

Attachment orientation moderates the sexual and relational implications of sexual desire discrepancies

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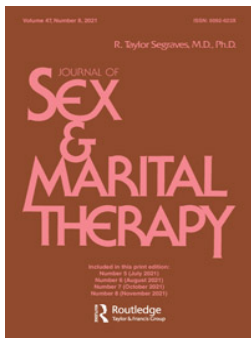
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RESEARCH ARTICLE



Attachment Orientation Moderates the Sexual and Relational Implications of Sexual Desire Discrepancies

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ABSTRACT

We examined the degree and direction of sexual desire discrepancies (SDD) between partners and how this relates to sexual function, sexual satisfaction, relationship satisfaction in 100 Saudi Arabian couples, taking into account both partners' attachment orientation. Men and women reported better outcomes when they matched on higher levels of sexual desire. In case of a mismatch, women reported higher sexual satisfaction when their partner's level of sexual desire was higher than their own. Attachment anxiety and avoidance moderated the associations between SDD and the outcome variables. This study offers unique information on SDD in couples with strong gender role expectations and cultural restrictions regarding sexuality. Therapeutic interventions should be directed at understanding the attachment meaning of sexual desire.

Introduction

Problems with low sexual desire are among the most common sexual problems in couples (Levine, 2002; Tiefer, 2001) and have been considered as a key factor in disrupting sexual and relational harmony (Kaplan, 1979; Leiblum & Rosen, 1988). In recent years, sexual desire has been increasingly conceptualized as a state-like construct that ebbs and flows across time and context and is, in addition to individual factors, highly dependent on the relational and societal context in which sexual desire is manifested (Acevedo & Aron, 2009; Ellison, 2008; Mark & Lasslo, 2018; Ridley et al., 2006; Velten & Margraf, 2017). Although it is clear that sexual desire involves a dyadic interaction between partners, empirical and clinical work still relies too heavily on individual responses, thereby treating low desire problems as an individual diagnosis (Clement, 2002; Davies, Katz, & Jackson, 1999; Ellison, 2008). It is, however, more relevant to treat sexual desire problems as a couple problem by focusing on discrepancies in the level and meaning of sexual desire as it unfolds in the relationship between partners and to assess how such discrepancy affects sexual and relational functioning (Clement, 2002; Mark & Lasslo, 2018; Tiefer, 2012; Zilbergeld & Ellison, 1980).

Compatibility versus discrepancy in sexual desire

It is commonly assumed that sexual compatibility and similar levels of sexual desire between partners yield positive sexual and relational outcomes (Day, Muise, Joel, & Impett, 2015; Girard,

2019; Mark, 2015; Willoughby & Vitas, 2012). In the early years of the relationship when sexual frequency is generally high, men and women typically match well on their levels of sexual desire (Klusmann, 2002; Mark & Murray, 2012; McCarthy & McDonald, 2009). However, a sexual script that elicits arousal in the beginning of the relationship might become less exciting over the years, causing sexual desire and sexual frequency to decline, thereby reducing the level of compatibility between partners (Klusmann, 2002; Santtila et al., 2007). Mismatches in sexual desire have been found to reduce sexual and relational satisfaction (Mark, 2015; Rosen, Bailey, & Muise, 2018; Willoughby, Farero, & Busby, 2014). Although there is a large body of evidence supporting the negative effects of low desire and sexual desire discrepancies on the relationship, the literature nowadays leans toward normalizing discrepancies in sexual desire (SDD) as being inevitable in long-term relationships (Davies et al., 1999; Mark, 2012; Mark & Murray, 2012). That is, given that it is unlikely for any two individuals to be on the same level of sexual desire all the time, and that women show a steeper decline in sexual desire than men over the course of long-term relationships (Klusmann, 2002; McCarthy & McDonald, 2009), it is evident that mismatches in sexual desire are a natural feature of dyadic sexual responses (Mark, 2012). As a result, SDD will not necessarily cause distress and dissatisfaction, especially when the couple accepts fluctuations in sexual desire over time and context (Clement, 2002; Dewitte et al., 2020; Murray, Sutherland, & Milhausen, 2012).

It is yet not easy to safeguard the relationship from conflict and distress in case sexual desire levels diverge between partners (Davies et al., 1999). That is, the higher-desire partner may feel irritated by not having his/her sexual needs met and by being rejected by his or her partner, while the low desire partner may feel pressured to engage in sexual activity or feel guilty about declining sexual activity and displeasing the partner (Day et al., 2015; Muise, Impett, & Desmarais, 2013; Sutherland, Rehman, Fallis, & Goodnight, 2015).

Impact of sexual desire discrepancies on the (sexual) relationship: The role of gender and sociocultural context

In general, evidence on the outcomes of SDD is inconclusive (Dewitte et al., 2020; Mark, 2015), with studies reporting negative, positive, or no effects on sexual and relationship satisfaction (Davies et al., 1999; Mark & Murray, 2012; Rosen et al., 2018; Willoughby & Vitas, 2012). Given that men and women tend to ascribe different meanings and functions to sexual desire in their relationship, the majority of research has explored whether gender differences exist in the effect of SDD on sexual and relational well-being, yielding inconsistent findings so far (Dewitte et al., 2020; Mark, 2012, 2015; Velten & Margraf, 2017). Whereas some studies have shown that SDD significantly lowered men's, but not women's, sexual and relationship satisfaction (Mark, 2012), other studies showed the opposite pattern with women, but not men, reporting less satisfaction as a result of mismatches in sexual desire (Bridges & Horne, 2007; Davies et al., 1999; Mark, 2014; Mark & Murray, 2012). It has also been shown that SDD is the most common sexual concern in women (Ellison, 2008; Mark, 2014) and that woman with lower sexual desire discrepancies experience higher relationship adjustment than women with higher levels of SDD (Davies et al., 1999). However, there is also research showing that higher levels of SDD were associated with more relationship satisfaction in women, suggesting that SDD might be advantageous for romantic relationships (Willoughby & Vitas, 2012). To better understand whether and for whom SDD will cause sexual and relational distress, it is relevant to consider not only the degree but also the direction of SDD, namely who is the lower and higher desire partner (Bridges & Horne, 2007; Mark, 2012; Mark & Murray, 2012). Because women have a lower or more context-sensitive sexual desire than men, it has been suggested that women are often the low desire partner in SDD couples. However, there are also studies showing that both male and female partners had an equal chance of being the lower desire partner (Sutherland et al., 2015).

In general, it has been argued that SDD will be experienced as more distressing and evoke more negative outcomes when men are the low desire partner because gender stereotypes tend to portray male sexual desire as an active, internally driven force that spontaneously unfolds (Baumeister, Catanese, & Vohs, 2001; Lawrence & Byers, 1995; Mark, 2015). This suggests that the direction of SDD matters as much as the degree of SDD when determining its impact on the sexual relationship. Interestingly, most research so far has relied on broadly defined outcome variables such as relationship and sexual satisfaction, leaving unexplored how SDD affects other parts of one's sexual life, including individual sexual functioning.

Most research on sexual desire has been conducted on college-aged individuals (Feeney, Peterson, Gallois, & Terry, 2000; Schachner & Shaver, 2004) in WEIRD (i.e., Western Educated Industrialized Rich Democratic) countries. Because sexual equality and joint sexual desire is a strong prescriptive among Western couples, it is particularly relevant to examine how sexual desire is manifested in relationships that are marked by less reciprocity and freedom and to examine the sexual and relational implications of sexual discrepancies in couples who are inflicted by gender norms. Saudi Arabia can be described as a male-dominant culture in which sexuality is regulated by restrictive attitudes, strong religious beliefs, and gender authority. It is perceived that only men can manage and initiate a sexual activity and women should always respond positively to their male partner's desire and sexual needs. These strict gender roles clearly affect how Saudi Arabian couples will perceive and deal with different levels of sexual desire in their relationship.

Impact of sexual desire discrepancies on the (sexual) relationship: An attachment theoretical perspective

Why does sexual desire mean different things for different people? Why does it erode more rapidly for some than for others? Why do not all partners experience distress when their sexual desire levels do not match? These questions cannot only be explained by referring to cultural norms and gender role expectations. The function and level of sexual desire toward a partner may also depend on one's history of relational experiences (Dewitte & Mayer, 2018). Attachment theory offers an interesting framework to understand the relational meaning of sexual desire and sexual desire discrepancies (Girard, 2019; Mark & Lasslo, 2018). Positive experiences with an attachment figure who is perceived as available and responsive usually result in secure attachment. This is associated with satisfying sexual and relationship experiences, that are marked by self-confidence, trust in others, balancing autonomy versus closeness, sexual exploration, and higher sexual frequency and desire (Birnbaum, Mikulincer, & Austerlitz, 2013; Birnbaum & Reis, 2012; Dewitte, 2012). Negative experiences with an attachment figure who is perceived as unavailable will develop into insecure attachment, which can take different forms. Anxiously attached individuals are so much concerned with feeling incompetent, helpless, and fearful of being rejected and abandoned that they overly rely on their partner and seek extreme levels of closeness and intimacy (Belsky, 1997; Collins & Read, 1990; Dewitte, 2012; Mikulincer & Shaver, 2007). Their clingy, controlling, and obsessive relationship style and their preoccupation with intimacy needs is also reflected in their sexual experiences, which are marked by distress, insecurity about their sexual performance, less open sexual communication, and difficulties to relax and enjoy sex (Feeney & Noller, 2004; Mikulincer & Shaver, 2007; Peloquin, Brassard, Lafontaine, & Shaver, 2014). Overall, more anxiously attached individuals tend to conflate sex and love, sacrifice their own sexual needs to please their partner, are sexually compliant, and place high value on sexual desire as a barometer of relationship quality (Hollist & Miller, 2005; Mikulincer, Shaver, Bar-On, & Ein-Dor, 2010; Peloquin et al., 2014). Although anxious attachment is associated with higher levels of sexual desire, sex is fueled by negative emotions because their desire is mainly driven by feelings of insecurity and seeking reassurance (Birnbaum et al., 2013; Dewitte, 2012; Peloquin et al., 2014). This constant monitoring of their own and partner's desire puts a lot of pressure on the relationship.

