Motives for Desired or Compliant Sex: Differences Amongst Young Adult Women With and Without Borderline Personality Disorder Features

by

Lynnaea Owens

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Name: Lynnaea Owens

Degree: Doctor of Philosophy (Psychology)

Title: Motives for Desired or Compliant Sex: Differences Amongst Young Adult Women With and Without Borderline Personality Disorder Features

Committee:

Chair: Lara Aknin
Associate Professor, Psychology

Alex Chapman
Supervisor
Professor, Psychology

Rebecca Cobb
Committee Member
Associate Professor, Psychology

Rachel Fouladi
Committee Member
Associate Professor, Psychology

Jeff Sugarman
Examiner
Professor, Education

Lori Brotto
External Examiner
Professor, Obstetrics and Gynaecology
University of British Columbia

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Abstract

Little is understood about motivational or cognitive factors that might contribute to the often documented poor relational and sexual functioning among women with borderline personality disorder (BPD). This study examined motivational factors, such as sex for avoidance versus approach motives and compliant and desired sex among women with heightened BPD features. Thirty young adult women in mixed-sex, dating relationships completed an assessment of BPD via videoconference, answered an online battery of baseline questionnaires, and responded to online daily diary questionnaires assessing relationship outcomes and sexual experiences over a 14-day period. Hypotheses were that (a) women with higher BPD features would endorse greater sexual risk-taking, greater avoidance motives for sex, greater sexual compliance, and poorer relational and sexual outcomes compared to women with lower BPD features, (b) avoidance motives would partially mediate the relation between BPD features and poorer outcomes, and (c) sexual compliance would partially mediate the relation between avoidance motives and poorer outcomes. Findings partially supported these hypotheses, showing that (a) BPD features were associated with higher avoidance motives for sex, greater sexual compliance, poorer relational satisfaction, sexual satisfaction, and commitment (but not greater sexual risk-taking), (b) avoidance motives for sex partially mediated the relation between BPD features and sexual satisfaction, and fully mediated the relation between BPD features and relational satisfaction and commitment, and (c) sexual compliance predicted more negative relationship outcomes and partially mediated the association between avoidance motives and sexual satisfaction (but not relationship satisfaction or commitment). These findings highlight the impact of sexual motives on the sexual behaviours and experiences of women with BPD features. Future research should explore interventions targeting avoidance motives for sex to improve the sexual relationships of women with BPD features.

Keywords: borderline personality disorder; sexual motives; sexual satisfaction; relational satisfaction; commitment; sexual compliance

For Adam. Your existence is the best gift I've ever received. May you learn from my example that you can do hard things.

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Introduction

Sexual satisfaction is critically intertwined with relational and personal wellbeing (Davidson et al., 2009; Muise et al., 2016). Efforts to better understand the sexuality of women have revealed that simple models linking sexual dysfunction to dissatisfaction do not adequately capture women's varied experiences (e.g., Ferenidou et al., 2008; Stephenson et al., 2011). Instead, motives for sex (i.e., the reasons why an individual engages in sexual activity[1]) have repeatedly emerged as key predictors of sexual satisfaction (Impett & Tolman, 2006; Stephenson et al., 2011). For example, having sex to increase feelings of closeness with a partner (i.e., an approach motive) is generally associated with greater sexual satisfaction compared to having sex to prevent a partner from becoming angry (i.e., an avoidance motive; Sanchez, et al., 2011). Although sexual motivation has been increasingly studied in diverse samples, there has been little exploration in the context of non-sexual mental health disorders. Notably, poor sexual satisfaction is associated with several mental illnesses, including borderline personality disorder (BPD; Bouchard et al., 2009b). Furthermore, women with BPD features or a BPD diagnosis report high rates of sexual victimization, dysfunction, preoccupation, and compulsivity (Hurlbert, et al., 1992; Northey et al., 2016; Zanarini et al., 2003). To my knowledge, there are no published empirical studies of sexual motives in the context of BPD, despite clear evidence connecting BPD to difficulties in sexual relationships. Thus, I sought to address this gap in the literature using daily diary methodology to examine the connection between sexual motives and sexual and relational outcomes in women with BPD features.

[1] What is categorized as sexual activity varies in the sexuality literature, ranging from kissing to penile-vaginal intercourse (e.g., Gute et al., 2008). For the current study focusing on the sexual experiences of women in mixed-sex, dating relationships, sexual activity was defined as partnered activities involving genital contact (including manual stimulation of genitals, oral stimulation of genitals, penile-anal intercourse and penile-vaginal intercourse).

Background

BPD and Relational Functioning

BPD is a complex mental illness involving instability in affect, identity, impulse control, and relationships (American Psychiatric Association (APA), 2013). Relational impairment is directly highlighted in two BPD symptoms as specified by the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*): intense efforts to avoid perceived abandonment, and fluctuation between intense idealization and devaluation in relationships (APA, 2013). Furthermore, other key features of the disorder, including intense and inappropriate anger and self-injurious or suicidal behaviours, are often prompted by social discord and can worsen relationships for people with BPD (Brodsky et al., 2006; Brown et al., 2002; Stepp et al., 2012). Relational impairment in BPD also tends to persist, and interpersonal symptoms are the least likely to remit with or without treatment (Choi-Kain et al., 2010; Wilks et al., 2016).

Unsurprisingly, the relationship dysfunction linked to BPD also presents in romantic and sexual contexts. Compared to other *DSM* diagnoses, BPD is associated with significantly greater impairment in romantic relationships (Hill et al., 2008). Women with BPD report lower relationship satisfaction, greater anxious attachment, more frequent communication avoidance, and more frequent mutual partner violence compared to women without BPD (Bouchard et al., 2009b). Unfortunately, individuals with a BPD diagnosis or features tend to report impaired sexual functioning alongside heightened relational problems (Hurlbert et al., 1992; Schulte-Herbruggen et al., 2009; Zanarini et al., 2003). Sexual difficulties cannot be explained by poor confidence, high anxiety, or sexual disinterest as women with BPD features report heightened levels of sexual desire, sexual assertiveness, and sexual self-esteem, alongside sexual preoccupation and sexual dissatisfaction (Hurlbert et al., 1992).

The Biosocial Model of BPD

Theoretical understanding of the relational difficulties associated with BPD centres around the biosocial theory of pervasive emotion dysregulation. Linehan's (1993) original version of the biosocial theory posited that BPD symptoms arise from a

transaction between early experiences within an invalidating environment and a biological predisposition toward heightened emotional sensitivity, reactivity, and delayed recovery. Considering the substantial advancements in research on the familial interaction patterns and biological factors that impact the development of psychopathology, Linehan's original theory has since been extended.

The current biosocial model delineated by Crowell and colleagues (2009; 2014; see also Beauchaine et al., 2019) provides a more comprehensive developmental account of the etiology of BPD, highlighting trait impulsivity as a key biological risk factor. Trait impulsivity is posited to interact with environmental risk factors, such as ineffective parenting practices or childhood maltreatment, resulting in escalating dysregulation of emotions. Over time, this dysregulation becomes trait-like; patterns of dysfunctional coping and emotion regulation develop (e.g., self-injury, drug/alcohol use, risky behaviours, etc.), and relational functioning deteriorates. Through mid-to-late adolescence, these difficulties coalesce into the core symptoms of BPD.

The biosocial model may explain some of the problematic sexual behaviours associated with BPD features. For example, impulsivity and difficulties with emotion regulation are associated with sexual risk-taking (Fulton et al., 2014; Tull et al., 2012), suggesting that people with BPD features may be at greater risk of impulsively making sexual decisions in response to intense emotions. Compared to individuals with few symptoms of BPD, individuals with diagnosed BPD or high BPD features report higher numbers of sexual partners (Bouchard et al., 2009a; Kalichman & Rompa, 2001; Sansone et al., 2011) and less consistent engagement in safe sex practices such as condom use (Hull et al., 1993; Sansone et al., 2011); however, these findings have not been consistently replicated (Northey et al., 2016; Sansone, et al., 2008). Some argue that these behaviours do not necessarily reflect an attempt to regulate emotions, but instead may be the consequence of co-occurring substance use, in other words the person may make impulsive sexual decisions due to impaired judgment, not directly as an attempt to regulate negative affect (Chen et al., 2007; Harned et al., 2011; Lavan & Johnson, 2002).

Although extant research has focused primarily on examining sexual behaviours associated with BPD, examinations of sexual motivation have been notably absent. As is

true in the general population, sexual motives may have important implications for understanding why a woman with BPD features engages in a specific sexual behaviour and how that behaviour leads to negative or positive outcomes.

Approach and Avoidance Motives for Sex

Humans experience complex and varied motives for engaging in sex (Meston & Buss, 2007). One method for categorizing these motives is to distinguish between reasons that focus on obtaining positive outcomes (approach motives) and reasons that focus on avoiding negative outcomes (avoidance motives; Carver & White, 1994). Approach motives for sex may include a desire to improve a relationship (e.g., to promote intimacy) or to increase positive emotions (e.g., to feel pleasure; Cooper et al., 1998). Avoidance motives for sex may include a desire to prevent relational discord (e.g., to avoid a fight) or to prevent negative emotions (e.g., to avoid feeling lonely).

Approach motives for sex are generally associated with greater relationship and sexual satisfaction than avoidance motives (Impett & Peplau, 2003; Sanchez et al., 2011). These associations have also been supported by evidence from daily diary studies. For example, in research by Impett and colleagues (2005), on days when participants in dating relationships endorsed more approach motives for sex, they also reported greater satisfaction with life, more positive affect, higher relationship satisfaction, and decreased relational conflict, compared to days when they endorsed more avoidance motives. Approach motives for sex also predicted greater relationship satisfaction and relationship duration (lower likelihood of break-up) over a one-month follow-up. Similar findings have been demonstrated with married and cohabitating couples (Muise et al., 2013).

Sexual motives are likely to be important predictors of relational and sexual outcomes within the context of BPD. The biosocial theory suggests that people with high BPD features may be especially likely to engage in sex to reduce negative affect or to avoid feared emotional states and outcomes that could be prompted by a partner's disappointment or even abandonment. Engaging in sexual activity for avoidance motives would be expected to result in poorer relational and sexual satisfaction.

Approach and avoidance motives for sex may also explain the problematic sexual behaviours associated with BPD. Avoidance motives have been especially implicated in sexual risk-taking; high endorsement of avoidance motives for sex is associated with more sexual partners, unplanned pregnancies, and sexually transmitted infections; (Cooper et al., 1998). Cooper and colleagues (1998) posit that individuals who report more avoidance motives for sex tend to devalue long-term consequences in exchange for prioritizing short-term relief from negative experiences or expectations. Engagement in risky behaviours is generally heightened when an individual experiences strong negative emotions (Baumeister and Scher, 1988). This is also exemplified in sexual decision-making; when avoidance motives involve goals of reducing negative affect (i.e., to regulate emotions), individuals are less likely to use condoms (Gerbhardt et al., 2006).

Sexual Compliance

When examining sexual motives, it is important to distinguish between desired, compliant, and coerced sex. Desired, compliant, and coerced sex differ based on two key elements of sexual decision making: sexual want and consent (O'Sullivan & Allgeier, 1998; Peterson & Muehlenhard, 2007). Sexual want is defined as interest in engaging in sexual activity whereas consent is the outward communication of willingness to engage in the activity, and the two do not always align (Peterson & Muehlenhard, 2007). What qualifies as consent is complex. Laws and initiatives aimed at ending sexual assault on university campuses are increasingly adopting an "affirmative consent" standard which requires that consent is provided explicitly, voluntarily, and consciously, without coercion (End Rape on Campus, n.d.). From an affirmative consent perspective, coercive sex occurs when the individual feels pressured, threatened, or forced into sexual activity, which prevents the individual from being able to freely consent. Non-coercive sex with established consent may occur when sexual want is high ("desired sex") or when sexual want is low ("compliant sex;" Impett & Peplau, 2003). Therefore, sexual compliance occurs specifically when an individual freely consents to undesired sex without experiencing coercion.

