

Adult Men and Women's Event-Level Affective Sexual Motivations and Sexual Behavior

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Introduction

As they move from adolescence into emerging and early adulthood, men and women continue to be at elevated risk for the adverse outcomes associated with sexual activity.¹ Traditional public health prevention approaches to this risk typically focus on changing an *individual's* behaviors (e.g. reducing sexual activity or consistent condom and contraceptive use).² A significant limitation of this focus, however, is that it obscures how the context of a given romantic/sexual *relationship* precedes and organizes the decisions people make about sex.^{3,4} Many public health agencies now recognize that advancing sexual health requires greater attention to the partnership factors that are associated with STI risk and protection behaviors.³⁻⁵ Part of this attention includes examination of how personal- and partner-specific affect motivates individuals to choose, exclude and/or combine specific behaviors as part of their sexual repertoire.^{9,10}

Background

Gender Differences in Sexual Motivations

Over the past two decades, literature has documented a wide range of different factors men and women cite as motivations for sexual activity. Some of these studies support gender *differences* in these motivations, suggesting that physical desirability, sexual pleasure or power, such as feeling “horny,” wanting physical release or stress relief, are cited by more men as reasons to have sex, whereas the perceived emotional benefits of sex, such as psychological closeness, bonding, intensify commitment, love or affection, factor more prominently for women.⁶⁻¹² Other work has found gender *similarities* in sexual motivations for sex, with many young and adult men report enjoying close emotional ties to sexual partners,^{13,14} and many women pursuing specific sexual activities in response to sexual desire specific sexual activities^{15,16} Additionally, in a sample of young and emerging adults,¹⁷ both men and women endorse satisfying sexual desires as a primary reason, and feeling in love with a boy/girlfriend as secondary reason, to have sex.¹⁷ Emotional motivations for sex are similarly reported by both men and women.^{6,18}

Linking Sexual Motivations to Sexual Behaviors

Less is known about how specific sexual motivations link to specific sexual behaviors. In general, studies show that having sex for pleasure is typically associated with more penetrative sexual behaviors, such as men's receiving oral sex, or participating in vaginal or anal sex, whereas endorsing love, intimacy or other emotional reasons for sex is associated with lighter behaviors, such as kissing, genital touching, massage or a woman's receiving oral sex.¹⁸⁻²⁰ Other research has suggested that having sex for intimacy reasons may also be associated with more frequent sex.^{18,21,22} Gender differences may exist in these patterns. For example, in a sample of college students, women reporting higher levels of emotional motives, including love and commitment, during sexual interactions involving only oral sex only, or during sexual interactions with vaginal sex *and* oral sex. In the same study, males reported higher levels of physical motives for sexual events involving both oral and vaginal sex.²³ Among emerging adult women, a relational orientation towards a partner is associated with higher likelihood of orgasm and sexual enjoyment in hookup sexual encounter²⁴ while a perceived lack of emotional connection to a partner has also been implicated in a women's not engaging in sex.⁷ However, both men and women may derive similar physical *and* emotional benefits from sexual activity.²⁵

Other research suggests that men's and women's sexual motivations are *event-specific*, with the influence of physical and emotional motivators changing as the contextual and behavioral characteristics of ongoing sexual experiences themselves change. For example, nationally representative research has described considerable diversity in men's and women's reports of arousal, pleasure and orgasm, as well as in the combinations of behaviors chosen, at their last sexual event.²⁶ In a diary study of adult women, sexual sexual pleasure, sexual satisfaction and the prevalence of solo and partnered sexual behaviors varied from day-to-day.²⁷ In another diary study of romantic and sexual partners, reported levels of relationship and sexual satisfaction vacillated on days with and without reports of sexual activity.²⁸ Finally, among long-term heterosexual couples, diary-based day-to-day changes in reported intimacy were associated with relationship passion, sexual satisfaction and sexual frequency.²⁹ Our own diary work has confirmed event-level variability in physical and emotional motivators, such as being interested in sex or feeling in love, in young women's selection of sexual behaviors.³⁰⁻³⁴

