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THE RELATIONSHIP BETWEEN DOMINANT AND SUBMISSIVE SEXUAL  
FANTASIES AND BEHAVIORS AND SEXUAL SATISFACTION

A Thesis Presented

by

Lilian Rae Dalton

to

The Faculty of the Graduate College

of

The University of Vermont

In Partial Fulfillment of the Requirements  
for the Degree of Master of Arts  
Specializing in Psychology

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## ABSTRACT

Sexual fantasies of dominance and submission are commonly reported as preferred fantasies in healthy women, yet little is understood regarding whether these fantasies affect other aspects of sexuality (Leitenberg et al., 1995). Even less research exists regarding associations between dominant and submissive fantasies, dominant and submissive sexual behavior, and resulting sexual satisfaction. It is not well understood how sexual fantasy may translate into sexual behavior in non-clinical populations, and what factors might facilitate or inhibit individuals' engagement in sexual behavior that matches their sexual fantasies.

The current study measured the relationship between dominant and submissive sexual fantasies, dominant and submissive sexual behavior, partner closeness, and sexual satisfaction in 40 sexually healthy women between the ages of 18-25 who were in committed relationships. Specifically, we investigated whether dominant or submissive sexual fantasies were correlated with higher sexual satisfaction when accompanied by dominant or submissive sexual behaviors. We also sought to examine whether emotional closeness with a partner strengthens or attenuates the relationship between sexual fantasy and sexual behaviors.

Data were collected via self-report questionnaires which asked about the frequency of submissive and dominant fantasies, as well as self-reports of sexual satisfaction in the past 4 weeks before the study began. Participants also completed event diaries at home immediately after at least 5 sexual events, reporting on submissive and dominant sexual behaviors, feelings of closeness, and sexual satisfaction. Congruency between sexual fantasy and sexual behavior did not correlate with higher event satisfaction. Significant evidence was found that individuals with dominant fantasies were likely to report dominance in their sexual behavior when they felt close to their partner.

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## INTRODUCTION

Sexual fantasies are images or thoughts occurring in the mental space that are exciting or arousing (Lietenberg & Henning, 1995). Historically, psychological studies pathologized certain types of fantasy content, including dominance and submission, with a particular focus on sadomasochistic (SM) fantasies: subtypes of submission and dominance involving receiving pleasure by giving or receiving pain or humiliation. Submission has been mostly studied within the context of rape or force fantasies and has often been pathologized as a sign of sexual dysfunction and low self-esteem (Bartels & Gannon, 2011; Cogan et al., 2007; Malamuth et al., 1986). Overall, the pattern we observe in early literature reveals the tendency to judge fantasies of dominance and submission as evidence of sexual deviancy (Lietenberg et al., 1995; Visser et al., 2015). In contradiction with this previous line of thinking, multiple studies have shown that sexual thoughts of dominance and submission are among the most frequently experienced fantasies in non-clinical, heterosexual populations across multiple Western countries (Bartels et al, 2018; Castellini et al., 2018; Hariton & Singer, 1974; Hawley & Hensey, 2009; Jozifkova, 2018; Renaud & Beyers 2006; Sanchez et al., 2012). A greater understanding of the role of fantasies in people's lives is particularly important given that scholars have identified fantasies as a component of sexual experience that can play an important role in the cycle of sexual desire (Basson, 2002). The current interest and focus on sexual fantasies within a therapeutic setting could benefit from greater knowledge of how the frequency of dominant and submissive fantasies affects the relationship between types of sexual behaviors during sexual activity and sexual satisfaction outcomes. In addition, the current gap in the study of such fantasies and their effect on behavior in

non-clinical heterosexual populations warrants further investigation as these fantasies may play a part in normal sexual scripts, given the link between sexual fantasies and desire. With consideration of Basson's model of sexual desire— which includes non-sexual rewards as motivations for sexual behavior, such as a need for intimacy (Basson, 2001)— it may be that dyads take part in behaviors that match a partner's fantasy as a function of increasing closeness. For this reason, we also seek to observe whether partner closeness moderates the relationship between frequency of dominant and submissive fantasies and enacting dominant and submissive behavior during sexual activity in couples without sexual dysfunction. Answering these questions could provide clinically relevant information for the therapist working on the sexual fantasies of their clients.

As previously mentioned, evidence across relevant literature has shown that dominant and submissive fantasies are among the most frequently utilized by both men and women (for a review see Lietenberg & Henning, 1995), with prevalence rates estimated up to 69% of the general population engaging in such fantasies at some point in their life (De Neef et al., 2019). Among studies that focused on SM, gender differences have been at the center of inquiries, with multiple studies finding that more women than men report fantasies of submission: thoughts of becoming overwhelmed by a partner or stranger's advances, being hurt or restrained, and forced or coerced (Leitenberg & Henning, 1995; Renaud & Byers, 2006; Sanchez et al., 2012; Visser et al., 2015). The few studies available on sexually healthy women help to dispel early theories on the pathology of sexually submissive fantasy, indicating that submissive fantasies are more common in the general, non-clinical population than previously indicated. Concerning frequency, 141 married, middle-aged women in an upper-class New York suburb on



average reported moderate to frequent use of fantasies of submission during masturbation and intercourse (Hariton & Singer, 1974). Among 137 single and sexually active college-aged women, those who reported frequent submissive fantasies (60%) had more positive attitudes about sex (Strassberg & Lockery, 1998), and among 136 never-married, college-aged women, 50% reported submissive fantasies, had more sexual experiences over their lifetime, and reported being more open to sexual exploration (Pelletier & Herold, 1988). Moreover, submissive fantasies in women have been associated with greater sexual arousal during sexual activity. Based on the self-report by 212 married undergraduate and graduate female students, sexual fantasies, including being overpowered or sexually coerced, were used to enhance their sexual arousal during sexual activity. Among the women in this study, being overpowered and forced to submit by an acquaintance was the 7<sup>th</sup> most preferred fantasy, and being forced to submit by a stranger was the 14<sup>th</sup> most preferred (Davidson & Hoffman, 1986). From this initial evidence, it appears that, contrary to early studies and theories, masochistic and submissive fantasies are present in the experiences of women, and such fantasies are utilized by women in non-clinical populations as a means of enhancing their sexual arousal during sexual activity.

Lacking from the literature is adequate information on dominant fantasies in sexually healthy women. Commonly, dominant fantasies are imagined situations in which a woman thinks of herself in a sexually dominant role. Currently, however, theories are not able to clearly predict the role of dominant sexual fantasies for women's sexual behavior, and there is a lack of information on whether women experience dominant fantasies as positive and pleasurable. One could assume that, given how submissive fantasies have been considered a sign of weakness or even the cause of sexual problems

in women (Cogan et al., 2007), dominant fantasies may have a beneficial role. However, it is also true that sexual scripts tend to specify a role of initiation and dominance for men and one of submission for women during sexual activities (Sakaluk et al., 2013; Sanchez et al, 2012; Wiederman, 2005). Therefore, a fantasy or behavior that endorses female dominance during sexual activities may have a counter effect by distancing the individual from social and partner sexual expectations. Given preliminary evidence that dominant fantasies are endorsed by women (Garcia et al., 1984), further knowledge on this topic is necessary.

