



# The Tridimensional Structure of Sociosexuality: Spanish Validation of the Revised Sociosexual Orientation Inventory

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## ABSTRACT

Casual sex has become a common experience for many university students. Therefore, it is necessary to have instruments and studies that analyze youth's orientation toward sociosexuality. The SOI-R assesses sociosexual behavior, attitudes toward sociosexuality, and the desire for relationships without commitment with just nine items. The goal of this study was to validate the Spanish version of the SOI-R, to improve the scale, and to contribute evidence of the utility of the Sociosexual Desire subscale. Participants were 839 heterosexual university students of both sexes, aged between 18 and 26, who completed a battery of online questionnaires. The internal structure of the SOI-R revealed the three proposed theoretical dimensions, with medium to low relationships between factors. The instrument has measurement invariance with regards to sex and age. The Spanish version of the SOI-R had adequate levels of reliability. The modification of the first item of the scale is suggested, as well as the relevance of assessing sociosexual desire as an independent construct. The relation between sociosexuality and other sociodemographic and psychosocial variables was also analyzed. The discussion highlights the need for research to determine youth's sociosexual orientation and patterns of casual sex.

## Introduction

Casual sex, understood as sexual behavior occurring outside of a committed, romantic relationship, has become a common experience on university campuses (García, Reiber, Massey, & Merriwether, 2012). Between two thirds and 80% of North American college students have had some experience of casual sex (Paul, McManus, & Hayes, 2000; Vrangalova & Ong, 2014). The study of casual sex is not new. Already in 1948, Kinsey, Pomeroy, and Martin coined the term *sociosexuality* to describe individual differences in people's willingness to have sex without commitment.

## Measuring sociosexuality

Despite early interest in the study of sociosexuality, there were no validated instruments in this field until Simpson and Gangestad (1991) developed and validated the Sociosexual Orientation Inventory (SOI). This is a self-administered measure with seven items that evaluates sociosexual orientation and that has usually been interpreted with a single total score (Simpson & Gangestad, 1991). High scores are interpreted as a nonrestrictive sociosexual orientation—that is, a tendency to have sex with little commitment, for short periods of time, and with different partners (Penke, 2011; Simpson & Gangestad,

1991). The SOI has been shown in more than fifty published studies (Penke, 2011) to be an instrument that can measure the construct.

However, despite its popularity and utility, the SOI has been heavily criticized, both conceptually and psychometrically. The main criticism is its consideration of sociosexuality as being unidimensional (Asendorpf & Penke, 2005; Jackson & Kirkpatrick, 2007). Some authors, including the authors of the original version, have proposed the existence of two factors, a behavioral factor and a factor of attitudes toward sociosexuality (Banai & Pavela, 2015; Simpson & Gangestad, 1991; Webster & Bryan, 2007), thus differentiating between actually performing casual sex and its appraisal. The SOI's low internal consistency in some studies (Voracek, 2005) and the distribution of the scores (Lippa, 2009; Webster & Bryan, 2007) have also been criticized. Another criticism is the response format, open for some items, and the different response scales, which produce inconsistent results and make it impossible to obtain a global score (Asendorpf & Penke, 2005; Voracek, 2005). Lastly, the wording of Item 4 has been criticized (“How often do you fantasize about having sex with someone other than your current dating partner?”) because it is inappropriate for people without a partner (Clark, 2006).

In order to overcome these shortcomings, and on the basis of the original instrument, Penke and Asendorpf (2008) developed and validated the Revised Sociosexual Orientation Inventory (SOI-R). This measure is a self-administered questionnaire with nine items whose main contribution is to evaluate sociosexuality on three dimensions, each one with a unique and different psychological meaning. Thus, the first three items of the SOI-R evaluate past sociosexual behavior (number of partners with whom the person had relations in the past 12 months; number of sole partners and number of partners without commitment, without time reference). Items 4 to 6 assess attitudes toward sex without commitment (e.g., “Sex without love is OK”). The last three items, new with respect to the SOI, assess sociosexual desire (e.g., “How often do you experience sexual arousal when you are in contact with someone you are not in a committed romantic relationship with?”). Item wording can be seen in Table 2. All the items of the SOI-R are rated on a Likert-type scale with the same number of alternatives, which makes the questionnaire appropriate to complete in writing or in online studies (Penke, 2011). The response options range from 0 to 20 or more in the Behavioral dimension, from *strongly disagree* to *strongly agree* in Attitudes, and from *never* to *at least once a day* in Desire. There are two response formats, one with nine and one with five alternatives, with similar psychometric properties (Penke, 2011; Penke & Asendorpf, 2008).

