

Predictors of Sexual Assertiveness: The Role of Sexual Desire, Arousal, Attitudes, and Partner Abuse

Pablo Santos-Iglesias · Juan Carlos Sierra ·
Pablo Vallejo-Medina

Received: 9 August 2011 / Revised: 4 February 2012 / Accepted: 6 February 2012 / Published online: 9 August 2012
© Springer Science+Business Media, LLC 2012

Abstract This study was conducted to test interpersonal, attitudinal, and sexual predictors of sexual assertiveness in a Spanish sample of 1,619 men and 1,755 women aged 18–87 years. Participants completed measures of sexual assertiveness, solitary and dyadic sexual desire, sexual arousal, erectile function, sexual attitudes, and frequency of partner abuse. In men, higher sexual assertiveness was predicted by less non-physical abuse, more positive attitudes toward sexual fantasies and erotophilia, higher dyadic desire, and higher sexual arousal. In women, higher sexual assertiveness was predicted by less non-physical abuse, less solitary sexual desire and higher dyadic sexual desire, arousal, erotophilia, and positive attitudes towards sexual fantasies. Results were discussed in the light of prevention and educational programs that include training in sexual assertiveness skills.

Keywords Sexual assertiveness · Sexual desire · Sexual arousal · Sexual attitudes · Partner abuse

Introduction

Sexual assertiveness is a social skill that involves exhibiting assertive behaviors in sexual situations (Painter, 1997). Morokoff et al. (1997) argued that it consists of three different components: the ability to initiate desired sexual activity, refuse unwanted sexual contact, and discuss the use of contraceptive methods to avoid unwanted pregnancies and sexually transmitted infections. Others, such as Hurlbert (1991) (see also Santos-Iglesias & Sierra,

2010b), include components related to initiation of sexual activity and communication about sexual issues. These components are interrelated and form the construct of sexual assertiveness. Yet, the fact that correlations among these components are not always high (see Morokoff et al., 1997; Sierra, Vallejo-Medina, & Santos-Iglesias, 2011c) may suggest, for example, that an individual who is assertive in initiation of contact may not be assertive in refusal of unwanted sexual activity.

A recent systematic review has shown that the construct of sexual assertiveness is relevant to our understanding of sexual behavior as it is related to better sexual functioning, fewer sexual victimization experiences, and less risky sexual behavior (see Santos-Iglesias & Sierra, 2010a). Thus, sexual assertiveness facilitates the attainment of sexual goals, such as sexual autonomy and satisfaction (Dunn, Lloyd, & Phelps, 1979), and protects individuals from unsafe sexual practices. According to traditional sexual roles (Simon & Gagnon, 1984, 1986, 2003), men and women should differ in sexual assertiveness (i.e., men being more sexually assertive) because sexual scripts tend to dictate that men initiate sexual contact and women respond to these initiations. In a recent study, Santos-Iglesias, Vallejo-Medina, and Sierra (2012) found that men reported greater ability to initiate sexual contacts than women did. In contrast, only older women reported lower ability to reject undesired contacts and more sexual shyness (i.e., talking overtly about sexual topics). These results imply that women and individuals who are less sexually assertive will be less likely to express their sexual interests and will experience more unwanted sex (Morokoff et al., 1997).

Predictors of Sexual Assertiveness

In most cases, predictors of sexual assertiveness have been studied in isolation. In other words, there is evidence of a large number of constructs related to sexual assertiveness explored separately

P. Santos-Iglesias (✉) · J. C. Sierra · P. Vallejo-Medina
Facultad de Psicología, Departamento de Personalidad,
Evaluación y Tratamiento Psicológico, University of Granada,
Campus de Cartuja s/n, 18071 Granada, Spain
e-mail: psantos@ugr.es

but there have been few attempts to build a predictor model of sexual assertiveness. Consequently, the present study aimed to overcome this limitation and include the results of various studies in a single model. To the best of our knowledge, only Morokoff et al. (1997) have attempted to design a comprehensive model to predict sexual assertiveness. They did so using the Multifaceted Model of HIV Risk (Harlow, Quina, Morokoff, Rose, & Grimley, 1993). According to this study, sexual assertiveness can be explained using attitudinal, behavioral, and interpersonal variables. Their results indicated that individuals who were more sexually assertive reported less sexual victimization, were less likely to anticipate a negative partner response, and had more sexual experience and higher self-efficacy for STI-preventive behaviors. However, this study was limited to a female sample and did not explore sexual responses.

Previous studies partially support the findings of Morokoff et al. (1997). In general terms, people with traditional sexual attitudes have shown lower levels of sexual assertiveness. More specifically, some studies have found that people who report higher erotophilia show greater sexual assertiveness (Hurlbert, Apt, & Rabehl, 1993; Sierra, Santos, Gutiérrez-Quintanilla, Gómez, & Maeso, 2008; Snell, Fisher, & Miller, 1991). Similar results have been obtained with more specific sexual attitudes, such as positive attitudes toward condom use (Treffke, Tiggemann, & Ross, 1992) and attitudes toward menstruation (Schooler, Ward, Merriwether, & Caruthers, 2005). All these results support the idea that general sexual attitudes (i.e., erotophilia) as well as more specific ones, are relevant to sexual assertiveness. Therefore, including both general and specific sexual attitudes may be useful to predict sexual assertiveness.

Regarding interpersonal variables, studies have shown that women with a history of partner abuse are less sexually assertive (Apt & Hurlbert, 1993; Sierra, Ortega, Santos, & Gutiérrez, 2007; Stoner et al., 2008). For example, Apt and Hurlbert (1993) compared 60 women who experienced partner abuse and 60 who did not and found that women in abusive marriages reported less sexual assertiveness.

Objectives of the Present Study

The main objective of the present study was to examine predictors of sexual assertiveness in a sample of Spanish men and women while overcoming some of the limitations of past research. First, we strove to develop a multivariate predictive model of sexual assertiveness; second, we included a sample of both men and women; and, lastly, we investigated aspects of the sexual response as possible predictors of sexual assertiveness. Our results may help us understand the nature of sexual assertiveness and why some individuals are at increased risk of unwanted sex and/or risky sexual behaviors.