The other insecure attachment dimension, namely attachment avoidance, is characterized by a strong need for interpersonal distance, independence, and autonomy. Given that avoidantly attached individuals are overly self-reliant, avert too much closeness, have sex for opportunistic and self-serving reasons, and want to separate sex and love, they tend to inhibit their own desire for sex and ignore the sexual needs of their partner as a means to emotionally detach from their partner and avoid expressions of intimacy (Birnbaum et al., 2013; Dewitte, 2012; Mikulincer et al., 2010; Peloquin et al., 2014). Although they generally show lower levels of desire for sex with a partner, they do show a strong motivation to engage in solitary or casual sex (Baumeister et al., 2001).

Research has shown that attachment avoidance is associated with lower levels of sexual desire at the start of the relationship, whereas attachment anxiety, particularly in men, interferes with the maintenance of desire over the course of the relationship by amplifying the decline of sexual desire in the first years of the relationship (Brassard, Peloquin, Dupuy, Wright, & Shaver, 2012; Favez & Tissot, 2017; Mikulincer & Shaver, 2007). The latter could be explained by anxious individuals' coercive way of desiring sex to prove their love, which may result in sexual rejection by their partner, which may then induce feelings of disappointment and insecurity and, hence, lower sexual desire (Birnbaum, 2010; Dewitte, 2012; Gentzler & Kerns, 2004).

Drawing on the idea that people construe their sexual experiences based on their history of attachment experiences, it is plausible to assume that sexual and relational well-being (Attaky, Schepers, Kok, & Dewitte, 2021; Dewitte & Mayer, 2018; Yoo, Bartle-Haring, Day, & Gangamma, 2014) is determined by how sexual desire fits with attachment-related interpersonal goals (Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006; Dewitte & Mayer, 2018). Matches and mismatches in sexual desire between partners will thus be experienced differently and have different sexual and relational implications depending on one's attachment orientation (Clement, 2002). It can be expected that more anxiously attached individuals strive toward perfect agreement in their sexual relationship as an indication of ultimate closeness and fusion (Birnbaum, Cohen, & Wertheimer, 2007; Birnbaum et al., 2006; Dewitte, 2012). Conversely, it could also be that anxious individuals, who are hypersensitive to signs of rejection and waning sexual desire, feel more comfortable and reassured when their partner expresses higher sexual desire than themselves (Birnbaum et al., 2006; Dewitte, 2012). Avoidantly attached individuals may be less concerned with mismatches in sexual desire because they are emotionally less invested in their (sexual) relationship (Birnbaum & Reis, 2012; Mark & Murray, 2012). However, it is also plausible that more avoidantly attached individuals feel uncomfortable when their partner displays higher levels of sexual desire because this forces them to decline requests for sexual intimacy by their partner, which might create relational tension (Ennis, Vrij, & Chance, 2008; Kim et al., 2021; Peloquin et al., 2014).

The present study

The present study aims to investigate the impact of SDD (1) on individual (i.e., sexual function) and relational (i.e., sexual and relational satisfaction) responses (2) within a particular sociocultural context that is marked by rigid gender role expectations (i.e., Saudi Arabia) and (3) taking into account attachment orientation of both partners. While the majority of studies so far have focused on the degree of SDD, only few studies have considered the direction of SDD. It is likely that the direction of SDD is more informative when trying to explain sexual and relational well-being than the absolute levels of sexual desire (discrepancies), especially when considering the moderating role of attachment orientation which shapes the meaning of (mismatches in) sexual desire in a relationship.

Based on previous evidence, we expect that a larger sexual desire discrepancy (i.e., a greater difference in partners' reported levels of sexual desire) will be associated with worse sexual function and less sexual and relational satisfaction. We expect that the direction of SDD also matters, finding better outcomes when women are the lower desire partner than men. Because the evidence on gender differences is inconclusive so far, we did not make specific predictions

and assume a similar pattern of findings for both couple members. We also predicted that attachment orientation will moderate the association between the degree and direction of SDD and sexual and relational outcomes. As outlined before, different predictions are possible. Anxiously attached individuals may report better outcomes when their level of sexual desire is in sync with their partner or when their partner displays higher levels of desire as being the ultimate source of reassurance. Although at first sight, the avoidant attachment dimension may be less important to predict sexual desire-related outcomes in the context of a relationship, it could be that avoidantly attached individuals will report worse outcomes when their partner displays higher levels of desire because the latter elicits sexual expectations. Because attachment is a universal concept that is relevant across cultures and because we found no previous evidence on the link between sexual responding and attachment patterns in Saudi Arabia, we did not make specific, culturally differentiated, predictions. We, thus, relied on the general knowledge on attachment in the context of sexual relationships, albeit validated in WEIRD countries.

Method

Participants

A total of 100 heterosexual couples (200 men and women) participated in this study. Half of the sample included patients attending the outpatient clinic at Mutmaena psychiatric medical center in Riyadh city. About 60% of these participants were seeking treatment for their sexual or marital problems by directly consulting a specialist in sexology, about 30% were referred to this specialist by other colleagues within the center and about 10% were referred by other colleagues outside the center. Data were collected from March to December 2017 among 130 married heterosexual couples. Every couple who consulted for marital and sexual problems in the medical center was asked to participate in a study on sexuality and intimacy in close relationships by a research assistant. Thirty women and men refused to participate in the study mainly due to lack of cooperation, shyness, and fear of confidentiality and privacy (despite our efforts to guarantee confidential responding). Informed consent was obtained from all participants and ethical approval has been obtained from the institutional review boards of the medical center where the research took place. The final sample of couples consulting for relational and sexual problems included 50 heterosexual couples (i.e., 50 women and 50 men). We also recruited an additional group of 50 heterosexual couples, by relying on the relatives of patients attending the center or on the personal network of the research team. Initially, we recruited these additional couples to compare sexual and relational variables between a clinical group and a non-clinical group of couples. However, power-analyses based on detecting a medium effect size ($d = .40$) at a .05 significance level showed that a sample of 54 couples (per condition) was needed to detect reliable effects. To ensure sufficient power to test our main hypotheses, we compiled both samples into one group. We also reasoned that our focus on the association between SDD and sexual and relational outcome variables justified the use of the total sample to allow for sufficient variation in sexual desire scores. This decision was further indicated by the fact that the women in our non-clinical sample also showed lower mean scores on the FSFI, suggesting (sub) clinical levels of sexual dysfunction.

The inclusion criteria for both samples were as follows: (i) Arabic married couple living in Saudi Arabia, women were required to be 18 to 50 years of age and their partners had to be 18 years of age or older, (ii) able to give consent, and (iii) able to read and understand the Arabic language.

Participants were excluded in case of:

- a. Co-morbid physical disorders: diabetes mellitus, hypertension, symptoms that suggest of alcoholic cirrhosis, a clinical diagnosis of endocrine disorders, other systemic illnesses, history of genito-urinary surgery and neurological or spinal cord lesions

- b. Co-morbid psychiatric disorders: schizophrenia, delusional disorder, anxiety disorders, and mood disorders including dysthymia. Patients who had symptoms of depression or anxiety not fulfilling a clinical diagnosis were included in the study
- c. Substance use and use of medication affecting sexual function (antipsychotics, antidepressants, antihypertensive, etc.)
- d. Pregnant women
- e. Menopausal women
- f. If one of the partners refused or was not interested to participate or if they felt any psychological burden or stress.
- g. Not able to read and understand Arabic

All participants were Muslim of religion. Women ranged in age from 18 to 48 years (Mean = 30.78, $SD=7.23$) and men ranged in age from 21 to 63 years (Mean = 35.94, $SD=8.62$). The average age difference between couples was 5.36 years ($SD=2.98$), most of the participants had bachelor's degrees or higher (49% in men and 59% in women). The average length of marriage was 8.4 years ($SD=6.63$; ranging from 2 months to 28 years). Sixty-seven percent of the participants in the sample were working (93% of men were employed and 42% of women were employed). Seventy-nine percent of the couples reported this was their first marriage. For most of the participants, the marriage included only one wife (86%), and the number of children ranged from 0 to 7.

