



It's The "Why": Links between (Non)autonomous Sexual Motives, Sexual Assertiveness, and Women's Orgasm in Casual Sex

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Abstract

Existing literature shows conflicting and inconclusive evidence regarding women's sexual experiences in casual sex. Some studies have found negative sexual outcomes (e.g., fewer orgasms), while others have found positive sexual outcomes (e.g., more orgasms, higher sexual satisfaction) when women had casual sex. According to self-determination theory (Deci & Ryan, 1985), people's needs are fulfilled when their choice and behavior are self-motivated and reflect their intrinsic values. We hypothesized that women's autonomous motivation to have casual sex would be associated with higher orgasmic function, whereas nonautonomous motivation would be associated with lower orgasmic function in casual sex. We also hypothesized that sexual assertiveness would mediate the relationship between sexual motives and orgasmic function in casual sex. Participants in this study were women ($N=401$) aged 18–59 years who reported having had casual sex in the past 12 months. Participants completed an online survey reporting their motives to have casual sex, sexual assertiveness, and orgasmic function (e.g., orgasm frequency, satisfaction with orgasm) in casual sex. We focused on two motives: (a) pleasure motive and (b) insecurity (i.e., self-esteem boost and pressure) motive. Results showed that greater pleasure (autonomous) motives related to higher sexual assertiveness, which in turn related to higher orgasmic function in casual sex. In contrast, greater insecurity (nonautonomous) motives related to lower sexual assertiveness, which in turn related to lower orgasmic function in casual sex. The findings support self-determination theory, suggesting that autonomous motives are important for women's sexual experience in casual sex.

Keywords Sexual motive · Self-determination theory · Sexual assertiveness · Orgasm · Women · Casual sex

Introduction

Casual sex is a sexual relation without commitment or expectation for exclusive relationships (e.g., hook-ups, one-night stands, friends with benefits, booty calls). A commonly held belief is that women tend to have negative experiences from casual sex. Indeed, past research has found that casual sex is associated with higher regret, distress, suicidal thought, depression, and guilt, as well as lower self-esteem in women (Bersamin et al., 2014; Dubé et al., 2017; Fisher et al., 2012; Grello et al., 2006; Paul et al., 2000; Sandberg-Thoma & Kamp Dush, 2014; Webster et al., 2021). Regarding sexual

function and satisfaction, women also experience lower rates of orgasm in casual sex compared to sex in a committed relationship (Armstrong et al., 2012; Wongsomboon et al., 2020). And lower quality of sex led to higher regret after casual sex (Fisher et al., 2012; Piemonte et al., 2019). Findings regarding the effects of casual sex on women, however, remain varied and inconclusive because some studies found positive effects such as higher self- and sexual esteem, happiness, positive emotions, and sexual satisfaction or excitement (Claxton & van Dulmen, 2013; Farvid & Braun, 2017; Piemonte et al., 2019; Vrangalova & Ong, 2014).

Women have casual sex for different reasons, such as seeking physical pleasure, intimacy, peer approval, and self-esteem boost (Armstrong & Reissing, 2015; Garcia & Reiber, 2008; Kenney et al., 2013; Regan & Dreyer, 1999; Stephenson et al., 2011; Vrangalova, 2015; Weaver & Herold, 2000). It stands to reason that not all motives to have casual sex will facilitate sexual need fulfillment and positive sexual experiences in a casual sexual context.

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Existing literature shows that self-determined motives and behaviors are linked to positive sexual outcomes and well-being (Brunell & Webster, 2013; Jenkins, 2004; Kaestle & Evans, 2018; Sanchez et al., 2006; Vrangalova, 2015). Guided by self-determination theory, the first aim of this study is to understand how sexual motives with different levels of autonomy (pleasure and insecurity) are associated with women's orgasmic function in casual sex. In addition, women with different reasons to have casual sex may differ in their level of sexual assertiveness, which in turn may explain the difference in their orgasmic function. Therefore, the second aim of the present study is to examine how sexual assertiveness may statistically mediate the relationship between sexual motives and orgasmic function in women's casual sex.

Self-Determination Theory and Well-Being

Self-determination theory (SDT; Deci & Ryan, 1985) posits that people have three basic needs: autonomy (i.e., having agency over one's behavior), competence (i.e., feeling effective in one's action), and relatedness (i.e., feeling connected with others). Satisfaction of these needs can increase people's well-being, whereas deprivation of them can reduce well-being. Sexual behaviors and choices are self-determined when they are endorsed by the self rather than coerced or pressured by other persons or external factors. Past research has shown that those who engage in sexual activities for more self-determined or autonomous reasons report greater sexual need fulfillment during their sexual experiences (Brunell & Webster, 2013; Muise et al., 2018).

