

**Original Article:**

**IN AND OUT OF THE BEDROOM: SEXUAL  
SATISFACTION IN THE MARITAL RELATIONSHIP**

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**Abstract**

Aspects of one's sexual behaviors, such as expectations, frequency, and types of behaviors affect one's sexual satisfaction. The current study investigated both sexual and non-sexual variables associated with sexual satisfaction. Participants were asked to report the frequency of various specific sexual behaviors within their marital relationship, as well as non-sexual aspects of their lives such as religiosity and faith development. Results indicated that certain specific sexual behaviors, such as kissing, oral sex, and engaging in sexual conversations, were more likely to be related to greater sexual satisfaction. Additionally, gender differences were found in some correlates of sexual satisfaction.

**Keywords:** Sexual satisfaction, sexual behaviors, religiosity,  
faith development, gender

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## INTRODUCTION

According to the National Vital Statistics Reports (NVSr), approximately 50% of marriages in the United States end in divorce (NVSr, 2009), and this trend of high divorce rates is apparent in countries around the world (e.g., Gonzalez & Viitanen, 2009). With such a high number of unsuccessful marriages, many researchers have sought to understand the factors that lead to marital satisfaction. In that mission, the role of sexual satisfaction has been highlighted as a metaphorical barometer of relationship satisfaction, indicating that sexual satisfaction is vital in an intimate relationship, possibly even a 'make or break' factor (Barrientos & Paez, 2006; Litzinger & Gordon, 2005; Santtila et al., 2008). There is a wealth of past literature that indicates that low sexual satisfaction promotes marital instability (Edwards & Booth, 1994) and significantly increases one's likelihood of divorce (White & Booth, 1991). Thus, sexual satisfaction in marriage is an increasingly important and relevant area of study.

Sexual satisfaction is defined as the affective response arising from one's evaluation of his or her sexual relationship, including the perception that one's sexual needs are being met, fulfilling one's own and one's partner's expectations, and a positive evaluation of the overall sexual relationship (Offman & Mattheson, 2005). Past studies have provided evidence that sexual satisfaction is positively associated with overall relationship satisfaction (Santtila et al., 2008) as well as communication and marital satisfaction (Litzinger, et al., 2005). Conversely, sexual dissatisfaction has been linked to infidelity (Allen et al., 2008) and even divorce (Amato & Previti, 2003). Thus, it is important to identify what factors relate to sexual satisfaction in order to better understand how to help individuals build and maintain successful intimate relationships.

Previous research has suggested that both sexual and non-sexual constructs can play a significant role in an individual's sexual satisfaction. An abundance of past research has indicated that frequency of intercourse, as well as frequency of orgasm, is positively associated with sexual satisfaction (e.g., Barrientos & Paez, 2006). Moreover, Santilla and colleagues (2008) indicated that specific sexual behaviors could impact one's sexual satisfaction. For example, increased sexual satisfaction in the relationship was associated with a lower desire for anal sex.

In addition, activities other than sexually related constructs have also been linked to sexual satisfaction. Barrientos and Paez (2006) found that for women, factors such as high education levels and high socio-economic status predicted sexual satisfaction. Importantly, they found that these factors were more strongly associated with sexual satisfaction than the frequency of intercourse and orgasm. Thus, exploring non-sexual constructs, in conjunction with sexual constructs, in the examination of sexual satisfaction is necessary.

Of particular interest in the current study is the role of religion in sexual satisfaction. For some, views about sex are dominated by religious ideology (Davidson, Darling, & Norton, 1995). Past research has indicated that religion is not only associated

with one's overall engagement in sexual intercourse, but can also predict one's engagement in specific behaviors such as masturbation (Davidson et al., 1995). Therefore, the present research examined sexual constructs (i.e., specific sexual behaviors) as well as non-sexual constructs (e.g., religiosity) as correlates of sexual satisfaction.

### **Sexual Behaviors**

Gagnon and Simon (1977) claim that understanding sexual behaviors is imperative for understanding sexuality and its correlates. However, the prevailing and most often assessed determinants of sexual satisfaction are frequency of sexual interactions and frequency of orgasms (Barrientos & Paez, 2006; Byers & Macneil, 2006; Carpenter, Nathanson, & Kim, 2009; Lieu, 2003). Very few studies have investigated whether specific sexual behaviors result in higher levels of sexual satisfaction. Davidson (1985) indicated that manual and oral stimulation by one's sex partner, penile penetration, use of sex materials (e.g., pornography), versatile techniques, and sexual fantasies are all positively related to sexual satisfaction. Additionally, Santilla and colleagues (2008) indicated that a desire for a higher frequency of specific sexual behaviors, such as anal sex, sexual fantasies, and masturbation, could negatively impact one's sexual satisfaction. However, the existing research has not looked at the frequency of these sexual behaviors in conjunction with one another, and their consequent impact on sexual satisfaction, which is one of the aims of the current study.