The SOI-R has been successfully used in various studies (Jankowski, Díaz-Morales, Vollmer, & Randler, 2014; Kandrik, Fincher, Jones, & DeBruine, 2014; Vrangalova & Ong, 2014; Zelazniewicz &

**Table 1** Goodness-of-fit indices for the different models.

Models	$\chi^2$	df	p	RMSEA	TLI	CFI	$\Delta$ RMSEA	$\Delta$ CFI
M1 CFA – SOI-R	115.414	24	< .001	.067	.957	.971		
M2 ESEM – SOI-R	25.941	12	.010	.037	.987	.996		
M3 CFA – SOI-R-Modified	116.270	24	< .001	.068	.963	.975		
M4 ESEM – SOI-R-Modified	32.546	12	.001	.045	.983	.994		
<i>Invariance by sex (ESEM – SOI-R-Modified)</i>								
M5 Women	28.577	12	.005	.048	.982	.994		
M6 Men	16.160	12	.184	.039	.986	.995		
M7 Equal form	45.120	24	.006	.046	.983	.994		
M8 Equal form and loadings	86.078	42	< .001	.050	.979	.988	.004	–.006
M9 Equal form, loadings, and intercepts	126.516	48	< .001	.062	.968	.978	.012	–.010
M10 Equal form, loadings, intercepts, and residuals	148.776	57	< .001	.062	.968	.975	.000	–.003
<i>Invariance by age (ESEM – SOI-R-Modified)</i>								
M11 Younger	22.156	12	.036	.048	.980	.993		
M12 Older	24.613	12	.017	.047	.982	.994		
M13 Equal form	47.125	24	.003	.048	.981	.994		
M14 Equal form and loadings	79.125	42	< .001	.046	.983	.990	–.002	–.004
M15 Equal form, loadings, and intercepts	99.670	48	< .001	.051	.979	.986	.005	–.004
M16 Equal form, loadings, intercepts, and residuals	133.292	57	< .001	.056	.974	.979	.005	–.007

Note. SOI-R = Revised Sociosexual Orientation Inventory; df = degrees of freedom; RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index; CFI = comparative fit index;  $\Delta$  = increment in fit index with respect to previous model; CFA = confirmatory factor analysis; ESEM = exploratory structural equation modeling.

**Table 2** Item loadings, factor scores descriptive statistics, and inter-factor correlations of the SOI-R.

Item Loadings (M4)	Behavior	Attitude	Desire
1. With how many different partners have you had sexual relations with penetration in your lifetime? <sup>a</sup>	<b>.90</b>	.01	-.05
2. With how many different partners have you had sexual intercourse on one and only one occasion?	<b>.88</b>	-.02	.00
3. With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?	<b>.95</b>	.01	.04
4. Sex without love is OK.	.00	<b>.83</b>	-.09
5. I can imagine myself being comfortable and enjoying "casual" sex with different partners.	.01	<b>.84</b>	.06
6. I do not want to have sex with a person until I am sure that we will have a long-term, serious relationship.	-.19	<b>-.61</b>	.00
7. How often do you have fantasies about having sex with someone you are not in a committed romantic relationship with?	-.09	.02	<b>.80</b>
8. How often do you experience sexual arousal when you are in contact with someone you are not in a committed romantic relationship with?	.02	-.14	<b>.91</b>
9. In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?	-.03	.00	<b>.78</b>
Descriptive statistics	Behavior	Attitude	Desire
Means (SD) by Sex (M10)			
Women	0 (1)	0 (1)	0 (1)
Men	-0.07 (0.87)	0.36 (0.82)	0.89 (1.19)
Means (SD) by Age (M16)			
Younger	0 (1)	0 (1)	0 (1)
Older	0.64 (1.98)	0.26 (0.88)	0.13 (1.29)
Correlations	Behavior	Attitude	Desire
Correlations by Sex (M10)			
Women			
Attitude	.49		
Desire	.46	.58	
Men			
Attitude	.43		
Desire	.23	.55	
Correlations by Age (M16)			
Younger			
Attitude	.49		
Desire	.35	.59	
Older			
Attitude	.43		
Desire	.36	.56	