The Current Study

In this study, we extend existing literature in three important ways. First, with some exceptions, most research measures sexual motivations at a global level, rather than associating them within the relational or behavioral context of a given sexual encounter.³⁵ Second, many studies assess motivations at a single point in time, even though motivations may change in subsequent sexual events, either with the same partner, with different partners, or independent of any partners. Third, with some exceptions, most research links motivations to general definitions of participating in sex (e.g. “Did you have sex?”), rather than examining how different motivations could be uniquely associated with how and when people choose different manual-genital, oral-genital, vaginal or anal sex. These limitations obscure understanding both of how men’s and women’s event-specific personal- and partner-focused sexual motivations are linked to the types of sexual behaviors chosen in that sexual event, as well as how this link may vary across ongoing sexual experiences or within ongoing or new romantic/sexual relationships.¹⁸ Accordingly, using an ecological momentary assessment (EMA) daily diary approach, the objectives of the current study were to examine how the individual- and partner-specific motivations – feeling in love, being sexually interested, wanting to have sex, or perceiving partner’s wanting to have sex – associated with a specific sexual event influenced the types and combinations of sexual behaviors chosen in that event.

Methods

Participants and Study Design

Data were collected as part of a larger 12-week study prospectively examining sexual partnerships, sexual behaviors and incident sexually transmitted infections in adult men and women.³⁶ Participants (192 women; 156 men) were recruited from the patient population of the Bell Flower Clinic (BFC), a sexually transmitted diseases clinic operated by the Marion County Health Department in Indianapolis, Indiana. BFC serves primarily lower- and middle-income individuals residing in areas with high rates of unintended pregnancy and sexually transmitted infections. Participants were eligible for the larger study if they were between 18 and 29 years of age, had primary residence in Marion County, Indiana for the 90 days of study duration. Both criteria were chosen to recruit a sample with a broad number of types of sexual relationships

and reasons for sexual activity, as well as high rates of sexually transmitted infections, to facilitate follow up and to reduce sample attrition.

As part of the larger study, an ecological momentary assessment (EMA) approach was used to elicit daily reports of event-specific sexual motivations and sexual behaviors. As an approach to data collection, EMA generally involves participants responding to pre-programmed signals on an electronic device (e.g., a PDA or cellular phone) prompting them to complete diaries related to recent or immediate social environment and behavior.^{37,38} In the current study, this meant that we were able to jointly assess sexual behavior, as well as the motivations associated with the behaviors, as close to when they happened as possible. As repeated assessments are made in this fashion, it is possible to better understand how the influence of a given physical or emotional motivation differs when a specific behavior, or a set of behaviors, does and does not occur, as well as how the influence of a given motivation changes over time. Moreover, compared to other collection modalities, EMA typically garners less missing data, higher reporting levels, stronger internal data validity and low behavior reactivity.

Participants completed EMA diaries three times daily, at eight hour intervals selected to match the participant's daily routine. Each participant was provided with an internet-enabled cell phone and a phone/data plan. Thirty minutes prior to a scheduled diary, participants received a text message reminding them to complete data entry, with up to three additional reminder messages following until the allowed completion window closed (four hours past the scheduled time). Reminders also continued when a diary was started, but not submitted. Once starting a diary, participants completed a specific sequence of questions assessing information about events since their last entry, including mood, and if any partner interaction had occurred. If partner interaction occurred, participants identified, from a checklist, any *partnered* sexual behaviors the number of times each occurred, and the order of occurrence. Behaviors were linked to partners named in an auto-populated checklist initiated at enrollment updated with addition of new partners. The current study is limited to diary intervals when any partner interaction occurred. Additional information on the larger study and the diary protocol are available in a prior publication on the larger study.³⁶

This study was approved by the Institutional Review Board of Indiana University; all participants provided informed consent.

Measures

Predictor Variables: Sexual Affective Motivations. For each partnered interaction, participants reported on four different sexual affective motivations, including their *interest in sex*, their *feeling in love with partner*, how much they *wanted to have sex* and how much their *partner wanted to have sex* (all single, 5-point items: not at all, a little, some, quite a bit, a lot). Based on examination of response distributions, responses were each collapsed into three categories (not at all, a little to quite a bit, a lot).

