



## Articles

# Psychometric Properties of the Satisfaction With Love Life Among Palestinian College Students

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## Abstract

The main goal of this investigation is to examine the psychometric characteristics of the Satisfaction with Love Life Scale (SWLLS) among Palestinian college students. This scale assesses a person's global evaluation of love satisfaction. The factorial structure, the reliability, and validity of this measure were examined. The sample included 201 college students aged 18-26 years. Confirmatory factor analysis of the SWLLS confirmed a single underlying dimension among Palestinian college students. The SWLLS evidenced satisfactory psychometric properties, with good internal consistency. Furthermore, corroboration of validity was also evidenced by means of the relationships between SWLLS score, and love status, love styles and well-being constructs. As expected, students "in love now" declared more satisfaction with love life than those "not in love now". Erotic, pragmatic, and agapic orientations correlated significantly with the SWLLS scores. There were also significant positive correlations between the scores of the SWLLS and life satisfaction, and self-esteem. Significant negative correlations were observed between the scores of the SWLLS and loneliness. The results showed that satisfaction with love life contributes significantly and in a unique way to loneliness and self-esteem, even after controlling for participants' sex and age. The findings of the current study suggest that the Arabic version of the SWLLS makes up a brief psychometrically sound instrument to assess love life satisfaction.

**Keywords:** love, satisfaction, test validation, well-being

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Satisfaction with love life constitutes a specific component of subjective well-being (Salvatore & Munoz Sastre, 2001) and can be included in the positive psychology (also called "authentic happiness") (Seligman, 2002). "Certainly, for a positive psychology to be convincing the diversity of the world's cultures and values must be reflected through careful, systematic research both within and beyond the United States" (Rich, 2003, p. 3). Indeed, most research about love, in particular, has been performed with WEIRD (Western, educated, industrialized, rich, and democratic) samples (Hatfield, Bensman, & Rapson, 2012). The main goal of this investigation is to examine the psychometric characteristics of the Satisfaction with Love Life Scale (SWLLS) among Palestinian college students.

## Subjective Well-Being

The study of subjective well-being (SWB) has risen considerably over the last four decades (Diener, 1984; Diener, Oishi, & Lucas, 2015; Diener, Suh, Lucas, & Smith, 1999). SWB may be defined "as people's evalua-

tions of their lives” (Diener et al., 2015, p. 234) and it includes three distinctive major components: positive affect, negative affect, and satisfaction with life (Diener, 2000). Positive affect refers to occurrences of pleasant emotions (e.g., joy and contentment), while negative affect refers to occurrences of unpleasant affect (e.g., sadness and anxiety). Satisfaction with life is a judgmental process in which people assess the quality of their lives on their own set of criteria (Shin and Johnson, 1978). Following this approach, Pavot and Diener (2008, p. 140) argued that “measures of life satisfaction are advantageous because they allow respondents to determine their own criteria for inclusion in the judgment process, and to weight them in the manner they choose”.

Satisfaction with life has been broadly used as a reliable and valid construct in a plethora of studies including international research and cross-cultural comparisons (Diener & Suh, 2000; Oishi, 2012). Understanding satisfaction with life is important as it is related to positive life outcomes, such as health (Diener et al., 2017), income (Howell & Howell, 2008), and work success (Lyubomirsky, King, & Diener, 2005). Scholars have increasingly suggested the utilization of satisfaction with life in public policy (Diener et al., 2015). Research on people living in conditions of political conflict has evidenced that life satisfaction represents a core factor promoting mental health (Veronese & Pepe, 2018).

Satisfaction with life reflects the cognitive evaluation of whether one is happy with one’s life not only as a whole, but also considering the various specific life domains, such as housing, work, health or free time (Diener et al., 1999). The study of domain satisfactions is under-investigated in the field of SWB (Bardo & Yamashita, 2014). The current paper contributes to fill this gap by studying the specific domain of love life satisfaction.

## Satisfaction With Love Life

Love denotes a host of cognitions, emotions, and behaviors (Hatfield, 1988; Karandashev, 2017). In line with research on life satisfaction, satisfaction with love life may be seen as a cognitive judgement of one’s satisfaction with his or her love life (Neto, 2005). The SWLLS was developed to assess the global cognitive judgments of people concerning satisfaction with their love lives, including five items (Neto, 2005). Similarly to the theoretical perspective of life satisfaction (Pavot & Diener, 2008), it is expected that the assessment of the satisfaction with love life integrates and weights peculiar facets of the love life.