Following the guidance of Morokoff et al. (1997), the present study proposed a series of predictors clustered into three categories: sexual attitudes, interpersonal variables, and components of the sexual response. Attitudinal variables included general sexual attitudes (erotophilia) and specific attitudes. Instruments to assess sexual assertiveness have considered the sharing of sexual fantasies with one's partner to be an example of sexual assertiveness (Hurlbert, 1991). In regard to interpersonal variables, abuse in intimate relationships was included as a predictor variable, as per Hurlbert et al. (1993). Finally, sexual desire and arousal—and erectile function in men—were included as predictors, since high levels of desire and arousal can lead to sexually assertive behaviors to satisfy such urges (Matsuura, 2008). In support of this contention, Hurlbert (1991) showed that sexually assertive women reported greater sexual desire compared to sexually non-assertive women. Regarding sexual arousal, Hurlbert et al. (1993) interviewed 98 married women and found that sexual assertiveness was positively correlated with sexual excitability and Murphy, Coleman, Hoon, and Scott (1980) found that women increased their sexual arousability after a sexual assertiveness training program.

Thus, based on previous research, we predicted that greater erotophilia and attitudes toward sexual fantasies, greater sexual arousal, sexual desire and erection in the case of men (i.e., sexual responses), and lower frequency of partner abuse would be related to greater sexual assertiveness. The criterion variables used were initiation assertiveness, and the ability to maintain conversations on sexual issues and reject undesired contacts (i.e., no shyness/refusal assertiveness) included in the scale developed by Hurlbert (1991) (see also Santos-Iglesias & Sierra, 2010b).

Method

Participants

The sample consisted of 1,619 men and 1,755 women from the general Spanish population. The mean age of men was 41.02 years ($SD = 13.39$; range, 18–87) and that of women was 38.09 years ($SD = 13.84$; range, 18–79). All participants were involved in a romantic relationship at the time of the study and had sexual activity with their current partners. Approximately half of men and women (50.1 and 57.6 %, respectively) reported some university education. Thirty percent of men and 22 % of women reported secondary education, while around 18 % of men and women reported elementary education. Only 2 % of men and women reported no formal education. Most participants (71.1 % of men and 78.4 % of women) were Catholic, and 28.7 % of men and 21 % of women reported no religious beliefs. Finally, about 50 % (45.8 % of men and 51.2 of women) practiced religion once a year, and more men (40 %) than women (29 %) did not practice religion.

Measures

Background Sociodemographic Questionnaire

This questionnaire gathered information on participants' gender, age, relationship status, sexual activity with their partner, educational level, religion, and frequency of religious practice.

Hurlbert Index of Sexual Assertiveness (Hurlbert, 1991)

The Spanish version by Santos-Iglesias et al. (2012) was used. It is composed of 16 items clustered into two factors: *Initiation* and *No shyness/Refusal* (Santos-Iglesias & Sierra, 2010b). *Initiation* refers to the ability to begin sexual contact and to express sexual desires and fantasies to one's partner (e.g., "I approach my partner for sex when I desire it"; "I enjoy sharing my sexual fantasies with my partner"). *No shyness/refusal* refers to the ability to start and maintain conversations on sexual issues and reject undesired sexual contact (e.g., "I feel that I am shy when it comes to sex"; "It is hard for me to say no even when I do not want sex"). Participants responded using a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*). Higher scores indicated greater sexual assertiveness. The original scale by Hurlbert (1991) showed good internal consistency (from .84 to .92) (Apt & Hurlbert, 1993; Hurlbert, 1991) and good test–retest reliability (.84) (Pierce & Hurlbert, 1999). Regarding construct validity, a correlation of .82 was found with the Gambrell–Richey Assertion Inventory (Hurlbert, 1991). Santos-Iglesias and Sierra (2010b) reported an internal consistency of .83 for each factor and .87 for the global scale for the Spanish version. Both subscales were positively correlated with the Spanish version of the Sexual Assertiveness Scale (Sierra et al., 2011c) and the Spanish abbreviated version of the Dyadic Adjustment Scale (Santos-Iglesias, Vallejo-Medina, & Sierra, 2009), supporting the validity of the scale. In the present study, Cronbach's alpha values were .78 for men and .83 for women in the *Initiation* subscale, and .73 and .78 respectively in the *No shyness/Refusal* subscale.

Sexual Desire Inventory (Spector, Carey, & Steinberg, 1996)

The Spanish version by Ortega, Zubeidat, and Sierra (2006) was used. It is composed of 13 items assessing two dimensions: *Dyadic desire* (9 items), which means an interest in or a wish to engage in sexual activity with another person, and *Solitary desire* (4 items), that is, an interest in sexual activities that do not involve a partner. Higher scores indicate greater sexual desire. Ortega et al. reported high internal consistency values above .87 for both subscales. In the current study, internal consistency was .73 and .83 for men and women, respectively, on dyadic desire, and .90 and .92, respectively on solitary desire.

Massachusetts General Hospital Sexual Functioning Questionnaire (Fava, Rankin, Alpert, Nierenberg, & Worthington, 1998)

The Spanish version (Sierra, Vallejo-Medina, Santos-Iglesias, & Lameiras Fernandez, 2012) was used. It is composed of five items assessing sexual functioning in five areas: interest, arousal, orgasm, erection, and overall sexual satisfaction. Only the items on arousal and on erection (only for men) were used in the present study. Responses were given on a 5-point Likert scale ranging from 0 (*totally absent*) to 4 (*normal*), with higher scores indicating better sexual functioning. This scale has shown good concurrent validity with the Changes in Sexual Functioning Questionnaire (Labbate & Lare, 2001). In this study, Cronbach's alpha values were .90 for men and .93 for women.

Sexual Opinion Survey (Fisher, Byrne, White, & Kelley, 1988)

The Spanish version by Carpintero and Fuertes (1994) was used. This scale is composed of 21 items to assess *erotophilia* (i.e., positive disposition and attitudes toward sexual topics and sexuality). Participants responded using a 7-point Likert scale ranging from 1 (*totally disagree*) to 7 (*totally agree*). Higher scores indicate greater erotophilia. The Spanish validation showed good reliability, with internal consistency values ranging from .80 to .86. Internal consistency in the present study was .82 for men and .85 for women.