Notes. SOI-R = Revised Sociosexual Orientation Inventory. Shaded cells indicate the factor to which the item theoretically belongs. Boldface loadings indicate loadings, in absolute value, over .30.

<sup>a</sup>The original SOI-R wording was "With how many different partners have you had sex within the past 12 months?" Item loading was higher with this modification.

Pawlowski, 2011) and validated in Hungary (Mesko, Láng, & Kocsor, 2014) and Portugal (Neto, 2016). It has been shown to be appropriate for different populations, with ages ranging between 18 and 63 years, regardless of educational level, sexual orientation, and relational status (Penke, 2011).

### Correlates of sociosexuality

Sociosexuality has been linked to different kinds of variables (Claxton & van Dulmen, 2013). According to Schmitt (2005), the most replicated finding is that men have a less restrictive orientation toward sociosexuality than women. Many studies corroborate this statement (see García et al., 2012;

Lippa, 2009; Simpson & Gangestad, 1991), although some studies warn that these differences exist in attitudes and the desire but not in behavior (Mesko et al., 2014; Penke & Asendorpf, 2008). It is considered that in a competitive market with similar ratios of men and women, expectations and desires will hardly correspond to the real number of partners.

Other sociodemographic variables related to sociosexuality are age, religiosity, and relationship status. With regard to the first one, Mesko et al. (2014) found that older participants scored higher on the Behavior subscale (this is expected, given that two of the three items of the SOI-R refer to lifetime relationships), and young people scored higher on the Desire subscale. On the other hand, as romantic commitment is underlined by majority religions, it has been found that more religious individuals tend to be more restrictive (Claxton & van Dulmen, 2013). Likewise, an inverse relationship has been shown between having a partner and the duration of that relationship with sociosexuality scores (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991).

Some individual traits have also been related to sociosexuality. For example, an association has been found between sexual sensation-seeking, as the variety of partners and experiences are key elements of this construct (Hoyle, Fejfar, & Miller, 2000; Paul et al., 2000). The relation between sociosexuality and variables such as self-esteem, depression, and sexual preoccupation is not clear (Vrangalova & Ong, 2014). It is unclear whether there is a direct or an inverse relationship between measures of psychosexual well-being and sociosexuality. Moreover, it is not even clear if sociosexuality is a cause or a consequence (Eisenberg, Ackard, Resnick, & Neumark-Sztainer, 2009; Vrangalova & Ong, 2014).

The need for this study arises for several reasons. First, the currently high prevalence of casual sexual relations among youth shows the need for validated instruments for its evaluation. And, second, measuring instruments and research on sociosexuality outside of North America are currently scarce. More validations are needed of the SOI-R to verify whether it supports cultural differences. Therefore, the goals of this study were (1) to validate the Spanish version of the SOI-R; (2) to improve the scale because the time frame of the items of the Behavioral dimension is not homogeneous; and (3) to evaluate the utility of the third subscale, Sociosexual Desire. This third dimension is the greatest conceptual contribution of SOI-R versus the SOI.