According to SDT, some motives are more autonomous than others. At one end of the autonomy continuum is a non-autonomous or extrinsic motivation. When women have a nonautonomous motivation to have casual sex, their sexual behavior has an external perceived locus of control (i.e., not coming from the self). Some extrinsic motivations can be internally driven (e.g., to avoid shame or guilt, to increase one's self-esteem), but the motivations are still controlled due to the presence of ego involvement and appearance-based concerns. For example, because of the high prevalence of hook-up culture, especially on college campuses, many women may feel obligated to have casual sex because they perceive it as a prescribed social norm. Alternatively, some women may avoid saying "no" because they want to be nice to their casual partner. Some may engage in casual sex to gain self-worth or self-esteem (e.g., to feel attractive). In both men and women, having nonautonomous reasons in hook-ups or casual sex is fairly common (Garcia & Reiber, 2008). However, pursuing extrinsic goals hinders basic need satisfaction, and thus having casual sex for nonautonomous reasons (e.g., pressure from a partner or friends) has been associated with lower self-esteem, higher depression, higher anxiety, lower

well-being, and higher sexual victimization (Impett et al., 2005; Townsend et al., 2020; Vrangalova, 2015).

In contrast, women who have autonomous or intrinsic motivations act because of their genuine interest in the activity. Thus, women who are intrinsically motivated to have casual sex engage in the sexual activity for its own sake (e.g., to have fun). According to SDT, self-determined or autonomous sexual motives should relate to positive experience and well-being because the basic need for autonomy is satisfied. Research on couples using a diary method found that women's autonomous sexual motives were associated with better well-being (Brunell & Webster, 2013; Impett et al., 2005). Studies also found that women with more casual sex experiences tend to experience lower negative outcomes from casual sex (Hehman & Salmon, 2019; Wongsomboon et al., 2020). It is possible that those with more casual sex partners may actively seek casual sex for intrinsic reasons (e.g., pleasure), and thus gain positive experience from it.

Sexual Motives, Sexual Assertiveness, and Orgasmic Function in Casual Sex

Although some studies have examined the effect of sexual motives on psychological well-being (e.g., Brunell & Webster, 2013), less research has been done on the effect of sexual motives on women's sexual functioning, especially in casual sexual relationships. In a study with romantic couples, manipulating approach sexual goals (e.g., to obtain sexual pleasure) led people to experience more sexual desire and sexual satisfaction with their partner (Muise et al., 2017). People who have sex because of autonomous motives also had more positive emotional reactions, sexual satisfaction, and relationship satisfaction (Gravel, 2017, 2020; Impett et al., 2005; Sanchez et al., 2005; Smith, 2007; Tóth-Király et al., 2019; Wood et al., 2018). On the other hand, having sex for nonautonomous motives was negatively related to sexual satisfaction for men and women (Stephenson et al., 2011). Even motives that are not completely external, such as relationship or experience seeking, are also associated with lower sexual satisfaction and more negative emotional reactions to casual sex (Hehman & Salmon, 2019; Stephenson et al., 2011), probably because these goals are not truly intrinsic (i.e., sex is a means to an end).

Past research usually focused on the negative consequences of casual sex in women (e.g., Fisher et al., 2012) or between-sex differences in casual sexual experience, a common finding being that casual sex is more detrimental for women than for men (e.g., Conley et al., 2013). Although men (vs. women) had more positive experience from casual sex, the difference disappears after accounting for rates of orgasm in casual sex (Piemonte et al., 2019). Therefore, to reduce disparities in sexual well-being within and between genders as well as across sexual contexts, it is important to

understand the factors associated with women's positive sexual experience (e.g., orgasmic function) in casual sex. According to SDT, autonomous sexual motives benefit sexual need fulfillment, while nonautonomous sexual motives thwart it. Differences in motives to have casual sex, therefore, should at least partially explain why some women have greater orgasmic function in casual sex than others.

The present study also examined whether and how sexual assertiveness mediates the relationship between sexual motives and orgasmic function in casual sex. Sexual assertiveness is the ability to communicate sexual needs and initiate sexual behavior with a partner. Existing literature shows that sexual assertiveness positively relates to orgasm, sexual satisfaction, sexual pleasure, positive feelings, and lower sexual regret after casual sex in women (Cotten-Houston & Wheeler, 1983; Haavio-Mannila & Kontula, 1997; Hurlbert, 1991; Kennair et al., 2018; Kuriansky et al., 1982; Ménard & Offman, 2009; Woerner & Abbey, 2017). Comparatively little is known, however, about the relationship between women's motives to have casual sex and their sexual assertiveness. Being sexually assertive may be especially important in casual sexual contexts (e.g., one-night stands), where one cannot simply rely on partner familiarity and responsiveness (Armstrong et al., 2012). It is possible that women who differ in their reasons to have casual sex may also differ in their level of sexual assertiveness. Because women with autonomous motives have sex primarily to fulfill their sexual needs, they should not be subservient to their partner's needs, and should instead be more assertive about what they want sexually. For instance, women who are motivated by autonomous sexual goals may be more likely to communicate about their specific sexual needs during the sexual interaction that eventually leads to orgasm during casual sex.

The Present Study

Prior sexuality research using SDT mostly focused on sexual experience in (monogamous or consensually non-monogamous) romantic relationships (e.g., Brunell & Webster, 2013; Wood et al., 2018). To date, the SDT framework has not been used to examine women's positive sexual experience in casual sexual relationships. The present study sought to address gaps in the existing literature by applying SDT to investigate the link between women's sexual motives and their orgasmic function in casual sex. It is also the first study to examine the mediating role of sexual assertiveness on the relationship between (non)autonomous sexual motives and orgasmic function in casual sex. We aimed to understand the factors relating to women's orgasmic function in casual sex because female orgasm is associated with positive experiences and lower negative emotions after casual sex in women (Piemonte et al., 2019). To gain a more holistic understanding of women's orgasmic experiences, we assessed orgasm

difficulty, satisfaction with ability to orgasm, and confidence in ability to orgasm, in addition to orgasm frequency.

