this instrument. We also consider the analysis of predictive and convergent validity of the scale.

REFERENCES


**REZUMAT**

Scala satisfacției cu viața (SWSL) este unul dintre cele mai des folosite instrumente pentru evaluarea stării subiective de bine. Studiul de față prezintă traducerea Scalei satisfacției cu viața în limba română și analizează proprietățile psihomtrice ale instrumentului aplicat pe un număr de 342 studenți de la mai multe facultăți din cadrul Universității Transilvania din Brașov. Rezultatele au evidențiat o bună consistență internă; coeficientul Alfa Cronbach pentru întreaga scală este de 0,82. Nu există diferențe de gen. Analiza factorială confirmatorie a identificat o structură unidimensională a chestionarului, indicatorii statistici obținuți demonstrând o bună potrivire a modelului reținut pentru analiză. Soluția cu un singur factor a fost obținută și de alți cercetători care au testat structura factorială a chestionarului după traducerea sa în diferite limbi. Aceste rezultate sugerează faptul că versiunea română a SWSL este o măsură fidelă și validă a satisfacției față de viață. Deși SWSL este folosit pe scală largă în cercetările recente și are bune calități psihomtrice, o bună consistență internă, fidelitate test-retest, rămân totuși aspecte importante care trebuie analizate în cercetările viitoare. Cercetările viitoare vor lua în calcul și evaluarea stabilității în timp a scorurilor obținute prin intermediul acestui chestionar.