One primary reason that fantasies are considered an important construct to explore is the question of the effect that such mental experiences may have on sexual behavior. The assumed association between implicit preferences, fantasies, and behavior is the principal reason that scholars have expressed their concerns about masochistic fantasies potentially placing women in submissive situations where they are at risk for abuse (Burt, 1980). However, surprisingly little information is available to test the accuracy of such an assumption. A few previous studies have explored the relationship between using sexual fantasy during sexual activity as a means of increasing sexual responses during sexual activity. Research conducted on 141 married, middle-aged women through questionnaires and a subsequent in-home interview found that 14% of women who fantasized about being in a submissive role or becoming overwhelmed by a lover's advances during sex with a partner did so to enhance their enjoyment of sexual activities. In the same study, submissive fantasies about being overpowered were the second most reported fantasy used to enhance one's motivation to engage in sexual activity with a partner (Hariton & Singer, 1974). Taken together, these findings seem to

suggest that fantasy content is individually selected to enhance a sexual experience based on preference. However, to the best of our knowledge, the interaction between the frequency of a dominant or submissive fantasy and real-life behavior (i.e., taking on a submissive or dominant role during sex) has yet to be investigated.

The association between sexual behavior and submissive fantasies may begin at the pre-conscious level. To the extent that fantasies are a representation of the individual's internal preferences, one's behavior during sexual activities may mirror one's frequency of submissive or dominant role during sexual fantasy. It is also plausible that individuals may choose to not enact their internal fantasies in the real world, thus keeping their fantasies circumscribed to their private world. Laboratory research conducted on 41 undergraduate women found that indeed implicit associations exist in women between submission and sex. In one study, sexual words processed only during a brief priming phase of a lexical decision task led to faster recognition of target submissive words as compared to dominant words provided immediately after activation (Sanchez et al, 2006) demonstrating a link between women's processing of sexual stimuli and their ability to recognize words associated with submission. Moreover, for these women, the strength of the implicit association between sex and submission was also associated with reports of a greater preference for and stronger tendency to take on a submissive role during sexual activities (Sanchez et al., 2006), further confirming the association between one's implicit preferences and behavior. In another study, the same team of researchers found that women's submissive behavior was also largely associated with their partner's interest in and desire for a submissive female partner, highlighting that a woman's preferences are only part of the predictors of her sexual behavior

(Sanchez et al., 2012). However, to our knowledge, these studies did not directly measure submissive fantasies in women, illustrating the need for consideration of how submissive fantasy, and not only preferences, may moderate the relationship between submissive sexual behavior and sexual satisfaction.

The relationship between submissive sexual behavior and sexual function and satisfaction is complex and hinges on a number of factors, including personal fantasy preference, the associations one has with their fantasy's themes, and potentially including submissive sexual behavior in one's sexual script. Studies that measured personal preference for submissive sexual roles or submissive sexual fantasy (Hariton & Singer, 1974; Hawley and Hensey, 2009; Sanchez et al., 2012) showed that among women endorsing such fantasies or preferences, greater sexual satisfaction was reported after sexual activities where women assumed a submissive sexual role (Sanchez et al, 2012). Further, submission was included in fantasies used to increase the enjoyment of sexual events in married women (Hariton & Singer, 1974), and such fantasies were associated with less sex guilt and more general fantasizing, as well as themes of personal power and irresistibility in 147 sexually women (Hawley and Hensey, 2009), all outcomes previously associated with greater satisfaction. Indeed, when fantasy themes like submission are tied to concepts or themes of irresistibility and power, it is logical to assume that they may lead to better sexual satisfaction outcomes, especially when the fantasy is brought into reality through enactment during sex. Thus, the relationship between dominant or submissive role during sex and sexual satisfaction may be moderated by one's frequency of dominant or submissive fantasies.

It is important to note other factors involved in bringing sexual fantasies of submission and dominance into real-world behavior, including that of emotional closeness. In Basson's model of female sexual response, intimacy needs are recognized as an essential element to successful arousal, engagement, and satisfaction in sexual behavior (Basson, 2000). Intimacy is described as a part of the "rewards and gains" that motivate female sexual desire above physiological motivations. The outcomes of successful sexual events are increased feelings of emotional closeness, intimacy, bonding, and relationship tolerance (Basson, 2000). While sexual fantasy itself is noted as an important indicator of sexual desire, it is not necessarily considered an essential factor in women's sexual arousal. However, it has been hypothesized that feelings of emotional closeness and intimacy may lead to self-disclosure of sexual fantasies which, in turn, may lead to higher satisfaction (Rehman et al., 2011). This may lead to fantasy content being utilized in future sexual behavior, or to enhance sexual arousal in following sexual events (Basson, 2000). While this model of sexual response does not necessarily include a woman's dominant or submissive sexual fantasies specifically, it does provide a logical link between a woman's sexual fantasies and the enactment of those into her sexual behavior. Interestingly, Basson's model also includes relationship outcomes, such as emotional closeness and intimacy, as important outcomes of the sexual response cycle. Thus, a direct study that observes the relationships between submissive and dominant sexual fantasy, behavior, and sexual satisfaction would benefit from also including variables on relationship closeness to improve our understanding of how sexual fantasy frequency affects women's sexual outcomes.

While some past studies were able to address aspects of implicit preference towards sexual submission (i.e., Kiefer et al., 2006; Sanchez et al., 2006; Sanchez et al., 2012,), virtually all studies have relied on retrospective reports of sexual satisfaction and sexual behavior. Moreover, many of these studies looked at correlations between reports of submissive behavior and preference but did not assess either in-depth, utilizing a short questionnaire to obtain submissive behavior scores that mixed questions about preference and actual behavior (Sanchez et al., 2006) or only indirectly tested women's desire to engage in submissive sexual behavior (Sanchez et al., 2012). In the present study, we add to the extant literature by providing information about both dominant and submissive fantasies. To capture a more in-depth understanding of submissive and dominant sexual preferences, we utilized questionnaires to consider both frequency and valence of sexual fantasy, as well as measures of preferred power role (dominance or submission) during sexual activity. Also, we utilized diaries to measure types of sexual behaviors and satisfaction within different aspects of sexual events, thus compensating for error of recall that may be observed in other retrospective report methodologies. We predicted that women with a high frequency of submissive fantasies would have higher reports of satisfaction after sexual intercourse when they also report submissive behavior during sex, women with dominant fantasies would have more satisfaction when they also report dominant behavior, and that submissive and dominant fantasies would coincide with submissive and dominant behavior when partner emotional closeness was also high.