We assessed the internal structure of the instrument and its internal consistency. To overcome an existing shortfall in instruments that are validated in the field of sexuality (Weinfurt et al., 2015), measurement invariance was assessed by sex and age, that is, that equal scores can lead to the same interpretation for different groups. Lastly, the relations between the scores of the subscales of the SOI-R and other sociodemographic (i.e., age, religiosity, relationship status) and psychosocial variables (i.e., sexual sensation-seeking, self-esteem as a sexual partner, dissatisfaction with sexual life, sexual preoccupation) were analyzed to determine convergent validity.

## Method

### *Procedure and participants*

Data were collected through the Internet with Google Forms. The link to the survey was distributed through the e-mail distribution lists of the students of the authors' university. Participants provided informed consent after reading the description of the study, where the anonymity of the responses was clearly stated. Participants had to be 18 years old or older to take the survey. This procedure was approved by the Ethics Review Board for Clinical Research of the region.

The initial sample comprised 1,582 participants ( $M_{\text{age}} = 23.72$ ;  $SD = 6.58$ ). Of them, we selected those who met the conditions of being aged 18 to 26 years, studying for a university degree, and correctly answering a control question (see below). In addition, as the samples of nonheterosexual individuals were very small, we decided to use only heterosexual participants. Thus, the final sample comprised 839 heterosexual university students of both sexes (72.8% women, 27.2% men), aged between 18 and 26 years old ( $M = 21.42$ ,  $SD = 1.90$ ). The general religiosity index was 2.70 ( $SD = 2.86$ ), on a scale that ranges from 0 (*not at all religious*) to 10 (*extremely religious*). Of the participants, 55.8% ( $n = 468$ ) had a partner, with a mean relationship duration of 28.6 months ( $SD = 21.86$ ).

## Instruments

### *Sociodemographic and sexual behavior questionnaire*

We asked participants about their sex, age, level of religiosity, sexual orientation (heterosexual, homosexual, bisexual, other), and whether they had a partner (and if so, duration, in months, of the relationship). We also asked about the lifetime number of sexual partners, with the same response options as the first three items of the SOI-R.

### *Sociosexual Orientation Inventory-Revised*

This scale (SOI-R; Penke & Asendorpf, 2008) has been described in the Introduction. We used the version with nine response options, ranging from 1 to 9. The English version of the SOI-R was translated into Spanish by an expert in sexuality research using a forward translation procedure. Both the translated and the original version were given to a bilingual expert in translating psychological and sexological manuscripts to ensure the correspondence between the two versions. Then, the Spanish translation was analyzed by two experts in psychological assessment and sexuality research to identify and suggest changes to items that were not clear and understandable. No changes were made at this phase of the study. Finally, the resulting version was given to two individuals with characteristics similar to the final sample. They were given the same task as the experts in psychological assessment and sexuality research. No changes were made at this phase either.

### *Sexual Sensation Seeking Scale*

This scale (SSSS; Kalichman et al., 1994) has 11 items that assess sexual sensation-seeking with a single component (e.g., “I like to have new and exciting sexual experiences and sensations”). It is rated on a scale ranging from 1 (*not at all like me*) to 4 (*very much like me*). Higher scores indicate greater sexual sensation-seeking. We used the Spanish adaptation of Teva and Bermúdez (2008).

### *Sexuality Scale*

This scale (SS; Snell & Papini, 1989) consists of 15 items assessing perceptions of one's own sexuality on three components: self-esteem as sexual partner (e.g., “I'm a good sexual partner”), dissatisfaction with sexual life (e.g., “I'm depressed about the sexual aspects of my life”), and sexual preoccupation (e.g., “I'm constantly thinking about having sex”). It is rated on a Likert-type scale ranging from 1 (*disagree*) to 5 (*agree*). We used the Spanish version of Soler et al. (2016).

### *Control question*

Embedded in the SS as its 16th item and in order to check whether the participants paid enough attention to the wording of the items, we introduced an item asking the participants to respond to it with *disagree*. Without this question, sample size would have been 883, so this item led to excluding 5% of the respondents.