The reliability of the SWLLS was evaluated among Portuguese college students displaying excellent internal consistency ( $\alpha = .91$ ) (Neto, 2005). Construct validity of the scale was evaluated by means of principal component analysis resulting in one factor that accounted for 73.7% of the variance. In other samples with Portuguese college students, the SWLLS also demonstrated adequate psychometric characteristics (e.g., Alves, 2012; Guedes, 2011). Validity was supported using correlations between scores on the SWLLS and love, and well-being constructs (Neto & Pinto, 2015a). The measurement invariance of the SWLLS was evaluated among college students from Angola, Brazil, East Timor, Macao, and Portugal (Neto & Dimitrova, 2017). A multigroup confirmatory analysis demonstrated a good fit of configural, measurement weights and partial scalar invariance model, suggesting similar patterns and strengths in factor loadings, means and intercepts across samples. In this particular study it was shown that the SWLLS could be used cross-culturally with emerging adults. In sum, past research using the SWLLS evinced satisfactory reliability and validity in several cultural contexts in Africa (Angola), Asia (Macao and East Timor), Europe (Portugal), and Latin America (Brazil). The present study examines the psychometric properties of the SWLLS in a cultural context of Middle East, Palestine. Palestine is

one Middle East country that has been continuously exposed to military violence and human rights abuse since 1948 (Punamäki et al., 2005).

## The Present Study

The present study has four purposes. First, the internal structure of the SWLLS will be examined. In order to accomplish this purpose, we will perform confirmatory factor analysis (CFA). It is hypothesized that the SWLLS will display a single underlying dimension in agreement with past results (Neto, 2005; Neto & Dimitrova, 2017; Neto & Pinto, 2015a).

Second, the psychometric features of the SWLLS will be scrutinized. In order to accomplish this purpose, we will calculate the internal consistency of the tool by means of Cronbach's alpha and the corrected item-factor correlations. We expect that SWLLS will display good internal consistency in agreement with past results (e.g., Neto, 2005)

Third, it will be examined the relationships between the SWLLS and background factors, namely youth gender and age. No significant gender differences (Diener & Ryan, 2009; Glaesmer et al., 2011; Neto & Dimitrova, 2017; Neto & Pinto, 2015a) nor age differences (Bendayan et al., 2013; Neto & Fonseca, 2018) are expected.

Fourth, to assess the convergent validity of the SWLLS we will examine the relationships between SWLLS and other conceptually related constructs, such as love status and love styles, as well as empirically based indicators of well-being, such as life satisfaction, self-esteem, and loneliness. There is evidence that all these constructs present conceptual links with satisfaction with love life.

Love status refers to "falling in love", which is not an easy concept to define. Passionate love is perhaps the closest concept to "falling in love" (Hatfield, 1988; Karandashev & Clapp, 2016). Previous work has shown that "lovers wear rose colored glasses" (Hendrick & Hendrick, 1988). Hence, we predict that individuals who will be in love will display more satisfaction with their love lives.

According to the Canadian sociologist Lee (1973), the love styles model includes: Eros (passionate), Ludus (game-playing), Storge (friendship), Pragma (practical), Mania (possessive, obsessional) and Agape (altruistic) love. This model captures the multidimensionality of love as experienced by individuals. Past research has documented that some attitudes toward love were more strongly linked to love life satisfaction among university students (Neto, 2005; Neto & Pinto, 2015a). In particular, love life satisfaction was positively correlated with erotic and agapic love styles. Past research showed that pragmatic love style is more endorsed in collectivistic cultures than in individualistic cultures (Dion & Dion, 1993; Hendrick & Hendrick, 1986; Neto, 2007). As Palestinian culture is more collectivist than the Portuguese culture, we expect that pragmatic orientation would be associated with love life satisfaction. Therefore, we expect to find positive correlations between satisfaction with love life and erotic, pragmatic and agapic attitudes toward love.