## **METHOD**

### **2.1 Participants**

This study is part of a larger study conducted on sexual script theory. A total of  $N=42$  sexually healthy women aged 18-25 ( $M=19.74$ ,  $SD=1.73$ ) were recruited from the University of Vermont and the surrounding area via recruitment flyers. Inclusion criteria involved having been in a relationship for at least 6 months, a range selected to increase the likelihood of disclosure of sexual fantasies as well as power dynamics established during sexual activity within the relationship. Participants also met the criteria for engagement in sexual intercourse at least once a week with their partner. Women were excluded from the study if they were taking medications affecting sexual responses, including SSRIs, beta-blockers, and allergy medication, or if they had diabetes—this exclusion was a result of a secondary aim of the study not discussed in this thesis that involved physiological measures of sexual arousal, which have been found to vary per the above medications or conditions.

### **2.2 Measures**

#### **2.2.1 Demographics**

Information on participants' age, gender, sexual orientation, education, marital or relationship status, race, ethnicity, and current medications was collected via a computer-based survey administered during laboratory visits.

#### **2.2.2 Dominant or submissive fantasy frequency**

The Preferred Sexual Thoughts Questionnaire is a 20-item scale adapted from two validated questionnaires, the Sexual Cognitions Checklist ( $\alpha=.95$ ) (Renaud & Byers, 1999) and the Derogatis Sexual Functioning Index Fantasy domain ( $\alpha=.87$ ) (Derogatis &

Melisaratos, 1979). Participants were instructed to rate a series of sexual fantasies for frequency of occurrence on a scale of 1 (“none of my sexual fantasies include this”) to 5 (“almost all of my sexual fantasies include this”). They were also instructed to indicate the valence of each fantasy on a scale from 1 (“very negative”) to 5 (“very positive”). Ten items were identified by the authors (G.W. and A.R.) as representative of sexual dominance, such as “forcing my partner to do something sexually,” “whipping or spanking my partner,” and “tying my partner up,” and ten items were identified as representative of sexual submission, including “being pressured into engaging in sex,” “being overwhelmed by a stranger’s sexual advances,” and “being hurt by a partner.” Data were scored together (frequency and valence for each fantasy) and averaged as “Dominant Fantasy” and “Submissive Fantasy” ( $\alpha=.56$ ) for analyses. For our study, participants who rated submissive or dominant fantasy as negative were not included in the analysis. Therefore, overall scores for Dominant Fantasy and Submissive Fantasy represent the frequency of preferred fantasy content.

### **2.2.3 Sexual behavior**

Sexual behavior was captured via the use of event logs developed specifically for this study. Participants were instructed to complete these logs immediately after each sexual event and to return the logs after 5 events were collected, within a 5-week period. In addition to questions about the type of activity (e.g., “During this sexual event, how much did you feel you behaved dominantly?”), the logs also included items selected from the Female Sexual Functioning Index (Rosen et al., 2000) and the Sexual Satisfaction Scale for Women (Meston & Trapnell, 2005), as well as a single question concerning whether the participant or their partner initiated the sexual activity. Examples of items



adopted from these measures included in the event logs captured experiences relating to arousal (confidence with arousal, level of subjective arousal, difficulty becoming aroused, satisfaction with arousal, etc.) as well as an item that related to the level of perceived emotional closeness with their partner.

Items relating to fantasies of dominance and submission in the screening questionnaire were altered to also assess behavior in the event logs, including, for example, “While you were having sex with your partner, how much did you feel you were forcing them to do something sexually?” “How much did you feel sexually submissive?” “How much did you feel sexually dominant?” Behaviors were rated by participants on a scale of 0-5, with 0 being “not at all” and 5 being “extremely” present during the sexual event.

Finally, the overall satisfaction with the sexual event was recorded on a scale from 1, “not at all satisfactory,” to 5, “completely satisfactory.”

Cronbach’s alpha for the averages of event logs utilized in our analyses was .74. Event log scores for each item were averaged across events for analysis. For our purposes, we were interested in reports of dominant behavior (Dominant Behavior), submissive behavior (Submissive Behavior), how close they felt to their partner (Closeness), and overall satisfaction with the sexual event (Event Satisfaction) ( $\alpha=.74$ ).

## **PROCEDURE**

Women who responded to recruitment materials took an online screener to assess eligibility, including demographics, length of current relationship, sexual behavior frequency, and the Preferred Sexual Thoughts Questionnaire. Women were included in the present study if they endorsed more strongly dominant fantasies or submissive fantasies, meaning that women that endorsed both aspects equally were not included. Participants that qualified were contacted and explained the procedure, which included the collection of physiological and subjective sexual responses to erotic videos (data not used in this study). Although these data are not used in the present study, we mention this detail because it may have affected non-random self-selection of participants.

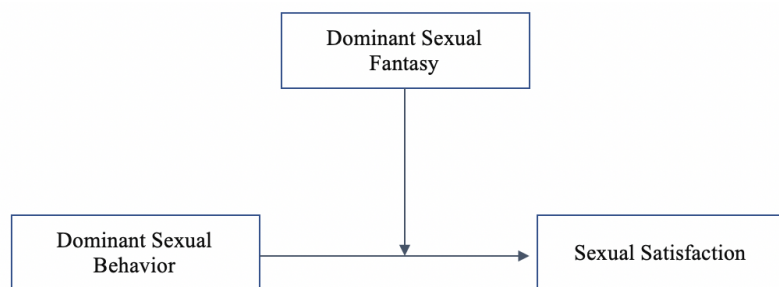
Eligible participants were then scheduled for a laboratory visit. After giving their consent, participants were shown the equipment and set up for collecting psychophysiological data. Post psychophysiological assessment to erotic videos, participants completed the SCC (Renaud & Byers, 1999) to measure preferred specific fantasy themes and their frequency. Then, participants were provided with a paper copy of the Event Log diaries and instructed on how to complete the log after each sexual event, for five events. Once the Event Log was completed and returned, participants were compensated with either psychology course extra credit or \$35.00.

## DATA ANALYSIS

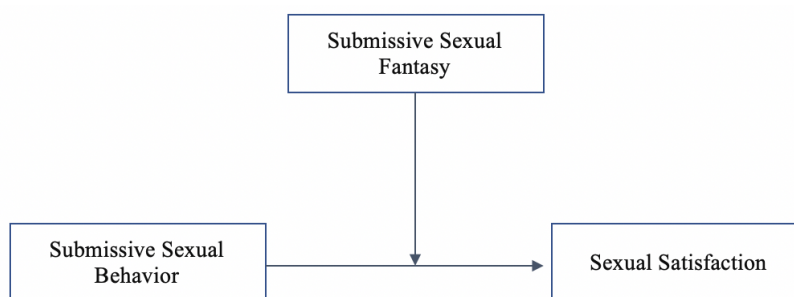
Frequency distributions for relevant variables were examined through frequency histograms with normal curves as well as skewness and kurtosis statistics to assess normal distribution.