## Data analysis

First, we studied the internal structure of the SOI-R with confirmatory factor analysis (CFA) and an exploratory structural equation modeling (ESEM) approach (Asparouhov & Muthén, 2009). ESEM is a technique that, unlike CFA, permits all items to load on all factors, and, unlike exploratory factor analysis, permits the correlation between item uniquenesses and tests measurement invariance. The selection between ESEM and CFA models was based on goodness of fit. We tested models where the original wording of SOI-R Item 1 was maintained and where we changed it to a lifetime reference. The selection between those models was based on model fit and loading sizes. We expected that a more homogeneous time frame between items would increase loadings. Models were analyzed using robust maximum-likelihood estimator (MLR).

Goodness of fit of all the derived models was assessed with the common cutoff values for the fit indices (Hu & Bentler, 1999). Comparative fit indices (CFI) and Tucker-Lewis indices (TLI) with values greater

than .95 and a root mean square error of approximation (RMSEA) less than .06 were indicative of a satisfactory fit. We also carried out a factor invariance study, splitting the sample by sex and age (divided by the median age; younger group, age in the range of [18, 20],  $n = 364$ ; older group, age in the range of [21, 26],  $n = 475$ ). To test the invariance, the equality (or minimal difference) of the fit between consecutive and more restrictive models was evaluated. We tested whether equal form, loading, intercepts, and residuals between models could be justified. We considered these restrictions to be satisfactorily met if the decrease in CFI was lower than .01 and RMSEA increased by less than .015 (Chen, 2007; Cheung & Rensvold, 2002).

After defining the internal structure of the SOI-R, we evaluated the reliability of the scores for each dimension. Reliabilities of the sum of observed scores were computed with Cronbach's alpha. The association of the three SOI-R scales and the other variables were assessed with Pearson correlations for numerical variables and with Cohen's  $d$  for dichotomous variables. The incremental validity of the third component of the SOI-R, Desire, with respect to the other two components already present in the SOI, was evaluated with hierarchical regressions. CFA and ESEM analyses were performed with *Mplus* 7 (Muthén & Muthén, 2012), and the rest of the analysis with R 3.3.1 (R Core Team, 2016).

## Results

### *Internal structure, invariance, and reliabilities*

First, we decided between the CFA and the ESEM approach to model the inter-item correlations of the SOI-R. As can be seen in Table 1, the fit of the ESEM models (M2 and M4; M = Model) was better than the fit of the CFA models (M1 and M3), with  $\Delta\text{RMSEA} \leq -.023$ ,  $\Delta\text{TLI} \geq .020$ , and  $\Delta\text{CFI} \geq .019$ . The ESEM models showed an excellent fit ( $\text{RMSEA} \leq .045$ ,  $\text{TLI} \geq .983$ ,  $\text{CFI} \geq .994$ ). Second, we decided between the original wording version and the version with modified Item 1. In terms of fit, there were no relevant differences between versions, but the loading of the first item showed a substantial increment in the modified version (.65 versus .90). Considering the ESEM results with the modified version of the scale, the three theoretically expected factors were found. The primary loadings were very high (mean unsigned loading = .83). Some minor cross-loadings were detected, with a maximum unsigned value of .19. These cross-loadings can justify the better fit of the ESEM models. Item loadings can be seen in Table 2.

We tested the measurement invariance of the modified SOI-R by splitting the sample by sex and age. For men and women and for younger and older university students, the model fit the data satisfactorily. When we incorporated consecutive parameter restrictions of equal loadings, intercepts, and residuals, all the changes of model fit were within the range of acceptable changes ( $\max_{\Delta\text{RMSEA}} = .012$ ,  $\max_{\Delta\text{CFI}} = -.010$ ).

Once the measurement invariance of the modified SOI-R was justified, we compared the mean and standard deviations by sex and age group and the inter-factor correlations. Whereas men and women showed trivial differences in the Behavior dimension, men scored 0.36 standard deviations higher than women in Attitudes, and 0.89 standard deviations in Desire. With respect to age, the largest difference was found in the Behavior factor, where older students scored 0.64 standard deviations higher, and the size of the standard deviation was almost doubled. For older and younger students, the inter-factor correlations were almost identical. When comparing men and women, the correlation between Desire and Behavior was higher for women,  $r = .46$ , than for men,  $r = .23$ . The different dimensions showed low-medium correlations,  $r$ s in the range of [.23, .49].