Most definitions of loneliness emphasize the perceived deficits that may prevail in relationships (Asher & Paquette, 2003; Peplau & Perlman, 1982), and research points out its pervasiveness and debilitating effects (Neto, 2014a). Individuals with lower romantic loneliness present higher satisfaction with love life (Neto & Pinto, 2015a). Self-esteem concerns feelings of self-worth (Rosenberg, 1965), and satisfaction with life indicates the

cognitive judgment of how happy an individual is with his or her own life (Diener, 2000). Both self-esteem and satisfaction with life have appeared to be associated with higher love life satisfaction (Neto & Pinto, 2015a).

## Method

### Participants

Participants were 201 college students (71% women) from the An-Najah National University in Nablus, Palestine. Participants were between the ages of 18 to 26. Among these students, 20% were freshmen, 26% were sophomore, 27% were junior, and 27% were senior. Twenty-one percent of the participants were attending a course in science and 79% in humanities. In addition, 44% of the respondents were living in villages, 51% in cities, and 5% in refugee camps.

### Material

With the exception of SWLLS, all measures were previously adapted to Palestinian culture.

#### Satisfaction with Love Life Scale (SWLLS)

The SWLLS was designed by Neto (2005). This measure comprises five statements (e.g., “In most ways my love life is close to my ideal”). Each item is answered on a 7-point Likert basis. Greater values denote higher satisfaction with love life. The SWLLS items are presented in Table 1.

#### Love Attitudes Scale

The Love Attitudes Scale (Hendrick & Hendrick, 1986) was used to assess Eros, Pragma, and Agape. Seven statements measured each of these love styles. Each item is answered on a 5-point Likert scale. The greater scores denote higher love styles. Sample items are: “My lover and I have the right physical chemistry between us” (Eros); “It is best to love someone with a similar background” (Pragma); and “I am usually willing to sacrifice my own wishes to let my lover achieve his/hers” (Agape). We used the Arabic version of this tool (Nazzal, Cruz, & Neto, 2018).

#### Satisfaction With Life Scale (SWLS)

The SWLS (Diener et al., 1985) includes 5 items (e.g., “If I could live my life over, I would change almost nothing”). The response scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Greater values denote higher satisfaction with life. It was used the Jaradat’s (2013) Arabic version of the SWLS.

#### Self-Esteem Scale

Self-esteem was measured with 10 items (Rosenberg, 1965). Sample items are: “On the whole I am satisfied with myself” and “I have a positive attitude toward myself”. Each item is answered on a 4-point Likert format. Higher values denote greater self-esteem. It was used the Arabic version of this scale (Ghazal & Jaradat, 2009).

#### Loneliness

The brief version of the Revised UCLA Loneliness Scale was used (Neto, 1992, 2014b; Russell, Peplau, & Cutrona, 1980). This scale (ULS-6) includes six items (e. g., “People are around me but not with me”). Each

item is answered on a 4-point scale ranging from 1 (*never*) to 4 (*often*). The ULS-6 was previously adapted to Palestinian culture (Nazzal, Cruz, & Neto, 2017).

### Demographics

The demographic survey included items concerning age, sex, location of residence, faculty (science or humanities) attended, current year of study, and love status.

### Procedure

The SWLLS was translated in Arabic. In designing the Arabic version, cross-cultural methodology guidelines were followed with independent blind back-translation and small-scale pretests (Brislin, 2000). Ethical approval for the study was obtained from the university where all the researchers were affiliated at the time of data collection. Additionally, permission from the administration of the An-Najah University and the Arab American University was obtained to allow the researcher to enter the classrooms to conduct data collection. Students were invited to participate in the research by answering the questionnaires. The questionnaires were administered during regular courses by the first author. Informed consent was provided by the respondents. Participants were assured that participation was anonymous and voluntary, and that they could discontinue their participation at any time. The questionnaires were administered in Arabic and took approximately 20 minutes to complete.

### Data Analyses

Descriptive statistics, confirmatory factor analysis (CFA), internal reliabilities, analyses of variance (ANOVAs), Pearson product-moment correlations, and hierarchical multiple regressions were conducted. CFA was performed to assess the adequacy of the unidimensional model for the SWLLS. Regarding CFA, diverse goodness-of-fit statistics, such as goodness of fit index (GFI), comparative fit index (CFI), standardized root mean square residual (SRMR) and root mean square error of approximation (RMSEA) were evaluated. Cronbach's alpha was used to analyze the reliability of the scales. ANOVAs were used to evidence potential sociodemographic effects. The correlations allow to analyze the associations between satisfaction with love life and the other measures. Regression analyses were conducted to scrutinize whether the SWLLS adds predictive validity to life satisfaction. Data analyses were performed through SPSS version 24 software. For CFA it was used Statistica (SEPATH). The significance level embraced in the present study was 5%.