### **Religiosity**

In addition to specific sexual behaviors, non-sexual constructs also influence an individual's sexual satisfaction (Barrientos & Paez, 2006). Of particular interest for the current study is the influence of religion. In a sample of married individuals, religiosity – how religious an individual is – was negatively related to sexual satisfaction, experiences, frequency, and permissive sexual attitudes (Beck, Cole, & Hammond, 1991; Purcell, 1984). Interestingly, frequency of attendance at religious events has been shown to be more influential on one's sexual attitudes and behaviors than one's religious denomination (Thornton & Camburn, 1989). High frequency of religious attendance, or religiosity, predicts less frequent engagement in sex including oral, anal, and vaginal sex (Mahoney, 1980). Additionally, low religiosity is associated with more liberal or permissive sexual views and with being more sexually active as well as having more friends who are sexually active (Thornton & Camburn, 1989). Finally, religious rigidity (i.e., how strictly one follows religious precepts) has been found to influence sexual satisfaction within marriage relationships, with more religiously rigid individuals

reporting less sexual satisfaction, more sex-related guilt, and more sexual dysfunction (Purcell, 1984).

One explanation for these results might be the way that religion regards sexuality. For example, some religions consider many sex behaviors (such as oral sex, anal sex, or masturbation) to be immoral or taboo (Davidson et al., 1995; Murray-Swank et al., 2005). Historically, many religions taught that sex is for procreation purposes only and strongly disapproved of any behaviors that were engaged in for the sole purpose of pleasure. Sexual behaviors that occur outside the marriage and outside the purpose of procreation are still discouraged in many churches (Davidson et al., 1995). For example, some consider masturbation an unnatural act because it has no procreational advantages (Patton, 1985). In addition, some religious doctrines view sexuality within marriage as qualitatively different than sexuality outside marriage. For example, the theological perspective of embodiment frames sexuality within marriage in a positive and healthy light. Many Christian traditions hold that sexuality is a sacred covenant between those who are married and can even bring one closer to deity (Murray-Swank et al., 2005). Consequently, for religious individuals these mixed messages may influence views about sexuality, linking certain behaviors with feelings of guilt, shame, or even sin.

An important caveat to this discussion is the diversity in beliefs about sexuality across different religious denominations. The theory of faith development, proposed by Fowler (1981), claims that people with higher developed faith are more independent and individualized in their faith beliefs, regardless of the specifics of those beliefs. Such people make decisions based on individual beliefs rather than depending on religious teachings or group expectations. In other words, by measuring religiosity via traditional means (i.e., religious attendance) as well as measuring faith development theory, the current study is able to explore both participants' religiosity and their levels of faith development. Both of these constructs are independent of specific religious denomination or specific religious belief and their relationship to sexual behaviors and satisfaction.

### **Gender Differences**

Finally, predicting sexual satisfaction is complex because of gender differences. Due to gender socialization, each gender has different expectations regarding appropriate sexual behavior within marriage. According to most socio-cultural theories in psychology, each gender is taught and then reinforced to follow traditional gender scripts and roles (Pines & Friedman, 1998). Generally, in Western societies, men are taught to be more aggressive, both physically and sexually. Sexual permissiveness is often reinforced in men, and many societies exploit and degrade a man for any emotional weaknesses or outbursts. Women, on the other hand, are rewarded for being sexually restrictive, thus allowing them to become more emotionally invested in the relationship (Pines &

Friedman, 1998). For example, women are often chastised for allowing themselves to become sexually involved in a relationship without first being emotionally involved (Paul, Foss, & Baenninger, 1996; Pines & Friedman, 1998). In other words, men are supposed to, and allowed to, be sexual beings and women are expected to be reserved and often chaste (which does not mean that women are not sexual beings, but instead are expected to show more sexual restraint than men). Consequently, those social expectations lay the foundation for gender differences in sexual desires, expression, expectations of partners, and satisfaction (Barrientos & Paez, 2006; Carpenter, Nathanson, & Kim, 2009; Lieu, 2003; Pines & Friedman, 1998).

Gender differences in desire for specific sexual behaviors have been well documented. Specifically, females have expressed less interest in oral sex and masturbation (Laumann, Gagnon, Michael, & Michael, 1994; Santtila et al., 2008) than men. On the other hand, men have reported more desire for masturbation, sexual fantasies, and longer-lasting intercourse than women (Leitenberg, Detzer, & Srebnik, 1993). Importantly, these differences in desires and expectations can have a profound impact on one's sexual satisfaction (Santtila et al., 2008). For example, higher frequency and longer duration of sexual intercourse and oral sex were both predictors of sexual satisfaction for males, as were relational variables such as love and cohabitation (Carpenter, Nathanson, & Kim, 2009; Santtila et al., 2008). However, for women, higher education, higher socio-economic status, being married and younger age predicted greater sexual satisfaction (Barrientos & Paez, 2006). Additionally, Santtila and colleagues (2008) found that masturbation predicted less sexual satisfaction for women. Thus, when examining behavioral predictors of sexual satisfaction, it is expected that both sexual and non-sexual predictors will vary according to gender.