Procedure

All participants were informed that participation was strictly voluntary with no adverse effects whatsoever. Refusing to participate would have no negative effects on treatment; neither would it deny them the possibility of any further treatment. Participants were also informed that the information they provided would be completely anonymous as no names or other identifiers would be collected on the surveys.

Women and men who were eligible and consented to participate in the study were interviewed alone in a comfortable, private environment in the center. They were given two different envelopes that included study questionnaires, one for them and one for the partner. They were also informed that they had the right not to answer a question and could withdraw at any stage without given reasons. Couples were asked to answer questionnaires separately and to refrain from consulting each other's answers. Several parts of the questionnaires were completed in private and then handed to the researcher. Other parts were administered as an interview to guarantee sufficient understanding of the items. They were informed that they had the right to ask to stop the recording at any time during the interview. All the information given was treated as confidential with the data available only to the research team. The participants did not gain any financial benefit from this study. The research findings did not disclose any personal information of the participants that have taken part in the study; coded numbers or letters were used, and no actual names were revealed. All the transcripts and data were stored securely in a locked cabinet.

Linguistic validation

In our validation study, we followed the procedures outlined by MAPI guidelines (Acquadro, Conway, Giroudet, & Mear, 2012; Acquadro, Jambon, Ellis, & Marquis, 1996) which consists of three steps: translation, back-translation and pre-testing. Following this method, we relied on three translators (two for translation and one for the back-translation). All relevant questionnaires were translated into the Arabic language using a back-translated procedure. During the translation process, simple formal Arabic was used to make the questionnaires clear and

understandable. The author modified wordings that were not clear and confusing. The Arabic translation of all questionnaires was judged by 10 couples for clarity and conformity with the local culture. As far as we know, the questionnaires we used have not been applied yet into a Saudi environment, although few of them have already been applied to other Arabian environments (Al Tamimi, 2009; Anis, Gheit, Saied, & Al kherbash, 2011; Shamloul, Ghanem, & Abou-Zeid, 2004). We did not rely on existing validated Arabian questionnaires because some items would have been either inappropriate or inapplicable within the Saudi culture and several items required more thorough explanation of the underlying meaning to facilitate comprehension by the participants.

Reliability

Internal consistency was assessed through Cronbach's alpha values for total score and for each subscale. In this study, Cronbach's coefficient α was used to calculate the internal consistency coefficients of the items included in the questionnaires through a pilot study with 10 couples (20 men and women). Results of the reliability analysis showed that the Arabic version presented good psychometric properties, with good internal consistency (Cronbach's alpha values between .75 and .94). Unfortunately, we did not include any other reliability and validity testing (e.g., content, discriminant, and construct validity).

Materials

Demographic variables were collected via standardized questions asking about age, parity, employment status, educational level, duration of the marriage, and the age difference between partners, number of wives to his partner, number of marriages, consanguinity, and history of traumatic events such as sexual harassment. Then, we presented both men and women with a series of standardized questionnaires to measure sexual function, sexual desire, sexual satisfaction, relationship satisfaction, and attachment orientation. Other measures were taken as well, but these are beyond the scope of the present article.

To measure the sexual functioning of women, we administered the Female Sexual Function Index (FSFI) (Rosen et al., 2000). The FSFI includes 19 items that tap into women's reports of sexual experience over the last four weeks; the 19 questions covered six domains: desire, arousal, lubrication, orgasm, satisfaction, and pain. Responses to each question are scored either from 0 (no sexual activity) or 1 (suggestive of dysfunction) to 5 (suggestive of normal sexual activity). Individual domain scores were obtained by summing the scores of the individual questions that comprise the domain and multiplying the sum by the domain factor provided in the FSFI for each domain. The full-scale score was obtained by summing the six domain scores. Clinical cut off scores were set on <26 as validated in a Western population. Lower scores indicate a greater magnitude or severity of problems. Because no Saudi Arabian norms are available, we tentatively relied on the Western norms to interpret the data. Note that no distinctive groups were formed based on the cutoff scores. Hence, the cutoff score only serves to interpret the mean scores. In the current sample, the internal consistency of the total score of the FSFI revealed high reliability, $\alpha = .94$.

To measure the sexual functioning of men, we administered the International Index of Erectile Function (IIEF-15) (Rosen et al., 1997), which consists of 15 questions grouped into five domains that assess erectile function, intercourse satisfaction, orgasmic function, sexual desire, and overall satisfaction. The responses were rated on a 6-points scale or a 5-points scale. Items were summed to create a total score with higher scores indicating better function. The IIEF has been found to demonstrate high reliability and validity. The internal consistency in the current sample was high, $\alpha = .92$.

Sexual satisfaction was measured using the Index of Sexual Satisfaction (ISS) (Hudson, 1998). This scale measures the degree, severity or magnitude of a problem in the sexual component

of a couple's relationship. The ISS contains 25 items that are scored on a 7-points Likert scale going from *none of the time* to *all of the time*. Total scores were obtained by adding all domain scores. Higher scores indicate a greater magnitude or severity of problems. The internal consistency of the (ISS) in the current sample was good, $\alpha = .76$ for both women and men.

General Relationship satisfaction was measured using the Revised Dyadic Adjustment Scale (RDAS) (Crane, Middleton, & Bean, 2000). This is a self-report questionnaire that assesses seven dimensions of couple relationships within three overarching categories including Consensus in decision making, Values and affection, Satisfaction in the relationship with respect to stability and conflict regulation, and Cohesion as seen through activities and discussion. The RDAS includes 14 items that are rated on a 5- or 6-points Likert scale. Items were summed to create a total score with higher scores indicating greater relationship satisfaction and lower scores indicating lower relationship satisfaction. In the current sample, the internal consistency of the RDAS total score was good, $\alpha = .76$ for women; $\alpha = .75$ for men.

To assess sexual desire, we administered the Sexual Desire Inventory (SDI) (Spector, Carey, & Steinberg, 1996). The SDI is a brief 14-item scale that measures the multidimensional construct of sexual desire in a dyadic context and contains two subscales: dyadic sexual desire and solitary sexual desire. Because we are interested in sexual desire discrepancies, we used only the dyadic subscale (8 items). A sexual desire discrepancy score was calculated for each couple by subtracting the sexual desire scores of the women from the sexual desire score of the men, indicating an average discrepancy score of 5.23 (range from -26 to 47 , $SD = 10.95$). Hence, more positive values reflect men reporting higher desire relative to their female partner, while more negative scores reflect women reporting higher desire relative to their male partner. The internal consistency of the total score of the SDI in the current sample was high, $\alpha = .88$ for both women and men.

To measure attachment orientation, we used the Experiences in Close Relationships Scale-Revised (ECR-R) version (Fraley, Waller, & Brennan, 2000). This questionnaire includes 36 items that are scored on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The ECR-R provides a score on the 2 dimensions of Anxiety and Avoidance, with each subscale containing 18 items. A score is obtained by averaging the responses to the items per scale. Higher scores indicate higher levels of attachment anxiety or avoidance. In the current sample, the internal consistency of the ECR-R Anxiety was high, $\alpha = .89$ for women and $\alpha = .87$ for men. Also, the ECR-R Avoidance showed high reliability, $\alpha = .88$ for women and $\alpha = .89$ for men.

Data analyses

To test our key predictions about the associations between the level and direction of sexual desire discrepancy and both partners' sexual function, sexual satisfaction and relationship satisfaction, we conducted multilevel polynomial regression with RSA (Edwards & Parry, 1993) following the guidelines of Shanock, Baran, Gentry, Pattison, and Heggestad (2010).

We first centered the men's and women's reports on sexual desire around the mean score on the dyadic sexual desire scale ($M = 35.350$, $SD = 10.453$ for men and $M = 30.120$, $SD = 9.675$ for women). Next, we created squared versions of these variables and a product term (own report $\times$ partner's report) and entered all five variables as predictors. We then evaluated the results with regard to four surface test values ($a1$, $a2$, $a3$, and $a4$). To test the significance of the surface values, we entered the five coefficients obtained from the regression analysis and their respective standard errors into an excel spreadsheet from Shanock et al. (2010). This analysis provides a test of how the degree of agreement between a person's own level of desire and his or her partner's level of desire ($a1$; *line of congruence*) was associated with the outcome variables (i.e., sexual function, sexual satisfaction, and relationship satisfaction). Hence, $a1$ can reveal whether matching at higher levels is associated with better outcomes relative to matching at lower levels. In other words, when partners have high agreement, is it better to agree on higher versus lower

sexual desire? The surface value $a2$ tests the curvature of the line of congruence, examining whether $a1$ is best described by a nonlinear relationship (between the average level of the predictor variables and the outcome variables). In addition, the regression with RSA tests the slope ($a3$) and curvature ($a4$) of the line of incongruence. In other words, it shows the degree of disagreement between a person's own level of desire and their partner's level of desire ($a4$) and how the direction of disagreement ($a3$) is associated with each partner's sexual function, sexual satisfaction, and relationship satisfaction. If $a3$ is significant and positive, it indicates better outcomes when the own level of desire is higher than the partner's sexual desire, while a negative value indicates better outcomes when the partner's sexual desire is higher than the own desire. In addition, the $a4$ value indicates whether matches are better or worse than mismatches. We ran separate analyses for all outcome variables (in men and women).