Outcomes Variable: Sexual Interaction Type. Also as part of reporting on partnered interactions, participants reported oral-genital, vaginal or anal sexual behaviors that occurred with a specific partner. Using these data, we created a single variable classifying the sexual behavior type for each reported diary interval with a given partner (no sex, one vaginal sex event only, one vaginal sex event *plus* any other types of sex, multiple vaginal sex events only, any other types of sex only). For the construction of this variable, “any other types of sex” implied anything reported that was *not* vaginal sex.

Analyses

Multinomial logistic regression was used to model the influence of each sexual motivation on sexual behavior type. General linear mixed modeling adjusted estimates for multiple within-subject diaries (SAS; all $p < .05$). “No sex” was the referent in all models, and each sexual motivation was analyzed in a separate model. All models also controlled for participant gender.

Results

Participants contributed 14856 total partner-associated diary entries. Female participants accounted for a slightly greater proportion of this total (N=7743; 52.12% of all interactions) as compared to male participants (N=7113; 47.88% of all interactions).

Table 2 describes the classification of these partnered diary intervals by sexual interactions type stratified by gender. The most frequent interaction type was *no sex*, accounting for slightly over half of all reported partnered interactions for both women (56.5%) and men (51.2%). When partnered sexual behavior

did occur, female participants most commonly reported *one vaginal sex* episode (13.1% of all partnered interactions), and male participants most commonly participated in *other sex only* (9.5% all partnered interactions). Women and men both least frequently participated in *one vaginal event with other types of sex* (8.4% and 8.4%, respectively, of all partnered interactions).

Tables 3 and 4 presents the odds, respectively, of women's and men's sexual affective motivation, including feeling in love (Model 1), interested in sex (Model 2), participant wanting to have sex (Model 3) and partner wanting to have sex (Model 4), on sexual interaction type.

Feeling in love was associated with similarly increased odds of men's (OR=1.70) and women's (OR=1.84) reporting one vaginal sex event combined with other types of sex over no sex. Among women, feeling in love was more strongly associated with multiple vaginal events (OR=2.47) as compared to men (OR=1.58).

Being interested in sex was more strongly associated with all partnered sexual interaction types for women as compared to men, exerting about twice the odds of each behavior relative to not having sex. Higher level of sexual interest was least predictive of engaging only in other types of sex among both men (OR=1.62) and women (OR=2.96). Compared to not having sex, reports of either multiple vaginal sex events and/or one vaginal sex event combined with other types of sex were about eight times more likely for women, and about three times more likely for men.

A participant's wanting to have sex was associated with more than twice the odds of all partnered sexual interaction types among female participants as compared to male participants. For both men and women, wanting to have sex was least associated with reporting only other types of sex in lieu of no sex. Multiple vaginal sex events and/or one vaginal sex event combined with other types of sex were over twenty times more likely for women, and about eight times more likely for men, than reporting engaging in no sex.

Finally, the perception that a partner wanted to have sex was more strongly associated with all partnered sexual interaction types for women than men. This affective motivation was least associated with other sex types only among women (OR=4.77) and with other sex types only among men (OR=2.91). Multiple

vaginal sex events and/or one vaginal sex event combined with other types of sex were between 25 and 30 times more likely for women, and about ten times more likely for men, than reporting engaging in no sex.

Discussion

Evolving public health perspectives espouse better understanding of how partnership factors motivate individuals to engage in sexual behavior. The complex and interpersonal nature of sexuality means that appropriate models to examine these motivations must include information from both an individual *and* their partner.³⁹ Using EMA-based daily diaries collected from adult men and women, we examined how affective sexual motivations were associated with the selection of specific types and combinations sexual behaviors. By analyzing these relationships with measurements of sexual motives and sexual behavior specific to a given partner within a specific sexual event, our data overcome the limitations associated in prior literature, providing a more detailed description of gender-specific effects in the link between motives and behavior.