### **The Current Study**

The present study examined both sexual and non-sexual predictors of sexual satisfaction within heterosexual marriages. It was hypothesized that more frequent participation in specific sexual behaviors (e.g., kissing, oral sex) would positively correlate with sexual satisfaction. It was also hypothesized that religiosity would be related to sexual satisfaction. However, because past research provides evidence that religiosity can have a positive (Murray-Swank et al., 2005) or negative (Davidson, Moore, & Ullstrup, 2004) influence on sexual satisfaction, the direction of this relationship was not hypothesized. Finally, the last aim of the study was to explore the existence of gender differences in the constructs related to sexual satisfaction.

## METHOD

### Participants

A total of 167 participants – 116 females and 51 males – were recruited from a single city in the Midwestern United States and completed a set of online surveys. The details of participant recruitment are discussed below. The participants ranged in age from 22 to 70 years (Mean age = 40.5, SD = 11.22; Median age = 39). Most of the participants were Caucasian (n=143; 85%). The remaining participants were African-American (12%), Asian and Hispanic (4% each), and those who chose the “other” category (5%). All of the participants were currently married (Mean number of marriages = 1.24, SD = .52,) ranging from their first to their fourth marriage (first marriage n = 143, 78%; second marriage n = 30, 16%; third marriage n = 5, 3%; fourth marriage n = 1, 0.5%). Finally, the mean number of sexual partners for the participants, including their current spouse, was 6.3, SD = 7.57, and the median number of sexual partners, including their current marriage partner, was 4.0.

### Materials

**Sexual behaviors.** Participants responded to a survey created specifically for this research that explored their sexual behaviors. The current sexual behavior scale was created for two reasons. As a part of a larger study, the current scale needed to examine discrepancies between an individual’s expectations and actual sexual behaviors in marriage, which no pre-existing scale did. Second, as the population of the study consisted of mostly working adults, and not undergraduate college students, a lengthy scale may have hindered participation. Thus, this scale was created to efficiently investigate the variables of interest in the least amount of time possible. Although the goal of the current study was to examine each behavior individually, adequate reliability of the scale was demonstrated (Cronbach’s  $\alpha = .82$ ). The survey asked participants to respond to 17 items regarding the sexual behaviors occurring within their current marriage. For example, one item read, “Since you’ve been married, how often do you experiment with sexual activity in different locations (e.g., a public place or different rooms in the house)?” Participants used a 5-point Likert scale (ranging from “never” to “all the time”) to respond to the items. All 17 items can be seen in Table 1.

**Sexual satisfaction.** In order to assess the individual’s sexual satisfaction, a modified version of the Satisfaction subscale from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998) was utilized. The survey was modified to be specific to the sexual aspect of people’s relationship. For example, "My romantic relationship is close to ideal" was changed to "My sexual relationship is close to ideal." The Investment Model subscale for Satisfaction was used because adequate reliability has been

demonstrated by both the satisfaction scale ( $\alpha = .90$ ) as well as the modified version ( $\alpha = .97$ ) used in the current study. The Satisfaction items assess the degree to which the sexual relationship gratified the individual's needs for intimacy, companionship, and security. Participants responded to six items such as "My partner fulfills my sexual needs" on a 9-point Likert scale that ranged from "Do not agree at all" to "Agree Completely." Higher scores on this scale indicate higher sexual satisfaction.

**Religiosity.** Religiosity has been measured in multiple ways. Recall that this study is concerned with religiosity as a general construct and not as a denominational or doctrine-specific construct. One common method of measuring this general construct is to simply ask participants how often they attend religious services and to conclude that greater attendance indicates greater religiosity (e.g., Hill & McCullough, 2008). In the current study, participants were asked how often they attended religious services and responded on a six-point scale from "multiple times a week" to "never."

In addition to using religious attendance to measure religiosity, the current study also measured faith development. For this study, the word "faith" was defined for participants in the instructions as "a system of beliefs, a system of morals and values, a higher power, or something similar that gives meaning to your life." To measure faith development, participants responded to the Faith Development Scale (Leak, Loucks, & Bowlin, 1999) by reading a pair of matched statements and choosing the one that they agree with most. For example, participants would choose between the statements "I believe totally the teachings of my faith" and "I find myself disagreeing with my faith over numerous aspects of my beliefs." One statement in each pair indicates higher faith development, and for each of these higher statements that the participant chooses, he or she is given one point so that higher scores on the measure indicate higher faith development. As in past research (e.g., Leak, et al., 1999), the scale demonstrated adequate reliability in the current study (Cronbach's  $\alpha = .72$ ).