Hurlbert Index of Sexual Fantasy (Hurlbert & Apt, 1993)

The Spanish validation (Desvarieux, Salamanca, Ortega, & Sierra, 2005) is composed of 10 items assessing attitudes towards sexual fantasies. Participants responded using a 5-point Likert scale from 0 (*never*) to 4 (*always*). Higher scores indicate greater positive disposition toward sexual fantasies. Cronbach's alpha value was .85, and this scale was positively correlated with frequency in sexual fantasies and sexual desire. Cronbach's alpha in the present study was .89 for men and .91 for women.

Index of Spouse Abuse (Hudson & McIntosh, 1981)

The Spanish validation was used to assess frequency of experienced partner abuse in women (Sierra, Monge, Santos-Iglesias, Bermúdez, & Salinas, 2011a). This version is composed of 19 items clustered into two dimensions assessing the frequency of experiences of physical and non-physical abuse. For men, the 30-item-Spanish version was used (Santos-Iglesias, Sierra, & Vallejo-Medina, 2012) to assess non-physical and physical abuse. In both cases, non-physical abuse includes items such as "My partner belittles me" or "My partner acts like I am his/her personal servant." physical abuse included items such as "My partner punishes me with his/her fists" or "My partner beats me so badly that I

must seek medical help.” Participants respond on a 5-point Likert scale ranging from 0 (never) to 4 (always). Higher scores indicated more frequent abuse. Internal consistency reliability was good in the female version, with Cronbach’s alpha values of .89 and .93, for physical and non-physical abuse respectively. In the male version, Cronbach’s alpha values were .81, and .80, respectively. In the present study, internal consistency of the female version was .73 for physical abuse and .87 for non-physical abuse. In the male version, values were .78 for physical abuse, and .88 for non-physical abuse.

Procedure

Participants were recruited from the general Spanish population in 2009 and 2010. A quota convenience sampling method was used to obtain the same number of men and women, distributed across three different groups according to age (18–34 years old, 35–49 years old, and 50 years old or older), size of the town or city of residence (a population less than 50,000 and greater than 50,000), and geographical area (northern and southern Spain). Participants were required to be involved in a sexually active, stable, heterosexual relationship of at least 6 months duration at the time of the study.

Ethical approval was obtained from the Ethics Board on Human Research of the university. Testing was conducted individually in different settings (e.g., public libraries, social centers, and public places) by well-trained researchers. Group testing occurred in university classrooms. Participants were approached by researchers and were asked to participate in the study. Researchers introduced themselves and briefly explained the purpose of the study. Once anonymity and confidentiality as well as the exclusive use of test scores for research purposes were guaranteed, verbal informed consent was obtained and then participants completed the questionnaires on their own.

Data Analysis

Descriptive statistics and gender differences were calculated for all variables included in the study. Pearson correlations were computed between dependent variables (initiation sexual assertiveness and no shyness/refusal sexual assertiveness) and predictor variables (partner abuse, erotophilia, attitudes toward sexual fantasies, solitary and dyadic sexual desire, arousal, and erection). Only significantly correlated variables were included in a structural equation model that was run separately for men and women. All analyses were performed using SPSS 17.0 and LISREL 8.51 (Jöreskog & Sörbom, 2001). Due to the large sample size and violation of multivariate normality, a robust maximum likelihood estimation was used. To assess the fit of the proposed models, a joint assessment of a group of indexes was used (Tanaka, 1993). Values above .90 in the Comparative Fit Index (CFI) and Non-Normed Fit Index (NNFI) and values below .05 in the Root Mean Square Error of Approximation (RMSEA) were used as indicators of fit (Byrne, 2010).

Results

Descriptive Statistics and Gender Differences

Results of descriptive statistics revealed that both men and women in this study showed high scores on initiation assertiveness, no shyness/refusal assertiveness, dyadic desire, erotophilia, attitudes toward sexual fantasies, and arousal. On the other hand, scores on all forms of abuse were low in both men and women. Men also showed high scores on erection and moderate scores on solitary sexual desire. Women had low scores on solitary sexual desire (see Table 1).

Gender comparisons showed that men scored higher than women on initiation assertiveness, $t(3062) = 7.64, p < .001$, Cohen’s $d = .28$; dyadic desire $t(3039) = 14.68, p < .001$, Cohen’s $d = .53$; solitary desire $t(3058) = 14.20, p < .001$, Cohen’s $d = .51$; erotophilia $t(2765) = 7.61, p < .001$, Cohen’s $d = .29$; and positive attitudes toward sexual fantasies $t(3093) = 12.70, p < .001$, Cohen’s $d = .46$. No significant differences were found in no shyness/refusal assertiveness $t(3101) = 1.62, p < .10$, Cohen’s $d = .06$ (see descriptives in Table 1). No comparisons could be made between non-physical and physical abuse, because the number of items on each component for men and women were different.

Correlations and Structural Equation Modeling Results

The correlations in Table 2 showed that, in men, initiation assertiveness and no shyness/refusal were positively correlated with dyadic desire, arousal, erection, erotophilia, and attitudes toward sexual fantasies, and negatively correlated with non-physical and physical abuse. In the case of women (see Table 3), greater initiation and no shyness/refusal assertiveness were positively correlated with greater dyadic and solitary sexual desire, arousal, erotophilia, and attitudes toward sexual fantasies; sexual assertiveness was negatively correlated with physical and non-physical abuse. Physical abuse was removed from subsequent analyses to avoid problems with multicollinearity, due to its high correlation with non-physical abuse (Cohen, Cohen, West, & Aiken, 2003; Tabachnik & Fidell, 2007). We decided to remove it rather than combine them into a single measure, because it has been demonstrated that non-physical abuse has greater impact than physical abuse on sexual assertiveness (Testa & Dermen, 1999).

In men, results of the structural equation model (see Fig. 1) showed that greater initiation assertiveness ($R^2 = .24$) was associated with higher sexual arousal, dyadic sexual desire, and attitudes towards sexual fantasies, and lower non-physical abuse. Greater no shyness/refusal assertiveness ($R^2 = .21$) was associated with greater sexual arousal, more dyadic desire, more erotophilia, more positive attitudes towards sexual fantasies, and lower frequency of partner non-physical abuse ($\chi^2 = .92, p = .34, CFI = 1, NNFI = 1, RMSEA = 0$).