## Results

### Construct (Factorial) Validity

The construct validity was tested using confirmatory factor analysis. As the SWLLS is grounded on a previous model of precise theory, its factorial validity was examined via theory-driven CFA, rather than data-driven exploratory factor analysis.

CFA was conducted on the raw data of the SWLLS to examine the goodness of fit of the observed data for unidimensional model previously found (Neto, 2005). The estimates of model fit were based on a maximum likelihood solution. No correlation between error terms was allowed. The  $\chi^2$  statistic was 22.80 ( $df = 5$ ) with the

$\chi^2/df$  ratio having a value of 4.57, less than 5, which denotes an acceptable fit (Kline, 2005). All loadings were significant ( $p < .001$ ), and the values of the fit indices were satisfactory (GFI = 0.96, CFI = 0.96, SRMR = 0.04, RMSEA = 0.08) (Bentler, 1990). Regarding the diverse fit indexes of the present model, the data closely fit the hypothesized model. Hence, the findings support the one-factor-model among Palestinian college students.

## Reliability and Descriptive Statistics

In order to examine the internal consistency of the SWLLS scores, Cronbach's coefficient alpha and item-total correlation for each item were performed. Cronbach's alpha (.80) for satisfaction with love life score was good. This coefficient supports the internal consistency of the SWLLS. The corrected item-total correlations showed values from .30 to .75 (see Table 1). The mean inter-item correlation coefficient was .44. Hence, these findings provide good internal consistency for this sample.

Descriptive statistics of the SWLLS items are shown on Table 1. Average score of the SWLLS was 4.30 ( $SD = 1.36$ ). This result denotes that satisfaction with love life is slightly high, and above the neutral midpoint of 4.00 ( $p < .01$ ). As expected, males ( $M = 4.02$ ,  $SD = 1.22$ ), and females ( $M = 4.41$ ,  $SD = 1.40$ ), [ $F(1, 199) = 3.08$ ,  $p > .05$ ] did not differ significantly on the SWLLS scores. Two age groups were considered: 18-21 years and 22-26 years. The younger group ( $M = 4.32$ ,  $SD = 1.28$ ), and the older group ( $M = 4.28$ ,  $SD = 1.57$ ), [ $F(1, 199) = .03$ ,  $p > .05$ ] did not differ significantly on the SWLLS scores.

Table 1

Means ( $M$ ), Standard Deviations ( $SD$ ), and Corrected Item-Total Correlations of the SWLLS

Item	$M$	$SD$	Corrected item-total correlations
1 In most ways my love life is close to my ideal.	5.21	1.55	.30
2 The conditions of my love life are excellent.	4.29	1.90	.74
3 I am satisfied with my love life.	4.46	1.80	.74
4 So far I have gotten the important things I want in love life.	3.98	1.85	.75
5 If I could live my love life over, I would change almost nothing.	3.58	1.99	.43

In sum, the SWLLS scores displayed satisfactory psychometric properties in this sample.

## Criterion-Related Validity

This study utilized love status, love styles, loneliness, self-esteem, and satisfaction with life as the external criteria to assess the criterion-related validity of the SWLLS. Descriptive statistics of the measures used in this study are shown in Table 2. The Cronbach's alphas of the scales were all above the recommended cut-off .70 (Cicchetti, 1994).

As expected, students "in love now" declared more satisfaction with love life ( $n = 84$ ,  $M = 4.58$ ,  $SD = 1.34$ ) than those "not in love now" ( $n = 117$ ,  $M = 4.11$ ,  $SD = 1.35$ ), [ $F(1, 200) = 6.10$ ,  $\eta^2 = .030$ ,  $p < .05$ ]. Erotic ( $r = .48$ ,  $p < .001$ ), pragmatic ( $r = .16$ ,  $p < .05$ ) and agapic ( $r = .14$ ,  $p < .05$ ) orientations correlated significantly with the SWLLS scores. There were also significant positive correlations between the scores of the SWLLS and life satisfaction ( $r = .48$ ,  $p < .001$ ), and self-esteem ( $r = .39$ ,  $p < .001$ ). Significant negative correlations were observed between the scores of the SWLLS and loneliness ( $r = -.32$ ,  $p < .001$ ).