Consideration of compliant and coercive sex is especially relevant when examining the sexual experiences of women with BPD. Rejection sensitivity is a

common feature of BPD (Staebler et al., 2010), and for young adult women is a known risk factor for experiencing sexual victimization (Young & Furma, 2008). Women with BPD are more likely than women without BPD to experience sexual victimization in adulthood (Zanarini et al., 2005). Women with BPD features have also demonstrated heightened vulnerability for coercion when potential abandonment is made salient (Willis & Nelson-Gray, 2017). Furthermore, when frantically attempting to avoid rejection, women with BPD are especially likely to impulsively consent to unwanted sexual activity, even when such activity is not coerced (Bouchard et al., 2009b). Thus, women with BPD features may experience higher rates of coerced and compliant sexual experiences compared to women without BPD features.

The literature on relational and sexual outcomes and compliant sex is limited due to inconsistent operational definitions of compliance and coercion. For example, in research by Shotland and Hunter (1995), sexual events involving explicit pressure were categorized as "compliant" (for example, 23% of the sample reporting compliant events endorsed the reason "he wouldn't leave me alone until I agreed," clearly indicating the sexual event was coerced). Thus, the conclusions that can be drawn from past research on compliance are limited, as results often capture experiences of coercion alongside compliance.

In a study where this flaw was not present (as coerced events were explicitly excluded from analyses), participants rated compliant sexual experiences as less enjoyable than desired experiences (Vannier & O'Sullivan, 2010). Despite this finding, not all compliant sex results in negative outcomes. Whereas non-consensual sex is nearly always associated with severe negative emotional reactions (Arata & Burkhart, 1995), in a study of undergraduate women in committed dating relationships, only 35% reported emotional discomfort following compliant sex (O'Sullivan & Allgeier, 1998). Compliant sex may even be beneficial in long-term relationships as a means of maintaining a sexual relationship when partners' levels of desire are discrepant (Muise & Impett, 2016; Vannier & O'Sullivan, 2010).

Importantly, motivations that precede sexual compliance may impact whether outcomes are positive or negative. As sexual compliance is conceptualized as noncoerced sex occurring when desire is low, findings that sexual desire is positively

related to commitment (Regan, 2000) and relationship satisfaction (Chao et al., 2011) suggest that compliance may have negative impacts on relational wellbeing. In a daily diary study of dating and married couples by Muise and colleagues (2013), participants who endorsed more approach motives for sex experienced heightened sexual desire, which mediated the connection between approach motives and greater experiences of relational and sexual satisfaction. In contrast, participants who endorsed more avoidance motives for sex experienced lower desire, which mediated the connection between avoidance motives and poorer satisfaction.

Unfortunately, poor operational definitions also present confounds in the literature on sexual motives and compliance. A review by Impett and Peplau (2003) highlights that, for desired sex, approach motives are more frequently endorsed than avoidance, but for compliant sex, approach and avoidance reasons are endorsed approximately equally. This review, however, included studies that did not always clearly distinguish between coercive and compliant encounters. Therefore, further research is needed to clarify the relation between motives for sex, compliant sexual experiences, and relational and sexual outcomes.

Approach and avoidance motives may provide a helpful lens through which to understand the outcomes of sexual compliance for women with BPD features. Women with high BPD features may be especially likely to comply for avoidance motives, due to fears of abandonment and rejection sensitivity. Avoidance motives related to preventing a partner from withdrawing love or becoming angry are theorized to be strongly linked to compliant risk-taking (Cooper et al., 1998).

Current Study Aims and Hypotheses

Despite the growing literature underscoring the impact of sexual motives on sexual and relational outcomes for women, to my knowledge, these variables have not been studied in the context of BPD. As relational problems are key characteristics of BPD, this exploration may provide important insight into some of the problematic sexual behaviours and poor relational and sexual outcomes reported by women with elevated BPD features. Therefore, my primary aim for this study was to examine theoretical models of the associations between BPD features, sexual motives and relationship

outcomes. Understanding the relations between these variables will have important implications for improving the sexual experiences of women with BPD features.

I considered several methodological approaches. Prior research on sexual motives employed daily diary methodology, assessing participants' motives for sexual events once per day (e.g., Impett et al., 2005; Muise et al., 2013), suggesting such a design would be appropriate for this study. Other ecological momentary assessment (EMA) designs were also considered, such as having participants respond to questionnaires immediately after sexual experiences, or when prompted at fixed intervals, multiple times per day. These methods can increase accuracy of reporting by reducing the time between the sexual events and when participants' report on key study variables. However, intensive EMA designs have additional limitations. When multiple prompts are used per day, the number of days of data collection should be reduced to prevent undue participant burden and study dropout (Wrzus & Neubauer, 2022). Given that sexual events may not occur every day, fewer days of data collection also decreases the amount of usable data, reducing power to detect effects. To best balance these demands I elected to use daily diary methodology. Each participant responded once per day for fourteen days to questionnaires assessing sexual motives (approach and avoidance), sexual behaviours, and relationship functioning outcomes (relationship satisfaction, sexual satisfaction, and commitment).

One important consideration when examining sexual behaviours and outcomes in the context of BPD is consideration of the impact of heightened psychopathology and alcohol use on variables of interest. Thus, general psychopathology and alcohol abuse were two important variables included in models as control variables. For **Hypothesis 1**, I predicted that women with higher BPD features would report greater engagement in sexual risk-taking compared to women with lower BPD features. I also expected women with higher BPD features would report more avoidance motives for sex **(Hypothesis 2**) and poorer relationship outcomes (i.e., lower relationship satisfaction, sexual satisfaction, and commitment; **Hypothesis 3**) than women with lower BPD features. Furthermore, I predicted that avoidance motives for sex would partially mediate the relation between BPD features and more negative relationship outcomes (**Hypothesis 4**), as is depicted in Figure 1. It is important to note that as outcome variables and sexual motives were assessed at the same time, firm conclusions could not be drawn regarding

mediation. There is, however, theoretical support for a mediation model as I expected that participants' BPD features exist prior to their engagement in sexual activity, and that motives for engaging in sex arise before the activity takes place.

Based on the theoretical and empirical literature, there were no compelling reasons to propose a priori hypotheses about a connection between BPD features and approach motives, so examination of this potential association was an exploratory aspect of the study. To inform future research, I ran models with approach motives mediating between BPD features and relational/sexual outcomes.

A second aim of this study was to explore sexual motives and relationship outcomes in the context of compliant sexual experiences for women with and without BPD features. Compliant sex is common in long-term relationships and may be especially frequent among those with BPD features. As compliant sex is characterized by low desire, motives for sexual behaviour during compliant sexual activity may be especially important for predicting relational/sexual outcomes. Women with BPD features may be more likely to engage in sexual activity to prevent feared conflict or abandonment, even when such outcomes are not threatened by a partner and sexual behaviour is not coerced. Consequently, I expected that BPD features would be positively associated with compliance (**Hypothesis 5**).

Past research has demonstrated that avoidance motives for sex are generally associated with negative outcomes, whereas the connection between compliant sex and outcomes is not clearly established. Avoidance motives may be associated with even worse outcomes for compliant sex than for desired sex, as complying to unwanted sex to avoid negative outcomes may prompt feelings of resentment within the relationship. Muise and colleagues (2013) found that avoidance motives for sex were associated with lower sexual desire, and that sexual desire positively mediated the relation between motives for sex and sexual/relational satisfaction. As I have conceptualized compliant sex as sex occurring without coercion when desire is low, I expected to replicate Muise and colleagues' (2013) findings. Thus, for **Hypothesis 6** I predicted that compliance would partially mediate the relation between avoidance motives and more negative relational outcomes (i.e., lower relationship satisfaction, sexual satisfaction, and commitment; see Figure 2).

Methods

Participants

Participants were recruited from April through December of 2020. To limit the heterogeneity of the sample, inclusion criteria for the study were (a) assigned female sex at birth and current female gender identity, (b) age 18-30; (c) current involvement in a committed, mixed-sex dating relationship lasting at least three months; and (d) sexual frequency occurring at least weekly, on average, over the previous four weeks. Participants who were married or had children were excluded from the study.

Inclusion and exclusion criteria were selected to reduce the impact of demographic variables such as gender and age on variables of interest, and to increase the likelihood that participants would report multiple sex events across the daily diary portion of the study. Gender differences have been repeatedly found in research on sexual motives (e.g., Cooper et al., 1998; Mark et al., 2014; Meston & Buss, 2007). As most research has focused on comparisons between cisgender men and women, little is known about how variables of interest in my study are associated among people with diverse genders. Thus, I elected to only include cisgender women to reduce heterogeneity in the data. For age, research on older adults suggests that while some motives persist across the lifespan, others occur less frequently (e.g., having sex due to peer pressure) or change in importance (e.g., an emphasis on expressing love becoming increasingly important compared to desire to satisfy sexual urges; Gewirtz-Meydan & Ayalon, 2019; Wyverns et al., 2018). Similarly, motives and sexual behaviours may differ based on relationship type (see Armstrong & Reissing, 2015 for examination of women's sexual motivations in casual and committed relationships; see Kelberga & Martinsone, 2021 for examination of motives for sex in monogamous and non-monogamous committed relationships). Frequency of sex also tends to decrease for individuals who are married or who have children (e.g., Jawed-Wessel & Sevick, 2017; McNulty et al., 2016). Sexual frequency was an inclusion variable to increase the likelihood that an adequate sample of reported sexual events would be collected across the study's duration.

BPD symptoms were not used for inclusion criteria early in the study, but in the final month of recruitment, a cut-off of three BPD symptoms was used to increase recruitment of participants with high BPD features, resulting in the recruitment of twelve individuals with high levels of BPD features (i.e., those meeting diagnostic criteria for >3 symptoms) overall and three in the last month of recruitment.

Participants were thirty women in mixed-sex dating relationships. Participants' mean age was 24.77 years (*SD* = 2.56). Participants' mean relationship length was 4.24 years (*SD* = 1.78) and current relationship duration ranged from six months to nine years. Most (90%) reported being born in Canada and 80% indicated that English was their first language. Most participants identified as White (66.7%), followed by Other Asian (9.9%), Chinese or Chinese Canadian (6.7%), Mixed (6.7%), Hispanic/Latinx (3.3%), East Indian (3.3%), and Middle Eastern/Arab (3.3%). Just over half (60%) of participants reported current enrolment in a university, college or professional school. Over one third of participants were employed full-time (36.7% reported working more than 30 hours per week, 33.3% reported working 1-30 hours per week, and 20% reported being unemployed). All participants indicated they had completed or attended post-secondary school (50% some college/university, 33.3% graduated college/university, and 16.6% further professional or graduate training beyond a college/university degree). Participants primarily identified as heterosexual (80.0%) with 16.7% identifying as bisexual, and 3.3% as questioning. Most participants (54.7%) indicated that they were not living with their romantic partner.