In the following step, we explored the moderating role of attachment scores. We first centered the attachment scores around their mean (in *men*, $M=3.375$, $SD=.656$ for attachment anxiety and $M=4.041$, $SD=.582$ for attachment avoidance. In *women*, $M=3.763$, $SD=.913$ for attachment anxiety and $M=3.915$, $SD=.584$ for attachment avoidance) and then entered the attachment scores as well as the interaction terms between the attachment scores and the sexual desire predictor variables (own sexual desire, partner sexual desire, squared own desire, squared partner desire, own desire X partner desire) into the regression model. To reduce the amount of predictor variables and keep with a parsimonious model, we ran separate models including the male attachment scores and the female attachment scores, and we ran separate models on all outcome variables.

We first tested whether adding the attachment variables increased the predictive value of the model by evaluating the significance of the R square change and F change. In case a significant F change was found, we considered the moderating effect of the attachment scores on the association between sexual desire discrepancy and the outcome variables. Moderation is indicated by a significant interaction effect between the attachment scores and the sexual desire predictor variables (own sexual desire, partner sexual desire, squared own desire, squared partner desire, own desire X partner desire). Significant interaction terms were analyzed using simple slope analysis at values $-1 SD$ and $+1 SD$ of the moderator variable. Once indicated whether the associations varied at low or high values of the moderator variable, the corresponding coefficients obtained from the regression analysis (at low or high values of the moderator variable) and their respective standard errors were entered into the excel spreadsheet from Shanock, and the four surface test values were evaluated at low or high values of the moderator variable. All other analyses were performed with software IBM SPSS version 25.0 for Windows (IBM Corp. In Armonk, NY).

Results

Descriptives and correlations

Of the 100 couples in our sample, six couples reported levels of desire that were in perfect agreement. In 22 couples, women reported higher levels of desire than men ($M=-9.00$, $SD=7.14$) and in 72 couples, men reported higher desire than women ($M=10.27$, $SD=7.96$). Table 1 shows the correlations between the SDD score and the outcome variables of interest. The analyses showed that both male and female sexual desire were significantly and positively correlated with male and female sexual function, sexual satisfaction, and relationship satisfaction. Male sexual desire was also significantly and negatively related to male and female attachment avoidance and positively related to male attachment anxiety. Female desire followed the same pattern of correlations, showing a significant negative association with male and female attachment avoidance and a significant positive association with female attachment anxiety. The sexual desire discrepancy score showed a significant and negative correlation only with female attachment anxiety.

Table 1. Correlation between the main variables of interest.

	Men						Women					
	1	2	3	4	5	6	7	8	9	10	11	12
1. Dyadic sexual desire	–											
2. Sexual function	.577**											
3. Sexual satisfaction	.410**	.641**										
4. Relationship satisfaction	.299**	.369**	.528**									
5. Attachment anxiety	.336**	.246*	.129	.284**								
6. Attachment avoidance	–.325**	–.370**	–.395**	–.517**	–.381**							
7. Dyadic sexual desire	.410**	.452**	.283**	.297**	.196	–.460**						
8. Sexual function	.418**	.692**	.543**	.358**	.148	–.440**	.587**					
9. Sexual satisfaction	.285**	.487**	.526**	.310**	.080	–.410**	.384**	.701**				
10. Relationship satisfaction	.228*	.193	.202*	.405**	.307**	–.388**	.341**	.381**	.338**			
11. Attachment anxiety	.153	.291**	.211*	.331**	.291**	–.473**	.532**	.518**	.515**	.366**		
12. Attachment avoidance	–.200*	–.328**	–.342**	–.395**	–.321**	.617**	–.290**	–.442**	–.506**	–.502**	–.535**	---
SDD	.592**	.151	.141	.023	.147	.096	–.492**	–.120	–.067	–.084	–.324**	.066

Note: * $p < .05$, ** $p < .01$.
SDD: sexual desire discrepancy.

Associations between sexual desire discrepancy and sexual function, sexual satisfaction, and relationship satisfaction

Table 2 presents the results of the polynomial regression and the surface tests, but the surface values ($a1$, $a2$, $a3$, $a4$) are the key test of our predictions. As shown by the positive and significant $a1$ values, both male and female partners reported better sexual function, more sexual satisfaction, and more relationship satisfaction when being in agreement on higher levels of desire compared to being in agreement on lower desire. The nonsignificant $a2$ values suggest that these associations were linear and not best represented by a nonlinear association. Hence, when desire increased together for both partners, sexual function and sexual and relational satisfaction also increased.

In addition, our analyses showed a significant and negative $a3$ value for female sexual function and female sexual satisfaction, indicating that women reported better sexual function and more sexual satisfaction when the sexual desire of their male partner was higher than their own desire compared to when their own desire was higher. None of the other outcome variables showed a significant $a3$ value. Note that we also found a significant and negative $a4$ value for female sexual function, but not female sexual satisfaction, indicating that women reported worse sexual function when the degree of desire discrepancy was larger.

The finding that $a3$ (direction of discrepancy) significantly predicted female sexual satisfaction, but $a4$ (degree of discrepancy) did not, suggests that overall matching was not better for sexual satisfaction than mismatching on desire, but when couples were mismatched on desire, they were more sexually satisfied when the male partner reported higher desire than the female partner.

Moderating role of attachment anxiety and avoidance

Male attachment anxiety and avoidance

When entering male attachment anxiety and avoidance scores (including the interaction terms with all predictor variables) into the model on male sexual function, a significant regression equation was found, $F(15, 84) = 6.507$, $p = .000$, with an R^2 of .105 ($F(15, 84) = 2.017$, $p = .042$), indicating that adding the attachment variables increased the predictive value of the model. Furthermore, adding male attachment anxiety and avoidance scores changed the predictive value of the model on female sexual function, $F(15, 84) = 8.883$, $p = .000$, with an R^2 of .111, $F(15, 84) = 2.592$, $p = .009$. Adding the male attachment anxiety and avoidance scores to the models on male and female sexual satisfaction and relationship satisfaction did not yield any significant F -change, $F < 1.536$ and $R^2 < .109$.

When exploring the moderating role of male attachment scores on the association between SDD and male sexual function, our analyses showed that only male attachment avoidance interacted with the predictor variables ($-.359 < \beta < .216$). The simple slope analysis revealed that the predictor variables were significant only at low levels of attachment avoidance, $p < .000$. Accordingly, the polynomial regression indices were calculated at low values of attachment avoidance. We found a significant and positive $a1$ value = 1.28, $p = .001$, indicating that less avoidantly attached men reported better sexual function when partners are in agreement on higher levels of desire compared to when they are in agreement in lower desire. We also found a significant and positive $a3$ value = .94, $p = .042$, indicating that less avoidantly attached men reported better sexual function when their own sexual desire was higher than the sexual desire of their female partner compared to when their partner's desire was higher than their own. All other indices were $< .05$ at $p > .10$.

When exploring the moderating role of male attachment scores on the association between SDD and female sexual function, our analyses showed that both male attachment avoidance ($-.243 < \beta < .197$) and male attachment anxiety ($-.364 < \beta < .277$) interacted with the predictor variables. The simple slope analysis with attachment avoidance revealed that the predictor variables were significant only at low levels of male attachment avoidance, $p < .05$. We found a significant and positive $a1$ value = .36, $p = .002$, indicating that women reported better sexual

Table 2. Association between sexual desire discrepancy and sexual function, sexual satisfaction, and relationship satisfaction using Polynomial Regression with Response Surface Analyses.

	Polynomial regression coefficients						Surface values			
	b_0	b_1O	b_2P	b_3O^2	$b_4O \times P$	b_5P^2	$a1$	$a2$	$a3$	$a4$
Male sexual function	45.874	.564 (.132)	.562 (.153)	-.024 (.009)	.023 (.011)	.023 (.012)	1.13**	.02	.00	-.02
Female sexual function	20.87	.082 (.055)	.332 (.064)	-.015 (.004)	.014 (.005)	-.002 (.005)	.41**	.00	-.25*	-.03**
Male sexual satisfaction	107.795	.515 (.209)	.614 (.241)	-.018 (.014)	.004 (.017)	.050 (.019)	1.13**	.04	-.10	.03
Female sexual satisfaction	111.385	.274 (.207)	.582 (.239)	-.031 (.014)	.059 (.017)	-.018 (.019)	.86**	.01	-.31	-.11**
Male relation satisfaction	32.684	.172 (.117)	.368 (.134)	-.005 (.008)	.008 (.01)	.02 (.011)	.54**	.02	-.20	.01
Female relation satisfaction	33.733	.084 (.116)	.369 (.133)	-.004 (.008)	.005 (.01)	.007 (.011)	.45**	.01	-.29	.00

Note. We include the coefficients from the multilevel polynomial regression because these values are used to calculate the surface values; it is the surface values that provide the key tests of our predictions.

O: own sexual desire; P: partner's sexual desire.

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

function when partners are in agreement on higher levels of desire compared to when they are in agreement on lower desire, particularly when their male partner scored lower on attachment avoidance. All other indices were $<.02$ at $p > .10$.