Although we realize that there are many reasons for women to have casual sex, we only studied the two motives: pleasure and insecurity. For the pleasure motive, women have casual sex because they want to have fun or gain physical pleasure from it. For the insecurity motive, women have casual sex because they want to maintain self-esteem or in response to some internal pressures (e.g., not wanting to be seen as rude or prude). Both pleasure and insecurity motives are common in casual sex (Armstrong & Reissing, 2015) and are on opposite ends of the autonomy continuum. Other common sexual motives (e.g., experience seeking, stress reduction, emotional closeness) are not as clearly intrinsic or extrinsic as the former two (Sheldon & Prentice, 2019). One of the main goals of the present study is to show how (non)autonomous motives relate to sexual assertiveness and orgasmic function in casual sex. Therefore, we chose to focus on the motives that are clearly distinguishable in terms of autonomy levels: pleasure and insecurity.

Having sex for pleasure reasons (e.g., to have an orgasm) is considered the most autonomous motive because women who have sex for this reason often engage in sexual activities because of the inherent pleasure they provide (Gravel et al., 2016; Tóth-Király et al., 2019). Pleasure-related motives predict sexual satisfaction and positive emotions after casual sex (de Jong et al., 2018; Snapp et al., 2015; Stephenson et al., 2011). Moreover, women who are more motivated to gain sexual pleasure reported having more orgasms in their most recent sexual encounter (Gusakova et al., 2020). Thus, in the present study, we hypothesized that women who have casual sex for pleasure reasons would experience greater orgasmic function in casual sex.

In contrast, we expected that women's insecurity motives (e.g., boosting self-esteem, trying to be nice) would relate to lower orgasmic function in casual sex because they promote engaging in sexual activities for nonautonomous reasons. Having casual sex for insecurity reasons is considered non-self-determined because the cause of the behavior is perceived as external. Although women with insecurity motives voluntarily engage in a sexual activity, they may be pressured into sex by other people (e.g., peers, partners) or by internally controlled demands (guilt, perceived self-worth). Many women consent to sex even though they have no desire to do so, and consensual unwanted sex is the most common theme for women's worst hook-up experiences (Garcia et al., 2012; Paul & Hayes, 2002). Past research also showed insecurity motives led to negative emotions after sex (de Jong et al., 2018; Impett et al., 2005; Kennair et al., 2018; Montes et al., 2016). In addition, one study found that many women, although being open toward casual sex and accepting its short-term nature, felt used after a one-night stand (Campbell, 2008). Among those, many reported insecurity reasons (e.g., boosting self-esteem), which

may explain why they felt regret after casual sex. Although most researchers agree that nonconsensual sex leads to negative sexual experience (e.g., Garcia et al., 2012), it is less clear how nonautonomous motives relate to women's sexual well-being in consensual casual sex.

Regarding sexual assertiveness, we hypothesized that women who have casual sex for pleasure reasons would be more sexually assertive because they place a higher importance on their own sexual pleasure. Higher sexual assertiveness, in turn, would relate to higher orgasmic function in casual sex. In contrast, women who have sex for insecurity reasons would be less sexually assertive because they focus on external consequences rather than the intrinsic aspects of sexual activities, which in turn would relate to their lower orgasmic function in casual sex.

Hypotheses Based on literature reviewed above and the objectives of our study, we developed a set of specific hypotheses:

H1 There will be a significant relationship between women's motives to have casual sex and their orgasmic function in casual sex.

H1a Pleasure motive will be positively related to orgasmic function in casual sex.

H1b Insecurity motive will be negatively related to orgasmic function in casual sex.

H2 Higher sexual assertiveness will be associated with greater orgasmic function in casual sex.

H3 Sexual assertiveness will mediate the relationship between women's sexual motives and orgasmic function in casual sex.

Method

Data were drawn from a larger online research project regarding women's sexual experience and relationships (Wongsomboon et al., 2020). Although the data in the present work are a subset of the same participants as the abovementioned article, the two works share only one common variable—orgasmic function in casual sex—aside from demographic variables. Thus, the only overlap between the present and prior works concerns the measures described and some descriptive statistics.

Participants

Participants were recruited through multiple sources: university research participant pools, Amazon's Mechanical

Turk (MTurk), subreddits (reddit.com), and social media.¹ As compensation, students received research credits, MTurk participants received US\$0.50, and those recruited through reddit and social media were entered into a drawing for a US\$75 gift card. The sample in this present study consisted of 401 sexually active women (ages 18–59 years; *Mdn* = 21, *M* = 23.93, *SD* = 7.28), who reported having had casual sex in the past 12 months. Some participants (33.2%) were currently in a committed, exclusive romantic relationship (relationship duration [in months]: *Mdn* = 8.0, *M* = 30.63, *SD* = 52.09). Table 1 shows demographics of the sample.