Procedures

All procedures were approved by the Simon Fraser University (SFU) Research Ethics Board. Based on previous daily diary studies of sexual motives (e.g., Impett et al., 2005; Muise et al., 2013), I aimed to collect data for 200 sexual events across the daily diary portion of the study. Data collection was planned to begin in March 2020 but was disrupted by the COVID-19 pandemic. Procedures were adjusted to allow research personnel to work from home, and all study recruitment, assessments, and data collection were conducted virtually. Recruitment began in April 2020 and was much slower than expected. An end date for participant recruitment was set for December

2020. Ultimately, the resulting sample was smaller than anticipated, reducing power to detect effects in analyses.

I recruited participants by sending emails to relevant listservs (e.g., professional associations such as the Canadian Association of Cognitive and Behavioural Therapies, the dialectical behaviour therapy listserv, and emails to other clinicians/professionals) and posting flyers to social media (e.g., Instagram) and websites such as Craigslist. To enhance recruitment of participants meeting BPD criteria, I also emailed participants meeting BPD criteria who had consented during previous studies conducted in the Personality and Emotion Research Laboratory to be re-contacted about future studies.

Screening and Initial Assessment

Email instructions directed interested participants to an online screening questionnaire assessing study eligibility criteria (e.g., age, relationship status) and BPD symptoms. We invited participants appearing to meet study eligibility requirements to participate in a 30-60 minute interview over Skype with a trained assessor. All assessors were research assistants who had obtained a bachelor’s degree in psychology or a related field or graduate students in the clinical psychology program at SFU. Assessor training consisted of: (a) attending a diagnostic training session; (b) completing training on risk assessment and management; (c) coding three training videos and attending a reliability coding meeting to confirm and clarify codes; and (d) attending monthly assessor meetings to review procedures and codes. All training components were overseen by myself or my primary supervisor, Dr. Alexander Chapman.

Each interview began with a review of informed consent and a risk assessment using the University of Washington Risk Assessment Protocol (UWRAP; Linehan et al., 2000). The UWRAP was developed to assess and manage the risk of harmful behaviours for research participants with BPD and a history of suicidality. Next, the assessor verbally confirmed the participant’s responses to the inclusion/exclusion criteria questions that were asked in the online screening questionnaire. Repeating these questions in the interview allowed the assessor to ensure the data were accurate and to clarify any questions participants may have misunderstood when responding online. Next, the assessor administered the BPD section of the *Structured Clinical*

Interview for DSM-5 Personality Disorders (*SCID-5-PD*; First et al., 2016a) to assess BPD symptoms. For eligible participants, the assessor provided further study instructions including information on how to complete daily diary questionnaires. Next, they discussed problem-solving strategies for common barriers to daily diary completion (for example, preparing to set a phone reminder to prevent forgetting about the questionnaire). Ineligible participants were debriefed, informed they could not be invited to participate in further study components, and provided with mental health resources. All participants were re-administered the UWRAP at the end of the interview to allow for further risk management if needed. Notably, across the duration of the study, no participants reported high urges (i.e., rating urges above a "4" on a 7-point Likert scale) for self-injury or suicide and no assessments needed to be stopped due to participant distress.

Study flow and reasons for participant exclusion are depicted in Figure 3. Of the 118 people who expressed interest in the study, 96 completed the screening survey and 49 were eligible and invited to complete the Skype interview. Fourteen participants did not schedule or did not attend their scheduled Skype interview. Of the 35 who completed the interview, 31 were eligible and invited to participate. One participant did not complete the baseline questionnaires and was not sent daily diary links. As a result, the final sample consisted of 30 participants who completed each component of the study.

Baseline and Daily Diary Questionnaires

Eligible participants were instructed to complete an hour-long battery of baseline questionnaires assessing several life experiences and personality features that may have been associated with key study variables. Not all baseline questionnaires were included in data analyses for this study. A list of all questionnaires is provided in Appendix A; study-relevant questionnaires are described further below. Once baseline questionnaires were submitted, participants received emails containing links for daily online surveys across fourteen days. They received one link per day starting the day after they completed the baseline questionnaires (e.g., if a participant completed the questionnaires at 3:00 p.m. on Friday, they received the first daily diary questionnaire link on Saturday). Past research examining sexual motives has involved daily diary reporting ranging from one week (e.g., Dawson et al., 2008) to one month (e.g., Jodouin

et al., 2019). I chose a 14-day assessment period to balance participant burden with the need to collect data sufficient to capture variability in sexual motives and outcomes.

The first daily email with the questionnaire link was sent at 8:00 p.m. in the participant's local time zone, encouraging participants to respond as close to bedtime as possible. To enhance compliance with daily diary procedures, participants who had not yet completed the questionnaire at 11:00 p.m. and 9:00 a.m. the following morning received email reminders specifying that they were to recall the 24-hour period prior to the 8 p.m. prompt. Questionnaires received before 11 a.m. that day were considered valid and included in data analyses.

Similar to research conducted by Impett, Peplau, and Gable (2005) on college students' motives for sex, each daily diary questionnaire consisted of two parts (see Appendix B). First, questions inquired about participants' current perception of the quality of their romantic relationship and how many discrete sexual events (defined as partnered manual, oral, anal, or vaginal intercourse) occurred during the previous 24 hours. As one sexual encounter may involve several of these elements, participants were encouraged to self-determine what constituted a discrete event. If a participant reported zero sexual events, the questionnaire ended. Consequently, the time needed to complete a daily diary varied depending on the number of sexual events reported.

For each sexual event reported, participants answered a series of questions modified from Vanier and O'Sullivan (2010) assessing: (a) what sexual behaviours occurred; (b) the participant's sexual desire (which was used to determine degree of compliance); (c) any experience of sexual coercion; (d) if substances were used prior to sex; (e) if a condom or other forms of contraceptives were used during sex; (f) the participant's satisfaction with the sexual encounter; and (g) the motives that influenced their decision to engage in the sexual behaviour (the nine-item version of the Sexual Motives Scale (Impett et al., 2005)).

Compensation

All compensation was through emailed gift cards for Amazon.ca which were funded by a Faculty of Arts and Social Sciences Dean's Grant provided to Dr. Chapman. Participants who completed the online pre-screening questionnaire were invited to enter

a draw for a $50 gift card. Participants received $10 compensation for the Skype assessment and $10 for completing baseline questionnaires. For the daily diary component, the compensation schedule was designed to enhance participant compliance. Participants were compensated with $3 for each day they completed the daily diary (earning up to $42). They also received a bonus of $5 for each week in which they completed five of the seven possible diaries, and a bonus of $10 each week they completed all seven dairies. Thus, participants received up to $62 for daily diary completion.

Measures

Demographics and Baseline Relationship Variables

Demographic variables relevant for eligibility requirements were assessed in the online pre-screening questionnaire and confirmed during the Skype interview. Variables assessed included participants' age, sex assigned at birth, gender identity, relationship status, duration of relationship, parental status, and frequency of sexual activity over the past month. To better describe the sample, we used baseline questionnaires to collect further information about participants' backgrounds and romantic/sexual relationships. Demographic variables included participants' ethnicity, sexual orientation, relationship length, background living in Canada and speaking English, education, and employment (see Appendix B).

Relationship Satisfaction

The Couples Satisfaction Inventory (CSI; Funk & Rogge, 2007) was administered at baseline to assess participants' overall satisfaction with their relationships. The CSI consists of 32 items rated on 5- or 6-point Likert scales. For example, the item "My relationship with my partner makes me happy," is rated on a 6-point scale ranging from 0 (*not at all true*) to 5 (*completely true*). Responses are summed across all items with scores ranging from 0 to 161. Higher scores indicate higher levels of relationship satisfaction and scores below 105 reflect relationship dissatisfaction. The CSI has demonstrated strong convergent validity when compared to other measures of relationship satisfaction and an internal consistency of α = .98 (Funk & Rogge, 2007). In this study, the CSI demonstrated an internal consistency of α = .97.

Sexual Satisfaction

The Quality of Sex Inventory (QSI; Shaw & Rogge, 2016) was administered at baseline to assess participants' overall satisfaction with their sexual experiences. The QSI consists of two subscales which are summed: a 12-item sexual satisfaction subscale (e.g., "My sex life is fulfilling") and a 12-item sexual dissatisfaction subscale (e.g., "Sexual activity with my partner is not fun"). Participants were asked to rate the extent to which they agreed with each statement using a six-point Likert scale from 0 *(not at all true*) to 5 (*completely true*). Possible scores for both subscales range from 0 to 60. Shaw and Rogge (2016) found that the satisfaction and dissatisfaction subscales were only modestly correlated with each other, suggesting they measure different constructs. Furthermore, the satisfaction subscale has demonstrated strong convergent validity with other measures of sexual satisfaction. In prior research with women in sexually active romantic relationships, the satisfaction subscale demonstrated an internal consistency of $\alpha = .97$ and the dissatisfaction subscale demonstrated an internal consistency of $\alpha = .94$ (Shaw & Rogge, 2016). In this study, the sexual satisfaction subscale and the sexual dissatisfaction subscale demonstrated internal consistencies of $\alpha = .96$ and $\alpha = .86$, respectively.

Commitment

To assess participants' overall commitment within their current dating relationship, 54 items from the Commitment Inventory (CI; Stanley & Markman, 1992) were administered at baseline. The 36 items in the Personal Dedication subscale assess intentions to maintain and improve the relationship. Sample items include, "I want to grow old with my partner," and "I may not want to be with my partner a few years from now" (reverse scored). The 18 items in the Constraint subscale assess the internal and external forces that may prevent someone from ending a relationship, regardless of their personal dedication. Sample items include, "My family really wants this relationship to work," and "It would be very difficult to find a new partner." Questions from the "morality of divorce" dimension of the Constraint subscale were not administered as this study's sample did not include married women. All items are rated using a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*) and a mean score for each subscale was calculated ranging from 1 to 7. In previous research, the Personal Dedication subscale was more strongly correlated with relationship satisfaction than was the Constraint

subscale, providing some evidence of construct validity. The CI has also demonstrated convergent validity with other measures of relationship commitment (Stanley & Markman, 1992). The Personal Dedication subscale has demonstrated an internal consistency of α = .95 and the Constraint subscale has demonstrated an internal consistency of α = .92 (Stanley & Markman, 1992). In this study, the Personal Dedication and Constraint subscales demonstrated internal consistencies of α = .92 and α = .73, respectively.

Motives for Sex

To assess participants' overall experience of approach and avoidance motives for sex, the 29-item Sexual Motives Scale (SMS; Cooper et al., 1998) was administered at baseline. The SMS asks participants to rate how often they have sex for a variety of reasons using a five-point Likert scale from 1 (*almost never/never*) to 5 (*almost always/always*). A mean score was calculated for approach motives for sex (e.g., "How often do you have sex to feel emotionally close to your partner?") and for avoidance motives for sex (e.g., "How often do you have sex out of fear that your partner won't love you anymore if you don't?"), subscale scores can range from 1 to 5. The SMS has demonstrated discriminant validity when correlated with other measures of sexual motivations and emotions, and convergent validity with specific measures of motivations (e.g., approach motives positively correlated with sexual sensation seeking; Cooper et al., 1998). In this study, the approach subscale and the avoidance subscale demonstrated internal consistencies of α = .73 and α = .81, respectively.