Table 2

*Descriptive Statistics for the Criterion-measures*

Variables	Number of Items	Range	<i>M</i>	<i>SD</i>	Alpha
Eros	7	1-5	3.14	1.00	.93
Pragma	7	1-5	3.63	0.74	.76
Agape	7	1-5	3.24	0.83	.82
Satisfaction with life	5	1-7	4.77	1.22	.80
Self-esteem	10	1-4	3.09	0.45	.74
Loneliness	6	1-4	1.89	0.65	.76
Satisfaction with love life	5	1-7	4.30	1.36	.80

Hierarchical multiple regression models were conducted to examine whether the SWLLS adds predictive validity to life satisfaction. Loneliness and self-esteem were used as criterion. Firstly, in block 1, loneliness was regressed on the background measures (sex and age) (see Table 3). The  $R^2$  of .03 was not significant:  $F(2, 198) = 2.55, p = .08$ . Then, in block 2, the satisfaction with life was joined to the model. The change in  $R^2$  was .10:  $F(1, 197) = 22.07, p < .001$ . Finally, in block 3, the satisfaction with love life was joined to the model. The change in  $R^2$  was .03:  $F(1, 196) = 6.99, p = .009$ .

Table 3

*Hierarchical multiple regression of loneliness and self-esteem onto demographic variables, satisfaction with life, satisfaction with love life*

Predictor	Beta	<i>t</i>	<i>p</i>	$R^2$ change
<b>Loneliness</b>				
Block 1				.03; $F(2, 198) = 2.55, p = .08$
Gender	-.13	-1.90	.06	
Age	-.97	-1.32	.19	
Block 2				.10; $F(1, 197) = 22.07, p < .001$
Satisfaction with life	-.32	-4.70	< .001	
Block 3				.03; $F(1, 196) = 6.99, p < .01$
Satisfaction with love life	-.19	-2.64	< .01	
<b>Self-esteem</b>				
Block 1				.03; $F(2, 198) = 2.85, p = .06$
Gender	.17	2.36	.21	
Age	.03	0.48	.63	
Block 2				.13; $F(1, 197) = 30.28, p < .001$
Satisfaction with life	.36	5.50	< .001	
Block 3				.06; $F(1, 197) = 13.58, p < .001$
Satisfaction with love life	.27	3.69	< .001	

Note. Loneliness: Final  $R^2 = .15; F(4, 196) = 8.88, p < .001$ ; Self-esteem: Final  $R^2 = .21; F(4, 196) = 13.19, p < .001$ .

Then, in block 1, self-esteem was also regressed on the background measures. The  $R^2$  of .03 was not significant:  $F(2, 198) = 2.85, p = .06$ . In block 2, the satisfaction with life was joined to the model. The change in  $R^2$  was .13:  $F(1, 197) = 30.28, p < .001$ . Finally, in block 3, the satisfaction with love life was joined to the model. The change in  $R^2$  was .06:  $F(1, 197) = 13.58, p < .001$ . These results show that satisfaction with love life contributes significantly and in a unique way to loneliness and self-esteem, even after controlling for participants' sex and age.

## Discussion

This study examined the psychometric properties of the SWLLS among Palestinian university students. The findings suggest that the SWLLS has adequate psychometric characteristics. Confirmatory factor structure of the SWLLS was performed to analyze whether the one-factor-model was supported. Similar findings were showed to those evidenced in a Portuguese sample (Neto, 2005). In the present sample the unidimensionality of the SWLLS was also supported. Regarding reliability, the internal consistency coefficient was good, as the cut-off of .70 is frequently suggested (e.g., Cicchetti, 1994).