**Demographics.** Demographic information was collected from participants. They provided information about their age, level of education, how many sexual partners they had been with during their lifetime, how many times they had been married, and political ideology. Political ideology was measured by presenting participants with a 15-centimeter line with the left end labeled "liberal," the middle labeled "moderate," and the right end labeled "conservative." Participants were asked to put a mark on the line to indicate where they felt their own political ideology would fall. Participants' lines were then measured with a ruler from the left, with higher numbers indicating a stronger claim to a conservative ideology.

## Procedure

Potential participants were recruited via postcards, email listservs, and electronic newsletters. Addresses of people who had applied for a wedding license within the last

18 months were obtained from public records in the Midwest, and a postcard asking the people to participate and directing them to the hosting website were mailed. After this recruitment method garnered unexpectedly low numbers of participants, a short explanation of the research and a link to the hosting website were sent to students of the professional school at the local university via listserv (these students tend to be non-traditional, older students who are returning to school to complete their degrees). Finally, this same information was sent to all employees of the university via an electronic newsletter that is emailed to employees on a daily basis. Individuals who were older than 18 years and married were invited to visit the website that hosted the online survey and participate. They were asked to complete the online survey alone, without their spouse. After they completed the survey, participants' names were entered into a drawing for a \$100 gift card.

## RESULTS

The means and standard deviations for each of the 17 items from the sexual behavior scale and the religiosity scales are presented in Table 1. To explore initial gender differences in the sexual behaviors, t-tests were computed on all 17 sexual behaviors as well as the measures of religiosity. The only differences were in viewing pornography without the spouse, with men ( $M = 2.29$ ) participating more than women ( $M = 1.52$ ) and in masturbating alone, again with men ( $M = 2.76$ ) participating more than women ( $M = 2.17$ ). These t-tests are also available in Table 1.

Before statistically testing the hypotheses, correlations were computed between sexual satisfaction (as the primary dependent variable of this study) and the demographic characteristics of age, gender, education level, political ideology, number of times married, and number of sexual partners. None of these demographic characteristics were significantly correlated with sexual satisfaction. These correlations can be found in Table 2.

To test the first hypothesis – that specific sexual behaviors would correlate with sexual satisfaction – correlations were computed between all 17 sexual behaviors and sexual satisfaction. In order to control for statistical error, a simple Bonferroni correction technique was used. The traditional significance level of .05 was divided by 17, yielding a significance level of .0029 for the analysis of this hypothesis. Table 2 contains these correlations. As can be seen in the table, the sexual behaviors that were significantly related to sexual satisfaction at the Bonferroni-corrected significance level of .0029 were more experimentation with sexual positions, more experimentation with sex in different locations, more oral sex, more sexual conversations between spouses, more necking and heavy kissing, less solo masturbation, less infidelity, and more heavy petting/fondling.



**Table 1. Means, Standard Deviations and Gender Differences in Sexual Behavior and Religiosity Scales**

<b>Sexual Behaviors</b>	<b>Females' Mean (S.D.) n = 116</b>	<b>Males' Mean (S.D.) n = 51</b>	<b>t-test</b>	<b>Entire Sample's Mean (S.D.) N = 167</b>
Necking, heavy kissing, or making out	3.05 (.98)	3.06 (.84)	.05	3.05 (.93)
Heavy petting/fondling of spouse's genitalia	3.01 (1.11)	2.96 (1.13)	-.26	2.99 (1.11)
Oral sex	3.03 (1.08)	3.00 (1.10)	-.142	3.02 (1.08)
Experiment with sexual positions	2.90 (.87)	2.73 (.83)	-1.19	2.84 (.86)
Experiment with locations	2.41 (.88)	2.37 (.92)	-.22	2.40 (.89)
Sexual conversation with spouse	3.06 (.99)	3.00 (.95)	-.37	3.04 (.97)
View pornography with spouse	1.85 (1.02)	1.61 (.85)	-1.51	1.78 (.97)
Masturbate mutually with spouse	2.22 (1.17)	2.10 (1.10)	-.62	2.18 (1.15)
Consulting sexual instructions	1.76 (.91)	1.57 (.70)		1.70 (.85)
Sexual role playing or fetish behavior	1.61 (.95)	1.58 (.86)	-.16	1.60 (.92)
Anal sex	1.36 (.65)	1.41 (.83)	.46	1.37 (.71)
Masturbate alone	2.17 (1.05)	2.76 (1.16)	3.23***	2.36 (1.12)
View pornography without spouse	1.52 (.92)	2.29 (1.06)	4.79***	1.75 (1.03)
Record or photograph sexual behavior	1.19 (.51)	1.33 (.59)	1.60	1.23 (.54)
Sexual conversations without spouse	1.66 (.86)	1.82 (.99)	1.09	1.71 (.90)
Sex with others with spouse's consent	1.03 (.18)	1.04 (.28)	.15	1.04 (.22)
Sex with others without spouse's consent	1.14 (.53)	1.08 (.39)	-.72	1.12 (.49)
Religious Attendance	2.49 (1.55)	2.44 (1.6)	-.19	2.48 (1.56)
Faith Development	3.92 (1.53)	4.15 (1.63)	.85	3.99 (1.56)