Measures

“Sex” in this study was defined as any sexual activities involving genital- or anal-related stimulation between two or more people (i.e., not limited to sexual intercourse). Participants were also informed that “casual sex” was defined as sex in an “uncommitted, non-exclusive sexual relationship” without any specification about the duration of the sexual relationship. Thus, casual sex in this study could range from short-term casual relations (one-night stands) to long-term casual relations (e.g., friends with benefits).

Motives to Have Casual Sex

Sexual motives were measured using the YSEX? Scale (Meston & Buss, 2007) that assesses frequency of why people had had sex in the past. In this study, we specifically asked participants to think about their reasons for having had casual sex (“I have had casual sex in the past because...”). Responses were on a five-point scale (0 = *none of my sexual experiences* to 4 = *all of my sexual experiences*). The YSEX? Scale comprises four factors: Physical, Goal Attainment, Emotional, and Insecurity. For the purposes of this study, we used the eight-item Pleasure subfactor from the Physical Factor to measure pleasure motives to have casual sex. Example items include: “I wanted to achieve an orgasm,” “I wanted the pure pleasure,” and “It's fun.” For the insecurity motive, we combined five items from the Self-Esteem Boost and eight items from the Pressure subfactors (13 items total).² For the Self-Esteem Boost subfactor, we included motives that focus on increasing or maintaining one's self-worth (example items: “I wanted to boost my self-esteem,” “I wanted to feel attractive,”

¹ Participants from MTurk were restricted to those residing in the U.S. We recruited participants from the sub-reddit sites named “/r/sex,” “/r/SampleSize,” “/r/scientificresearch,” and “/r/UndergraduateResearch” and through Facebook advertisements targeting women in the U.S. Potential participants could read the eligibility criteria before clicking the study link.

² Results did not change when we ran the same analyses using only the Self-Esteem Boost subfactor or only the Pressure subfactor.

Table 1 Demographics

	Participants (%)
<i>Recruitment Source</i>	
University	59.6
Amazon MTurk	21.2
Internet & Social Media	19.2
<i>Race/ethnicity</i>	
European/White	58.9
Hispanic/Latino	17.7
African American/Black	10.7
Asian/Asian American	5.0
Middle Eastern	1.7
Native American	1.7
Other	4.2
<i>Sexual orientation</i>	
Heterosexual	79.6
Bisexual	16.4
Homosexual	1.9
Other	2.2
<i>Education</i>	
Less than high school	1.0
High school diploma	8.8
Some college	67.3
Bachelor's degree	19.0
Advanced degree	4.0

and “I wanted to make myself feel better about myself”), but not those that focus on controlling or manipulating others (e.g., “I wanted to manipulate him/her into doing something for me”). For the Pressure subfactor, example items include: “I didn’t know how to say no,” “I wanted to be nice,” and “I felt obligated to.” We excluded items that might be more relevant to a committed relationship (“It was expected of me,” “I felt like I owed it to the person,” and “I felt like it was my duty”). Additionally, we excluded two items that imply amotivation (“I was physically forced to” and “I was verbally coerced into it”). Higher scores of each motive indicate that the motive better described their casual sexual experiences ($\alpha = 0.90$ and 0.91 for the pleasure and insecurity measures, respectively).

Sexual Assertiveness

The Hurlbert Index of Sexual Assertiveness (HISA; Hurlbert, 1991) is a 25-item questionnaire. Using a response scale ranging from 1 (*never*) to 5 (*all the time*), it assesses level of assertiveness to achieve one’s sexual needs or pleasure. Items include: “When a technique does not feel good, I tell my partner,” and “I feel comfortable in initiating sex with my partner.” The HISA has shown good internal consistency and test–retest reliability, as well as discriminant, concurrent, and

construct validity (Apt & Hurlbert, 1993; Hurlbert, 1991; Pierce & Hurlbert, 1999). Higher scores indicate greater sexual assertiveness ($\alpha = 0.92$).

Orgasmic Function in Casual Sex

We used the orgasm subscale from the Female Sexual Function Index, which measures various female sexual function domains (Rosen et al., 2000). Note that we asked participants about their orgasmic function “over the past 12 months” instead of “over the past four weeks” as used in the original scale, to match the time frame used in this study. The orgasm subscale originally included three items, using five-point response scales, measuring women’s orgasm frequency, orgasm difficulty, and satisfaction with their ability to reach orgasm (e.g., “When you had sexual stimulation or intercourse, how often did you reach orgasm [climax]?”). We added a fourth item that assesses women’s confidence in their ability to reach orgasm (“How would you rate your confidence in your ability to reach orgasm [climax] during sexual activity or intercourse?”). We asked women to complete the scale thinking about their orgasmic function with their casual-sex partners over the past 12 months. Higher scores reflect higher orgasmic function in casual sex ($\alpha = 0.92$). We measured orgasmic function only during the past 12 months because self-reported sexual experience is highly susceptible to memory errors and recall bias (Graham et al., 2003).

Data Analysis

To test our hypotheses, we ran structural equation models (SEMs) via Mplus version 8 (Muthén & Muthén, 2017) with full-information maximum likelihood. Because some of our scales had dozens of items, and because some SEM fit indices are taxed by the number of indicators or measured variables, we chose to use parcels of items (i.e., averages of sets of items) as indicators for latent variables (see Little et al., 2002). Specifically, we averaged sexual assertiveness (25 items) into five 5-item parcels, pleasure motive (8 items) into four 2-item parcels, and insecurity motive (13 items) into four 3–4-item parcels; orgasmic functioning (4 items) required no parceling (see Fig. 1).