The simple slope analysis with male attachment anxiety, revealed that the predictor variables were significant only at high levels of male attachment anxiety, $p < .01$. We found a significant and positive $a1$ value = .40, $p = .001$, indicating that women reported better sexual function when partners are in agreement on higher levels of desire, particularly when their male partner scored higher on attachment anxiety. The significant and negative $a2$ value = $-.21$, $p = .000$, indicated that this association is nonlinear, which means that couples (in which the male partner is more anxiously attached) with moderate levels of desire are more satisfied relative to couples at extreme levels of desire. In addition, we found a negative and significant $a3$ value = $-.50$, $p = .002$, indicating that women with a more anxiously attached partner reported better sexual function when their partner's level of desire was higher than their own desire compared to when their own desire was higher than that of their partner. The positive and significant $a4$ value = .21, $p = .000$, indicated that women with a more anxiously attached partner reported better sexual function when they experience a larger difference between their own and their partner's desire.

Female attachment anxiety and avoidance

When entering female attachment anxiety and avoidance scores into the model on female sexual satisfaction (including the interaction terms with all predictor variables), a significant regression equation was found, $F(15, 84) = 6.165$, $p = .000$, with an R^2 of .12 ($F(15, 84) = 2.238$, $p = .023$), indicating that adding the attachment variables increased the predictive value of the model. In addition, adding female attachment anxiety and avoidance scores also changed the predictive value of the model on female relationship satisfaction, $F(15, 84) = 3.829$, $p = .000$, with an R^2 of .142 ($F(15, 84) = 2.095$, $p = .034$). Adding the female attachment anxiety and avoidance scores did not yield any significant F -change, $F < 1.584$ and $R^2 < .120$ regarding the models on male sexual function, sexual satisfaction, and relationship satisfaction and the model on female sexual function, $F = .996$ and $R^2 = .046$.

When exploring the moderating role of female attachment scores on the association between SDD and female sexual satisfaction, our analyses showed that only female attachment anxiety interacted with the predictor variables ($\beta > -.369$). The simple slope analysis revealed that the predictor variables were significant only at low levels of female attachment anxiety, $p < .01$. We found a significant and positive $a1$ value = 1.15, $p = .014$, indicating that women who scored lower on attachment anxiety reported more sexual satisfaction when partners are in agreement on higher levels of desire compared to when they are in agreement in lower desire. All other indices were $<-.50$ at $p > .10$.

When exploring the moderating role of female attachment scores on the association between SDD and female relational satisfaction, our analyses showed that only female attachment avoidance interacted with the predictor variables ($\beta > .492$). The simple slope analysis revealed that the predictor variables were significant only at high levels of female attachment avoidance, $p < .01$. We found a significant and positive $a4$ value = .11, $p = .005$, indicating that women with higher scores on attachment avoidance reported more relationship satisfaction the more partners were mismatched in sexual desire. The finding that the $a3$ value was not significant, $p = .235$. Suggests that the level of disagreement is more important than the direction of the disagreement. All other indices were $<.20$ at $p > .10$.

Discussion

Drawing on the idea that sexual desire involves a dynamic interplay between individual, relational, and societal factors (Mark & Lasslo, 2018; Velten & Margraf, 2017), the present study aimed at investigating the association between sexual desire discrepancies and sexual and

relational outcomes as manifested in a sexually restricted culture (as in Saudi Arabia) and taking into account the attachment orientation of both partners. We included both the degree and direction of SDD to better understand the meaning and function of sexual desire in the context of a relationship. In general, our results showed that higher levels of sexual desire were associated with better sexual function and more sexual and relational satisfaction in both male and female partners. In addition, attachment avoidance was associated with lower sexual desire, whereas attachment anxiety was associated with higher desire. When focusing on sexual desire discrepancies, we found that, overall, men and women reported better sexual function, more sexual satisfaction, and more relational satisfaction when they matched on higher levels compared to lower levels of sexual desire. In case there was a mismatch between partners, women reported higher sexual satisfaction when their partner's level of sexual desire was higher than their own desire. As expected, attachment orientation was found to moderate the associations between the degree and direction of SDD and the outcome variables. Male attachment avoidance moderated the association between SDD and both male and female sexual function. Male attachment anxiety, conversely, moderated only the association with female sexual function, indicating that women with high anxious partners reported better sexual function when their partner's level of desire was higher than their own desire. In addition, the female attachment dimensions moderated the association between SDD and female satisfaction outcomes, with attachment anxiety moderating the association with sexual satisfaction and attachment avoidance moderating the association with relational satisfaction.

Sexual desire discrepancies and sexual and relational outcomes

The finding that both partners reported better sexual functioning and felt more satisfied with their sexual and overall relationship when matching on higher levels of sexual desire confirms the idea that sexual desire is a couple issue rather than an individual one (Dewitte, 2012; Mark & Murray, 2012; Tiefer, 2001; Velten & Margraf, 2017). Research so far has revealed mixed findings regarding the association between SDD and relationship adjustment (Davies et al., 1999; Mark & Murray, 2012), with studies indicating that SDD predicts only sexual satisfaction (Mark, 2012, 2014; Rosen et al., 2018), only relationship satisfaction, or both (Davies et al., 1999; Mark, 2015; Mark & Murray, 2012; Willoughby & Vitas, 2012), and that these patterns of associations differ between men and women. Our results revealed that agreement in desire levels matters to both male and female partners and pervades into all aspects of the relationship.

Interestingly, this is one of the first studies demonstrating that SDD also predicts individual levels of sexual function. It is plausible that sexual agreement improves the sexual experience because partners are less distracted by sexual concerns about the other partner not wanting or enjoying sex, which enables them to relax and let go, thereby increasing the level of sexual arousal, improving the capacity to orgasm, and reducing the risk of pain. It is yet important to emphasize that our correlational design does not allow any causal conclusions about the direction of the association between SDD and sexual outcomes. That is, SDD might cause or result from sexual dysfunction and dissatisfaction (Bridges & Horne, 2007; Girard, 2019; Hebernack, Mullinax, & Mark, 2014; Tiefer, 2012). It may, thus, just as well be that SDD generates less problems when partners are generally more satisfied rather than vice versa (Clement, 2002; Willoughby & Vitas, 2012). The positive relational implications of experiencing similar levels of desire between partners might reflect an overall pattern of synchrony and compatibility that reduces the incidence of relationship conflict (Mark, Milhausen, & Maitland, 2013; Velten & Margraf, 2017; Willoughby & Vitas, 2012). Disagreement in sexual desire levels, conversely, entails the risk of getting trapped into a power struggle over intercourse frequency, with the one partner insisting on sex and the other partner refusing sex, thereby lowering the motivation to accept sexual invitations or initiate sexual interactions because both partners are upset and dissatisfied (Dewitte et al., 2020; Mark & Lasslo, 2018; Willoughby & Vitas, 2012). Sexual compatibility may, however, not always be realistic or desirable to strive to. When taking into account individual variability in sexual desire

responding, it seems unlikely that two individuals will desire the same, at the same moment, and in the same way (Dewitte et al., 2020; Klusmann, 2002; Mark & Murray, 2012).

To ensure an accurate understanding of SDD in the context of a relationship, it is important to further nuance our findings on sexual agreement. For the majority of outcome variables, only the *a1* value (indicator of agreement) was significant but not the *a4* value (indicator of disagreement), implying that we found no evidence suggesting that matching in sexual desire between partners was associated with significantly higher or lower levels of sexual function and satisfaction compared to mismatching. Only the surface analysis on female sexual function did show that matches in sexual desire were *significantly* better than mismatches. It is plausible that sexual agreement reflects a sexual dynamic in which women feel more open and safe to express their sexual preferences in terms of *how much* and *which* sexual activity they desire (Santtila et al., 2007). Sexual assertiveness and open communication about sexual likes and dislikes have been found to be key determinants of sexual function (Attaky, Kok, & Dewitte, 2020). It could also be that women with better sexual function, who generally show higher levels of sexual desire than women with a sexual dysfunction, match better with their partner in terms of sexual desire.

Further elaborating on our results, we found that not only the level of SDD has implications for the (sexual) relationship but also the direction of the desire discrepancy, particularly when it comes to feeling sexually satisfied in women. Although agreement in sexual desire between partners did not yield a better outcome than disagreement, we did find that, in case there was a mismatch between partners, women were sexually more satisfied when their partner's level of sexual desire was higher than their own. This fits with previous findings showing that couples report less satisfaction when men are the low desire partner (Davies et al., 1999; Impett & Peplau, 2003; Mark, 2012). Sexual norms and gender role expectations prescribing men to take sexual initiative and women to remain passive may cause women to feel less concerned when the pattern of dyadic desire meets stereotypes and culturally driven expectations (Attaky et al., 2020; Baumeister et al., 2001). This might be particularly true for Saudi Arabian women who are taught to submit to their husband's wishes and to inhibit their own needs and (sexual) expressions. The fact that women feel more comfortable when their partner has higher desire than themselves might also indicate that women attach less importance to their level of desire and rather focus on which emotional needs (e.g., feelings of closeness and commitment) are linked to desire (Birnbaum et al., 2013; Mark, 2014; Sprecher, 2002). Furthermore, women tend to take a leading responsibility for maintaining the relationship and are, thus, more prone to prioritize relationship needs over personal, and thus, also sexual, needs (Kiecolt-Glaser & Newton, 2001). As a result, women tend to self-sacrifice when they lack sexual desire, which probably means that the relationship will suffer less from SDD when the woman is the lower desire partner compared to vice versa (Mark, Vowels, & Leistner, 2020).