Table 1 Means, SDs, and ranges for self-report measures for men and women

	Men						Women					
	M	SD	Range		Observed range		M	SD	Range		Observed range	
			Min	Max	Min	Max			Min	Max	Min	Max
Initiation	22.64	6.46	0	32	0	32	20.69	7.56	0	32	0	32
No shyness/refusal	26.52	4.69	0	32	4	32	26.23	5.18	0	32	0	32
Dyadic	49.96	8.94	0	70	0	70	44.70	11.39	0	70	0	68
Solitary	15.34	7.90	0	31	0	31	11.07	8.68	0	31	0	31
Erotophilia	109.30	18.68	7	147	33	147	103.54	21.01	7	147	22	145
Attitudes toward fantasies	30.24	7.41	0	40	0	40	26.48	8.90	0	40	0	40
Arousal	3.55	0.88	0	4	0	4	3.29	1.15	0	4	0	4
Erection	3.69	0.75	0	4	0	4						
Non-physical	6.30	7.20	0	68	0	62	3.07	4.99	0	48	0	41
Physical	0.50	1.55	0	28	0	22	0.71	1.87	0	28	0	26

Table 2 Correlation matrix for men

	1	2	3	4	5	6	7	8	9	10
1. Initiation	1									
2. No shyness/refusal	.45***	1								
3. Dyadic	.35***	.33***	1							
4. Solitary	.03	.01	.38***	1						
5. Erotophilia	.28***	.34***	.43***	.47***	1					
6. Attitudes toward fantasies	.41***	.32***	.54***	.39***	.57***	1				
7. Arousal	.28***	.23***	.38***	.13***	.20***	.28***	1			
8. Erection	.25***	.22***	.35***	.15***	.26***	.29***	.59***	1		
9. Non-physical	-.13***	-.16***	-.06*	.07**	-.06*	-.06*	-.06*	-.10***	1	
10. Physical	-.05*	-.10***	-.04	.06*	-.07**	-.04	-.04	-.10***	.53***	1

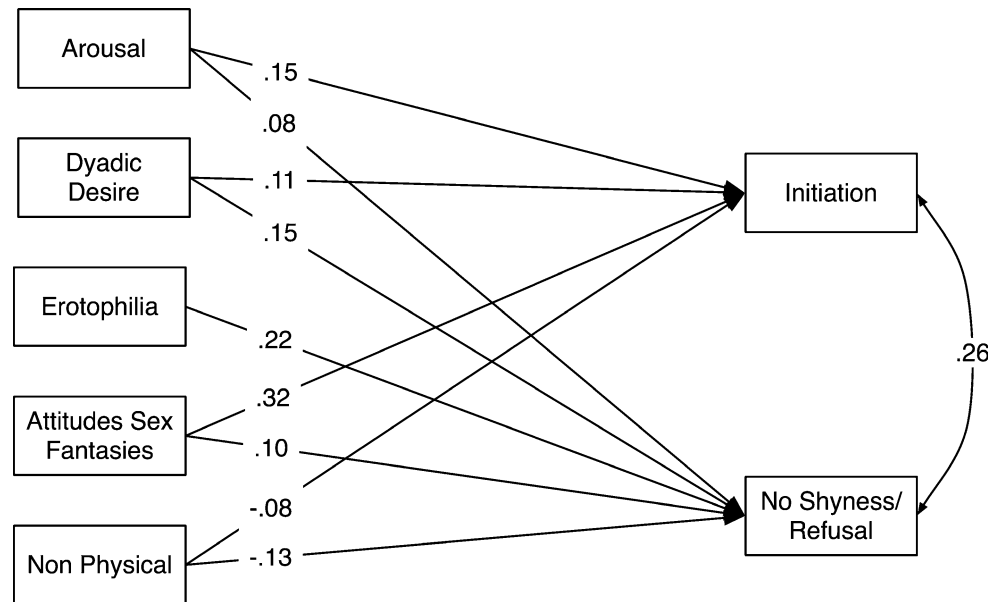
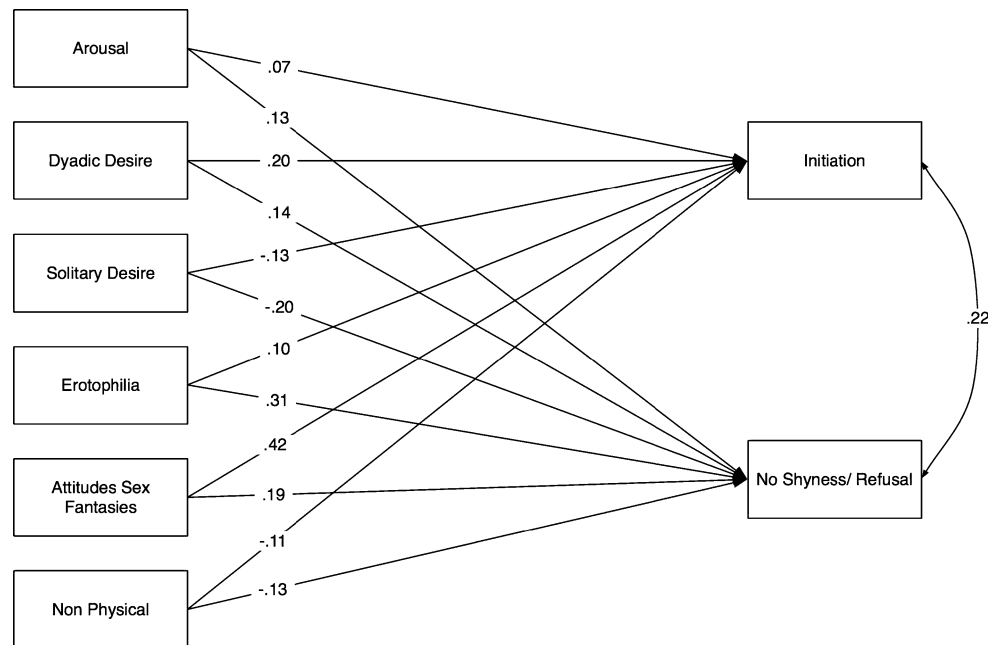
* $p < .05$; ** $p < .01$; *** $p < .001$ **Table 3** Correlation matrix for women