Existing research on gender differences in sexual motivations have documented the greater salience of emotional motivations for women, the greater salience of physical motivators for men.⁶⁻¹² Other work has posited that physical and emotional motivators are equally important for men and women.^{13,14,16,17,25,40} Our data provide greatest support for the latter body of work, demonstrating that feeling in love, being sexually interested, wanting to have sex, or perceiving one's partner's wanting to have sex, each significantly increased men's *and* women's odds of men's and women's partnered sex over choosing not to have sex during any given sexual event. Our data also add context to a growing body of literature documenting the importance of men's emotional connection to their sexual partners^{13,14} and women's experiences of sexual desire and sexual pleasure.⁴¹ Pertinent to the latter, we found that all motivations exerted a stronger influence on *partnered behavior* for women as compared to men, particularly in terms of a woman's wanting to have sex or perceiving that her partner wanted to have sex. These findings parallel recent qualitative work demonstrating the variance of gendered sexual scripts in relationship and individual contexts.⁴²

These findings also partially align with studies suggesting that emotional sexual motivations are typically associated with lighter, less varied sexual behavior choices, whereas pleasure as a sexual motivator

is usually associated with more frequent, penetrative-type sexual behaviors.¹⁸⁻²³ We found that among both male and female participants, feeling in love was generally associated with less complex partnered sexual interaction choices (e.g., one vaginal event only), while either an individual's or their partner's wanting to have sex was associated with more involved sets of sexual behaviors (e.g., multiple vaginal events). These data could reflect the process by which sexual motivations are linked to desired end goals in a given sexual event. For example, a single act of vaginal sex might satisfy an individual's desire for love and emotional closeness with a partner, whereas repeated sexual events or a more diverse sexual repertoire could be engaged because an individual wants to have sex to heighten sexual pleasure or orgasm.⁴³

Within a *public health* perspective, a more comprehensive examination of event-specific sexual motivations becomes an important addition to existing primary prevention efforts, as this knowledge can be proactively leveraged to aid men and women reduce risk, when sex occurs.⁴⁴ Most HIV/STI prevention efforts are constructed around a single behavior occurring in the context of a given sexual event, (e.g. "use a condom during vaginal sex") rather than considering the possibility that multiple behaviors can and often do occur in the context of a given sexual event.²⁶ Moreover, while some interventions do focus on the role of sexual partners, most emphasize gender or power issues, rather than considering how affect is linked to sexual behaviors.^{45,46} Some existing work does target global physical motivations – for example, increasing sexual pleasure to improve condom use⁴⁷ – but few programs consider how a range of motivations specific to a given sexual dyad may work to orchestrate sexual risk. Our data indicate the understanding each partnership member's motivations could help tailor sexual health to a specific relationship. This idea is virtually unaddressed in the sexual risk literature and could open new avenues of control and prevention.

Limitations and Conclusions

Several limitations of the present study should be noted. First, participants were primarily recruited from the patient population at a county health clinic serving individuals residing in urban, low- to middle-income areas marked by high rates of sexually transmitted infection. While these data, therefore may not be generalizable to all similarly aged men and women, they do provide understanding on the processes of sexuality and sexual behavior in higher risk persons (those economically disadvantaged, racial/ethnic minority,

or both) whose risk is epidemiologically emphasized, but whose sexual relationships are largely ignored.

Finally, although the data were collected at a partner-specific level, the models presented here do not incorporate information about the couples' histories prior to a given day. Incorporation of such models into the data presented here would be of interest; however, several methodological issues remain to be resolved.

Future research may seek to implement a more complex event-level selection of sexual behaviors or contraceptive variables.

Table 1. Participant characteristics (N=348).