BPD Features

BPD features were first screened for online using the BPD items from the *Structured Clinical Interview for DSM-5 Screening Personality Questionnaire* (*SCID-5-SPQ*; First et al., 2016b). Item response is in yes/no format, with higher numbers of "yes" responses indicating greater likelihood of meeting diagnostic criteria for BPD. Symptoms were confirmed in the Skype interview through a diagnostic assessment using the BPD section of the *SCID-5-PD* (First et al., 2016a). The *SCID-5-PD* is a semi-structured diagnostic interview developed from the *Structured Interview for DSM-IV Axis II Personality Disorders* (*SCID-II*; First et al., 1997). The BPD section includes items assessing each of the nine BPD symptoms as specified in the *DSM-5* (APA, 2013). The

interviewer rates each symptom as 1 (*absent*), 2 (*subthreshold*), or 3 (*threshold*) based on participants' responses. A rating of 3 indicates that the criterion meets the *DSM-5* threshold for the presence of a pathological, persistent, and pervasive personality disorder symptom. The *SCID-II* is one of the most widely utilized semi-structured interviews for BPD (Carcone et al., 2015). The BPD section of the *SCID-II* has demonstrated convergent validity with self-report measures of BPD, discriminant validity with other personality disorders, and suitable interrater and test-retest reliability (Carcone et al., 2015).

Dimensional scores for BPD features based on the *SCID-5-PD* were calculated following procedures from Farmer and Chapman (2002). Items rated as "*threshold*" were weighted with a value of 1.0, those rated as "*subthreshold*" were weighted as 0.5, and those rated as "*absent*" were weighted as 0.0. Finally, a mean-weighted score was calculated for each participant using all nine BPD criteria. Thus, each participant was assigned a BPD features score ranging from 0.0 to 1.00 with a higher score indicating higher features. This system of scoring is advantageous as it takes into account subthreshold symptoms which do not meet diagnostic criteria but may still be associated with an individual's functioning.

For supplemental analyses in which BPD was conceptualized dichotomously rather than dimensionally, the SCID-5-PD was used to categorize participants into two groups: "high BPD" (participants with four or more symptoms meeting threshold) and "low BPD" (participants with three or fewer symptoms meeting threshold). A cut-off of four symptoms was chosen to incorporate participants with subthreshold BPD (i.e., fewer than the five symptoms needed to meet the *DSM-5*'s criteria for BPD diagnosis) into the high BPD group (see Beck et al., 2020 and Clifton & Pilkonis, 2007 for examples of research using subthreshold cut-offs in BPD). The categorical diagnosis of BPD using a five-symptom threshold is broadly considered to be somewhat arbitrary as there is not a clean delineation between "disordered" and "non-disordered" personality (Clark, 2007). Practically, subthreshold BPD features have important impacts on psychosocial functioning. Patients with even one BPD symptom demonstrate poorer functioning than patients with no BPD symptoms (Ellison et al., 2016; Zimmerman et al., 2012) and patients who have "remitted" (i.e., previously had five or more BPD symptoms but later

present with less than five) have ongoing functional impairment (Gunderson et al., 2011; Zanarini et al., 2010).

Sexual Risk-Taking

Sexual risk-taking was assessed at baseline and in the daily diary portion of the study. In each daily diary questionnaire, participants were asked to report any substances used prior to or during each sexual event and whether a condom or other forms of sexual protection were used (see Appendix A). At baseline, participants responded to the Safe Sex Behaviours Questionnaire (SSBQ; Dilorio et al., 1992). The SSBQ is a 24-item self-report measure examining participants' engagement in safe sexual practices including using condoms (e.g., "I insist on condom use when I have sexual intercourse"), being assertive about sexual safety (e.g., "I ask potential sexual partners about their sexual histories"), and avoiding activities that increase risk, such as through contacting bodily fluids (e.g., "I avoid direct contact with my sexual partner's semen or vaginal secretions") or using drugs prior to intercourse ("I use cocaine or other drugs prior to or during sexual intercourse"; reverse-scored). Items are rated on a 4-point Likert scale from 1 (*never*) to 4 (*always*) and totalled with potential scores ranging from 24 to 96. Higher scores indicate more effective use of safe sex practices and lower scores indicate greater engagement in sexual risk-taking. In prior research with female undergraduates, the SSBQ demonstrated construct validity when correlated with general measures of assertiveness and risk-taking and an internal consistency of $\alpha = .83$ (Dilorio et al., 1992). In this study, the internal consistency of the SSBQ was $\alpha = .83$.

Motives for Sex

Approach and avoidance motives were also assessed in the daily diary portion of the study. For each sexual event reported, participants were asked to respond to a nine-item adaptation of the SMS developed by Impett and colleagues (2005) for use in daily diary questionnaires. Participants rated how important each of nine motives were in influencing their decision to engage in the sexual activity using a seven-point Likert scale from 1 (*not at all important*) to 7 (*extremely important*). Five items described approach motives (e.g., "to feel good about myself") and four items assessed avoidance motives (e.g., "to avoid conflict in my relationship"). Mean scores were calculated for both

subscales with higher scores indicating greater importance of that type of motive in the sexual event. The potential range of subscale scores was 1 to 7. In previous research using this scale, approach motives have demonstrated alphas ranging from .71 to .86 and avoidance motives have demonstrated alphas ranging from .66 to .90 (Impett et al., 2005; 2008). In this study, internal consistency ranged across sexual events from .69 to .89 for the approach subscale and from .53 to .86 for the avoidance subscale.

Sexual Compliance

As sexual compliance consists of two components, low desire and freely given consent, both were explicitly assessed for each sexual event reported in the daily diary questionnaires. Consent was assessed using four yes/no items: "Did your partner insist that you engage in the sexual activity or pressure you in any way?"; "Did your partner use threats to make you engage in the sexual activity?"; "Did your partner use physical force to make you engage in the sexual activity?"; and "Did you willingly engage in the sexual activity (even if you didn't feel like doing so initially)?" Responses of "yes" to feeling pressured, threatened, or forced, were coded as "1", and responses of "no" were coded as "0". For willingly engaging in the activity, an answer of "yes" was coded as "0" and an answer of "no" was coded as "1". Responses to all four coercion questions were summed. Sexual events that scored "0" were coded as non-coerced and sexual events that scored > 0 were coded as coerced. Events coded as coerced were not rated for compliance.

Compliant sex was conceptualized as sexual events occurring when desire is low, and the participant was not coerced. To determine the degree of compliance for each sexual experience, sexual desire was assessed with the item: "To what extend did you desire/want to engage in the sexual activity before it began?", which participants rated from 1 (*not at all*) to 7 (*very much*). If an event was not coded as coerced, degree of compliance was rated using the response to the desire item, with lower desire indicating greater compliance.

Relationship Outcomes

Key relationship outcomes were assessed in the daily diary portion of the study. Each daily diary questionnaire asked participants to respond to one item from the CSI to assess relationship satisfaction ("In general, over the past 24 hours, how satisfied have you felt with your relationship"; Funk & Rogge, 2007). Participants were also asked to rate the extent to which they agreed with one item from the QSI to assess sexual satisfaction ("I am happy with my sex life with my partner"; Shaw & Rogge 2016) and one item from the CI to assess commitment ("My relationship with my partner is clearly part of my future life plans"; Stanley & Markman, 1992) based on their feelings over the past 24 hours. The relationship and sexual satisfaction questions were rated on a Likert scale from 0 (*not at all*) to 5 (*completely*). The commitment item was rated on a Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Sexual dissatisfaction was also assessed but not included in analyses.

Possible Covariates

Measures assessing two key variables that may be theoretically linked to BPD, sexual motives, and/or the outcomes of interest in this study were included in the baseline questionnaires. Alcohol use may greatly impact sexual decision making as well as the outcomes of such decisions. I also measured general psychopathology to ensure that differences attributed to BPD features were not simply the result of heightened overall psychopathology. Thus, alcohol use and general psychopathology were included as covariates in analyses.

Alcohol Use

The Alcohol Use Disorders Identification Test (AUDIT; Babor et al., 2001) is a 10-item self-report screening measure for harmful alcohol use. Participants rate each item on a scale from 0 to 4. All items are summed for a possible range of 0 to 40. Scores of 8 or higher are considered indicative of possibly problematic drinking. The AUDIT reliably discriminates between people with and without an alcohol-use disorder as specified by the *DSM-IV* and the *DSM-5* (Babor et al., 2001; Hagman, 2016). A review by Reinert and Allen (2006) found that across 18 studies the AUDIT demonstrated a median internal

consistency of α < .80. In the current study, the AUDIT demonstrated an internal consistency of α = .88.

General Psychopathology

The Brief Symptom Inventory (BSI; Derogatis, 1993) is a 53-item self-report measure of psychological symptoms. Participants rate how much distress each problem has caused them over the past four weeks using a 5-point Likert scale from 0 (*not at all*) to 4 (*extremely*). Symptoms cover a broad range of difficulties including depression, anxiety, phobias, paranoia, obsessive-compulsiveness, hostility, and interpersonal sensitivity. A mean score can be calculated to determine the Global Severity Index (GSI). The GSI ranges from 0 to 4 with higher scores indicating greater psychopathology. The GSI has been studied in a variety of settings and is considered a valid indicator of psychological distress in community, clinical, and research settings (Rath & Fox, 2018). Prior research has demonstrated strong internal consistency for the GSI (e.g., α = .97; Derogatis, 1993). In the current study, the GSI demonstrated an internal consistency of α = .98.

Data Analytic Approach

To test Hypothesis 1, that higher BPD features would predict greater sexual risk-taking, regression analyses were conducted using three sexual risk-taking variables. Participants' scores on the SSBQ were used as a measure of general risk-taking in sexual relationships (with lower scores indicating less engagement in safe sex practices and therefore greater sexual risk-taking). I also calculated two variables using data from the daily diary portion of the study: Risk-Taking – Substance Use (RT-Sub; i.e., the number of sexual events in which the participant reported using substances prior to engaging in sexual activity, divided by the participant's total number of reported sexual events) and Risk-Taking – Condom Non-Usage (RT-Con; i.e., the number of sexual events in which the participant reported not using a condom, divided by the participant's total number of reported sexual events). Hierarchical regression analyses were conducted independently for each sexual risk-taking variable with the SSBQ, RT-Sub, and RT-Con scores entered as outcome variables. Both the GSI and the AUDIT Total score were included in Block 1 and BPD features were added in Block 2. This allowed

for determination of what was predicted by BPD features beyond what could be attributed to general psychopathology or problematic substance use. Listwise deletion was used for missing data in regression analyses.

I tested Hypotheses 2-6 with Multilevel Modelling (MLM) via the Statistical Package of Social Sciences (SPSS). MLM accounts for the nested nature of the data (i.e., repeated measures of relationship/sexual outcome variables and sexual motives nested within individual participants). Repeated measures were modelled at Level 1 (e.g., relationship satisfaction) with measures assessed at baseline modelled at Level 2 (e.g., BPD features). All predictors were grand mean centred unless otherwise specified. As MLM accounts for missing data using restricted maximum likelihood estimates, the same number of observations are not needed across participants. Thus, no correction for missing data was employed. Outputs represent an average across all sex events.

To test the hypothesized mediation model presented in Figure 1, I conducted three separate analyses with sexual satisfaction, relationship satisfaction, and commitment entered as outcome variables. For each model, BPD features was included as a predictor with avoidance motives as the hypothesized mediator (testing Hypotheses 2-4). The AUDIT and the GSI of the BSI were included as covariates in each model[2]. Time (days) was also tested as a covariate, but did not impact results, and was not included in final analyses. To estimate indirect effects, I computed the products of the a and b path coefficients (a*b) for the models using the MCMED macro for SPSS. I also calculated Monte Carlo 95% confidence intervals for indirect effects, with confidence intervals not including zero considered to be indicative of a significant indirect effect (alpha = .05).