The reliabilities of the three modified SOI-R scales were adequate,  $\alpha_{\text{Behavior}} = .93$  (.88 with the original version),  $\alpha_{\text{Attitude}} = .82$ , and  $\alpha_{\text{Desire}} = .84$ . For the rest of the instruments used, Cronbach's alphas were also satisfactory, in the range of [.77, .91].

### *Relation with other variables*

The relation between the SOI-R scores and the remaining variables of the study was analyzed (see Table 3). We found moderate and statistically significant relations between the three components of the

**Table 3** Descriptive statistics, Cronbach's alphas, and relations of the different variables.

	Mean	SD	Alpha	1	2	3	4	5	6	7	8	9	10
				Pearson Correlations									
1. SOI-R Behavior	8.78	5.60	.93										
2. SOI-R Attitude	17.85	6.85	.82	<b>.45</b>									
3. SOI-R Desire	11.07	5.83	.84	<b>.25</b>	<b>.43</b>								
4. SSSS	26.18	5.34	.77	<b>.33</b>	<b>.49</b>	<b>.40</b>							
5. SS Self-Esteem as Sexual Partner	18.71	4.16	.91	<b>.26</b>	<b>.17</b>	.11	<b>.36</b>						
6. SS Dissatisfaction With Sexual Life	9.31	4.37	.86	-.21	-.05	<b>.24</b>	-.13	-.51					
7. SS Preoccupation With Sex	9.56	4.42	.88	<b>.13</b>	<b>.20</b>	<b>.37</b>	<b>.44</b>	.10	<b>.17</b>				
8. Time With Partner (in months)	28.60	21.86	—	-.20	.00	-.13	.03	.09	-.05	-.07			
9. Religiosity	2.70	2.86	—	-.14	-.35	-.12	-.14	-.02	-.01	-.02	.01		
10. Age	20.92	1.90	—	<b>.29</b>	<b>.15</b>	.02	<b>.11</b>	<b>.17</b>	-.12	.00	<b>.29</b>	-.04	
				Cohen's <i>d</i>									
11. In a Romantic Relationship	.56	.50	—	-.31	-.35	-.91	0.02	<b>.28</b>	-.091	—	—	0.10	0.10
12. Sex	.27	.45	—	-0.09	<b>0.32</b>	<b>0.81</b>	<b>0.48</b>	0.14	0.20	<b>0.63</b>	-0.09	-0.04	0.16

Notes. SOI-R = Sociosexual Orientation Inventory-Revised; SSSS = Sexual Sensation-Seeking Scale; SS = Sexuality Scale. *n* = 839 for all the effects except for those involving Time With Partner, where *n* = 463. Values in boldface correspond to statistically significant correlations with *p* values adjusted for multiple comparisons with Holm (1979) correction. Sex was coded with a dummy variable, where 0 = women and 1 = men. In a Romantic Relationship was coded with a dummy variable, where 0 = no and 1 = yes.

SOI-R and sexual sensation-seeking (*r*s in the range of [.33, .49]) and somewhat lower ones with self-esteem as sexual partner (*r*s in the range of [.11, .26]) and sexual preoccupation (*r*s in the range of [.13, .37]). The three SOI-R dimensions presented all the possible relations with dissatisfaction with sexual life, from negative with Behavior, *r* = -.21, to positive with Desire, *r* = .24, passing through negligible with Attitude, *r* = -.05. Longer relationships were associated with lower Behavior scores, *r* = -.20. All three factors of the SOI-R were negatively related to religiosity, with the highest correlation with Attitude, *r* = -.35. As found with the measurement invariance results, older students tended to have higher Behavior scores, *r* = .29. Being in a romantic relationship was negatively related to the three SOI-R dimensions, with a larger effect with respect to Desire, *d* = 0.91. Whereas women and men did not show statistically significant differences in Behavior scores, *d* = 0.09, large and small differences were found with respect to Attitude and Desire, *d* = .32 and *d* = .81, respectively.