Age was included as a covariate in the models because it has been shown to be associated with women’s sexual assertiveness as well as sexual function and satisfaction (Haavio-Mannila & Kontula, 1997; Howard et al., 2006; Rickert et al., 2000, 2002; Rowland et al., 2019; Trompeter et al., 2012). At first, we also included sexual orientation and frequency of nonconsensual casual sex as covariates; however, neither variable related to the mediator or the outcome. Thus, we dropped both covariates from subsequent models.

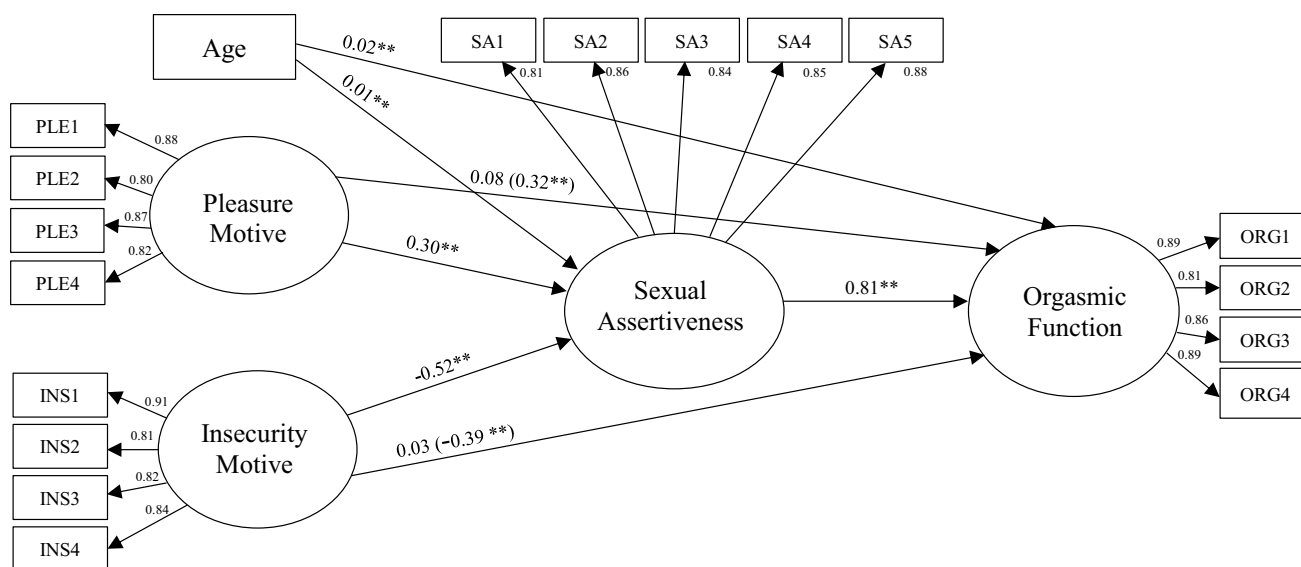


Fig. 1 The structural equation mediation model predicting orgasmic function in casual sex. Factor loadings are standardized coefficients, whereas all paths linking latent variables are unstandardized coefficients. Numbers in parentheses reflect unstandardized coefficients from a separate model without sexual assertiveness (i.e., unmediated direct effects). PLE1–4 reflect the four 2-item parcels for the pleas-

ure motive. INS1–4 reflect the four 3–4-item parcels for the insecurity motive. SA1–5 reflect five 5-item parcels for sexual assertiveness. ORG1–4 reflect the four orgasm functioning items. All disturbances (for the two endogenous variables) and errors (for all 17 parameters) were omitted from the figure. * $p < .05$. ** $p < .01$

Results

Correlations

Table 2 shows the means, SDs, and bivariate correlations among variables (using composite scores) included in the analyses. Pleasure motive was positively correlated, while insecurity motive was negatively correlated, with both sexual assertiveness and orgasmic function.

Relationship Between Sexual Motives, Sexual Assertiveness, and Orgasmic Function

We first examined the unmediated direct effect of sexual pleasure motive on orgasmic function. Controlling for age and insecurity motive, pleasure motive positively related to orgasmic function ($b = 0.32, z = 4.57, p < .001$). We next tested the full model by adding the putative mediator: sexual assertiveness (Fig. 1). This mediation model showed acceptable fit ($\chi^2[128] = 387.59, p < .001$; CFI = 0.95, TLI = 0.94; RMSEA = 0.07, 90% CI [0.06, 0.08]; SRMR = 0.06). After adding sexual assertiveness, the direct effect of pleasure motive was reduced to non-significance ($b = 0.08, z = 1.03, p = .303$), indicating complete mediation ($bs = 0.32$ vs. 0.08). More pleasure motive related to higher sexual assertiveness ($b = 0.30, z = 8.56, p < .001$), which in turn related to higher orgasmic function in casual sex ($b = 0.81, z = 5.93,$

$p < .001$). The indirect effect was significant ($b = 0.24, z = 5.05, p < .001$).