For sexual compliance analyses, I first tested Hypothesis 5 by examining if BPD features predicted compliance (i.e., lower desire during non-coerced sexual activity). The AUDIT and the GSI were included as covariates. To test the mediation model in Figure 2 (Hypothesis 6), separate analyses were also run for sexual satisfaction, relationship

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[2] Covariates were selected prior to data analysis. Analyses were also run without covariates. When covariates were not included, the strength of some relationships increased or decreased, but the direction and significance of results did not change.

satisfaction, and commitment. In these models, participants' avoidance motives were entered as a predictor of each outcome, with sexual compliance as a mediator. For these models, only the AUDIT was included as a covariate. The GSI was not included as there was no theoretical reason to control for general psychopathology in models without BPD as a predictor. Indirect effects were also tested using the MCMED macro for SPSS and Monte Carlo 95% confidence intervals.

Coercive Sex Events

If participants indicated that consent was not freely given (see "Sexual Compliance" above) for a sexual event, the event was coded as coerced. A total of 14 events were coded as coerced (7 for the high BPD group and 7 for the low BPD group) and were not included in MLM analyses.

Indiscriminate Responding and Outliers

Data was inspected for indiscriminate responding on questionnaires and one participant's ten reported sexual events were removed from analyses due to identical responses to all sexual motive questions. Data was also examined for outliers using Q-Q plots. The same participant who engaged in indiscriminate responding was also an outlier for approach and avoidance motives in the daily diary questionnaires. Finally, possible outliers were examined based on completion time of the baseline questionnaires. *Z*-scores for baseline questionnaire completion time were calculated for each participant[3] and ranged from -1.11 to 2.63, indicating no extreme outliers for baseline questionnaire completion time.

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[3] As participants completed baseline questionnaires online, they were able to leave questionnaires open for extended periods of time. The cause of excessively high completion times could not be determined (e.g., one participant had the questionnaire open for 21 hours which suggests they left the questionnaire open while attending to other tasks), but high completion times were considered less potentially impactful on data accuracy than excessively short completion times. To allow for identification of short completion time outliers, three participants' completion times which were over three hours long were not included in *z*-score calculations or examined as potential outliers.

Supplemental Analyses

Approach Motives. As there was not an adequate theoretical basis to determine hypotheses for the relations between BPD features and approach motives, approach motives were only included in supplemental, exploratory analyses. MLM models for supplemental analyses were the same as those used to test Hypotheses 2-4, but with approach motives entered as the mediator variable rather than avoidance motives. Models from Hypotheses 5-6 were not re-run with approach motives as there were no empirical or theoretical reason to suspect that a similar model would apply with compliance mediating the relation between approach motives and relational/sexual outcomes. As was done in primary analyses, the AUDIT and the GSI of the BSI were included as covariates, and indirect effects were computed using the MCMED macro for SPSS as appropriate.

High and Low BPD. For supplemental analyses, BPD was categorized dichotomously (i.e., high BPD (participants with four or more BPD symptoms) vs. low BPD (participants with less than four BPD symptoms)) rather than continuously to provide a more stringent test of the relation between BPD and variables of interest. For Hypothesis 1, three regression analyses were conducted with BPD coded dichotomously as high ("1") or low ("0") before being entered into models at Step 2. For Hypotheses 2-5, BPD was also coded dichotomously as high ("1") or low ("0") before being entered, uncentered, into models.

Results

Descriptive Statistics

Descriptive statistics for baseline study variables and sexual risk-taking variables are presented for all participants in Table 1 and divided into groups (high BPD vs. low BPD) in Table 2. Twelve participants were in the high BPD group and 18 were in the low BPD group. Two participants in the high BPD group completed less than half of the AUDIT questionnaire, and thus their total scores for the AUDIT could not be determined. One participant in the low BPD group did not answer questions regarding substance use prior to sexual activity or condom use during sexual activity for any of their reported sexual events, thus RT-Con and RT-Sub scores could not be calculated for that participant.

Correlations between BPD features and baseline and sexual risk-taking variables are presented in Table 3. BPD features were negatively correlated with engaging in safe sex behaviours ($r = -.39$, $p = .032$), and positively correlated with avoidance motives for sex ($r = .40$, $p = .030$), and general psychopathology ($r = .76$, $p < .001$). Thus, in the current sample, participants with higher BPD features reported engaging in more sexual risk-taking, higher avoidance motives for sex, and higher levels of general psychopathology, compared to participants with lower BPD features.

Out of a possible 420 daily diary questionnaires, 17 were not submitted. Two were submitted late (after the deadline of 11 a.m. the following day) and were not included in analyses. Of the 401 completed questionnaires, 24 (5.99%) were submitted after the final reminder email but before the deadline. A total of 161 sexual events were reported and 151 were included in analyses after outliers were removed. On average, participants reported six sexual events across the two weeks of daily diaries ($M = 6.21$, $SD = 3.71$). Of the 151 events, participants reported 90 (59.60%) in the first week of data collection and 61 (40.40%) in the second week. The number of sexual events reported each day is depicted in Figure 4. Fifty events (33.11%) were reported by participants in the high BPD group and 101 events (66.89%) were reported by participants in the low BPD group.

Across the 151 sexual events, twelve participants reported using substances prior to at least one sexual event and substances were used prior to sexual activity 16.6% of the time (25 events). Participants reported condom non-usage 86.8% of the time (131 events). Twenty-six participants reported at least one sexual event without using a condom. Notably, only 37.93% (n = 11) of participants reported using other methods of birth control, such as an intrauterine device or oral contraceptives, during the two-week daily diary period. Use of other methods of birth control was not significantly correlated with BPD features (r = -.05, p = .817) or condom non-usage (r = -.37, p = .06). Seventeen participants (58.62%) reported at least one sexual event in which no protection (condom or other methods of birth control) were used, indicating that most participants were not using any form of protection against sexually transmitted infections or pregnancy during sexual activity.

Hypothesis 1: BPD and Risky Sexual Behaviours

Results of regression analyses for Hypothesis 1 are presented in Table 4[4]. Contrary to predictions, BPD features were not significantly associated with general sexual risk-taking (SSBQ), condom non-usage (RT-Con; proportion of daily diary sexual events in which condoms were not used), or substance use prior to sex (RT-Sub; proportion of daily diary sexual events in which substances were used) while controlling for general psychopathology and alcohol abuse. The linear regression of the SSBQ score on the AUDIT and GSI scores was not statistically significant (R^2 = 0.03, $F_{(2, 23)}$ = 0.31, p = .109). There was no significant change in R^2 with the addition of the BPD features variable in Step 2 (ΔR^2 = 0.11, $\Delta F_{(1, 22)}$ = 2.79, p = .377). Similarly, for condom non-usage, the linear regression of the RT-Con score on the AUDIT and GSI scores was not statistically significant (R^2 = 0.14, $F_{(2, 23)}$ = 1.87 , p = .177) and there was no

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[4] Assumption checking for all three regression analyses revealed that the assumption of homoscedasticity was not met. Logarithmic transformation of variables did not considerably improve homoscedasticity; thus, analyses were conducted with non-transformed data. Notably, standard errors were high for several variables in the SSBQ regression analyses, while VIFs and Tolerance values were within acceptable limits (VIFs ranging from 1.01-2.40, minimum Tolerance = 0.42). Standard errors may have been biased due to heteroscedasticity, likely reflecting the impact of lower power on analyses, rather than issues with multicollinearity.

significant change in R^2 with the addition of the BPD features variable in Step 2 (ΔR^2 = 0.03, $\Delta F_{(1, 22)}$ = 0.81, p = .241). Finally, for substance use prior to sexual activity (RT-Sub), results were not significant at both stages of the regression model (R^2 = 0.03, $F_{(2, 23)}$ = 0.33 , p = .720; ΔR^2 = 0.00, $\Delta F_{(1, 22)}$ = 0.04, p = .853).

Hypothesis 2: BPD Features and Avoidance Motives

Results of MLM analyses for Hypotheses 2-4 are presented in Tables 5-7 and Figures 5-7. Consistent with Hypothesis 2, BPD features significantly predicted avoidance motives (B = 1.25, t(130.08) = 4.46, p < .001). specifically, participants with higher BPD features reported more avoidance motives in the daily diary portion of the study.

Hypothesis 3: BPD Features and Relational and Sexual Outcomes

As predicted, BPD features were negatively associated with outcomes in MLM analyses. In other words, participants with higher BPD features experienced poorer relationship satisfaction (B = -1.00, t(130.08) = -2.67, p = .009), sexual satisfaction (B = -2.06, t(129.67) = -4.11, p < .001), and commitment (B = 1.16, t(117.38) = -2.08, p = .040) over the two-week daily dairy period.

Hypothesis 4: Avoidance Motives as a Mediator Between BPD Features and Relational and Sexual Outcomes

In MLM analyses for Hypothesis 4, motives predicted relational outcomes in each model, such that participants with higher avoidance motives reported poorer relationship satisfaction (B = -0.53, t(107.31) = -6.04, p < .001), sexual satisfaction (B = -0.66, t(99.23) = -5.64, p < .001), and commitment (B = -0.66, t(108.86) = -4.81, p = <.001). The path for sexual satisfaction remained significant when indirect effects were tested, indicating, as hypothesized, that avoidance motives partially mediated the relation between BPD features and sexual satisfaction (B = -1.48, 95% CI = [-1.31, -0.40]). In contrast, avoidance motives fully mediated the relation between BPD and relationship satisfaction (B = -0.38, 95% CI = [-1.06, -0.32]) and commitment (B = 0.48, 95% CI = [-

1.38, -0.37]). Participants with higher BPD features reported higher avoidance motives for sex and were consequently less satisfied relationally and sexually and less committed than were participants with lower BPD features.

Hypothesis 5: BPD Features and Sexual Compliance

Results of the MLM analyses for Hypothesis 5 are presented in Table 8. As expected, BPD features significantly predicted sexual compliance such that participants with higher BPD features reported more compliant sexual experiences (i.e., they reported lower sexual desire for sexual events they freely consented to) than did participants with lower BPD features (B = 1.96, t(112.72) = 3.18, p = .002).

Hypothesis 6: Compliance as a Mediator Between Avoidance Motives and Relational and Sexual Outcomes

Results of the MLM analyses for Hypothesis 6 are presented in Tables 9-11 and Figures 8-10. Avoidance motives predicted relational outcomes in each model such that participants with higher avoidance motives reported poorer relationship satisfaction (B = -0.53, t(112.72) = -6.01, p < .001), sexual satisfaction (B = -0.66, t(99.65) = -5.66, p < 001), and commitment (B = -0.68, t(110.71) = -4.90, p < .001). Avoidance motives also predicted sexual compliance, with participants reporting higher avoidance motives also reporting greater sexual compliance (B = 0.54, t(75.18) = 3.69, p < .001). Compliance negatively predicted outcomes (relationship satisfaction: B = -0.14, t(76.11) = -3.22, p = .002; sexual satisfaction: B = -0.25, t(115.58) = -4.09, p < .001; and commitment: B = 0.14, t(112.37) = -2.03, p = .045); participants reporting more compliant sexual events also reported poorer relational and sexual outcomes. As predicted, when indirect effects were tested compliance partially mediated the relation between avoidance motives and sexual satisfaction (B = -0.61, 95% CI = [-0.25, -0.05]). Participants with higher avoidance motives for sex were less sexually satisfied than participants with lower avoidance motives for sex, in part due to experiencing less sexual desire. Results for relational satisfaction and commitment did not support Hypothesis 6; indirect effects were not significant for relationship satisfaction (B = -0.50, 95% CI = [-1.17, -0.00]) or commitment (B = -0.64, 95% CI = [-0.17, -0.00]).