	1	2	3	4	5	6	7	8	9
1. Initiation	1								
2. No shyness/refusal	.55***	1							
3. Dyadic	.49***	.40***	1						
4. Solitary	.14***	.08**	.35***	1					
5. Erotophilia	.41***	.43***	.48***	.49***	1				
6. Attitudes toward fantasies	.58***	.44***	.64***	.41***	.64***	1			
7. Arousal	.32***	.32***	.53***	.13***	.20***	.36***	1		
8. Non-physical	-.23***	-.24***	-.13***	.006	-.11***	-.13***	-.23***	1	
9. Physical	-.13***	-.21***	-.07**	.04	-.08**	-.09***	-.14***	.71***	1

** $p < .01$; *** $p < .001$

In women, greater initiation ($R^2 = .41$) and no shyness/refusal ($R^2 = .33$) assertiveness were associated with higher sexual arousal, dyadic desire, erotophilia, and attitudes towards sexual fanta-

sies, and lower solitary sexual desire and frequency of non-physical partner abuse (see Fig. 2). Fit was perfect because the model was saturated.

Fig. 1 Path diagram of sexual assertiveness in men**Fig. 2** Path diagram of sexual assertiveness in women

Discussion

The goal of this study was to test a set of predictors of sexual assertiveness. The present results demonstrate that greater sexual assertiveness is associated with lower frequency of partner abuse and more positive sexual attitudes, and higher levels of sexual arousal and desire. This supports the multidimensional nature of sexual assertiveness shown previously (Morokoff et al., 1997) but also demonstrates the relevance of sexual response components such as desire or arousal for sexual assertiveness. These results may help us understand why some individuals are less sexually assertive

and thus at increased risk for undesired sex and risky sexual behaviors (Morokoff et al., 1997; Santos-Iglesias & Sierra, 2010a).

First, both men and women scored high on all variables, except for solitary desire and abuse dimensions. However, these scores are similar to scores obtained on these measures with Spanish samples. Previous research with Spanish samples has yielded similar scores on sexual assertiveness, dyadic and solitary desire, arousal, erotophilia, positive attitudes toward sexual fantasies, and physical and non-physical partner abuse (Ortega et al., 2006; Perla, Sierra, Vallejo-Medina, & Gutiérrez-Quintanilla, 2009; Santos-Iglesias, Calvillo, & Sierra, 2012; Santos-Iglesias & Sierra, 2010b; Sierra

et al., 2012; Torres et al., 2010; Zubeidat, Ortega, del Villar, & Sierra, 2003).

Gender comparisons showed similar patterns to those found in previous studies. For example, in keeping with traditional sexual roles, men scored higher on initiation assertiveness, which makes them more likely to express their sexual interest and to initiate sexual activity (Byers & Heinlein, 1989; Morokoff et al., 1997; Stulhofer, Graham, Bozicevic, Kufirin, & Ajdukovic, 2007). Similarly, Santos-Iglesias et al. (2012) found greater initiation assertiveness in men, while only women over 50 years old reported less no shyness/refusal assertiveness. These results have major implications for men and women. It has been noted that sexual assertiveness is a protective factor against sexual aggression and risky sexual behaviors (Santos-Iglesias & Sierra, 2010a). Therefore, individuals with less sexual assertiveness in general and women in particular are less likely to escape or avoid those situations. It is also interesting to note that individuals who are more sexually assertive are likely to be more sexually satisfied (Santos-Iglesias & Byers, 2011), which suggests that less sexually assertive individuals have fewer chances of increasing their sexual satisfaction (Dunn et al., 1979). Gender differences in the other constructs also support past research. For example, it has consistently been shown that men report more sexual desire than women (Regan & Atkins, 2006) and women also have greater erotophobic attitudes (Carpintero & Fuertes, 1994; Sierra et al., 2008).

Results of structural equation modeling reveal that different variables have a different impact on sexual assertiveness. While some variables increase the likelihood of sexual assertiveness, others do not. For example, individuals who reported more non-physical abuse tended to report lower initiation and no shyness/refusal sexual assertiveness. This supported our hypothesis and demonstrates that, in keeping with previous research, victimization and abuse experiences diminish the ability to assert oneself in sexual contexts (Apt & Hurlbert, 1993; Sierra et al., 2007; Testa, VanZile-Tamsen, & Livingston, 2007). The fact that non-physical abuse instead of physical abuse was associated with sexual assertiveness is related to results that have found that sexual coercion experiences but not rape—which involves using physical force—are related to lower sexual assertiveness (Testa & Dermen, 1999). These results imply that sexual coercion experiences may damage the belief that sexual assertiveness can serve as a way to escape or avoid victimization.

Regarding attitudinal factors, results show that higher initiation assertiveness was associated with a positive disposition towards sexual fantasies. On the other hand, higher no shyness/refusal assertiveness was associated with both higher erotophilia and more positive attitudes towards sexual fantasies, although standardized coefficients were higher for erotophilia. These results confirm that sexual attitudes are able to predict sexual assertiveness (Hurlbert et al. 1993; Schooler et al., 2005; Sierra et al., 2008; Snell et al., 1991; Treffke et al., 1992), but also indicate some specificity in these relationships. For example, initiation assertiveness was predicted strongly by attitudes towards sexual fantasies, because the

initiation factor includes communication about fantasies and sexual desires. Hurlbert, Apt, Hurlbert, and Pierce (2000) found that attitudes towards sexual fantasies were positively related to sexual motivation. In the study by Hurlbert et al., sexual motivation was assessed with items such as “I told my partner I wanted sex” or “I approach my partner for sex,” which in some instances is the same as initiation assertiveness, so attitudes toward sexual fantasies were related to initiation assertiveness. In contrast, no shyness/refusal was more related to erotophilia than to positive attitudes toward sexual fantasies, supporting previous research (Hurlbert et al. 1993; Sierra et al., 2008; Snell et al., 1991) and suggesting that shyness about sexual topics or communication about sexual topics is a general trait that is more determined by general attitudes, such as erotophilia, rather than more specific ones (i.e., attitudes toward sexual fantasies).