Finally, we tested the incremental validity of the SOI-R Desire scores when predicting several variables from the other two SOI-R dimensions that were already in the regression models (Model 1, with Behavior and Attitude as predictors; Model 2, adding Desire). For Sexual Sensation-Seeking scores, the Desire scores added 3.9% of explained variance,  $R^2_{adj, Model1} = .252$ ,  $\Delta R^2_{adj, Model2} = .039$ ,  $t(835) = 6.831$ ,  $p < .001$ ; for SS Sexual Life Dissatisfaction, 9.1% of explained variance was gained,  $R^2_{adj, Model1} = .045$ ,  $\Delta R^2_{adj, Model2} = .091$ ,  $t(835) = 9.441$ ,  $p < .001$ ; for SS Sexual Preoccupation, an additional 10% of variance was explained,  $R^2_{adj, Model1} = .039$ ,  $\Delta R^2_{adj, Model2} = .100$ ,  $t(835) = 9.902$ ,  $p < .001$ ; for SS Self-Esteem as Sexual Partner, the inclusion of Desire did not change the explained variance,  $R^2_{adj, Model1} = .066$ ,  $\Delta R^2_{adj, Model2} = .000$ ,  $t(835) = 0.751$ ,  $p = .453$ .

## Discussion

In recent years, it has been confirmed that casual sex is a common form of sexual experience in college students (Calzo, 2013; Correa, Castro, Barrada, & Ruiz-Gómez, in press; Fielder, Carey, & Carey, 2013). Therefore, it is interesting to have valid and reliable tools that allow us to determine youths' orientation toward sociosexuality (Kinsey et al., 1948). The goal of this study was, on the one hand, to validate the Spanish version of the SOI-R, including some improvements, and, on the other, to provide evidence of the utility of the Sociosexual Desire subscale, one of the great contributions of the SOI-R.

Several conclusions and relevant contributions of the study can be extracted. It has been shown that the SOI-R is a valid and reliable instrument in Spanish. Its factors have high internal consistency, similar to those in the original scale (Penke & Asendorpf, 2008) and the Hungarian and Portuguese validations

(Mesko et al., 2014; Neto, 2016). The Spanish version has the same three-dimensional structure as the original one, with moderate relations between the factors. This allows us to state that sociosexuality is not a unitary concept but instead has different components that can be considered independently (Penke, 2011; Penke & Asendorpf, 2008).

One of the main contributions of the study is the proposal of changing the first item of the scale (“With how many different partners have you had sex within the past 12 months?”). While this item establishes a time frame, the other two items of the Behavior subscale do not define any specific time frame and, therefore, they can be understood as lifetime questions. We propose to change the time frame of the first item (“With how many partners have you had sex in your lifetime?”). As a result, the factor loading of this item increased and, thereby, also the internal consistency. Given that there are only three items per dimension, it is especially relevant to have highly reliable items. The rest of the analyses of the study were carried out with the modified version of the scale.

Another contribution of the study is the analysis of invariance between sexes and as a function of the participants’ age. This fills a gap existing in many validated instruments in the field of sexuality (Weinfurt et al., 2015). Penke and Asendorpf (2008) conducted the analysis as a function of sex in the original version of the SOI-R. It is a suitable instrument for men and women but without taking age into account.

After assessing the instrument’s internal structure and reliability, we analyzed the differences and relations between sociosexuality and the rest of the analyzed variables. Regarding sex, the expected results were obtained. Men scored higher than women in attitudes and, especially, in desire, but no differences were found in behavior. In the literature, biological, evolutionary, and social reasons are put forward to explain why men have more sociosexual desire than women (Lippa, 2009; Schmitt, 2005). The truth is that desire does not usually coincide with real behavior, which is limited by competition when seeking a sexual partner (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991). This difference between desire and behavior is more marked in men than in women because the correlation between dimensions is lower for men. Age is directly related to behavior and attitudes, but not to desire. This latter finding contradicts the results of Mesko et al. (2014), who found an inverse relation with desire. The difference may be that the age range of the participants in their study (16–74 years) was much greater than that in our study (18–26 years). Desire may decrease at advanced ages, but in a short interval this may not be so.