Supplemental Analyses

Approach motives predicted relational outcomes in each model such that participants with higher approach motives reported greater relationship satisfaction ($B = 0.26$, $t(9.17) = 4.74$, $p = .001$), sexual satisfaction ($B = 0.46$, $t(114.52) = 4.01$, $p < .001$), and commitment ($B = 0.58$, $t(22.32) = 6.65$, $p = <.001$). BPD features did not predict approach motives ($B = -0.27$, $t(124.24) = -0.71$, $p = .481$). As the ‘a’ paths in all three models were not significant, no mediation effects were detected.

When BPD was coded dichotomously, results were similar to what was found in primary analyses. For sexual risk-taking, there was no significant change in R^2 with the addition of the BPD group variable in Step 2 for general sexual risk-taking (SSBQ; $\Delta R^2 = 0.07$, $F_{(3, 23)} = 0.89$, $p = .461$), condom non-usage (RT-Con; $\Delta R^2 = 0.05$, $F_{(3, 22)} = 1.67$, $p = .202$), or substance use prior to sexual activity (RT-Sub; $\Delta R^2 = 0.01$, $F_{(3, 22)} = 0.27$, $p = .843$). Participants in the high BPD group reported more compliant sexual experiences than participants in the low BPD group ($B = 1.44$, $t(82.39) = 4.40$, $p < .001$). Participants in the high BPD group endorsed more avoidance motives for sex ($B = 0.80$, $t(30.85) = 6.49$, $p < .001$) and poorer relationship satisfaction ($B = -0.92$, $t(58.73) = -4.91$, $p < .001$), sexual satisfaction ($B = -1.84$, $t(28.66) = -7.86$, $p < .001$), and commitment ($B = 0.80$, $t(30.85) = 6.49$, $p < .001$) compared to participants in the low BPD group. When indirect effects were tested, avoidance motives partially mediated the relation between high BPD and poor relationship satisfaction ($B = -0.60$, 95% CI = [-0.63, -0.25]), sexual satisfaction ($B = -1.50$, 95% CI = [-0.80, -0.30]), and commitment ($B = -0.94$, 95% CI = [-0.82, -0.28]). This differed from findings in primary analyses, where avoidance motives fully mediated the relation between BPD features and relationship satisfaction and commitment.

Summary

Results of analyses include:

1. Hypothesis 1 was not supported by analyses. When controlling for alcohol abuse and general psychopathology, BPD features were not significantly associated with greater general sexual risk-taking, condom non-usage, or substance use prior to sex. The same was true when BPD was coded dichotomously.

2. Hypotheses 2 and 3 were supported. BPD features were associated with greater endorsement of avoidance motives for sex and poorer relational and sexual outcomes.
3. The predicted mediation models, with avoidance motives partially mediating the relation between BPD features and poorer outcomes (Hypothesis 4), was only supported for sexual satisfaction. Avoidance motives fully mediated the relation between BPD features and poorer relationship satisfaction and commitment. When BPD was coded dichotomously in supplemental analyses, results were as hypothesized, with avoidance motives partially mediating the relation between group (high vs. low BPD) and relationship satisfaction, sexual satisfaction, and commitment.
4. In exploratory analyses, approach motives predicted better relational and sexual outcomes, but BPD features did not predict approach motives.
5. As expected, BPD features predicted greater sexual compliance (Hypothesis 5). This was also found when BPD was coded dichotomously.
6. Hypothesis 6 was only supported in part. Compliance partially mediated the relation between avoidance motives and sexual satisfaction but did not mediate the relation between avoidance motives and relationship satisfaction or commitment.

Discussion

Using daily diary methods, I investigated the relation between BPD features, sexual risk-taking, avoidance motives for sex, and outcomes including sexual satisfaction, commitment, and relationship satisfaction in women in mixed-sex dating relationships. I also explored the associations between compliant sexual experiences, avoidance motives, and sexual/relational outcomes.

Sexual Risk-Taking

The results of primary analyses did not support the hypothesis (Hypothesis 1) that BPD features would be positively associated with sexual risk-taking when controlling for general psychopathology and alcohol abuse. BPD features were not significantly associated with general engagement in sexual risk-taking, condom usage, or substance use before sex. The same was true in supplemental analyses when BPD was coded dichotomously (low vs. high BPD).

Notably, condom use may be a poor indicator of sexual risk-taking in committed dating relationships due to relatively low risk of STI transmission when compared to sexual activity in casual sexual relationships. Protection against pregnancy, however, was also inconsistent, as few participants reported using other methods of birth control. Use of other methods of birth control was not associated with BPD features. The lack of contraceptive use in the current sample suggests that risk taking may generally be high for women in long-term dating relationships.

Given the association of BPD with drug and alcohol use, some researchers have attributed the sexual risk-taking of individual with BPD as being at least partly caused by substance use prior to sex (e.g., Chen et al., 2007; Lavan & Johnson, 2002), but the current study's findings did not support this possibility. This study, however, included a sample recruited from non-clinical settings. In contrast, Chen and colleagues (2007) compared a clinical sample of women with diagnosed BPD and substance use disorder (SUD) to participants with BPD without SUD and found that STIs were higher in the BPD/SUD group and were predicted by poverty and engagement in prostitution in the past year. Thus, socioeconomic status and associated risk factors may be an important

link in explaining the varied connection between substance use, BPD, and sexual risk-taking. Despite impulsivity being conceptualized as a core factor in the development of BPD in the biosocial model of BPD (Crowell et al., 2009), such impulsivity might not always translate to sexual risk-taking. More nuanced explorations of sexual risk-taking in the context of BPD are needed to illuminate factors that may contribute to or prevent engagement in risky sex.

BPD Features and Avoidance Motives for Sex

Consistent with Hypothesis 3, women with higher BPD features reported poorer relational satisfaction, sexual satisfaction, and commitment across the daily diary portion of the study. These results align with previous findings that women with BPD have poorer relational and sexual functioning than women without BPD (e.g., Hill et al., 2008; Schulte-Herbruggen et al., 2009). Similarly, findings that women who endorsed more avoidance motives for sex experienced poorer relationship satisfaction, sexual satisfaction, and commitment compared to women who endorsed fewer avoidance motives replicated findings from past research (e.g., Impett et al., 2005; Muise et al., 2013).

This study furthered the research on BPD and sexual relationships by investigating the connection between BPD features and motives for sex. As predicted (Hypothesis 2), women with higher levels of BPD features were more likely to have sex to avoid unwanted outcomes than were women with lower BPD features. Although I hypothesized partial mediation models for all outcomes (Hypothesis 4), avoidance motives fully accounted for the association between BPD features and relationship satisfaction and commitment and partially accounted for the association between BPD features and sexual satisfaction. These results highlight the importance of avoidance motives in the sexual relationships of women with BPD features. Avoidance motives include attempts to prevent or alleviate negative emotions (self-focused avoidance motives) or to prevent or alleviate negative social experiences (socially-focused avoidance motives; Cooper et al., 1998). As emotion dysregulation and fear of abandonment are two symptoms of BPD, both types of avoidance motives may be especially relevant for women with high BPD features.

As avoidance motives only partially mediated the relation between BPD features and sexual satisfaction, other factors appear to account for some of this association. As the biosocial model highlights impulsivity as a key trait involved in the development of BPD (Crowell et al., 2009), women with higher BPD features may engage in sex impulsively (but perhaps not necessarily in a more risky manner) without considering whether doing so is consistent with their wants, needs, or values. Approach or avoidance motives might motivate impulsive sexual decisions, which could in turn result in regret, disappointment, or lower sexual satisfaction. Extant research on sexual impulsivity and BPD has primarily focused on sexual risk-taking (e.g., Sansone et al., 2011; Chen et al., 2007). However, there was no evidence of heightened risk-taking for women with higher BPD features in the current study. Further research is needed to tease out if engagement in sexual risk-taking truly reflects impulsivity and if sexual impulsivity plays a role in the connection between BPD features and poor sexual satisfaction.

Approach Motives for Sex

Findings from supplemental analyses replicated previous research (e.g., Impett et al., 2005; Muise et al., 2013), with approach motives predicting greater relationship satisfaction, sexual satisfaction, and commitment. Notably, BPD features did not significantly predict approach motives, and there was minimal variability in participants' responses to approach motive questions; participants highly endorsed approach motives for sex, regardless of their level of BPD features. As BPD features did predict avoidance motives for sex, these results suggest that the relational and sexual difficulties experienced by women with BPD features do not appear to reflect a deficit in approach motives for sex, but rather a greater tendency to engage in sexual behaviours to avoid negative consequences.

Sexual Compliance

Another aim of this study was to investigate connections between BPD features and compliance to consensual unwanted (but non-coerced) sexual activity. Consistent with Hypothesis 5, participants with higher BPD features reported greater sexual compliance than did participants with lower BPD features, suggesting that women with BPD features in dating relationships may engage in compliant sex beyond what is

normative and perhaps adaptive. As women with BPD often experience higher sexual desire than women without BPD (Hurlbert et al., 1992), higher rates of compliance likely reflect greater willingness to engage in undesired sex rather than a deficit of desire resulting in greater compliance.

Findings only partially supported Hypothesis 6 regarding sexual compliance as a mediator between avoidance motives and outcomes. Heightened compliance predicted poorer relationship satisfaction, sexual satisfaction, and commitment. Compliance only partially mediated the relation between avoidance motives and sexual satisfaction and did not mediate the relation between avoidance motives and relationship satisfaction or commitment. When women had sex to avoid unwanted outcomes, they had lower sexual satisfaction in part due to experiencing less desire to have sex. Interestingly, recent research examining reasons for sex in married midlife adults demonstrated that when women endorsed obligation as a motive for sex (an avoidance motive) they reported lower sexual desire (greater compliance) and lower relationship and sexual satisfaction (Georgieva et al., 2022). While this study did not examine desire as a mediator, it does suggest that compliance, satisfaction, and motives for sex are importantly linked in relational contexts beyond the dating relationships of young adult women.

When findings regarding compliance are considered in the broader context of the study, this project provides important insights for conceptualizing sexual decision making in the context of BPD. Models of BPD features, compliance, avoidance motives, and outcomes could be combined into an overarching model that may better capture the complexity of sexual experiences and BPD. Avoidance motives and sexual compliance together may mediate the relation between BPD features and outcomes, with heightened avoidance and sexual compliance resulting in worse outcomes for women with higher BPD features (Figure 11). Investigation of such a model would require greater power to detect significant effects than was possible with the current sample and is an important direction for future research.

Substance Use and General Psychopathology

The AUDIT and GSI of the BSI were included in models as covariates. Thus, findings regarding the connection between BPD features and study variables go beyond

what could be attributed to co-occuring alcohol use or general psychopathology. Of interest, in the current sample the GSI was strongly correlated with BPD features (r = .76, $p < .001$), but the AUDIT was not significantly correlated with BPD features. Thus, participants with more BPD symptoms reported greater psychological distress but not more problematic alcohol use than did women with fewer BPD symptoms. This is notable as BPD frequently co-occurs with substance use disorders. For example, in a national epidemiologic study of adults in the United States, 78.2% of respondents meeting criteria for BPD diagnosis were also diagnosed with a lifetime substance use disorder (Tomko et al., 2014). In the current sample, only five participants scored above eight on the AUDIT (the cut-off that indicates potentially problematic drinking) and the overall mean for the scale was 5.81 (SE = 5.26). As mentioned previously, BPD features were also not associated with substance use prior to sex in this sample. Perhaps findings are a reflection of sampling bias – the participants in this project were primarily university-educated women recruited from the community. Combined with the small sample size, these participants may be a poor representation of the general population of young adult women in mixed-sex dating relationships. Also, as this project focused on young adults, many participants were enrolled in college or university at the time of the study (60.0%). There may be less variability in substance use related to BPD features in college samples where alcohol use is generally prevalent (Kwan et al., 2013).