The moderating role of attachment orientation

Our result also confirmed the moderating role of attachment orientation in shaping the association between SDD and sexual and relational responding. The pattern of findings did, however, not fit with all our predictions. In general, attachment anxiety was associated with higher levels of sexual desire, which confirms previous findings that anxiously attached individuals are highly invested in the sexual aspects of the relationship and tend to express their need for closeness via sex (Attaky et al., 2020; Birnbaum et al., 2013; Dewitte, 2012). Note that we measured only level of sexual desire and not the underlying meaning and motives of desire. That is, high desire that is driven by underlying fear and vulnerabilities might be experienced as less satisfying and more distressing than high desire driven by positive outcomes such as sexual pleasure (Birnbaum et al., 2013; Dewitte, 2012; Muise et al., 2013). Attachment avoidance, conversely, was associated with less sexual desire, which reflects their tendency to inhibit their sexual desire as a means to avoid (sexual) closeness (Peloquin et al., 2014).

One of our most interesting findings was that women with a highly anxious male partner reported better sexual function when their sexual desire level was lower than that of their partner. Given that more anxiously attached individuals are hypervigilant for signs of waning sexual desire and measure the love of their partner by their level of sexual interest, we expected that having an anxious partner would induce more pressure to perform and hence to express more sexual interest than their partner (Dewitte, 2012; Mikulincer et al., 2010). Conversely, it is also plausible that sexual acts run more smoothly when the anxiously attached partner of the couple takes sexual initiative as a means to express his love and need for closeness (Impett, Gordon, & Strachman, 2008). We should also take into account the Saudi Arabian context in which men are more dominant, and thus, more concerned about their women not complying to their sexual needs, which could explain the need for men to be the higher desire partner. It is yet remarkable that the moderation by attachment anxiety was found only for sexual function, and not for the more subjective components of the relationship (i.e., satisfaction).

The association between SDD and sexual function was also moderated by male attachment avoidance, showing that women with low avoidant partners reported better sexual function when partners agreed on higher levels of desire compared to lower levels of desire. In case of male sexual function, we found that less avoidantly attached men did report better sexual function when their desire was higher than that of their partner. When considering low avoidance as an indicator of comfort with closeness, we may assume that less avoidantly attached partners can freely express their sexual desire, without any concerns or ruminating about being rejected, and that such expressions of similar or higher levels of desire coincide with good sexual health.

We also found that the female attachment dimensions played a role in shaping the sexual and relational implications of SDD. Whereas the male attachment dimensions moderated only functional outcomes, in both men and women, female attachment was associated with the more subjective components of sexual and relational responding, and only in women. In support of the idea that more anxiously attached individuals strive toward extreme levels of closeness (Birnbaum et al., 2013; Dewitte, 2012; Impett et al., 2008), our results indicated that more anxiously attached women felt sexually more satisfied when both partners agreed on higher levels of sexual desire. Because more anxiously attached individuals tend to interpret mutual high desire as a signal of ongoing love and commitment (Birnbaum & Reis, 2012; Schachner & Shaver, 2004), it is plausible that higher agreement is beneficial to their sexual satisfaction. It was rather unexpected that the moderating role of attachment anxiety did not transfer to their overall relationship evaluation. Moreover, female attachment avoidance moderated the association between SDD and relationship satisfaction, indicating that women with high levels of attachment avoidance felt more satisfied with their relationship when mismatching with their partner's level of sexual desire. It is difficult to interpret this finding, because the a_3 value, which indicates the direction of the effect, was not significant. One possible explanation could be that avoidantly attached individuals' satisfaction is driven by the mere experience of disagreement, with reflects their wish for interpersonal distance and emotional detachment (Birnbaum et al., 2013; Dewitte, 2012; Mikulincer & Shaver, 2018). When compiling the pattern of findings on attachment in both men and women, there was one remarkable finding that is difficult to interpret. Female attachment anxiety seemed to predict agreement whereas male attachment anxiety predicted disagreement in sexual desire levels. Based on attachment theory, no gender differences were expected regarding the impact of attachment on the association between SDD and sexual and relational outcomes.

Limitations

Despite the unique design of this study in which we measured sexual desire in both partners of Saudi Arabian couples who are usually reluctant to report on their sexual relationship, there are a few limitations that need to be considered when interpreting the results. The study is cross-sectional, which implies that we cannot draw any causal conclusions on the impact of SDD on sexual and

relational outcomes. Another limitation concerns the distribution of our sample which consisted of mainly Arab, heterosexual, Muslim participants. Ceiling effects may limit response variance in samples of couples who are in a committed relationship. It will be important to replicate this study with couples from a diverse range of backgrounds, ages, ethnicities, and religions. Another limitation was the potential selection bias. Individuals with more conventional sexual ideas may have felt uncomfortable with sexual and relational issue and were, thus, unlikely to participate (Attaky et al., 2020). Another limitation of the current study was the use of a single questionnaire to measure SDD. It is possible that both partners of a couple display a different pattern of responding to the SDI because they use a different frame of reference. That is, men and women may assign different meanings to sexual desire and thus use different markers to evaluate their sexual desire (Sutherland et al., 2015). However, in light of the strong evidence supporting the validity of the SDI (Spector et al., 1996), we can be fairly confident that men and women's self-reported sexual desire levels did approximate their true experiences of sexual desire. In this context, it would be relevant to examine both actual and perceived desire discrepancy scores. Finally, we might consider the use daily diary measures to explore the underlying mechanisms of SDD and its impact on (fluctuations in) sexual and relational outcomes.

Conclusion

This is one of the first studies to examine the role of sexual desire from a dyadic perspective and in a specific cultural context, taking into account partners' history of attachment experiences. In general, we found that the individual and relational functioning of couples benefit from experiencing a sense of agreement on higher sexual desire levels. However, we also found that, in case of SDD, women feel better when their partner has higher desire, with fits with culturally embedded stereotypes that have been imprinted from childhood onwards. This indicates the importance of considering not only the level but also the direction of SDD when trying to understand the relational and sexual implications of sexual disagreement. The finding that partners experience the sexual and relational impact of SDD differently depending on their attachment orientation indicates the importance of considering one's attachment history when assessing and treating SDD. More research is needed to understand the underlying mechanisms of SDD in a relationship, in terms of motives, power issues, attachment meaning, and underlying relational and/or sexual problems, in order to develop more valid theoretical and therapeutical models on sexual (dis)agreement. In addition, we need to go beyond measuring only differences in the *level* of sexual desire of both partners, but also differences in *what* partners desire, *perceived* sexual desire discrepancies, the (attachment) *needs* that are fulfilled by sexual desire, and how to preserve sexual desire across time and context. Future research should therefore explore facilitators as well as barriers to sexual desire in order to facilitate greater alignment in couples' higher sexual desire. Furthermore, we need better insight into the characteristics of couples who are not sexually and relationally affected by SDD to ultimately understand why some couples handle differences in sexual desire better than others.