Calculating Power necessary for this study was estimated using G\*Power software with a relatively large  $f^2$  effect size of 0.25,  $\alpha = .05$ , and Power of 0.8, as well as our three predictors (fantasy, behavior, and fantasy x behavior). It was found that at least 48 participants were necessary to detect a large effect size, slightly higher than our  $N=42$ . To detect a medium effect of 0.15, for example, this study would require at least  $N=77$  participants. While many studies utilize moderate effect sizes to determine power, we believe that the relationship between our predictor variables is strong and therefore a large effect size would likely be observed in our results. Further, because these data come from a study conducted in the past, there is little room for adjustment of sample size. A discussion of the possibility of Type II error will be considered depending on the observed effect sizes.

To test our hypothesis that sexual satisfaction would be predicted by the interaction between submissive or dominant sexual fantasy and submissive or dominant sexual behavior, two moderation analyses (Figure 1, Figure 2) were conducted using model 1 of the PROCESS v3.0 macro for SPSS (Hayes, 2017). Using Sexual Event Satisfaction as our outcome variable, Dominant Behavior or Submissive Behavior were entered as the predictor, and Dominant Fantasy or Submissive Fantasy, respectively, were added as the moderator variable.

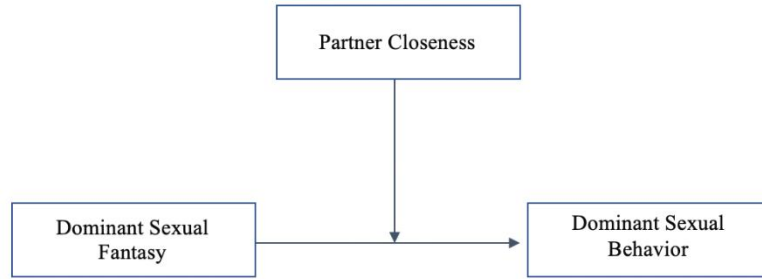


**Figure 2: Moderation model for Dominant Fantasy, Dominant Behavior, and Sexual Satisfaction**

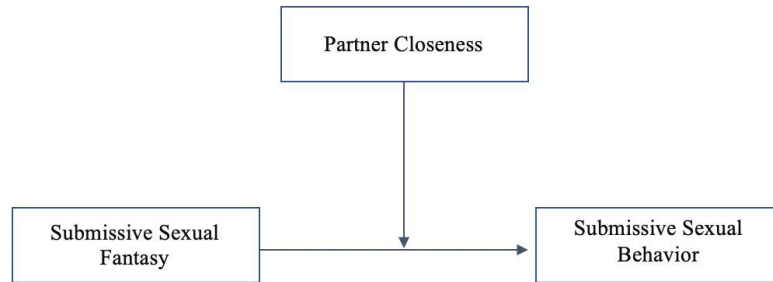


**Figure 3: Moderation model for Submissive Fantasy, Submissive Behavior, and Sexual Satisfaction**

In order to test our second hypothesis—that partner closeness moderates the relationship between dominant or submissive fantasies and resulting dominant or submissive behavior—two more moderation analyses (Figure 3, Figure 4) were run using model 1 of the PROCESS v3.0 macro for SPSS (Hayes, 2017). Dominant Behavior was entered as the outcome variable, Dominant Fantasy acted as our predictor, and Partner Closeness was entered as the moderator variable. The same model was run with Submissive Behavior as the outcome, Submissive Fantasy as the predictor, and Partner Closeness as the moderator. Results for all four tests were assessed through  $R^2$  and  $R^2$  changes as well as significance levels.



**Figure 4: Moderation model for Partner Closeness, Dominant Fantasy, and Dominant Behavior**



**Figure 5: Moderation model for Partner Closeness, Submissive Fantasy, and Submissive Behavior**

## RESULTS

Descriptive statistics showed that the sample consisted of women between the ages of 18 and 26 years ( $M=19.65$ ,  $SD=1.74$ ), of whom 75.7% were exclusively heterosexual and 24.3% were predominantly heterosexual with incidences of homosexuality. As to be expected from a sample collected in Vermont, the sample was 97.3% White/Caucasian, and only 5.4% were Hispanic/Latinx, and 2.7% were Asian/Pacific Islanders. Educational attainment for participants was mostly “some college” (62.2%). Participants in this study were mostly in a committed relationship (97.3%) and only a few were single and dating (2.7%). The majority were in a relationship between 6 months and 5 years, with a larger portion (37.8 %) reporting 6-12 months (Table 1).

Our main variables of interest (Figures 5-9) included Dominant Behavior ( $M = 1.83$ ,  $SD = 0.69$ ), Submissive Behavior ( $M = 1.83$ ,  $SD = 0.69$ ), Overall Satisfaction ( $M = 4.1$ ,  $SD = 0.52$ ), and Partner Closeness ( $M = 4.51$ ,  $SD = 0.61$ ), each of which were scored on a scale of 1-5. Dominant Fantasy ( $M = 17.81$ ,  $SD = 6.79$ ) and Submissive Fantasy ( $M = 26.7$ ,  $SD = 8.78$ ) were scored on a scale of 10-60.