Participants with heightened BPD features reported more general psychological distress (i.e., higher GSI scores) than did participants with lower levels of BPD features. The GSI was also a significant predictor in many of the models, predicting greater endorsement of avoidance motives and better relational outcomes. Interestingly, the GSI was not a significant predictor of compliance in the BPD features and compliance model, suggesting that BPD may have a particularly unique relationship with sexual compliance compared to other psychological disorders. Several BPD symptoms have been theoretically linked to compliance. For example, fear of abandonment may motivate the decision to have sex when desire is low. Future research with clinical samples may better clarify how different psychological disorders affect rates and impacts of compliant sex.

Limitations and Future Directions

Some key limitations of the present research warrant consideration. Low internal consistencies, particularly for the daily diary version of the SMS, suggest that further research is needed to create measures that more accurately capture event-level approach and avoidance motives for sex. Additionally, although it is a strength that this study used daily diary methodology to reduce the impact of poor recall on study results, other biases may have still impacted participants' self-report. Online self-report methods, however, may actually increase open and accurate responding to sexuality-related questions (Burkill et al., 2016). Several steps were taken to reduce inaccurate responding if participants misunderstood questionnaires, including having participants respond to eligibility criteria online and during the Skype interview, and reviewing the daily diary questions with the interviewer to allow for clarification and troubleshooting prior to data collection.

Another limitation is that causal associations could not be determined as variables were not experimentally manipulated. To answer my research questions, I used multilevel modelling to examine BPD features as a predictor of sexual motives and relationship outcomes across the daily diary period. I did not time sequence the data as I was not investigating changes in motives or outcomes, but rather the differences related to BPD features. Future research could examine if BPD features are associated with changes in motives and outcomes over time.

In terms of conclusions regarding mediation, BPD features were assessed prior to the daily diary assessment, but the outcome and mediator variables were assessed at the same time. There is theoretical support for the models used as BPD features are expected to be relatively stable across short periods of time (i.e., the two weeks of the study). Further, motives for sex are defined as the cognitive variables that influence one's decision to engage in sexual activity, and thus are expected to arise before the activity takes place, leading to possible changes in relational and sexual outcomes. For compliance models, the hypothesized model with compliance as a mediator between avoidance motives and outcomes was developed based on research by Muise and colleagues (2013). They found that a model with desire as a mediator between sexual goals and sexual/relational satisfaction demonstrated stronger pathways than a model

with sexual goals as a mediator between desire and satisfaction. Notwithstanding, as variables in the daily diary questionnaires were assessed at the same time, a different causal direction may better fit the data.

The sample of the current study was restricted to cisgender women in mixed-sex dating relationships. The majority of the sample identified as White, heterosexual, and university-educated, and thus results cannot be generalized beyond this context. Future research should explore the connections between BPD features, motives for sex, and relational outcomes in more diverse samples including those involving same-sex relationships, married relationships, and older adults. Dyadic research could also extend the findings from this study to explore how similarities and differences in partners' approach and avoidance motives for sex impact relational functioning in the context of BPD. As there is some evidence that women with high levels of BPD features tend to have sexual relationships with partners who also exhibit heightened levels of personality disorder features and insecure attachment (characterized by avoidance of intimacy or rejection sensitivity; Bouchard et al., 2009b), it is possible that heightened avoidance motives in both partners exacerbate sexual and relational difficulties.

The COVID-19 pandemic had known and unknown impacts on this project. First, procedures were adjusted to allow research personnel to work from home and recruitment was adjusted to be entirely virtual. Recruitment was more difficult than expected, resulting in a smaller sample size than originally planned and less power to detect effects. A significance level of alpha = .05 was used, and some results demonstrated significant p values that were close to .05, suggesting a heightened possibility of Type I error. Given the exploratory nature of this study and the importance of providing results that can inform future research, increasing the risk of Type II error by setting a more stringent significance level was not suitable. Future research should build on these findings using a larger sample with more power to detect effects, which would also allow for exploration of more complex models.

Sexual experiences during the period of recruitment (April through December 2020) were undoubtedly influenced by COVID-19, but the exact nature of these impacts is unknown. In a study of cohabiting individuals in Italy during the initial lockdown period (data was collected from March through April 2020), reported changes in sexuality varied

(Panzeri et al., 2020). While some participants reported increased frequency of sexual intercourse (26.4% of women), most reported decreased frequency (30.8% of women) or no perceived change (42.9% of women). Qualitative exploration of the reasons behind increased sexual frequency revealed themes including an increase in free time, boredom, and more time with a partner. For participants reporting decreased sexual frequency, themes included increased stress, anxiety, forced co-living, and the absence of privacy. These differences indicate that the exact impact of the pandemic on the sexual experiences of participants in the current study cannot be assumed.

Importantly, one study conducted in April 2020 using a nationally representative sample of Americans found that 34% of people in romantic relationships reported experiencing conflict with their partners related to the pandemic, leading to decreased frequency of sexual behaviours (Luetke et al., 2020). Notably, this relation was found to be stronger among men compared to women, which the authors attributed as being due to women engaging in "maintenance sex." Maintenance sex was defined as motivated by desire to prevent relationship tension (i.e., an avoidance motive) when desire is low (i.e., during a compliant sexual experience). In the context of the current study, it is possible that avoidance motives and sexual compliance may have been inflated due to factors such as increased conflict. Ultimately, it is unknown how COVID-19 lockdowns and restrictions impacted participants' experiences across the duration of data collection.

Implications

The current study's findings contribute to our understanding of the sexual relationships of women with BPD features by highlighting the impact of avoidance motives on relational and sexual wellbeing. Research on BPD and sexuality has primarily focused on identifying risky sexual behaviours and sexual difficulties experienced by women with BPD. The current study provided a nuanced exploration of sexuality through examining the cognitive processes that may be impacting sexual decision making and relational outcomes for women with BPD features. By highlighting the connections between BPD features and avoidance motives, sexual compliance, and relational outcomes, potential avenues for treatment emerge.

Women with BPD features may benefit from interventions that go beyond addressing sexual risk-taking to include a focus on enhancing or developing fulfilling sexual relationships. Interventions involving mindfulness strategies to support clients with BPD features in increasing awareness of their own sexual motives could help assess and target instances when avoidance motives are impairing sexual relationships. Effective skills for coping with rejection sensitivity and emotion dysregulation could be used explicitly to reduce reliance on sex for avoidant coping. Cognitive strategies may also help clients decrease avoidance motives, resulting in better relational and sexual outcomes. For example, Muise and colleagues (2017) found that motives for sex can be manipulated through cognitive exercises and psychoeducation (e.g., providing information about the benefits of approach motives). Increased approach motives resulted in positive impacts on sexual desire and sexual/relationship satisfaction.

Notably, mindfulness and cognitive strategies are already incorporated in several existing therapies for sexual difficulties and therapies for BPD. For example, mindfulness-based sex therapy has been shown to increase sexual arousal in women experiencing low sexual desire (Brotto et al., 2016). Dialectical behaviour therapy (DBT; Linehan, 1993), one of the most researched treatments for BPD (see Stoffers-Winterling et al., 2012 for a review), incorporates acceptance and mindfulness interventions with cognitive behavioural interventions. DBT skills training groups include modules on mindfulness, emotion regulation (including cognitive interventions), interpersonal effectiveness, and distress tolerance, and these skills are further emphasized in individual therapy. Although the skills included in these modules may be relevant for addressing sexual difficulties, the hierarchy of treatment goals in DBT establishes reducing life-threatening or self-damaging behaviours as the primary goal. Thus, treatment may focus on reducing possibly self-damaging sexual risk-taking, rather than enhancing sexual and relationship satisfaction. It is undeniably important that clinicians focus on client safety; however, for many clients a treatment focus on sexual experiences should not stop after risky behaviours have been targeted. Explicit exploration of approach and avoidance motives for sex could boost romantic relational functioning, an area that is generally impaired in clients with BPD (Hill et al., 2008). Clinicians may also wish to consider referrals for couples therapy or sex therapy as relevant for clients with BPD features who are experiencing unsatisfying sexual relationships.

Table 1. Descriptive Statistics of Baseline Measures and Sexual Risk-Taking Variables

Variable	*Min*	*Max*	*Mean*	*SD*	*Skew*	*Kurtosis*
AUDIT	0.00	21.00	5.81	5.26	1.58	2.44
BPD Features	0.00	0.89	0.36	0.32	0.39	-1.34
CI-C	2.86	5.81	4.23	0.73	-0.22	-0.38
CI-PD	3.18	6.45	5.10	0.84	-0.74	-0.10
CSI	66.00	157.00	127.34	25.61	-0.79	-0.42
GSI	0.02	3.09	1.04	0.78	0.80	0.09
QSI-D	0.00	20.00	4.86	5.48	1.40	1.25
QSI-S	17.00	60.00	38.55	13.58	-0.75	-1.38
RT-Con	0.00	1.00	0.82	0.34	-1.70	1.48
RT-Sub	0.00	1.00	0.25	0.34	1.29	0.48
SMS-Ap	2.23	4.52	3.14	0.52	0.51	0.97
SMS-Av	1.00	2.52	1.44	0.39	1.20	0.93
SSBQ	43.00	84.00	61.76	9.94	0.35	-0.26

Note. *n* = 30. Two participants' AUDIT scores could not be calculated due to missing data. One participant's RT-Con and RT-Sub scores could not be calculated due to missing data. AUDIT = Alcohol Use Disorders Identification Test. BSI = Brief Symptom Inventory. BPD = Borderline personality disorder. CI-C = Commitment Inventory – Constraint. CI-PD = Commitment Inventory – Personal Dedication. CSI = Couples Satisfaction Inventory. GSI = General Severity Index (of the Brief Symptom Inventory). QSI-D = Quality of Sex Inventory – Dissatisfaction. QSI-S = Quality of Sex Inventory – Satisfaction. RT-Con = Risk-Taking – Condom Non-Usage. RT-Sub = Risk-Taking – Substance Use. SMS-Ap = Sexual Motives Scale – Approach. SMS-Av = Sexual Motives Scale – Avoid. SSBQ = Safe Sex Behaviours Questionnaire.