Next, we examined the unmediated direct effect of insecurity motive on orgasmic function. Controlling for age and pleasure motive, insecurity motive negatively related to orgasmic function ($b = -0.39, z = -4.01, p < .001$). After adding the putative mediator—sexual assertiveness—to the model (Fig. 1), the direct effect of insecurity motive was reduced to non-significance ($b = 0.03, z = 0.28, p = .780$) and reversed direction, becoming positive ($bs = -0.39$ vs. 0.03), indicating full mediation resulting in statistical suppression (MacKinnon et al., 2000). Women whose reasons aligned more with the insecurity motive had lower sexual assertiveness ($b = -0.52, z = -10.68, p < .001$); lower sexual assertiveness, in turn, related to lower orgasmic function in casual

Table 2 Bivariate correlations

	<i>M (SD)</i>	1	2	3	4
1. Pleasure Motive	2.20 (1.01)	–			
2. Insecurity Motive	0.70 (0.72)	.25**	–		
3. Sexual Assertiveness	2.76 (0.68)	.28**	–.38**	–	
4. Orgasmic Function	3.07 (1.22)	.19**	–.12*	.41**	–
5. Age	23.93 (7.28)	.02	.09	.11*	.17**

Absolute range: 0–4 for Pleasure Motive, 0–4 for Pressure Motive, 1–5 for Sexual Assertiveness, 1–5 for Orgasmic Function

* $p < .05$, ** $p < .01$

sex. The indirect effect was significant ($b = -0.41$, $z = -5.34$, $p < .001$).

Regarding covariates, older age was associated with higher sexual assertiveness ($b = 0.01$, $z = 3.39$, $p = .001$) and higher orgasmic function in casual sex ($b = 0.02$, $z = 2.63$, $p = .009$).

Discussion

The findings supported all of our hypotheses. First, women who had casual sex for autonomous reasons (i.e., pleasure) had higher orgasmic function in casual sex (H1a). Further, more nonautonomous (i.e., insecurity) motives were associated with lower orgasmic function in casual sex (H1b). In addition, women with higher sexual assertiveness had higher orgasmic function in casual sex (H2). Sexual assertiveness also mediated the relationship between sexual motives and orgasmic function in casual sex (H3).

Our findings regarding the relationship between women's motives and orgasmic function in casual sex are consistent with past research (e.g., Gravel, 2017) and support SDT. Having casual sex for pleasure is an autonomous motive because an individual (a) makes sexual choices originating from their intrinsic values and (b) engages in sexual activities for their own sake. The results showed that women who had casual sex for more autonomous reasons (i.e., pleasure seeking) had higher orgasmic function in casual sex. Prior research using the same sample as the present work (Wongsomboon et al., 2020) found that women on average had lower orgasmic function in casual sex compared to relationship sex. Because there is a great deal of within-sex variability in women's reasons to have casual sex (Garcia et al., 2012), our present findings suggest that their motives to have casual sex could account for the difference in orgasmic function in casual sex. According to SDT, when women are sexually motivated by intrinsic or autonomous reasons, their need for autonomy is met, which in turn may lead to positive sexual outcomes. It is also possible that women who aim to derive pleasure from casual sex will likely achieve it in the end.

Sexual motives may be especially important for casual sex (vs. relationship sex). Because casual sex implies non-exclusivity and little expectation for commitment, many people view casual sex as the way to have fun with “no strings attached” (Regan & Dreyer, 1999). Therefore, unlike romantic relationships where other motives such as emotional closeness are also expected in sexual activities, women who have other goals besides having fun (e.g., relationship-seeking) may need to hide their true intention in casual sexual relationships. This may explain why past research showed women who had reported somewhat internal motivations to have casual sex (e.g., self-esteem boost) had less-positive experiences in casual sex (Campbell, 2008; Hehman &

Salmon, 2019; Stephenson et al., 2011). In addition, many women who have casual sex for less-autonomous reasons may be disappointed and feel used after casual sex because their goals (e.g., relationships, non-sex-related attention) are less likely to be met in this sexual context (Campbell, 2008). Nonautonomous goals may also distract women from focusing on their own sexual pleasure. For instance, women may worry about what their partner will think about them or whether their partner will contact them again after sex. These concerns, in turn, may negatively affect their sexual outcomes in casual sex.

Also supporting SDT, women's insecurity motive to have casual sex was associated with lower orgasmic function in casual sex. Note that having sex for insecurity (including pressure) reasons in this study was still motivational (vs. amotivational) and consensual (albeit sometimes unwanted) because women with this motive still had intentions to have sex to an extent. However, the motivation is still somewhat external and is driven by ego protection or internal rewards and punishments. Women with insecurity motive, for instance, might engage in casual sex to maintain or increase their self-esteem (e.g., to be wanted, to feel attractive). Some might be pressured into casual sex because they did not want to be rude (by rejecting sexual advances). Moreover, sexual scripts may make women feel obligated to have sex when walking into someone's home after a casual date or flirting with a stranger at a social event (“she started it”). Additionally, because “casual sex” in this study also included long-term casual relationships (e.g., long-term hookups, friends with benefits, booty calls), women in these relationships might have at times involuntarily agreed to have sex because their casual partners kept asking for it. Perhaps unsurprisingly, the results showed that women with higher insecurity motive had lower orgasmic function in casual sex. Because fewer orgasms are associated with more negative feelings after casual sex (Fisher et al., 2012; Piemonte et al., 2019), our findings may help explain why some women who have consensual sex for nonautonomous reasons experience negative emotions (e.g., regret) after casual sex.