**Note:** Higher numbers indicate greater participation in the behavior and greater faith development.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**Table 2. Correlations and Gender Differences in the Correlates of Sexual Satisfaction**

Sexual Behaviors	Females' Correlation	Males' Correlation	z-test	Entire Sample's Correlation
Necking, heavy kissing, or making out	.49***	.48***	.07	.48***
Heavy petting/fondling of spouse's genitalia	.27**	.40**	-.88	.30***
Oral sex	.29**	.58***	-2.08*	.38***
Experiment with sexual positions	.37***	.62***	-1.94*	.45***
Experiment with locations	.33***	.46***	-.89	.35***
Sexual conversation with spouse	.44***	.48***	-.27	.44***
View pornography with spouse	.13	.23	-.60	.16
Masturbate mutually with spouse	.13	.28*	-.88	.17
Consulting sexual instructions	.03	.24	-1.28	.08
Sexual role playing or fetish behavior	.21*	.27	-.38	.19
Anal sex	.05	.22	-.99	.11
Masturbate alone	-.28**	-.37**	.54	-.30***
View pornography without spouse	-.05	-.27	1.28	-.12
Record or photograph sexual behavior	.09	.15	-.33	.01
Sexual conversations without spouse	-.09	-.06	-.20	-.06
Sex with others with spouse's consent	-.12	.05	-.98	-.05
Sex with others without spouse's consent	-.39***	-.17	-1.39	-.34***
Religious Attendance	.16	-.20	2.12*	.06
Faith Development	-.06	-.18	.67	-.10
Age	-.04	.09	-.77	-.00
Education Level	.01	.28*	-1.63	.08
Political Ideology	.12	-.07	1.10	.07
Number of Marriages	-.14	.32*	-2.68**	.02
Number of Sexual Partners	-.11	-.03	-.49	-.08

Note: Dependent variable is sexual satisfaction. Higher numbers indicate greater faith development, higher levels of education and a more conservative political ideology. Significance level for correlations for females and males Bonferroni-corrected to .0021; significance level for correlations for entire sample Bonferroni-corrected to .0029; significance level remains .05 for z-tests).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

The same analysis was conducted to test the second hypothesis, that religiosity and sexual satisfaction would be related. Sexual satisfaction was correlated with both measures of religiosity (i.e., religious attendance and faith development). Again, in order to control for statistical error, a Bonferroni correction was applied to the significance level by dividing .05 by 2, yielding a significance level of .025 for the analysis of this hypothesis. Neither measure of religiosity was significantly correlated with sexual satisfaction. These correlations can be found in Table 2.

To test the third hypothesis, that there would be gender differences in the correlates of sexual satisfaction, the correlations between the 17 sexual behaviors, the two measures of religiosity, and five demographic characteristics were computed for men and women, and then these correlations were tested to determine if they were significantly different from one another via a z-test comparison. Table 2 also contains these correlations and the z-test comparisons. Again, the traditional significance value of .05 was Bonferroni-corrected by dividing it by 24, yielding a significance level of .0021.

As can be seen in Table 2, there were gender differences between some of the variables that correlate with sexual satisfaction. For both genders, more experimentation with sexual positions, more experimentation with locations, more oral sex, more sexual conversations between spouses, and more making out were all related to more sexual satisfaction. In addition, for women but not for men, less solo masturbating and less infidelity correlated with more sexual satisfaction. Not only were there a few gender differences in what correlated with sexual satisfaction, but also z-tests that compared the correlation coefficients for each gender showed that some variables had a stronger relationship with sexual satisfaction for one gender over the other. Specifically, while experimentation with positions and oral sex were significantly related to sexual satisfaction for both genders, they were significantly stronger correlates for men than for women. In addition, while religious attendance was not a significant correlate for men or women, the coefficients were significantly different from one another, with the coefficient being negative for men and positive for women. A significant difference was also found on the co-efficient for the variable of number of marriages (even though it was not a significant correlate for either gender), with the coefficient being negative for women and positive for men.

## DISCUSSION

Sexual satisfaction is a complex and multifaceted construct. Multiple aspects of one's sexual behaviors such as frequency, types of behaviors, and expectations do affect one's sexual satisfaction. The current study asked participants to report the frequency of various sexual behaviors within their marriage relationship. In general, the findings suggest that people are more satisfied with their sex lives when they engage in a variety of commonly accepted sexual behaviors (e.g., more kissing, oral sex, experimenting with

sexual positions, engaging in sexual conversations), which is consistent with the findings of Barrientos and Paez (2006). The results also indicated that there were gender differences in some of the behavioral correlates of sexual satisfaction within marriage relationships. However, the data failed to support the hypothesis that religiosity would be correlated with sexual satisfaction.