Our results are consistent with the literature concerning the sociodemographic and psychosocial variables. Level of religiosity was negatively associated with the three factors of sociosexuality, especially with attitudes (Claxton & van Dulmen, 2013; Penke & Asendorpf, 2008). Participants who had a partner scored lower in sociosexuality, especially in desire, which, in this case, is aimed at the partner (Penke & Asendorpf, 2008). Our data show that it is possible to differentiate between sociosexual desire and global sexual desire (sexual preoccupation) because the correlation between the two is medium to low. Additionally, sociosexual desire and global sexual desire present a differentiable pattern of associations with third variables. Thus, whereas being in a couple relationship is barely related to a lower global desire, it is closely related to lower sociosexual desire. In addition, we found a direct relationship between the three dimensions of sociosexuality and sexual sensation-seeking, especially with attitudes (Claxton & van Dulmen, 2013; Paul et al., 2000).

The study also provides information about the relationship between sociosexuality and three previously little studied variables, such as self-esteem as a sexual partner, dissatisfaction with sexual life, and sexual preoccupation. As regards self-esteem as a partner, we found a direct relationship with all three subscales of sociosexuality. The same thing happened with sexual preoccupation, which was especially related to desire. This may be due to the fact that the questionnaire that was used (Snell & Papini, 1989) labels a series of questions related to sexual desire as *preoccupation*. We also found that dissatisfaction with sexual life is related to sociosexual desire but not to past behavior or to attitudes. Even so, further research in this field is necessary to examine the antecedents of sociosexuality and their possible role as mediators between casual sex and its consequences (Owen, Fincham, & Moore, 2011; Vrangalova, 2015; Vrangalova & Ong, 2014).

Hierarchical regression analyses provide more evidence of the appropriateness of considering Sociosexual Desire as a theoretically relevant dimension. By including it, the explanatory capacity of the models doubled and even tripled for variables such as sexual dissatisfaction or sexual preoccupation.

In many current studies on sociosexuality, the SOI is still being used (Simpson & Gangestad, 1991), possibly due to tradition. However, the results obtained in this research support the new version of the SOI-R (Penke & Asendorpf, 2008). This new instrument overcomes the deficiencies detected in the SOI presented in the Introduction. The SOI-R offers more complete information about behavior and attitudes toward sociosexuality, and it adds the evaluation of desire, very pertinent in view of the results. Therefore, we recommend its use in future research.

This study provides useful information for the evaluation of sociosexuality, although its results should be interpreted with caution. The main limitation, due to the composition of the sample, is the difficulty in generalizing the results. The sample is composed only of heterosexual university students, with a small age range between 18 and 26 years, a population with more autonomy and less restrictions than others. Thus, studies with people of different sexual orientations are needed, which would allow us to compare outcomes and determine the different behavior patterns regarding casual sex (Claxton & van Dulmen, 2013). Such studies should use samples of nonuniversity youth, to compare as a function of the level of education.

However, the contributions of the present study should be valued. Firstly, the study has provided the first valid and reliable instrument in Spanish to assess sociosexuality. This will allow performing comparative studies in other geographical and cultural contexts. We corroborated the three-dimensional structure of the SOI-R (Penke & Asendorpf, 2008), as well as its superiority to the SOI (Simpson & Gangestad, 1991). The instrument has been improved, eliminating a possible misunderstanding with regard to the time frames of the evaluation of the behavioral factor. It has provided evidence of the relevance of the evaluation of sociosexual desire, a singular and differential construct from global sexual desire. Differences as a function of sex and age were confirmed through analysis of invariance, something rare in the area of sexuality. We assessed the relationship between the components of sociosexuality and other sociodemographic and psychosocial variables. And, finally, we confirmed the relevance of sociosexuality and casual sex for youth.

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