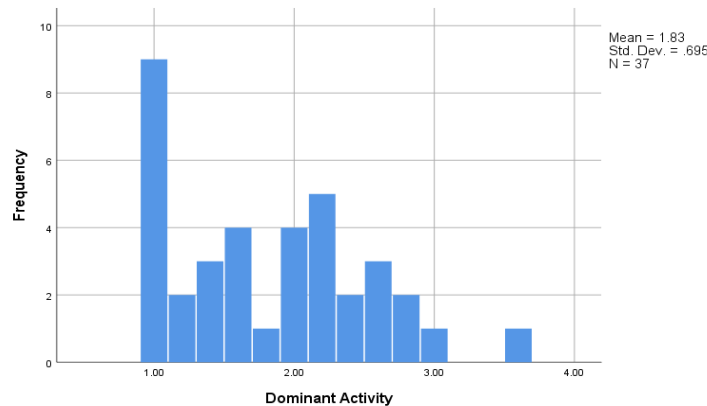
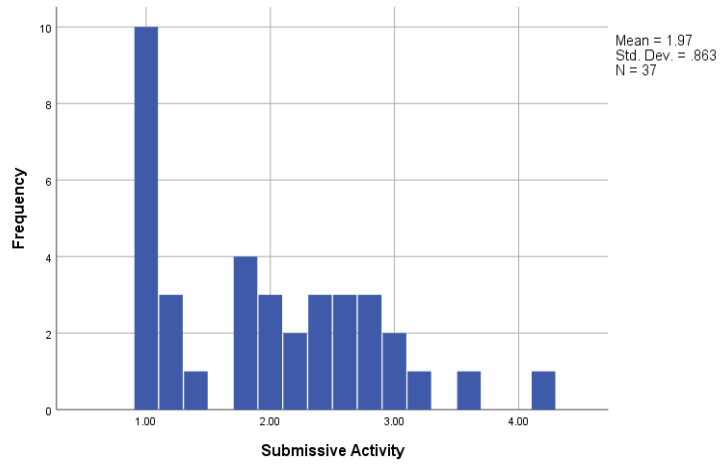
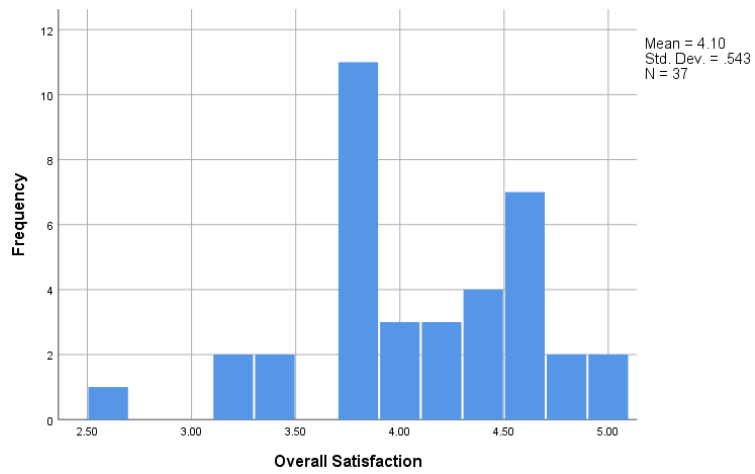


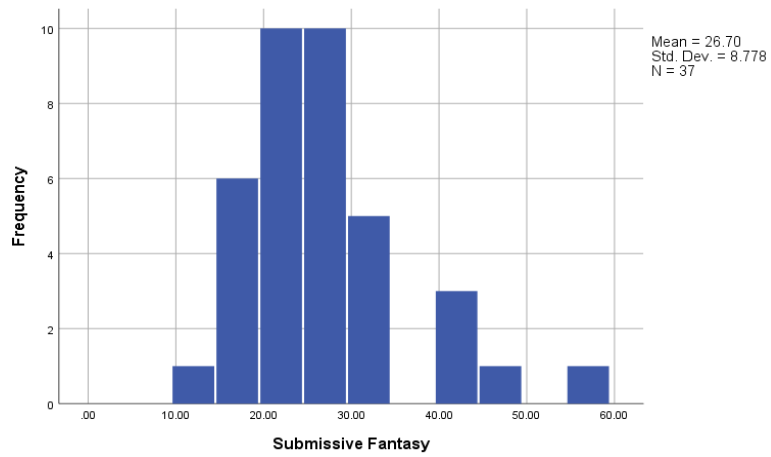
Figure 6: Average reports of Dominant Behavior scored 1-5



**Figure 7: Average reports of Submissive Behavior scored 1-5**



**Figure 8: Average Overall Satisfaction scored 1-5**

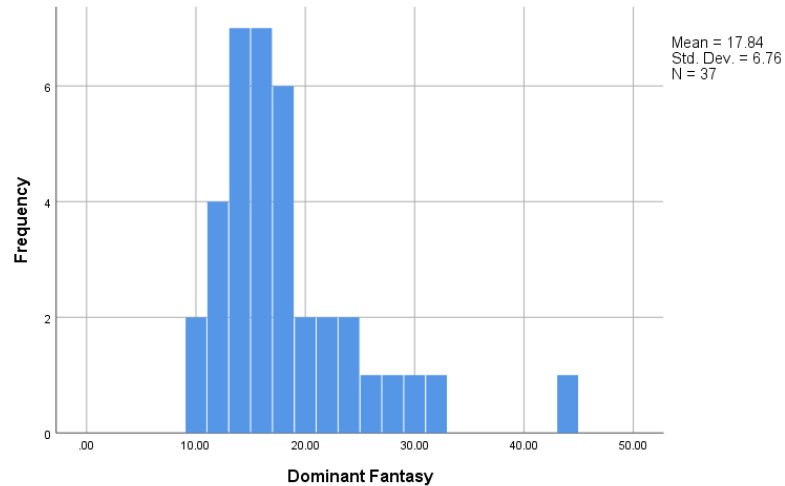


**Figure 9: Frequency of Submissive Fantasy Preference scored 10-60**

**Table 1: Descriptive Statistics for Study Variables**

Variable	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
<b>Sexual Orientation</b>						
Exclusively Heterosexual	28	75.7				
Predominantly Heterosexual, incidentally homosexual	9	24.3				
<b>Race</b>						
White/Caucasian	36	97.3				
Hispanic/Latinx	2	5.4				
Black/African-American	0	0.0				
Asian/Pacific Islander	1	2.7				
<b>Relationship Status</b>						
Single, dating	1	2.7				
Committed Relationship	36	97.3				
<b>Relationship Length</b>						
0-6 Months	2	5.4				
6-12 Months	14	37.8				
1-2 Years	11	29.7				
3-5 Years	8	21.6				
5-10 Years	2	5.4				
<b>Education Attainment</b>						
High School/GED	4	10.8				
Some College	23	62.2				
2-year Degree	1	2.7				
4-year Degree	9	24.3				
Age			19.65	1.74		
Dominant Behavior			1.83	0.69	1.0	3.6
Submissive Behavior			1.97	0.86	1.0	4.2
Dominant Fantasy			17.81	6.80	10.0	43.0
Submissive Fantasy			26.70	8.80	12.0	55.0
Satisfaction			4.10	0.54	2.6	5.0
Partner Closeness			4.51	0.61	3.0	5.0





**Figure 10: Frequency of preference for Dominant Fantasy scored 10-60**

Intercorrelation analysis (Table 2) revealed that Dominant Behavior was significantly correlated to Dominant Fantasy ( $r [37] = .46, p=.004$ ), but also to Submissive Behavior ( $r [37] = .46, p=.004$ ) and Submissive Fantasy ( $r [37] = .46, p=.004$ ), suggesting that individuals who reported feeling dominant during the five sexual activities also reported more fantasies, whether dominant or submissive, and also reported more submissive activities. Dominant Fantasy was also significantly correlated to Submissive Fantasy ( $r [37] = .56, p < .001$ ), but not to Submissive Behavior ( $r [37] = .11, p=.492$ ). The only variable significantly correlated with Satisfaction was Partner Closeness ( $r [37] = .64, p < .001$ ).