For both genders, the sexual behaviors related to sexual satisfaction were more experimentation with sexual positions, more experimentation with locations, more oral sex, more sexual conversations between spouses, and more 'making out'. This suggests that there is considerable overlap in what influences sexual satisfaction for men and women. However, the data also showed that some variables had a stronger relationship with sexual satisfaction for one gender over the other. Specifically, while experimentation with positions and oral sex were significantly related to sexual satisfaction for both genders, those relationships were significantly stronger for men than for women. Also, while religious attendance was not significantly related to sexual satisfaction for men or women, the coefficients were significantly different from one another, with the coefficient being negative for men and positive for women. A significant difference was also found on the coefficient for the variable of number of marriages (even though the relationship was not significant for either gender), with the co-efficient being negative for women and positive for men. This suggests that religiosity is more important for women's sexual satisfaction, and number of marriages is more important for men's sexual satisfaction. However, because the relationship between these variables and satisfaction only approached significance, strong interpretations of these findings cannot be made.

For females, infidelity and masturbating alone were uniquely related to less sexual satisfaction. Perhaps this is because sexual intercourse is so closely related to emotions for women (e.g., Glass & Wright, 1985), and masturbation, for example, does not involve or need deep emotional connections with other people. Past research has shown that when women do engage in physical infidelity, it is usually after developing a deep meaningful attachment to their extra-dyadic partners (Glass & Wright, 1985). Moreover, women report feeling more justified in their extramarital affairs if the motivation was emotional rather than sexual, thus they are more likely to cheat if they are emotionally unsatisfied rather than sexually unsatisfied, and first become emotionally attached to an extra-dyadic individual before the sexual behaviors begin (Glass & Wright, 1992).

It is interesting to note that engaging in sexual conversations with one's spouse and oral sex were positively related to sexual satisfaction for both genders. The finding that intimate sexual conversations increase sexual satisfaction for females is not surprising because it virtually replicates the findings of Barrientos and Paez (2006), who suggest that one possible explanation is that women who feel comfortable enough to communicate with their spouse on such an intimate level are much more emotionally attached to and sexually open with their partner than their more close-mouthed

counterparts. Byers and Macneil (2006) found evidence that men's understanding of their partner's sexual preferences predicted increased sexual satisfaction for women. Additionally, long-term couples have likely shared each other's ideas of sexual scripts (i.e. what actually occurs during each sexual interaction) and have a better understanding of each other's expectations of ideal foreplay and intercourse duration (Miller & Byers, 2004). Thus, intimate conversations with one's partner could be an important way to gain important arousal-related information, as well as sexual confidence, intimacy, and emotional support (Barrientos & Paez, 2006), increasing sexual satisfaction not only for women, but for men as well.

The findings that oral sex increases a female's sexual satisfaction is contrary to the findings of Lauman and colleagues (1994), which found that women are less interested in both giving and receiving oral sex than are men. Oral sex, as well as sexual conversations can be used as a means of sexual arousal. Perhaps the attention to these arousal behaviors, or foreplay, is driving the association with sexual satisfaction for females (and, possibly, males). Future research should take into consideration gender similarities (as compared to gender differences) when exploring this link between foreplay behaviors and sexual satisfaction as well as the possibility that for some individuals, foreplay behaviors might be 'lastplay' behaviors (meaning that foreplay might not result in sexual intercourse). Perhaps for some individuals, frequent sexual intercourse is not required for sexual satisfaction.

Even though previous research has shown that religiosity impacts sexual satisfaction, that hypothesis was not supported by this data. A possible explanation for this is the way that religiosity was defined and measured in the current study. Recall that religiosity was measured by asking participants how often they attended religious services and by their faith development, both of which are independent of any specific religious beliefs. Perhaps future research should attempt to reconcile these findings by examining the impact of specific religious beliefs and doctrines on sexual satisfaction, such as those measured by the Christian Orthodoxy Scale (Hunsberger, 1989). In addition, religiosity and spirituality are often theorized and measured as multidimensional constructs (Hill, 2005); therefore different dimensions may have different associations with sexual satisfaction.

While this study does provide some interesting and valuable findings, there are limitations. Participants had to be recruited in multiple ways. Originally, participants were recruited via public records (marriage license applications). Thus, only participants who had been married 18 months or less were recruited. However, due to a small sample size, participants were then recruited via two separate online newsletters. Unfortunately, the original survey was never modified to include questions regarding marital length. Thus, the average duration of participant marriages are unknown. Past studies have shown that overall satisfaction in marriage has a curvilinear relationship with duration. Specifically, overall satisfaction increases for a while, but then begins to decrease as the

marriage continues, and then begins to increase again (Sprecher, 2002). It is unclear whether sexual satisfaction follows this same pattern. Although Christopher and Sprecher (2000) reported that sexual satisfaction and sexual exchanges do not change dramatically over time, Sprecher (2001) reported that as time increases, individuals tend to feel less satisfied sexually. Thus, length of marriage could have ramifications on how sexually satisfied one is with his or her partner. Future studies should consider the impact of this variable.