Finally, as predicted, we found that dyadic sexual desire positively predicted both initiation and no shyness/refusal assertiveness in men and women, as found by Hurlbert (1991). This suggests that people who experience greater sexual desire to engage in sexual activities with another person are more likely to be sexually assertive, which means that sexual assertiveness can serve to satisfy an initial desire for sexual contact (Matsuura, 2008). The same pattern was found for arousal, so that people who feel more aroused are more likely to initiate sexual contacts (Hurlbert et al. 1993). Finally, in women, solitary sexual desire negatively predicted sexual assertiveness, although zero-order correlations were positive. In this case, a negative suppression effect was found (Kline, 2011; Tabachnick & Fidell, 2007), which means that after controlling for dyadic sexual desire, the relationship between solitary sexual desire and sexual assertiveness was negative. This could be explained by arguing that sexual guilt, which is more frequent in women (Ortega, Ojeda, Sutil, & Sierra, 2005; Sierra, Perla, & Santos-Iglesias, 2011b) and is negatively related to sexual assertiveness (Snell et al., 1991), may mediate the relationship between dyadic solitary desire and sexual assertiveness. Yet, this hypothesis needs to be tested in the future. The fact that solitary sexual desire predicted sexual assertiveness in women may explain the difference between men and women in the amount of variance accounted for.

In conclusion, it is important to note that sexual assertiveness is determined by different variables. The present study shows, in line with previous research (Morokoff et al., 1997), that both sexual attitudes and abuse have a strong impact on sexual assertiveness, but also that sexual response components such as sexual desire and arousal predict sexual assertiveness. These results have two main implications. First, sexual experiences are still influenced by traditional sexual scripts (Vannier & O’Sullivan, 2010), which, as previously stated, place women and less assertive individuals at greater risk for unwanted sexual experiences. Second, education and prevention programs including sexual assertiveness training need to consider sexual attitudes or history of partner abuse. Training sexual assertiveness (Leiblum, 2007), which has proven to be effective for increasing condom use and risky sexual behaviors (Crowell, 2004; Kelly et al., 1994; Sikkema, Winett, &

Lombard, 1995; St. Lawrence et al., 1995; Stoner et al., 2008) and reducing unwanted sexual advances (Yagil, Karnieli-Miller, Eiskovits, & Enosh, 2006) may be less effective in individuals who do not have positive sexual attitudes. Finally, implications also exist for positive outcomes. Given that sexual assertiveness is based on the right to choose what we want in our sexual lives, feeling sexual desire or arousal may be followed by an assertion to engage in sexual contact as a way to increase sexual satisfaction and sexual health (Lottes, 2000; Murphy et al., 1980).

Despite the results, it is important to note that, although sample size was very large and scores were similar to those that could be found in previous research, the sample was recruited through a non-random procedure and, thus, generalization to the Spanish population is limited. The sample was taken from a high educational environment, which should be taken into account by future research. Another limitation is related to some of the instruments used in this research, which are not frequently used and are quite dated. However, they had been previously validated in Spain and there was evidence of their appropriate psychometric properties for use on our sample. Also, more studies with individuals with sexual problems would provide greater insight about factors that place individuals at risk for undesired sexual activities, since our sample was based on functional individuals. The present research was based on self-report data so future studies should include other forms of assessment. For example, it would be useful to analyze how sexual arousal influences both initiation and refusal of sexual contacts, while controlling for relevant variables (e.g., attitudes, patterns of excitation/inhibition). Therefore, more research is needed to address the role of sexual assertiveness in the human sexual response and its effectiveness to increase not only sexual satisfaction but also sexual health.

Acknowledgments This study is part of research project SEJ2007-61824 funded by the Spanish Ministry of Science and Innovation and granted to Juan Carlos Sierra. The authors would like to thank the following individuals and institutions for their collaboration during the data collection process: Abilio Reig, Ana Sánchez, Asociación Cultural Galega de Formación Permanente de Adultos, Asociación de Vecinos Porto Bello, Biko Arloak, Centro Quérote, Clínica UNER, Cruz Roja de Ourense, Francisca Fariñas, Javier Fernández Agrafojo, Jordi Llabrés, José Luis Fernández Seara, José Olivares, José Pedro Espada, Juan Cachinero, Lourdes Espinosa, Luis Fernández Ríos, Olga Hernández, Ramón Arce, Raquel Rodríguez, Ricardo Folé, and Rodrigo Carcedo. The authors would also like to thank Sandra Byers, Ph.D., and Susan D. Voyer for their comments to this article.