The average score of love satisfaction was significantly above the neutral score, suggesting a norm of general satisfaction with love life for the participants of this sample. This average score was lower than that found in Angola ( $M = 4.73$ ;  $SD = 1.44$ ), East Timor ( $M = 4.97$ ;  $SD = 1.42$ ), and Portugal ( $M = 4.85$ ;  $SD = 1.43$ ), but similar to the average score found in Brazil ( $M = 4.49$ ;  $SD = 1.64$ ), and Macao ( $M = 4.38$ ;  $SD = 1.28$ ), (Neto & Dimitrova, 2017). This finding may seem inexplicable given the violence to which Palestinian people is daily exposed. However, Veronese, Castiglioni, Tombolani, & Said (2012, p. 467) have observed also “inexplicably high levels of resilience and relative well-being are commonly reported in conditions of prolonged military and political violence”. These authors have also found a relative high level of life satisfaction among Palestinian children.

The relationships found between the SWLLS scores and the background variables were in agreement with the expectations. We did not expect to find significant gender differences on SWLLS scores. This is, indeed, what the present study has evidenced. This result is in line with previous evidence showing no considerable gender differences in satisfaction with life (Diener & Ryan, 2009; Glaesmer et al., 2011), as well as in other satisfaction domains, such as love life satisfaction (Neto & Dimitrova, 2017; Neto & Pinto, 2015a), satisfaction with sex life (Neto & Pinto, 2015b), satisfaction with migration life (Neto & Fonseca, 2016), and satisfaction with job life (Neto & Fonseca, 2018). Regarding the effect of age on SWLLS scores, no significant differences were found, which is also in agreement with previous results that found no considerable differences in life satisfaction (Diener & Seligman, 2002; Glaesmer et al., 2011), and love life satisfaction (Neto & Dimitrova, 2017) among different age groups.

Satisfaction with love life might differ for people who are currently in love *versus* those who are not in love. The findings of the current work showed that the “emotional storm” characteristic of falling in love influences satisfaction with love life. So “lovers really do wear rose-colored glasses” (Hendrick & Hendrick, 1988, p. 161).

In agreement with previous research among university students (Neto & Pinto, 2015a), love life satisfaction was positively linked to erotic and agapic orientations. It was also expected that satisfaction with love life should be related to a pragmatic orientation among Palestinian students. This is what was observed.

Furthermore, as expected, a set of indicators of well-being was significantly correlated with SWLLS. The more self-esteem, life satisfaction, and less loneliness Palestinian students revealed, the more likely they were to be satisfied with their love life. The directions of correlations were consonant with the aforementioned expectations.

In particular, previous research showed that specific life satisfaction domains and life satisfaction are linked (Neto & Fonseca, 2018; Ruiz Paiva et al., 2009). The results of the current study confirm this observation as life satisfaction and love life satisfaction were significantly correlated ( $r = .42$ ). Both measures correlated similarly in



a Portuguese study ( $r = .39$ ) (Neto & Pinto, 2015a). Nowadays, self-esteem is omnipresent: “In classrooms and workplaces, sporting events and music recitals, people generally assume that high self-esteem is critical to success in those domains” (Orth & Robins, 2014, p. 381). This pattern can also be extended to love lives. The present findings converge to show that satisfaction with love life is negatively linked to loneliness. This is consistent with previous research revealing that lower levels of loneliness were associated with involvement in a romantic relationship (DiTommaso, Brannen, & Best, 2004).

In summary, the pattern of relationships evidenced between satisfaction with love life and love status, love styles, life satisfaction, self-esteem, and loneliness is in agreement with expectations pointing out that the SWLLS meets the validity criterion.

This work is not without limitations. First, the sample of this study was of convenience including only college students. Hence, it was not a representative sample of the Palestinian population. Second, although the SWLLS has evidenced satisfactory reliability and validity, it is a self-report tool and therefore might be susceptible to social desirability. Third, this research consisted of a cross-sectional design and therefore causal explanations cannot be determined. Despite these limitations, current data suggest that the Arabic version of the SWLLS is a brief psychometrically sound instrument to evaluate satisfaction with love life for both clinical and research purports in coming investigation (Simmons & Lehmann, 2013). If “the topic of love in the Middle East has been missed from cross-cultural studies” (Karandashev, 2017, p. 75), this tool has potential to carry out future cross-cultural research.

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## Competing Interests

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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## Supplementary Materials

The following electronic supplementary material is available within the PsychArchives repository (Nazzal, Cruz, & Neto, 2019; <https://doi.org/10.23668/psycharchives.2516>):

- SPSS data file
- Code book

## Index of Supplementary Materials

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