We also found that greater sexual assertiveness was associated with greater orgasmic function in casual sex. This finding is consistent with previous research showing that sexual assertiveness is a major factor in women's sexual function and satisfaction (e.g., Hurlbert, 1991; Woerner & Abbey, 2017). In addition, the results also showed that sexual assertiveness fully mediated the relationship between sexual motives and orgasmic function in casual sex. Higher pleasure motive was associated with higher sexual assertiveness, which in turn related to higher orgasmic function in casual sex. Higher insecurity motive, on the other hand, was associated with lower sexual assertiveness, which in turn related to lower orgasmic function in casual sex.

Why were women with greater autonomous motive also more sexually assertive? It could be simply because women who have more autonomous motivation (e.g., have sex for enjoyment) by definition place greater importance on their own sexual pleasure, and are therefore more willing or able to communicate their needs. Further, past research showed that many women were unwilling to communicate about what they wanted in bed, especially with their casual partners (Armstrong et al., 2012). This is understandable because in many cases (e.g., one-night stands) these partners were just a stranger or someone they did not know well. However, because women who had casual sex for autonomous reasons prioritized their pleasure, they might not hesitate to assert their sexual needs with any partners. On the other hand, women who were extrinsically motivated to have sex might prioritize other external consequences (e.g., avoiding guilt); therefore, they might have sex just to “get it over with” rather than trying to communicate with their partners.

Given the benefits of autonomous motives and sexual assertiveness on women’s sexual function, why do some women have casual sex for nonautonomous reasons? Traditional gender roles support a sexual double standard in which women (vs. men) garner more social disapproval for engaging in casual sex or having multiple partners (Conley et al., 2013; Farvid et al., 2017; Kettrey, 2016; Moran & Lee, 2014; Petersen & Hyde, 2010). Therefore, many women may be afraid of negative consequences (e.g., slut-shaming) if they have uncommitted sex just for fun. Past research showed that investing in traditional gender norms and internalizing a submissive sexual role were related to lower sexual autonomy, which in turn related to lower sexual function and satisfaction in women (Sanchez et al., 2005, 2006). In addition, people who are sexually assertive are often assumed to have had more sexual experience, more past sexual partners, and a longer sexual history—qualities often viewed negatively by potential romantic partners (Fetterolf & Sanchez, 2015; Gesselman et al., 2017; Stewart-Williams et al., 2017). We speculate that many women may not want to be seen as promiscuous and in turn become less comfortable asserting their sexual needs and wishes (Woerney & Abbey, 2017). In addition, because women are expected to be kind and caring (Costa Jr et al., 2001; Ferrer-Pérez & Bosch-Fiol, 2014), it may be difficult for many women to prioritize their sexual pleasure because it can be seen as selfish. Moreover, because of the expectation that women should always try to be nice, some may be pressured to have casual sex because they did not want to offend their partner; however, these women are more likely to regret doing so because the sexual activity is not what they intrinsically enjoy.

In addition, partner responsiveness is one of the important factors predicting women’s sexual function and satisfaction, but it is much less common in casual sex compared to sex in a committed relationship (Armstrong et al., 2012). Lower

partner responsiveness thus partially explains women’s lower orgasm frequency in casual sex (Armstrong et al., 2012). That is, regardless of motives, women’s sexual need fulfillment is generally harder to achieve in casual sex because casual partners usually are not as responsive to their needs in this sexual context. Moreover, in casual sex there may be power dynamics where women do not feel they can sexually assert themselves (Armstrong et al., 2012). To be clear, we are not suggesting that women with insecurity motives did not want to be assertive during sex. It is more likely that there are social or dyadic power dynamics in play that prevent them from enacting assertiveness with their casual partners.

Many women, especially those with a male partner, internalize submissive role because traditional sexual scripts suggest that women should let their partner lead in sex (Sanchez et al., 2006). Thus, it may require extra conscious effort for women to be sexually assertive in contexts where their partners may not care much about their sexual needs and where they face many disadvantages and risks (e.g., tainted reputation, objectification, diseases, unwanted pregnancy, physical harm). Having nonautonomous sexual motives may make women particularly susceptible to these social and dyadic power dynamics. For example, women who have sex for insecurity reasons (e.g., to boost their self-esteem) may care about how people (including their partner) perceive them and thus become reluctant to initiate or communicate what they want sexually. According to SDT, internal pressures may make women feel that their behavior is controlled (vs. volitional), which in turn may thwart their need fulfillment and sexual well-being. On the other hand, having sex for autonomous reasons creates the sense that women are agents of their own behavior; this could increase their confidence to take a more dominant role in sex (e.g., initiate a particular sexual position that facilitates orgasm). Despite social norms suggesting that sexually autonomous women are viewed negatively (e.g., “selfish”; Fetterolf & Sanchez, 2015), our findings indicate that having sex for autonomous reasons is positively linked to greater communication and sexual well-being in casual sex encounters.