References

- Apt, C., & Hurlbert, D. F. (1993). The sexuality of women in physically abusive marriages: A comparative study. *Journal of Family Violence*, 8, 57–69. doi:10.1007/BF00986993.
- Byers, E. S., & Heinlein, L. (1989). Predicting sexual initiations and refusals of sexual activities in married and cohabiting heterosexual couples. *Journal of Sex Research*, 26, 210–231. doi:10.1080/00224498909551507.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York: Taylor and Francis.
- Carpintero, E., & Fuertes, A. (1994). Validación de la versión castellana del “Sexual Opinion Survey” (SOS). *Cuadernos de Medicina Psicosomática*, 31, 52–61.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression. Correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Crowell, T. L. (2004). Seropositive individuals’ willingness to communicate, self-efficacy, and assertiveness prior to HIV infection. *Journal of Health Communication*, 9, 395–424. doi:10.1080/10810730490504125.
- Desvarieux, A. R., Salamanca, Y., Ortega, V., & Sierra, J. C. (2005). Validación de la versión en castellano del Hurlbert Index of Sexual Fantasy: una medida de actitud hacia las fantasías sexuales. *Revista Mexicana de Psicología*, 33, 529–539.
- Dunn, M., Lloyd, E. E., & Phelps, G. H. (1979). Sexual assertiveness in spinal cord injury. *Sexuality and Disability*, 2, 293–300. doi:10.1007/BF01101395.
- Fava, M., Rankin, M. A., Alpert, J. E., Nierenberg, A. A., & Worthington, J. J. (1998). An open trial of oral sildenafil in antidepressant-induced sexual dysfunction. *Psychotherapy and Psychosomatics*, 67, 328–331. doi:10.1159/000012299.
- Fisher, W. A., Byrne, D., White, L. A., & Kelley, K. (1988). Erotophobia-erotophilia as a dimension of personality. *Journal of Sex Research*, 25, 123–151. doi:10.1080/00224498809551448.
- Harlow, L. L., Quina, K., Morokoff, P. J., Rose, J. S., & Grimley, D. M. (1993). HIV risk in women: A multifaceted model. *Journal of Applied Biobehavioral Research*, 1, 3–38. doi:10.1111/j.1751-9861.1993.tb00025.x.
- Hudson, W. W., & McIntosh, S. R. (1981). The assessment of spouse abuse: Two quantifiable dimensions. *Journal of Marriage and the Family*, 43, 873–888.
- Hurlbert, D. F. (1991). The role of assertiveness in female sexuality: A comparative study between sexually assertive and sexually nonassertive women. *Journal of Sex and Marital Therapy*, 17, 183–190. doi:10.1080/00926239108404342.
- Hurlbert, D. F., & Apt, C. (1993). Female sexuality: A comparative study between women in homosexual and heterosexual relationships. *Journal of Sex and Marital Therapy*, 19, 315–327. doi:10.1080/00926239308404375.
- Hurlbert, D. F., Apt, C., Hurlbert, M. K., & Pierce, A. P. (2000). Sexual compatibility and the sexual desire-motivation relation in females with hypoactive sexual desire disorder. *Behavior Modification*, 24, 325–347. doi:10.1177/0145445500243002.
- Hurlbert, D. F., Apt, C., & Rabehl, S. M. (1993). Key variables to understand female sexual satisfaction: An examination of women in non-distressed marriages. *Journal of Sex and Marital Therapy*, 19, 154–165. doi:10.1080/00926239308404899.
- Jöreskog, K. G., & Sörbom, D. (2001). *LISREL 8.51*. Chicago: Scientific Software International.
- Kelly, J. A., Murphy, D. A., Washington, C. D., Wilson, T. S., Koob, J. J., Davis, D. R., et al. (1994). The effects of HIV/AIDS intervention groups for high-risk women in urban clinics. *American Journal of Public Health*, 84, 1918–1922.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.
- Labbate, L. A., & Lare, S. B. (2001). Sexual dysfunction in male psychiatric outpatients: Validity of the Massachusetts General Hospital Sexual Functioning Questionnaire. *Psychotherapy and Psychosomatics*, 70, 221–225. doi:10.1159/000056257.
- Leiblum, S. R. (Ed.). (2007). *Principles and practice of sex therapy* (4th ed.). New York: Guilford Press.
- Lottes, I. (2000). New researches on sexual health. In I. Lottes & O. Kontula (Eds.), *New views on sexual health: The case of Finland* (pp. 7–28). Helsinki: Population Research Institute.
- Matsuura, A. C. (2008). *Interpersonal and psychosexual factors predicting HIV-related risky sex behaviors in heterosexually active women and men*. Unpublished doctoral dissertation, University of Rhode Island, Providence, RI.