	Women (N=192)	Men (N=156)
Race (N, %)		
White	12 (6.25%)	13 (8.33%)
African American/Black	175 (91.15%)	138 (88.46%)
Other	5 (2.6%)	4 (2.56%)
Don't know	0 (0.0%)	1 (0.64%)
Ethnicity (N, %)		
Hispanic	7 (3.65%)	1 (0.64%)
Non-Hispanic	152 (79.17%)	106 (67.95%)
Ethnicity not recorded	33 (17.19%)	49 (31.41%)
Age (mean, SD)	23.25 (2.98)	23.26 (2.94)
STI at Enrollment (Yes: N, %)	46 (23.96%)	30 (19.23%)
Sexual History		
Age of first giving oral sex (mean, SD)	11.06 (2.98)	10.94 (3.40)
Age of first received oral sex (mean, SD)	10.59 (2.92)	10.10 (4.75)
Age of first vaginal sex (mean, SD)	15.13 (2.05)	13.80 (3.25)
Age of first anal sex (mean, SD)	12.95 (3.31)	11.35 (3.67)
Lifetime vaginal sex partners (mean, SD)	32.80 (27.55)	25.90 (17.50)
Lifetime anal sex partners (mean, SD)	7.92 (5.66)	11.32 (6.87)

Table 2. Distribution of sexual interaction types during partnered-associated diary intervals, by participant gender.

Sexual Interaction Type	Overall	Women	Men
No sex reported	8015 (54.0)	4373 (56.5)	3642 (51.2)
Any sex reported			
One vaginal sex event only	1697 (11.4)	1018 (13.1)	679 (9.5)
One vaginal sex event + other sex types	1245 (8.4)	651 (8.4)	594 (8.4)
Multiple vaginal sex events + other sex types	1785 (12.0)	757 (9.8)	1028 (14.5)
Other sex types only	2114 (14.2)	944 (12.2)	1170 (16.4)
Total partner interactions	14856	7743	7113

Table 3. Odds ratios (OR) for women's sexual affective motivations and sexual behavior choice during partnered-associated diary intervals.

Sexual Behavior Choice^	Women's Sexual Affective Motivations (OR; 95% CI)			
	Feeling In Love (Model 1)	Interested in Sex (Model 2)	Wanted to Have Sex (Model 3)	Partner Wanted to Have Sex (Model 4)
One vaginal sex event only	1.84 (1.52, 2.23)*	5.86 (4.95, 6.93)*	13.41 (11.23, 16.01)*	15.20 (12.50, 18.48)*
One vaginal sex event + other sex types	1.84 (1.47, 2.31)*	7.73 (6.35, 9.43)*	20.31 (16.29, 25.32)*	28.76 (22.07, 37.48)*
Multiple vaginal sex events + other sex types	2.47 (1.99, 3.07)*	8.40 (6.93, 10.17)*	23.91 (19.23, 29.73)*	25.05 (19.54, 32.42)*
Other sex types only	1.42 (1.16, 1.74)*	2.96 (2.47, 3.55)*	5.43 (4.52, 6.53)*	4.77 (3.95, 5.76)*

^Reference is: *no sex*; * $p < .05$

Table 4. Odds ratios (OR) for men's sexual affective motivations and sexual behavior choice during partnered-associated diary intervals.

Sexual Behavior Choice^	Men's Sexual Affective Motivations (OR; 95% CI)			
	Feeling In Love (Model 1)	Interested in Sex (Model 2)	Wanted to Have Sex (Model 3)	Partner Wanted to Have Sex (Model 4)
One vaginal sex event only	1.47 (1.20, 1.81)*	2.30 (1.90, 2.79)*	5.16 (4.23, 6.31)*	5.38 (4.42, 6.55)*
One vaginal sex event + other sex types	1.70 (1.36, 2.13)*	3.47 (2.81, 4.29)*	8.02 (6.39, 10.06)*	10.08 (8.57, 13.62)*
Multiple vaginal sex events + other sex types	1.58 (1.29, 1.94)*	3.19 (2.63, 3.88)*	8.20 (6.68, 10.08)*	9.81 (7.97, 12.06)*
Other sex types only	0.83 (0.68, 1.01)	1.62 (1.34, 1.96)*	2.52 (2.09, 3.05)*	2.91 (2.41, 3.51)*

^Reference is: *no sex*; * $p < .05$

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