Another limitation is the wording of some of the items on the sexual behaviors scale. For example, as stated above, individuals were only asked how often they participated in oral sex with their partner, but were not asked how often they were the recipients, as opposed to performers, of oral sex. Arguably, distinguishing these behaviors could lead to findings different from those presented here as well as clarify why the correlation between oral sex and sexual satisfaction, while positive for both genders, is significantly different for men and women. Future research into aspects of individuals' sex lives will need to be even more direct and detail-oriented to avoid such phrasing pitfalls. In addition, future research on the scale that was used to measure sexual behaviors is warranted, such as a factor analysis. While the goal of this research was to examine individual behavior, data reduction and identifying underlying factors of sexual behavior may be useful.

Finally, there is the possibility that not all of the data are independent. For example, if both members of a marriage completed the survey, their data would not technically be independent, which would violate some of the assumptions of the regressions that we computed. Unfortunately, there is no way for us to know which of the data might fall into this category. However, we assume that this was a rare occurrence because of the fewer numbers of men who participated in the research compared to women.

Despite these limitations, this study provides valuable information regarding sexual satisfaction in marriage. As stated above, sexual satisfaction is vitally important in an intimate relationship and can even be a 'make or break' factor (Barrientos & Paez, 2006; Litzinger & Gordon, 2005; Santtila et al., 2008). Low sexual satisfaction can even increase marital instability (Edwards & Booth, 1994) and divorce (White & Booth, 1991). Because of this, understanding sexual satisfaction in marriage is increasingly important. This study adds to the information available to help counselors, therapists, educators, and individuals themselves to better understand what impacts an individual's sexual satisfaction, both in and out of the bedroom. More studies that examine the impacts of various factors on sexual satisfaction can help pre-marital couples increase their education and accuracy of expectations for marital behaviors, as well as sexual satisfaction during the marriage.

## REFERENCES

- Allen, E. S., Rhoades, G. K., Stanley, S. M., Markman, H. J., Williams, T., Melton, J., & Clements, M. L. (2008). Premarital precursors of marital infidelity. *Family Process, 47*, 243-259. doi: 10.1111/j.1545-5300.2008.00251.x
- Amato, P. R., & Previti, D. (2003). People's reasons for divorcing: Gender, social class, the life course, and adjustment. *Journal of Family Issues, 24*, 602-626. doi: 10.1177/0192513x03254507
- Barrientos, J. E., & Paez, D. (2006). Psychosexual variables of sexual satisfaction in Chile. *Journal of Sex & Marital Therapy, 32*, 351-368. doi:10.1080/00926230600834695
- Beck, S. H., Cole, B. S., & Hammond, J. A. (1991) Religious heritage and premarital sex: Evidence from a national sample of young adults. *Journal of the Scientific Study of Religion, 30*, 173-180.
- Byers, S. A., & Macneil, S. (2006). Further validation of the interpersonal exchange model of sexual satisfaction. *Journal of Sex and Marital Therapy, 32*, 53-69. doi: 10.1080/00926230500232917
- Carpenter, L. M., Nathanson, C. A., & Kim, Y. J. (2009). Physical women, emotional men: Gender and sexual satisfaction in midlife. *Archives of Sexual Behavior, 38*, 87-107. doi:10.1007/s10508-007-9215-y
- Christopher, F. S., & Sprecher, S. (2000). Sexuality in marriage, dating, and other relationships. A decade review. *Journal of Marriage and the Family, 62*, 999-1017. doi: 10.1111/j.1741-3737.2000.00999.x
- Davidson, J. K. (1984). Autoeroticism, sexual satisfaction, and sexual adjustment among university females: Past and current patterns. *Deviant Behavior, 5*, 121-140.
- Davidson, J. K., Darling, C. A., & Norton, L. (1995). Religiosity and the sexuality of women: Sexual behavior and sexual satisfaction revisited. *The Journal of Sex Research, 32*, 235-243.
- Davidson, J. K., Moore, N. B., & Ullstrup, K. M. (2004). Religiosity and sexual responsibility: Relationships of choice. *American Journal of Health Behavior, 28*, 335-346. Retrieved from <http://www.ajhb.org/index.htm>
- Edwards, J. N. & Booth, A. (1994). Sexuality, marriage, and well-being: The middle years. In A. S. Rossi (Ed.), *Sexuality across the life course* (pp. 223-260). Chicago, IL: The University of Chicago Press.
- Fowler, J. W. (1981). *Stages of Faith: The psychology of human development and the quest for meaning*. New York, NY: Harper and Row.
- Gagnon, J. H. & Simon, W. (1977). *Sexual conduct: The social sources of human sexuality*. Chicago, IL: Aldine.