- Morokoff, P. J., Quina, K., Harlow, L. L., Whitmire, L., Grimley, D. M., Gibson, P. R., et al. (1997). Sexual Assertiveness Scale (SAS) for women: Development and validation. *Journal of Personality and Social Psychology*, 73, 790–804. doi:10.1037/0022-3514.73.4.790.
- Murphy, W. D., Coleman, E., Hoon, E., & Scott, C. (1980). Sexual dysfunction and treatment in alcoholic women. *Sexuality and Disability*, 3, 240–255. doi:10.1007/BF01207674.
- Ortega, V., Ojeda, P., Sutil, F., & Sierra, J. C. (2005). Culpabilidad sexual en adolescentes: estudio de algunos factores relacionados. *Anales de Psicología*, 21, 268–275.
- Ortega, V., Zubeidat, I., & Sierra, J. C. (2006). Further examination of measurement properties of Spanish version of the Sexual Desire Inventory with undergraduates and adolescent students. *Psychological Reports*, 99, 147–165. doi:10.2466/pr0.99.1.147-165.
- Painter, C. (1997). *Sexual health, assertiveness and HIV*. Cambridge: Daniels Publishing.
- Perla, F., Sierra, J. C., Vallejo-Medina, P., & Gutiérrez-Quintanilla, R. (2009). Un estudio psicométrico de la versión española reducida del Hurlbert Index of Sexual Fantasy. *Boletín de Psicología*, 96, 7–16.
- Pierce, A. P., & Hurlbert, D. F. (1999). Test–retest reliability of the Hurlbert Index of Sexual Assertiveness. *Perceptual & Motor Skills*, 88, 31–34. doi:10.2466/pms.1999.88.1.31.
- Regan, P. C., & Atkins, L. (2006). Sex differences and similarities in frequency and intensity of sexual desire. *Social Behavior and Personality*, 34, 95–102. doi:10.2224/sbp.2006.34.1.95.
- Santos-Iglesias, P., & Byers, E. S. (2011). The role of verbal and nonverbal communication in couple's sexual satisfaction. *Journal of Sexual Medicine*, 8(suppl. 3), 104.
- Santos-Iglesias, P., Calvillo, G., & Sierra, J. C. (2012). A further examination of Levine's model of sexual desire. *Psychology & Sexuality*. doi:10.1080/19419899.2011.576697.
- Santos-Iglesias, P., & Sierra, J. C. (2010a). El papel de la asertividad sexual en la sexualidad humana: una revisión sistemática. *International Journal of Clinical and Health Psychology*, 10, 553–577.
- Santos-Iglesias, P., & Sierra, J. C. (2010b). Hurlbert Index of Sexual Assertiveness: A study of psychometric properties in a Spanish sample. *Psychological Reports*, 107, 39–57. doi:10.2466/02.03.07.17.21.PR0.107.4.39-57.
- Santos-Iglesias, P., Sierra, J. C., & Vallejo-Medina, P. (2012). *Propiedades psicométricas del Index of Spouse Abuse en una muestra de varones españoles*. Manuscript submitted for publication.
- Santos-Iglesias, P., Vallejo-Medina, P., & Sierra, J. C. (2009). Propiedades psicométricas de una versión breve de la Escala de Ajuste Diádico en muestras españolas. *International Journal of Clinical and Health Psychology*, 9, 501–517.
- Santos-Iglesias, P., Vallejo-Medina, P., & Sierra, J. C. (2012). *Equivalence and standard scores of the Hurlbert Index of Sexual Assertiveness across Spanish men and women*. Manuscript submitted for publication.
- Schooler, D., Ward, L. M., Merriwether, A., & Caruthers, A. S. (2005). Cycles of shame: menstrual shame, body shame, and sexual decision-making. *Journal of Sex Research*, 42, 324–334. doi:10.1080/00224490509552288.
- Sierra, J. C., Monge, F. S., Santos-Iglesias, P., Bermúdez, M. P., & Salinas, J. M. (2011a). Validation of a reduced Spanish version of the Index of Spouse Abuse. *International Journal of Clinical and Health Psychology*, 11, 363–383.
- Sierra, J. C., Ortega, V., Santos, P., & Gutiérrez, R. (2007). Estructura factorial, consistencia interna e indicadores de validez de la versión española del Index of Spouse Abuse. *Boletín de Psicología*, 91, 83–96.
- Sierra, J. C., Perla, F., & Santos-Iglesias, P. (2011b). Culpabilidad sexual en jóvenes: influencia de las actitudes y la experiencia sexual [Sexual guilt in youngsters: The influence of attitudes and sexual experience]. *Revista Latinoamericana de Psicología*, 43, 73–81.
- Sierra, J. C., Santos, P., Gutiérrez-Quintanilla, J. R., Gómez, P., & Maeso, M. D. (2008). Un estudio psicométrico del Hurlbert Index of Sexual Assertiveness en mujeres hispanas. *Terapia Psicológica*, 26, 117–123.
- Sierra, J. C., Vallejo-Medina, P., & Santos-Iglesias, P. (2011c). Propiedades psicométricas de la versión española de la Sexual Assertiveness Scale (SAS). *Anales de Psicología*, 27, 17–26.
- Sierra, J. C., Vallejo-Medina, P., Santos-Iglesias, P., & Lameiras Fernandez, M. (2012). Validación del Massachusetts General Hospital-Sexual Functioning Questionnaire (MGH-SFQ) en población española. *Atención Primaria*. doi:10.1016/j.aprim.2012.02.004.
- Sikkema, K. J., Winett, R. A., & Lombard, D. N. (1995). Development and evaluation of an HIV risk reduction program for female college students. *AIDS Education and Prevention*, 7, 145–159.
- Simon, W., & Gagnon, J. H. (1984). Sexual scripts. *Society*, 22, 53–60. doi:10.1007/BF02701260.
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior*, 15, 97–120. doi:10.1007/BF01542219.
- Simon, W., & Gagnon, J. H. (2003). Sexual scripts: Origin, influences, and change. *Qualitative Sociology*, 26, 491–497. doi:10.1023/B:QUAS.000005053.99846.e5.
- Snell, W. E., Fisher, T. D., & Miller, R. S. (1991). Development of the Sexual Awareness Questionnaire: Components, reliability, and validity. *Annals of Sex Research*, 4, 65–92. doi:10.1007/BF00850140.
- Spector, I. P., Carey, M. P., & Steinberg, L. (1996). The Sexual Desire Inventory: Development, factor structure, and evidence of reliability. *Journal of Sex and Marital Therapy*, 22, 175–190. doi:10.1080/00926239608414655.
- St. Lawrence, J. S., Brasfield, T. L., Jefferson, K. W., Alleyne, E., O'Bannon, R. E., & Shirley, A. (1995). Cognitive-behavioral intervention to reduce African-American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology*, 63, 221–237. doi:10.1037/0022-006X.63.2.221.
- Stoner, S. A., Norris, J., George, W. H., Morrison, D. M., Zawacki, T., Davis, K. C., et al. (2008). Women's condom use assertiveness and sexual risk-taking: Effects of alcohol intoxication and adult victimization. *Addictive Behaviors*, 33, 1167–1176. doi:10.1016/j.addbeh.2008.04.017.
- Stulhofer, A., Graham, C., Bozicevic, I., Kufrin, K., & Ajdukovic, D. (2007). An assessment of HIV/STI vulnerability and related sexual risk-taking in a nationally representative sample of young Croatian adults. *Archives of Sexual Behavior*, 38, 209–225. doi:10.1007/s10508-007-9234-8.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Allyn and Bacon.
- Tanaka, J. S. (1993). Multifaceted conceptions of fit in structural models. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 10–39). Thousand Oaks, CA: Sage.
- Testa, M., & Dermen, K. H. (1999). The differential correlates of sexual coercion and rape. *Journal of Interpersonal Violence*, 14, 548–561. doi:10.1177/088626099014005006.
- Testa, M., VanZile-Tamsen, C., & Livingston, J. A. (2007). Prospective prediction of women's sexual victimization by intimate and nonintimate male perpetrators. *Journal of Consulting and Clinical Psychology*, 75, 52–60. doi:10.1037/0022-006X.75.1.52.
- Torres, A., Navarro, P., García-Esteve, L., Tarragona, M. J., Ascaso, C., Herreras, Z., et al. (2010). Detecting domestic violence: Spanish external validation of the Index of Spouse Abuse. *Journal of Family Violence*, 25, 275–286. doi:10.1007/s10896-009-9290-z.
- Treffke, H., Tiggemann, M., & Ross, M. W. (1992). The relationship between attitude, assertiveness and condom use. *Psychology & Health*, 6, 45–52. doi:10.1080/08870449208402020.
- Vannier, S. A., & O'Sullivan, L. F. (2010). Communicating interest in sex: Verbal and nonverbal initiation of sexual activity in young adults'

- romantic dating relationships. *Archives of Sexual Behavior*, 40, 961–969. doi:[10.1007/s10508-010-9663-7](https://doi.org/10.1007/s10508-010-9663-7).
- Yagil, D., Karnieli-Miller, O., Eisikovits, Z., & Enosh, G. (2006). Is that a “No”? The interpretation of responses to unwanted sexual attention. *Sex Roles*, 54, 251–260. doi:[10.1007/s11199-006-9342-2](https://doi.org/10.1007/s11199-006-9342-2).
- Zubeidat, I., Ortega, V., del Villar, C., & Sierra, J. C. (2003). Un estudio sobre la implicación de las actitudes y fantasías sexuales en el deseo sexual de los adolescentes. *Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace*, 67/68, 71–78.