**Table 2: Correlations Statistics for Study Variables**

	1	2	3	4	5	6
1. Dominant Behavior	-					
2. Submissive Behavior	.46**	-				
3. Dominant Fantasy	.46**	.12	-			
4. Submissive Fantasy	.46**	.27	.72**	-		
5. Satisfaction	-.05	-.01	.10	.06	-	
6. Partner Closeness	.076	.08	.10	.11	.64**	-

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

Hypothesis 1 predicted that women who prefer submissive fantasies would have higher sexual satisfaction in response to sexual activities that included submissive behavior. Results did not find support for this hypothesis ( $R^2 = .01$ ,  $F[3, 33] = 0.10$ ,  $p = .960$ ) in that the model comprising Submissive Fantasy, Submissive Behavior, and the interaction of the two did not account for a significant portion of the variance in reports of sexual satisfaction.

Hypothesis 2 predicted that women with dominant fantasies would have more satisfaction when in response to sexual activities that included dominant behavior. The model for hypothesis 2 was found to be non-significant. The Moderation analysis (Table 4) was not significant ( $R^2 = .02$ ,  $F[3, 33] = 0.22$ ,  $p = .882$ ), indicating that Dominant Fantasy, Dominant Behavior, and the interaction between the two did not have a significant effect on Satisfaction.

**Table 3: Moderator Analysis: Dominant Fantasy's effect on the relationship between Dominant Sexual Behavior and Sexual Satisfaction (N=37)**

	Estimate	SE	95% CI		p
			LL	UL	
Intercept	4.15	1.03	2.06	6.24	< .001
Dominant Behavior	-0.13	0.45	-1.05	0.79	.774
Dominant Fantasy	0.01	0.06	-0.12	0.13	.928
Dom Behavior X Dom Fantasy	0.00	0.03	-0.05	0.05	.922

**Table 4: Moderation Analysis: Submissive Fantasy's effect on the relationship between Submissive Sexual Behavior and Sexual Satisfaction (N=37)**

	Estimate	SE	95% CI		p
			LL	UL	
Intercept	6.67	0.93	1.78	5.56	<.001
Submissive Behavior	0.14	0.42	-0.71	0.10	.722
Submissive Fantasy	0.02	0.04	-0.06	0.09	.625
Sub Behavior X Sub Fantasy	-0.01	0.02	-0.04	0.03	.694

Hypotheses concerning Partner Closeness as moderator (Hypotheses 3 and 4) in the relationship between the type of Fantasy (Dominant or Submissive) and type of Sexual Behavior (Dominant or Submissive) received partial support from the results. Specifically, we found a significant overall model ( $R^2=.24$ ,  $F[3, 33]=3.54$ ,  $p=.025$ ), where Dominant Fantasy ( $b=0.04$ ,  $t[33]=2.6$ ,  $p=.014$ ), Partner Closeness ( $b=0.11$ ,

$t[33]=0.59, p=.558$ ), and the interaction ( $b=0.04, t[33]=1.14, p=.115$ ) accounted for 24% of variance in Dominant Behavior (Table 5). Importantly, while the overall model was significant, the interaction between Dominant Fantasy and Partner Closeness was not significant, meaning that the study failed to find a moderating effect of Partner Closeness on the relationship between Dominant Fantasy and Dominant Behavior.

**Table 5: Moderation Analysis: Partner Closeness' effect on the relationship between Dominant Sexual Fantasy and Dominant Sexual Behavior ( $N=37$ )**

	Estimate	SE	95% CI		p
			LL	UL	
Intercept	1.81	0.10	1.60	2.02	<.001
Dominant Fantasy	0.04	0.02	0.01	0.07	.014
Partner Closeness	0.11	0.19	- 0.27	0.49	.558
Dom Fantasy X Partner Closeness	0.04	0.04	-0.03	0.11	.115

**Table 6: Moderation Analysis: Partner Closeness' effect on the relationship between Submissive Sexual Fantasy and Submissive Sexual Behavior (N=37)**

	Estimate	SE	95% CI		p
			LL	UL	
Intercept	0.65	4.93	-9.37	10.67	.896
Submissive Fantasy	0.03	0.21	-0.38	0.46	.144
Partner Closeness	0.05	1.06	-2.02	2.30	.851
Sub Fantasy X Partner Closeness	-0.01	0.02	-0.09	0.09	.943

The same moderation model was not supported for Submissive Fantasies (Table 6) ( $R^2=.07$ ,  $F[3,33]=0.88$ ,  $p=.462$ ), such that Submissive Fantasy, Partner Closeness, and the interaction between them did not significantly account for variance in Submissive Behavior.

### **Ancillary Analysis**

While conducting the analyses required to test the main hypotheses in this study, it occurred to us that gender role adherence may play an important role in the consideration of the results. We did not measure gender roles per se; however, we had information on the initiator of the sexual activity for each of the events. While this is not a direct measure of gender-role adherence, past research on gendered sexual scripts has linked the role of initiator of activity to a dominant and therefore traditionally male scripted behavior (Vannier & O’Sullivan, 2011). For this reason, we looked at the data considering individuals who were never initiators vs. those who initiated at least once. If taking the role of initiator is indeed a predictor of Dominant Behavior or Dominant Fantasy, the relationship between the construct of gender-role adherence, as measured by initiation and Dominance, may be an important area for future research focus. Interestingly, only one participant never initiated sexual activity. Participants reported themselves as the initiator throughout the 5 events just less than half the time (32.4% - 48.6%). Given the small sample ( $n = 1$ ) for the non-initiator, we cannot provide any meaningful description of young women that do not initiate sexual activities. However, it is worth noting that among those who did initiate sexual interactions, the more frequent the woman initiated and the greater the scores in satisfaction and partner closeness. It is also worth noting that initiating was not associated with greater dominant or lower submissive behavior or fantasies.

## DISCUSSION

The purpose of this study was to answer the question of whether the frequency of submissive or dominant fantasies would moderate the relationship between the type of behavior during sexual activity (dominant or submissive) and ratings of sexual satisfaction, such that concordance between fantasy and behavior type would result in greater sexual satisfaction. Findings indicated that neither submissive or dominant fantasy, nor submissive or dominant behavior alone predicted sexual satisfaction after a sexual event. Results indicated that enacting submissive or dominant sexual behavior in the bedroom when the participant had a sexual fantasy that matched her behavior did not result in a significant difference in sexual satisfaction post-sexual activity. Concerning the second intention of this study— to observe whether partner closeness affected the relationship between having a submissive or dominant sexual fantasy and enacting submissive or dominant sexual behavior— results also failed to find a significant moderation effect of partner closeness; however, there are interesting suppressing effects observed for partner closeness in the relationship between submissive fantasies and submissive behavior, but not in the relationship between dominant fantasies and dominant behavior that are worth discussing.