Our findings have several implications. First, because women’s motivation to have casual sex is linked to their sexual outcomes in casual sex, whether casual sex is good or bad for women is not a simple question. Although many studies have already documented women’s negative experiences with casual sex (e.g., Campbell, 2008), to ensure women’s sexual health and well-being, researchers should also aim to understand the factors relating to women’s positive sexual experiences in different types of sexual relationships. Second, sex educators and therapists should emphasize the importance of self-determined sexual motives as well as encourage women to prioritize their pleasure and equip them with knowledge and skills to be sexually assertive in casual sex. Sex education programs should also focus on how to resist internal

pressures (e.g., ego protection, appearance-based consciousness) that could make women consent to unwanted casual sex. Last, the commonly shared view that casual sex is bad for women may backfire because it can put shame on those who do it. Rather, it may be more beneficial for sex researchers, educators, and therapists to endorse the idea that the effect of casual sex on women is rather complex and can be influenced by many factors.

Limitations and Future Directions

First, because this study is completely correlational, no causal links can be inferred. Although our data showed statistical mediation, they cannot support causal mediation. For instance, we cannot rule out the possibility that women who had higher orgasmic function would be more likely to have casual sex for pleasure reasons (not the other way around). Future research using experimental or longitudinal designs is important if we want to make stronger assumptions about the possible causal relationships linking these variables.

Second, our sample was relatively young (mean age \approx 24). Younger people tend to have more liberal attitudes toward sex and may be more likely to agree to participate in sex-related surveys. Thus, it is possible that our study suffers from self-selection bias and the findings may not generalize to older women. Although we do not expect that the relationship between self-determined sexual motives and orgasmic function will change, the strength of the relationship may be different for older women. For instance, older women tend to be more sexually experienced and assertive in general (Rickert et al., 2000, 2002); thus, reasons to have sex might not predict their sexual function as strongly as they would for younger women. Additionally, motives to have casual sex may differ by age. For example, young-adult women may not feel ready for a committed relationship and thus be more likely to seek pure pleasure in casual sex (Lyons et al., 2014). However, research has also found that both love and casual sex motivations increased with age (Sumter et al., 2017). Future research should investigate the links between casual sexual motives and orgasmic function in women from multiple age groups.

Third, our sample consisted mostly of heterosexual women. The survey also did not ask participants if they were cisgender, transgender, or other genders (e.g., nonbinary). For example, nine participants indicated that they had never had menses, and thus we were unable to determine whether they were transwomen or ciswomen with reproductive health issues. Although past research found no difference in motives to have casual sex among different sexual minorities (Armstrong & Reissing, 2015), future research should examine whether our findings would be different for sexual- and gender-minority women.

Next, we recruited our participants from various sources including Amazon MTurk. Since MTurk workers were

compensated for every survey they completed, faking eligibility (e.g., cisgender males claiming to be females) is possible. We had embedded several eligibility checks to remedy this issue. Nonetheless, we did not include attention checks in our survey, and thus data quality could still be a cause for concern. Studies found that the data quality from MTurk samples is consistently identical to those obtained via traditional methods (Buhrmester et al., 2016; Chandler & Shapiro, 2016). Moreover, our results remained unchanged even when removing the MTurk sample from the analyses. Therefore, it is unlikely that our findings were driven primarily by our partial use of an MTurk sample.

Last, this study examined only two motives that were extreme in terms of intrinsic versus extrinsic motivations. Future research should examine how other motives that fall on different points along the autonomy continuum (e.g., somewhat intrinsic but not truly intrinsic) may influence women's sexual outcomes in casual sex. For example, women who have casual sex for stress reduction (although they may not experience negative emotions) may still experience lower orgasmic function because their less-intrinsic goals distract them from fully enjoying their sexual activity. Further, while the present study focused on the need for autonomy, it remains unclear how the other two basic needs—competence and relatedness—will benefit or thwart sexual need fulfillment in casual sexual contexts. It is possible that women would also benefit from the motives that satisfy their need for competence (e.g., to learn new skills or test their sexual ability). In addition, relational and emotional motives are also common in casual sex (Armstrong & Reissing, 2015). Future research may examine whether the motives that satisfy the need for competence and relatedness will benefit women's sexual function and satisfaction in casual sex.

Conclusions

Our research found an association between women's sexual motives and orgasmic function (e.g., orgasm frequency) in casual sex. This association was fully statistically mediated by sexual assertiveness. Women who were motivated by pleasure (e.g., having fun) were more sexually assertive and, in turn, experienced higher orgasmic function in casual sex. On the other hand, women who were motivated by insecurity reasons (i.e., self-esteem boost and internal pressure) were less sexually assertive and, in turn, experienced lower orgasmic function in casual sex. Because pleasure motive reflects autonomous (or intrinsic) motive while insecurity motive reflects nonautonomous (or extrinsic) motive, the findings provide evidence for the importance of self-determined sexual motives in sexual well-being within casual sexual relationships.

Declarations

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent All participants read an informational letter regarding the study and their right as a participant, then provided their consent to participate by proceeding to the actual survey.

Conflict of interest The authors declare no conflict of interest.

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