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References

- Acquadro, C., Conway, K., Giroudet, C., & Mear, I. (2012). *Linguistic validation manual for health outcomes assessments*. Lyon, France: Mapi Institute.
- Acquadro, C., Jambon, B., Ellis, D., & Marquis, P. (1996). *Language and translation issues quality of life and pharmaco-economics in clinical trials*. Philadelphia: Lippincott-Raven.
- Acevedo, B. P., & Aron, A. (2009). Does a long-term relationship kill romantic love? *Review of General Psychology*, 13(1), 59–65. doi: [doi:10.1037/a0014226](https://doi.org/10.1037/a0014226)
- Al Tamimi, N. (2009). *Predictors of marital satisfaction in arranged marriages in Saudi Arabia* (Unpublished PhD thesis). The University of York, York, UK.
- Anis, T. H., Gheith, S. A., Saied, H. S., & Al kherbash, S. A. (2011). Arabic translation of Female Sexual Function Index and validation in an Egyptian population. *The Journal of Sexual Medicine*, 8(12), 3370–3378. doi: [doi:10.1111/j.1743-6109.2011.02471.x](https://doi.org/10.1111/j.1743-6109.2011.02471.x)
- Attacky, A., Kok, G., & Dewitte, M. (2020). Attachment insecurity and sexual and relational experiences in Saudi Arabian women: the role of perceived partner responsiveness and sexual assertiveness. *Journal of Sexual Medicine*, 17(7), 1383–1394. doi: [doi:10.1016/j.jsxm.2020.02.029](https://doi.org/10.1016/j.jsxm.2020.02.029)
- Attacky, A., Schepers, J., Kok, G., & Dewitte, M. (2021). The role of sexual desire, sexual satisfaction, and relationship satisfaction in the sexual function of Arab couples living in Saudi Arabia. *Sexual Medicine*, 9(2), 100–303. doi: [doi:10.1016/j.esxm.2020.100303](https://doi.org/10.1016/j.esxm.2020.100303)
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review*, 5(3), 242–273. doi: [doi:10.1207/S15327957PSPR0503_5](https://doi.org/10.1207/S15327957PSPR0503_5)
- Brassard, A., Peloquin, K., Dupuy, E., Wright, J., & Shaver, P. R. (2012). Romantic attachment insecurity predicts sexual dissatisfaction in couples seeking marital therapy. *Journal of Sex & Marital Therapy*, 38(3), 245–262. doi: [doi:10.1080/0092623X.2011.606881](https://doi.org/10.1080/0092623X.2011.606881)
- Belsky, J. (1997). Attachment, mating, and parenting: An evolutionary interpretation. *Human Nature*, 8(4), 361–381. doi: [doi:10.1007/BF02913039](https://doi.org/10.1007/BF02913039)
- Birnbaum, G. E. (2010). Bound to interact: The divergent goals and complex interplay of attachment and sex within romantic relationships. *Journal of Social and Personal Relationships*, 27(2), 245–252. doi: [doi:10.1177/0265407509360902](https://doi.org/10.1177/0265407509360902)
- Birnbaum, G. E., Cohen, O., & Wertheimer, V. (2007). Is it all about intimacy? Age, menopausal status, and women's sexuality. *Personal Relationships*, 14(1), 167–185. doi: [doi:10.1111/j.1475-6811.2006.00147](https://doi.org/10.1111/j.1475-6811.2006.00147)
- Birnbaum, G. E., Mikulincer, M., & Austerlitz, M. (2013). A fiery conflict: Attachment orientations and the effects of relational conflict on sexual motivation. *Personal Relationships*, 20(2), 294–310. doi: [doi:10.1111/j.1475-6811.2012.01413.x](https://doi.org/10.1111/j.1475-6811.2012.01413.x)
- Birnbaum, G. E., & Reis, H. T. (2012). When does responsiveness pique sexual interest? Attachment and sexual desire in initial acquaintanceships. *Personality & Social Psychology Bulletin*, 38(7), 946–958. doi: [doi:10.1177/0146167212441028](https://doi.org/10.1177/0146167212441028)
- Birnbaum, G. E., Reis, H. T., Mikulincer, M., Gillath, O., & Orpaz, A. (2006). When sex is more than just sex: Attachment orientations, sexual experience, and relationship quality. *Journal of Personality and Social Psychology*, 91(5), 929–943. doi: [doi:10.1037/0022-3514.91.5.929](https://doi.org/10.1037/0022-3514.91.5.929)
- Bridges, S. K., & Horne, S. G. (2007). Sexual satisfaction and desire discrepancy in same sex women's relationships. *Journal of Sex and Marital Therapy*, 33(1), 41–53. doi: [doi:10.1080/00926230600998466](https://doi.org/10.1080/00926230600998466)
- Clement, U. (2002). Sex in long-term relationships: A systemic approach to sexual desire problems. *Archives of Sexual Behavior*, 31(3), 241–246. doi: [doi:10.1023/A:1015296718952](https://doi.org/10.1023/A:1015296718952)
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58(4), 644–663. doi: [doi:10.1037/0022-3514.58.4.644](https://doi.org/10.1037/0022-3514.58.4.644)
- Crane, D. R., Middleton, K. C., & Bean, R. A. (2000). Establishing criterion scores for the Kansas Marital Satisfaction Scale and the Revised Dyadic Adjustment Scale. *The American Journal of Family Therapy*, 28(1), 53–60. doi: [doi:10.1080/019261800261815](https://doi.org/10.1080/019261800261815)
- Davies, S., Katz, J., & Jackson, J. L. (1999). Sexual desire discrepancies: Effects on sexual and relationship satisfaction in heterosexual dating couples. *Archives of Sexual Behavior*, 28(6), 553–567. doi: [doi:10.1023/A:1018721417683](https://doi.org/10.1023/A:1018721417683)
- Day, L.C., Muise, A., Joel, S., & Impett, E. (2015). To do it or not to do it? How communally motivated people navigate sexual interdependence dilemmas. *Personality and Social Psychology Bulletin*, 41(6), 791–804. doi: [doi:10.1177/0146167215580129](https://doi.org/10.1177/0146167215580129)
- Dewitte, M. (2012). Different perspectives on the sex-attachment link: Towards an emotion-motivational account. *Journal of Sex Research*, 49(2–3), 105–124. doi: [doi:10.1080/00224499.2011.576351](https://doi.org/10.1080/00224499.2011.576351)
- Dewitte, M., Carvalho, J., Corona, G., Erika, L., Patricia, P., Yacov, R., & Aleksandar, S. (2020). Sexual desire discrepancy. A position statement of the European Society for Sexual Medicine. *Sexual Medicine*, 8(2):121–131. doi: [doi:10.1016/j.esxm.2020.02.008](https://doi.org/10.1016/j.esxm.2020.02.008)
- Dewitte, M., & Mayer, A. (2018). Exploring the link between daily relationship quality, sexual desire, and sexual activity in couples. *Archives of Sexual Behavior*, 47(6), 1675–1686. doi: [doi:10.1007/s10508-018-1175-x](https://doi.org/10.1007/s10508-018-1175-x)

- Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, 36(6), 1577–1613. doi:10.2307/256822
- Ellison, C. R. (2008). A research inquiry into some American Women's Sexual Concerns and Problems. *Women & Therapy*, 24(1–2), 147–159. doi:10.1300/J015v24n01_17
- Ennis, E., Vrij, A., & Chance, C. (2008). Individual differences and lying in everyday life. *Journal of Social and Personal Relationships*, 25(1), 105–118. doi: 10.1177/0265407507086808
- Favez, N., & Tissot, H. (2017). Attachment tendencies and sexual activities: The mediating role of representations of sex. *Journal of Social and Personal Relationships*, 34(5), 732–752. doi: doi:10.1177/0265407516658361
- Feeney, J. A., & Noller, P. (2004). Attachment and sexuality in close relationships. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 183–201). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Feeney, J. A., Peterson, C., Gallois, C., & Terry, D. J. (2000). Attachment style as a predictor of sexual attitudes and behavior in late adolescence. *Psychology & Health*, 14(16), 1105–1122. doi: 10.1080/08870440008407370
- Fraley, R. C., Waller N. G., & Brennan K. A. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of personality and Social Psychology*, 78(2), 350–365. doi:10.1037//0022-3514.78.2.350
- Gentzler, A., & Kerns, K. (2004). Associations between insecure attachment and sexual experiences. *Personal Relationships*, 11(2), 249–265. doi: 10.1111/j.14756811.2004.00081.x
- Girard, A. (2019). Sexual desire discrepancy. *Current Sexual Health Reports*, 11(2), 80–83. doi: doi:10.1007/s11930-019-00196-w
- Hebernick, D., Mullinax, M., & Mark, K. (2014). Sexual desire discrepancy as a feature, not a bug, of long-term relationships: Women's self-reported strategies for modulating sexual desire. *Journal of sexual medicine*, 11(9), 2196–2206. doi:10.1111/jsm.12625
- Hollist, C. S., & Miller, R. B. (2005). Perceptions of attachment style and marital quality in midlife marriage. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 54(1), 46–57. doi: doi:10.1111/j.0197-6664.2005.00005.x
- Hudson, W. W. (1998). Index of sexual satisfaction. In C. M. Davis, W. L. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 512–513) Thousand Oaks, CA: Sage.
- Impett, E., & Peplau, L. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. *Journal of Sex Research*, 40 (1), 87–100. doi: 10.1080/00224490309552169
- Impett, E. A., Gordon, A. M., & Strachman, A. (2008). Attachment and daily sexual goals: A study of dating couples. *Personal Relationships*, 15(3), 375–390. doi: doi:10.1111/j.1475-6811.2008.00204.x
- Kaplan, H. S. (1979). *Disorders of sexual desire*. New York, NY: Brunner/Mazel.
- Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, 127(4), 472–503. doi: 10.1037/0033-2909.127.4.472
- Kim, J. J., Muise, A., Barranti, M., Mark, K. P., Rosen, N. O., Harasymchuk, C., & Impett, E. (2021). Are couples more satisfied when they match in sexual desire? New insights from response surface analyses. *Social Psychological and Personality Science*, 12(4), 487–496. doi: doi:10.1177/1948550620926770
- Klusmann, D. (2002). Sexual motivation and the duration of partnership. *Archives of Sexual Behavior*, 31(3), 275–287. doi: 10.1023/A:1015205020769
- Lawrence, K., & Byers, E. S. (1995). Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. *Personal Relationships*, 2(4), 267–285 doi: doi:10.1111/j.1475-6811.1995.tb00092.x
- Leiblum, S. R., & Rosen, R. C. (Eds.). (1988). *Sexual desire disorders*. New York, NY: Guilford Press.
- Levine, S. B. (2002). Re-exploring the concept of sexual desire. *Journal of Sex and Marital Therapy*, 28(1), 39–51. doi: 10.1080/009262302317251007
- Mark, K. (2012). The relative impact of individual sexual desire and couple desire discrepancy on satisfaction in heterosexual couples. *Sexual and Relationship Therapy*, 27(2), 133–146. doi:10.1080/14681994.2012.678825
- Mark, K., & Murray, S. (2012). Gender differences in desire discrepancy as a predictor of sexual and relationship satisfaction in a college sample of heterosexual romantic relationships. *Journal of Sex and Marital Therapy*, 38(2), 198–215. doi:10.1080/0092623X.2011.606877
- Mark, K. P. (2014). The impact of daily sexual desire and daily sexual desire discrepancy on the quality of the sexual experience in couples. *Canadian Journal of Human Sexuality*, 23(1), 27–33. doi:10.3138/cjhs.23.1.A2
- Mark, K. P. (2015). Sexual desire discrepancy. *Current Sexual Health Reports*, 7(3), 198–202. doi: doi:10.1007/s11930-015-0057-7
- Mark, K. P., & Lasslo, J. A. (2018). Maintaining sexual desire in long-term relationships: a systematic review and conceptual model. *Journal of Sex Research*, 55(4–5), 563–581. doi:10.1080/00224499.2018.1437592
- Mark, K. P., Milhausen, R. R., & Maitland, S. B. (2013). The impact of sexual compatibility on sexual and relationship satisfaction in a sample of young adult heterosexual couples. *Sexual and Relationship Therapy*, 28(3), 201–214. doi: doi:10.1080/14681994.2013.807336
- Mark, K. P., Vowels, L. M., & Leistner, C. E. (2020). Not tonight, honey: reasons couples do not engage in sex and their impact on satisfaction and desire. *The Journal of Sexual Medicine*, 17(3), 431–441. doi: 10.1016/j.jsxm.2019.12.011
- McCarthy, B., & McDonald, D. (2009). Sex therapy failures: A crucial, yet ignored, issue. *Journal of Sex & Marital Therapy*, 35(4), 320–329. doi:10.1080/00926230902851330

- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.
- Mikulincer, M., & Shaver, P. R. (2018). Attachment theory as a framework for studying relationship dynamics and functioning. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 175–185). Cambridge: Cambridge University Press. doi:[doi:10.1017/9781316417867.015](https://doi.org/10.1017/9781316417867.015)
- Mikulincer, M., Shaver, P. R., Bar-On, N., & Ein-Dor, T. (2010). The pushes and pulls of close relationships: Attachment insecurities and relational ambivalence. *Journal of Personality and Social Psychology*, 98(3), 450–468. doi:[doi:10.1037/a0017366](https://doi.org/10.1037/a0017366)
- Muise, A., Impett, E. A., & Desmarais, S. (2013). Getting it on versus getting it over with: Sexual motivation, desire, and satisfaction in intimate bonds. *Personality and Social Psychology Bulletin*, 39(10), 1320–1332. doi:[doi:10.1177/0146167213490963](https://doi.org/10.1177/0146167213490963)
- Murray, S. H., Sutherland, O., & Milhausen, R. R. (2012). Young women's descriptions of sexual desire in long-term relationships. *Sexual and Relationship Therapy*, 27(1), 3–16. doi:[doi:10.1080/14681994.2011.649251](https://doi.org/10.1080/14681994.2011.649251)
- Peloquin, K., Brassard, A., Lafontaine, M. F., & Shaver, P. R. (2014). Sexuality examined through the lens of attachment theory: Attachment, caregiving, and sexual satisfaction. *Journal of Sex Research*, 51(5), 561–576. doi:[doi:10.1080/00224499.2012.757281](https://doi.org/10.1080/00224499.2012.757281)
- Quinn-Nilas, C., Milhausen, R. R., McKay, A., Holzapfel, S. (2018). Prevalence and predictors of sexual problems among midlife Canadian adults: Results from a national survey. *The Journal of Sexual Medicine*, 15(6), 873–879. doi:[doi:10.1016/j.jsxm.2018.03.086](https://doi.org/10.1016/j.jsxm.2018.03.086)
- Ridley, C. A., Cate, R. M., Collins, D. M., Reesing, A. L., Lucero, A. A., Gilson, M. S., & Almeida, D. M. (2006). The ebb and flow of marital lust: A relational approach. *Journal of Sex Research*, 43(2), 144–153. doi:[doi:10.1080/00224490609552309](https://doi.org/10.1080/00224490609552309)
- Rosen, N. O., Bailey, K., & Muise, A. (2018). Degree and direction of sexual desire discrepancy are linked to sexual and relationship satisfaction in couples transitioning to parenthood. *The Journal of Sex Research*, 55(2), 214–225. doi:[doi:10.1080/00224499.2017.1321732](https://doi.org/10.1080/00224499.2017.1321732)
- Rosen, R., Brown, C., Leiblum, S., Meston, C., Shabsigh, R., Ferguson, D., & D'Agostino, R. (2000). The female sexual function index (FSFI): a multidimensional self-report instrument for the assessment of sexual function. *Journal of Sex and Marital Therapy*, 26(2), 191–208. doi:[doi:10.1080/009262300278597](https://doi.org/10.1080/009262300278597)
- Rosen, R. C., Riley, A., Wagner, G., Osterloh, I. H., Kirkpatrick, J., & Mishra, A. (1997). The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. *Urology*, 49(6), 822–830. doi:[doi:10.1016/s0090-4295\(97\)0023](https://doi.org/10.1016/s0090-4295(97)0023)
- Santtila, P., Wager, I., Witting, K., Harlaar, N., Jern, P., Johansson, A. D. A., & Sandnabba, N. K. (2007). Discrepancies between sexual desire and sexual activity: Gender differences and associations with relationship satisfaction. *Journal of Sex and Marital Therapy*, 34(1), 31–44. doi:[doi:10.1080/00926230701620548](https://doi.org/10.1080/00926230701620548)
- Schachner, D. A., & Shaver, P. R. (2004). Attachment dimensions and sexual motives. *Personal Relationships*, 11(2), 179–195. doi:[doi:10.1111/j.1475-6811.2004.00077.x](https://doi.org/10.1111/j.1475-6811.2004.00077.x)
- Shamloul, R., Ghanem, H., & Abou-Zeid, A. (2004). Validity of the Arabic version of the sexual health inventory for men among Egyptians. *International Journal of Impotence Research*, 16(5), 452–455. doi:[doi:10.1038/sj.ijir.3901248](https://doi.org/10.1038/sj.ijir.3901248) PMID: 15175638.
- Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggstad, E. D. (2010). Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. *Journal of Business and Psychology*, 25(4), 543–554. doi:[doi:10.1007/s10869-010-9183-4](https://doi.org/10.1007/s10869-010-9183-4)
- Spector, I. P., Carey, M. P. & Steinberg, L. (1996). The sexual desire inventory: development, factor, structure, and evidence of reliability. *Journal of Sex and Marital Therapy*, 22(3), 175–190. doi:[doi:10.1080/00926239608414655](https://doi.org/10.1080/00926239608414655)
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: associations with satisfaction, love, commitment, and stability. *Journal of Sex Research*, 39(3), 190–6. doi:[doi:10.1080/00224490209552141](https://doi.org/10.1080/00224490209552141)
- Sutherland, S. E., Rehman, U. S., Fallis, E. E., & Goodnight, J. A. (2015). Understanding the phenomenon of sexual desire discrepancy in couples. *Canadian Journal of Human Sexuality*, 24(2), 141–150. doi:[doi:10.3138/cjhs.242.A3](https://doi.org/10.3138/cjhs.242.A3)
- Tiefer, L. (2001). A new view of women's sexual problems: Why new? Why now? *Journal of Sex Research*, 38(2), 89–96. doi:[doi:10.1080/00224490109552075](https://doi.org/10.1080/00224490109552075)
- Tiefer, L. (2012). Medicalizations and demedicalizations of sexuality therapies. *Journal of Sex Research*, 49(4), 311–318. doi:[doi:10.1080/00224499.2012.678948](https://doi.org/10.1080/00224499.2012.678948)
- Velten, J., & Margraf, J. (2017). Satisfaction guaranteed? How individual, partner, and relationship factors impact sexual satisfaction within partnerships. *PLoS One* 12(2), e0172855. doi:[doi:10.1371/journal.pone.0172855](https://doi.org/10.1371/journal.pone.0172855)
- Willoughby, B. J., Farero, A. M., & Busby, D. M. (2014). Exploring the effects of sexual desire discrepancy among married couples. *Archives of Sexual Behavior*, 43(3), 551–562. doi:[doi:10.1007/s10508-013-0181-2](https://doi.org/10.1007/s10508-013-0181-2)
- Willoughby, B. J., & Vitas, J. (2012). Sexual desire discrepancy: The effect of individual differences in desired and actual sexual frequency on dating couples. *Archives of sexual behavior*, 41(2), 477–486. doi:[doi:10.1007/s10508-011-9766-9](https://doi.org/10.1007/s10508-011-9766-9)
- Yoo, H., Bartle-Haring, S., Day, R. D., & Gangamma, R. (2014). Couple communication, emotional and sexual intimacy, and relationship satisfaction. *Journal of Sex & Marital Therapy*, 40(4), 275–293. doi:[doi:10.1080/0092623X.2012.751072](https://doi.org/10.1080/0092623X.2012.751072)
- Zilbergeld, B., & Ellison, C. R. (1980). Desire discrepancies and arousal problems in sex therapy. In S. R. Leiblum & L. A. Pervin (Eds.), *Principles and practice of sex therapy* (pp. 65–106). New York, NY: Guilford Press.