This study did not find support for submissive or dominant fantasy as a moderator of the relationship between submissive or dominant sexual activity and sexual satisfaction. Considering these findings, as well as previous findings on couple dyadic desire (Mark et al., 2014; Sanchez et al., 2012), it is clear that more thought needs to be given to how the couple dyad may affect both the experience and expression of submissive and dominant fantasy and behaviors. It may be that sexual satisfaction after a

sexual event involving dominant or submissive behavior does not hinge on whether the individual engages in matching fantasies. On the other hand, it could be that the methodology somehow failed to capture the nuances of the relationship between matching sexual fantasy and sexual behavior and resulting sexual outcomes. Specifically, two significant covariates not considered in this study were the partner's fantasy preferences and each partner's gender role adherence. Sanchez et al. (2012) tackled a related research question while observing gender role motivations in women's sexual behavior. Within that study, a questionnaire-based "Actor-Partner Interdependence Model" was utilized to observe both the actor effects (motivations and behaviors of the participant) as well as partner effects (motivations and behaviors of the participant's partner). It is possible that a dyadic model would better capture the potentially missed effect of matching sexual fantasy and behavior type on overall satisfaction, because the partner's motivations and behaviors also play a role in the resulting sexual event satisfaction and relationship outcomes, such as partner closeness. For example, it may be that partners with matching fantasies (e.g., submissive with submissive or dominant with dominant) would have different outcomes than partners with unmatched fantasies that better suit a dyad (e.g., submissive with dominant). Indeed, past studies found that partner interest did positively influence women's sexual satisfaction when the woman desired a dominant partner and behaved submissively (Sanchez et al., 2012), highlighting a potential path between sexual fantasy, behavior, and outcome that was missed by the study design. Thus, the partner's interest in what behavior is enacted may be equally as important for the sexual outcome as the participant's preferences. It is unclear whether rerunning the Event Log methodology for each partner in the dyad and including an



Actor-Partner Interdependence Model methodology would produce significant findings in the current models, but it does appear to be a worthy direction for future consideration.

An important concept of the Actor-Partner Interdependence model is the sexual motivations, or objects of desire, for each member of the dyad. A more in-depth observation of intensity of desire at the time of sexual intercourse as measured by the Event Logs may be warranted. In a study focusing on objects of desire between 203 couple dyads, partner objects of desire played a significant role in the level of desire experienced by their counterpart (Mark et al., 2014). While Mark and colleagues (2014) focused on aspects of desire that did not include fantasy content, they did find that wanting to feel sexually desirable was among the significant predictors of the partner's level of desire. This potentially maps onto the experience of submissive fantasies that are driven by a wish to be so desirable that their partner is overcome with a need for them (Hariton & Singer, 1974), and may signal to their partner that they are allowed to take on a role in the bedroom that suggests an agentic and valuable dominant position (Hawley & Hensey, 2009). Of course, consideration of the dyad alone is not enough, as adherence to gendered sexual scripts might also influence the degree to which a partner derives pleasure from a sexual role that may traditionally be reserved for cisgender males and females, but does not coincide with the individual's endorsement of those roles.

Importantly, the current study follows in the footsteps of other similar studies that expected to observe gender normative sexual scripts and values throughout measurement, but that gave little consideration of adherence to gendered sexual scripts as they affect a couple dyad. Gender scripts concerning dominance and submission in heterosexual relationships often place the woman in the submissive/receiving position of power, and

men in the dominant/initiating position (Wiederman, 2005). Some scholars have connected sexual arousal by dominance to the act of fathering more offspring in a sample of men and women aged 35-44 (Jozifkova, 2017), further strengthening the link between dominance and initiation to traditional male gender roles. In the same study, men who were more dominant and women who were more submissive gave themselves greater scores of attractiveness than their hetero-normative counterparts (Jozifkova, 2017), illustrating the connection between gender role adherence to mate selection and reproduction in heterosexual populations. To ensure genetic success, the number of offspring, and the ability to attract a mate, are inarguably important traits. However, such studies rely on gendered script theory to assume a reproductive or mating goal when exploring dominance and submission in heterosexual couples. These traditional gender scripts are potentially at odds with the current study, which uses a sample of college-aged women who were younger (18-26) than samples used in other literature (35-44). It is possible that the women represented in our sample depart from these gender role motivations when seeking sexual activity with a partner. Indeed, ancillary analyses found that only one of the participants never initiated sexual activities, although a group of 35 women reported preferring submissive fantasies, suggesting that the concept of traditional gender role and submissive fantasies share a complex relationship, and further consideration of this relationship may shed greater light on the investigation of fantasies and behaviors.

In light of the low endorsement of gender role (initiations) observed in our study, it is plausible to postulate that these findings were potentially non-significant due to expectations that women in this age group would adhere to a sexual script that

supposedly has the goal of finding a mate or reproducing; a goal that is perhaps less salient to modern young women than women in generations past. Non-significant findings for the relationship between behavior and satisfaction remain worthy of interpretation through the lens of sexual scripts and their development. Sexual scripts are evolving into more egalitarian roles as opposed to traditional gendered stereotypes (Vannier & O'Sullivan, 2011). College-aged women may find themselves in an exploratory sexual phase where dominance and submission are utilized in a "trying out" manner, and therefore these behaviors are potentially non-essential to satisfaction outcomes. On the other hand, despite evidence that self-reported gender role expectations are changing with each new generation, role scripts still hold some sway over what is expressed in the bedroom and, specifically, many young heterosexual couples still report the male as the initiator of behavior (Vannier & O'Sullivan, 2011). Despite these past findings, some of the women in the current study did report taking the initiator role throughout five sexual events. The frequency of initiating sexual activities was positively related to ratings of Sexual Satisfaction and Partner Closeness. However, initiation of sexual behavior alone is not a complete measure of overall sexual gender-role adherence, making further extrapolation from this dataset difficult. Future studies that might circumvent these nuances of sexual scripts could include having participants report their gender role adherence, as well as their expectation of their partner's adherence. For the current study, a greater understanding of the participant's and their partner's relative level of comfort with gender-roles, which may include a submissive woman and dominant man, would certainly increase the likelihood that our measures would capture heretofore unillustrated relationships between fantasy, behavior, and satisfaction. Understanding the

dynamic between gender-role adherence and expression of dominance and submission in sexual fantasy and behavior in heterosexual couples, and indeed whether the dynamic changes in non-heterosexual couples, may indeed be worthy future directions of study.