- Glass, S. P., & Wright, T. L. (1985). Sex differences in types of extramarital involvement and marital dissatisfaction. *Sex Roles, 12*, 1101-1120. doi: 10.1007/BF00288108
- Gonzalez, L., & Viitanen, T. K. (2009). The effect of divorce laws on divorce rates in Europe. *European Economic Review, 53*, 127-138. doi: 10.1016/j.euroecorev.2008.05.005
- Hill, P. C. (2005). Measurement in the psychology of religion and spirituality: Current status and evaluation. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 43-61). New York: Guilford Press.
- Hill, T. D., & McCullough, M. E. (2008). Religious involvement and the intoxication trajectories of low income urban women. *Journal of Drug Issues, 38*, 847-862. doi: 0022-0426/08/03
- Hunsberger, B. (1989). A short version of the Christian Orthodoxy scale. *Journal for the Scientific Study of Religion, 28*, 360-365.
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michael, S. (1994). *The social organization of sexuality: Sexual practices in the United States*, Chicago: University of Chicago Press.
- Leak, G. K., Loucks, A. A., & Bowlin, P. (1999). Development and initial validation of an objective measure of faith development. *International Journal for the Psychology of Religion, 9*, 105-124. doi: 10.1207/s15327582ijpr0902\_2
- Leitenberg, H., Detzer, M. J., & Srebnik, D. (1993). Gender differences in masturbation and the relation of masturbation experience in preadolescence and/or early adolescence to sexual behavior and sexual adjustment in young adulthood. *Archives of Sexual Behavior, 22*, 87-98.
- Lieu, C. (2003). Does quality of marital sex decline with duration? *Archives of Sexual Behavior, 32*, 55-60. doi: 10.1023/A:1021893329377
- Litzinger, S., & Gordon, K. C. (2005). Exploring relationships among communication, sexual satisfaction, and marital satisfaction. *Journal of Sex & Marital Therapy, 31*, 409-424.
- Mahoney, E. R. (1980). Religiosity and sexual behavior among heterosexual college students. *Journal of Sex Research, 16*, 97-113.
- Miller, S. A., & Byers, E. S. (2004). Actual and desired duration of foreplay and intercourse: Discordance and misperceptions within heterosexual couples. *Journal of Sex Research, 42*, 301-309.
- Murray-Swank, N. A., Pargament, K. I., & Mahoney, A. (2005). At the crossroads of sexuality and spirituality: The sanctification of sex by college students. *The International Journal for the Psychology of Religion, 15*, 199-219. doi:10.1207/s15327582ijpr1503\_2



- National Vital Statistics Reports (2009). Births, marriages, divorces, and deaths: Provisional data for 2008. Retrieved from [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_19.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_19.pdf)
- Offman, A., & Mattheson, K. (2005). Sexual compatibility and sexual functioning in intimate relationships. *The Canadian Journal of Human Sexuality, 14*, 31-39.
- Patton, M. S. (1985). Masturbation from Judaism to Victorianism. *Journal of Religion & Health, 24*, 133-146.
- Paul, L., Foss, M. A., & Baenninger, M. (1996). Double standards for sexual jealousy: Manipulative morality or a reflection of evolved sex differences? *Human Nature, 7*, 291-321. doi: 10.1007/BF02733399
- Pines, A. M., & Friedman, A. (1998). Gender differences in romantic jealousy. *The Journal of Social Psychology, 138*, 54-71.
- Purcell, S. L. (1984). An empirical study of the relationship between religious orthodoxy (defined as religious rigidity and religious close-mindedness) and marital sexual functioning. *Dissertation Abstracts International, 45*, pp. 1695.
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391. doi: 10.1111/j.1475-6811.1998.tb00177.x
- Santtila, P., Wager, I., Witting, K., Harlaar, N., Jern, P., Johansson, A...Sandnabba, N. K. (2008). Discrepancies between sexual desire and sexual activity: Gender differences and associations with relationship satisfaction. *Journal of Sex & Marital Therapy, 34*, 29-42. doi: 10.1080/00926230701620548
- Sprecher, S. (2001). A comparison of emotional consequences of and changes in equity over time using global and domain-specific measures of equity. *Journal of Social and Personal Relationships, 18*, 477-501. doi: 10.1177/0265407501184003
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: Associations with satisfaction, love, commitment, and stability. *The Journal of Sex Research, 39*, 190-196.
- Thornton, A., & Camburn, D., (1989). Religious participation and adolescent sexual behavior and attitudes. *Journal of Marriage and Family, 51*, 641-653.
- White, L. K. & Booth, A. (1991). Divorce over the life course. *Journal of Family Issues, 12*, 5-21.

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