A secondary interest of this study was to observe whether individuals who had dominant or submissive sexual fantasies would report sexual behavior that matched their fantasy when they also reported feeling close to their partner. Although we did not observe a significant moderation for partner closeness, there are patterns of significance within the tested models that are worth speculation. Specifically, we observed that when partner closeness was introduced into the model, the strength of the relationship between dominant fantasies and dominant behavior remained unchanged from the zero-order correlations, possibly suggesting that feeling close to one's partner did not interfere with the higher likelihood for women with dominant fantasies to act dominant during sex. On the other hand, the relationship between submissive fantasies and submissive behavior was no longer significant once partner closeness was introduced in the picture. Partner closeness was not predictive of submissive behavior per se, though, and so it acted as a suppressor of the relationship rather than having a direct effect. At this point, the methodology of the current study is too limited to make a definitive interpretation of these intriguing results. In particular, speculations on these results should take into consideration the relatively small and age-limited sample, the limited number of sexual activities observed, and the use of a statistical method that does not allow for continuous and nested data considerations. That is, the decision to average scores for behaviors, partner closeness, and ratings of satisfaction, negates the ability to draw conclusions

based on individual and temporal differences that may exist between participants and across the 5 measured sexual events.

Despite the limitations outlined thus far, it is pedagogically interesting to make speculations on how these results may fit within the larger literature. One reason we did not find significant results between submissive fantasy, partner closeness, and submissive behavior, may be due to the theorized male “sex-dominance inhibition”, meaning the theory stipulating that women implicitly associate sex with submission and therefore men will implicitly associate sex with dominance is not, in fact, the case (Kiefer et al., 2006; Sanchez et al., 2006; Kiefer & Sanchez, 2007). Dominance inhibition may be caused by the male partner’s habitual suppression of his social sexual gender role of dominance in order to put his partner at ease, show care, and avoid making a partner feel coerced (Kiefer & Sanchez, 2007). If indeed our results were non-significant because we did not measure the partner’s inhibition towards or preference for dominant behavior, a new study measuring these preferences between sexual partners is warranted. Further exploration of sexual gender roles should also include individuals with partners of the same gender, where sexual scripts may not be dominated by traditional cisgender scripts and expectations.

The significant relationship between dominant fantasies and dominant behavior even when partner closeness was included in the model speaks to the comfort that a woman may have in feeling and expressing dominant behaviors and desires independent of the closeness she feels with her partner. On the other hand, closeness to a partner may obfuscate submissive fantasies in women who may not feel strong or agentic enough to express desires specific to those fantasies. These results beg the question of why the

model was significant for dominance but not submission. Based on studies on sexual self-schemas, we could speculate that fantasies are expressions of inner schemas that mirror our view of ourselves (Andersen & Cyranowsky, 1994). The present study investigated the content of fantasies as something independent from the individual characteristics of the woman experiencing them. However, the observed suppression of significance in the relationship between submissive fantasies and behavior may be the product of a third variable, such as personality characteristics that may explain what a woman may feel comfortable expressing and when. Specifically, one could speculate that dominant fantasies are simply the expression of a woman with strong self-esteem and feelings of entitlement to sexual pleasure. On the other hand, submissive fantasies may be expressions of a person who does not feel entitled to ask for what she wants and needs, even when her desire is to take on a submissive sexual role. This explanation could fit with results from a study on social dominance and submission, where men were found to, sometimes, prefer a dominant partner, even if they scored high on social dominance measures (Hawley & Hensey, 2009). The construct of dominance, then, seems to be an attractive sexual trait in a partner for some women as well as some men, and if the male partner desires to have a dominant partner, perhaps the female “gives in” even if her preference is submission. This could explain why, once partner closeness is included in the model, we no longer see a relationship between submissive fantasies and submissive behaviors. This explanation may also give weight to the concept that the differing desires of a couple dyad are important when considering what behaviors are enacted. Future studies including personality variables in addition to preferred fantasies and behavior

may find evidence that what matters the most in predicting the ability of a woman to express her fantasies as sexual behavior is her openness, self-confidence, and self-esteem.

Keeping these interpretations in mind, it is important to note that submissive behaviors and submissive fantasies were not significantly associated with negative sexual outcomes. Sexual satisfaction was something reached by all the women in the study independent of the internal sexual fantasies and the type of sexual behaviors exhibited. A study that focuses on women with sexual dysfunction may be able to tell us more about the relationship between types of fantasies and behavior, and if some patterns are more commonly endorsed by individuals with sexual dysfunction, but at the moment we have not found evidence that any specific pattern is linked to less sexual satisfaction. Nevertheless, the results from the current study shed some light on possible routes for future studies that focus on clinical samples, with the intention of determining mechanisms of fantasy and behavior that might influence sexual satisfaction outcomes.

This study may have garnered different results with some changes to its methodology. It could be that the experimental design employed by the study lacked the required power to find small or medium effects. However, there has been past disagreement within the field of sex research regarding the small effect sizes of some proposed medications for things like sexual satisfaction, which begs the question of the applied significance of small effect sizes. The current study was powered to detect a large effect size in light of previous discussions within the field of sexual psychology that has at times rejected the significance of small effects, and any small effects therefore would not be captured by our analysis.

Within the current study, there was a high frequency of endorsement for submissive and dominant sexual fantasies, where all but one participant reported having had dominant (95%) or submissive (100%) fantasies, at least infrequently. In a similar population sample but with more participants ( $n= 542$ ), dominant and submissive fantasies were present in 7.7% of participants for sadistic sexual fantasies, and 23.7% in masochistic sexual fantasies; a much lower percentage than the present study that utilized similar fantasy criteria (Castellini et al., 2018). Many past studies have asked a single yes/no qualifying question about dominant and submissive fantasies, while this study used a score gathered from the endorsement of several fantasies deemed to be submissive or dominant by the researchers. It may be that there was a discrepancy in the study's methodology, affected by differences in interpretation of what is dominant and what is submissive between the researchers and participants. That is, participants were asked to state whether they were dominant or submissive within their Event Logs, but they were not asked to describe the type of dominance or submission in any detail. Dominant and submissive fantasy, on the other hand, was measured through multiple descriptive fantasy themes that were then deemed to be either dominant or submissive by the researchers. It is unclear if the activity deemed dominant or submissive by participants in the Event Logs followed the same theme selection criteria as that in the fantasy measurement.

Based on these results, it appears that a specific fantasy is not related to specific behavior and resulting satisfaction. Partner Closeness appears to have a complex relationship with the relationship between fantasies and behavior, but the specific mechanisms through which it affects fantasies and behavior remains quite unclear. It may be that the type of sexual behavior, is less important for sexual satisfaction than other



more dyadically oriented variables. If this is the case, the type of sexual behavior enacted does not exist as a function of satisfaction, but as a display of intimacy, trust, and the ability to express one's preferences. Future directions for this study may include measuring these variables in participants who identify as non-cisgender, as well as in homosexual couples, in considering how the dyad interacts with fantasy and behavior outside of traditional cis-gender role adherence. The current study adds to the literature by considering partner closeness in a context of fantasy and behavior that has previously gone unstudied, as well as by suggesting potential future directions that may further elucidate the nuanced relationships between dominant and submissive sexual fantasy, matching sexual behavior, and sexual satisfaction.

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