Table 2. Descriptive Statistics of Baseline Measures and Sexual Risk-Taking Variables by Group

Variable	High BPD Features (n = 12)						Low BPD Features (n = 18)					
	Min	*Max*	*Mean*	*SD*	*Skew*	*Kurtosis*	*Min*	*Max*	*Mean*	*SD*	*Skew*	*Kurtosis*
AUDIT	0.00	21.00	5.71	7.61	1.67	2.62	0.00	19.00	6.10	4.46	1.42	2.24
BPD Features	0.61	0.89	0.76	0.10	0.33	-1.34	0.00	0.56	0.19	0.18	0.62	-0.78
CI-C	3.39	5.81	4.66	0.66	-0.29	1.62	2.86	5.17	4.06	0.68	-0.31	-0.74
CI-PD	3.55	5.82	5.04	0.83	-0.69	-0.61	3.18	6.45	5.16	0.86	-0.90	0.40
CSI	80.00	157.00	115.00	24.58	0.40	-0.61	66.00	157.00	133.38	24.12	-1.57	2.95
GSI	1.23	3.09	1.90	0.60	0.90	0.53	0.02	1.81	0.70	0.52	0.83	-0.34
QSI-D	0.00	13.00	5.22	4.55	0.47	-0.90	0.00	20.00	4.48	5.89	1.69	1.92
QSI-S	17.00	52.00	37.22	13.61	-0.30	-1.86	18.00	60.00	40.14	14.27	-0.75	-1.39
RT-Con	0.90	1.00	0.99	0.03	-3.16	10.00	0.00	1.00	0.72	0.40	-1.02	-0.58
RT-Sub	0.00	1.00	0.22	0.39	1.61	1.08	0.00	1.00	0.27	0.33	1.26	0.95
SMS-Ap	2.57	4.62	3.29	0.63	1.09	1.36	2.23	3.72	3.09	0.46	-0.42	-0.90
SMS-Av	1.08	2.17	1.58	0.39	0.34	-1.51	1.00	2.52	1.37	0.38	1.84	3.73

SSBQ	48.00	74.00	56.56	7.78	1.47	2.83	43.00	84.00	64.38	9.91	-0.11	0.19

Note. Two participants in the high BPD group's AUDIT scores could not be calculated due to missing data. One participant in the low BPD group's RT-Con and RT-Sub scores could not be calculated due to missing data. AUDIT = Alcohol Use Disorders Identification Test. BPD = Borderline personality disorder. CI-C = Commitment Inventory – Constraint. CI-PD = Commitment Inventory – Personal Dedication. CSI = Couples Satisfaction Inventory. GSI = General Severity Index of the Brief Symptom Inventory. QSI-D = Quality of Sex Inventory – Dissatisfaction. QSI-S = Quality of Sex Inventory – Satisfaction. RT-Con = Risk-Taking – Condom Non-Usage. RT-Sub = Risk-Taking – Substance Use. SMS-Ap = Sexual Motives Scale – Approach. SMS-Av = Sexual Motives Scale – Avoid. SSBQ = Safe Sex Behaviours Questionnaire.

Table 3. **Correlations Between Baseline and Sexual Risk-Taking Variables**

	AUDIT	BPD	CI-C	CI-PD	CSI	GSI	QSI-D	QSI-S	RT-Con	RT-Sub	SMS-Ap	SMS-Av	SSBQ
AUDIT	-												
BPD	.21	-											
CI-C	-.09	.25	-										
CI-PD	-.11	.01	.48**	-									
CSI	.10	-.27	.24	.64***	-								
GSI	.14	.76***	.43*	.11	-.12	-							
QSI-D	-.02	.09	-.07	-.27	-.37*	-.06	-						
QSI-S	.06	-.11	.58	.37*	.55**	.00	-.78***	-					
RT-Con	-.65	.34	.08	.11	-.32	-.67	-.09	-.16	-				
RT-Sub	.75	-.30	-.08	-.34	-.12	.74	.10	.08	-.23	-			
SMS-Ap	.12	.32	.10	-.47*	.08	.21	-.15	.21	.22	-.17	-		
SMS-Av	.14	.40*	.25	.17	-.20	.21	.44*	-.42*	.24	-.13	.49**	-	
SSBQ	-.09	-.39*	.07	.03	.29	-.18	-.19	.38*	-.28	.15	.10	.25	-

Note. Two cases were missing an AUDIT score and one case was missing RT-Con and an RT-Sub scores. AUDIT = Alcohol Use Disorders Identification Test. BPD = Borderline personality disorder features. CI-C = Commitment Inventory – Constraint. CI-PD = Commitment Inventory – Personal Dedication. CSI = Couples Satisfaction Inventory. GSI = General Severity Index (of the Brief Symptom Inventory). QSI-D = Quality of Sex Inventory – Dissatisfaction. QSI-S = Quality of Sex Inventory – Satisfaction. RT-Con = Risk-Taking – Condom Non-Usage. RT-Sub = Risk-Taking – Substance Use. SMS-Ap = Sexual Motives Scale – Approach. SMS-Av = Sexual Motives Scale – Avoid. SSBQ = Safe Sex Behaviours Questionnaire.

$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 4. BPD Features, General Psychopathology, and Problematic Alcohol Use as Predictors of Sexual Risk-Taking

	B	SE_B	*t*	*F*	df_1, df_2	R^2	ΔR^2	ΔF
	General Sexual Risk-Taking (SSBQ)							
Step 1				0.31	2, 23	0.03		
AUDIT	-0.08	0.39	-0.40					
GSI	-0.13	2.58	-0.63					
Step 2				1.15	1, 22	0.14	0.11	2.79
AUDIT	-0.03	0.38	-0.14					
GSI	0.25	3.78	0.83					
BPD Features	-0.51	10.00	-1.67					
	Condom Non-Usage (RT-Con)							
Step 1				1.87	2, 23	0.14		
AUDIT	-0.24	0.01	-1.21					
GSI	0.32	0.09	1.63					
Step 2				1.51	1, 22	0.17	0.03	0.81
AUDIT	-0.26	0.01	-1.33					
GSI	0.12	0.13	0.39					
BPD Features	0.27	0.35	0.92					
	Substance Use Prior to Sex (RT-Sub)							
Step 1				0.33	2, 23	0.03		
AUDIT	-0.05	0.01	-0.23					

GSI	-0.16	0.08	-0.75					
Step 2				0.23	1, 22	0.03	0.00	0.04
AUDIT	-0.05	0.01	-0.26					
GSI	-0.20	0.13	-0.62					
BPD Features	0.06	0.34	0.19					

Note. All analyses were nonsignificant ($p > .05$). Two cases were missing AUDIT scores and one case was missing RT-Con and RT-Sub scores. BPD = Borderline personality disorder. AUDIT = Alcohol Use Disorders Identification Test. GSI = Global Severity Index (of the Brief Symptom Inventory). SSBQ = Safe Sex Behaviours Questionnaire. RT-Con = Risk-Taking – Condom Non-Usage. RT-Sub = Risk-Taking – Substance Use.

Table 5. Avoidance Motives as a Mediator Between BPD Features and Relationship Satisfaction

Outcome Variable	*B*	*SE*	*t*	*df*
	BPD Features Predicting Relationship Satisfaction (C Path)			
Intercept	4.13***	0.07	60.58	131.05
BPD Features	-1.00**	0.38	-2.67	130.08
AUDIT	0.02	0.01	1.36	117.22
GSI	0.45**	0.14	3.13	124.38
	BPD Features Predicting Avoidance (A Path)			
Intercept	1.38***	0.05	28.97	65.26
BPD Features	1.25***	0.28	4.46	92.59
AUDIT	-0.03*	0.01	-2.18	107.07
GSI	-0.31**	0.11	-2.90	93.32
	Avoidance Predicting Relationship Satisfaction (B Path)			
Intercept	3.92***	0.07	52.70	120.68
Avoidance Motives	-0.53***	0.09	-6.04	107.31
AUDIT	0.00	0.01	0.17	116.83
GSI	0.16	0.08	1.93	114.11
	Avoidance Mediating Between BPD Features and Relationship Satisfaction (C' Path)			
Intercept	3.92***	0.07	52.35	121.40
BPD Features	-0.38	0.35	-1.08	118.45

Avoidance Motives	-0.50***	0.09	-5.41	101.11
AUDIT	0.00	0.01	0.32	115.97
GSI	0.26*	0.13	2.00	115.12

Note. Two cases were missing AUDIT scores. BPD = Borderline personality disorder. AUDIT = Alcohol Use Disorders Identification Test. GSI = Global Severity Index (of the Brief Symptom Inventory).

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

Table 6. Avoidance Motives as a Mediator Between BPD Features and Sexual Satisfaction

Outcome Variable	*B*	*SE*	*t*	*df*
	BPD Features Predicting Sexual Satisfaction (C Path)			
Intercept	3.73***	0.90	41.58	119.70
BPD Features	-2.06***	0.50	-4.11	129.67
AUDIT	0.03	0.20	1.38	118.34
GSI	0.63**	0.19	3.32	121.91
	BPD Features Predicting Avoidance Motives (A Path)			
Intercept	1.38***	0.05	28.97	65.26
BPD Features	1.25***	0.28	4.46	92.59
AUDIT	-0.03*	0.01	-2.18	107.07
GSI	-0.31**	0.11	-2.90	93.32
	Avoidance Motives Predicting Sexual Satisfaction (B Path)			
Intercept	3.50***	0.10	34.24	117.70
Avoidance Motives	-0.66***	0.12	-5.64	99.23
AUDIT	0.00	0.02	0.07	117.48
GSI	0.03	0.12	0.22	119.01
	Avoidance Motives Mediating Between BPD Features and Sexual Satisfaction (C' Path)			
Intercept	3.46***	0.10	34.05	120.99
BPD Features	-1.48**	0.48	-3.06	122.35
Avoidance Motives	-0.59***	0.12	-4.83	96.21

AUDIT	0.01	0.02	0.63	114.18
GSI	0.45*	0.18	2.49	121.03

Note. Two cases were missing AUDIT scores. BPD = Borderline personality disorder. AUDIT = Alcohol Use Disorders Identification Test. GSI = Global Severity Index of the Brief Symptom Inventory.
*p < .05. **p < .01. ***p < .001.

Table 7. Avoidance Motives as a Mediator Between BPD Features and Commitment

Outcome Variable	*B*	*SE*	*t*	*df*
	BPD Features Predicting Commitment (C Path)			
Intercept	6.13***	0.10	59.31	126.76
BPD Features	-1.16*	0.56	-2.08	117.38
AUDIT	0.04	0.02	1.75	118.70
GSI	0.65**	0.21	3.04	119.11
	BPD Features Predicting Avoidance Motives (A Path)			
Intercept	1.38***	0.05	28.97	65.26
BPD Features	1.25***	0.28	4.46	92.59
AUDIT	-0.03*	0.01	-2.18	107.07
GSI	-0.31**	0.11	-2.90	93.32
	Avoidance Motives Predicting Commitment (B Path)			
Intercept	5.83***	0.12	50.61	98.79
Avoidance Motives	-0.66***	0.14	-4.81	108.86
AUDIT	0.02	0.02	0.85	100.35
GSI	0.30*	0.13	2.30	105.53
	Avoidance Motives Mediating Between BPD Features and Commitment (C' Path)			
Intercept	5.84***	0.11	50.95	83.87
BPD Features	-0.64	0.55	-1.17	98.27

Avoidance Motives	-0.61***	0.14	-4.24	112.49
AUDIT	0.02	0.02	0.97	99.94
GSI	0.49*	0.21	2.35	100.01

Note. Two cases were missing AUDIT scores. BPD = Borderline personality disorder. AUDIT = Alcohol Use Disorders Identification Test. GSI = Global Severity Index of the Brief Symptom Inventory.

*p < .05. **p < .01. ***p < .001.

Table 8. BPD Features Predicting Sexual Compliance

	B	*SE*	*t*	*df*
Intercept	2.82***	0.12	24.28	121.63
BPD Features	1.96**	0.62	3.18	112.72
AUDIT	-0.04	0.02	-1.85	107.15
GSI	-0.34	0.24	-1.42	110.70

Note. Two cases were missing AUDIT scores. BPD = Borderline personality disorder. AUDIT = Alcohol Use Disorders Identification Test. GSI = Global Severity Index of the Brief Symptom Inventory.
**$p < .01$. ***$p < .001$.

Table 9. Sexual Compliance as a Mediator Between Avoidance Motives and Relationship Satisfaction

Outcome Variable	*B*	*SE*	*t*	*df*
	Avoidance Motives Predicting Relationship Satisfaction (C Path)			
Intercept	3.91***	0.08	52.04	123.56
Avoidance Motives	-0.53***	0.09	-6.01	112.72
AUDIT	0.01	0.01	0.55	117.18
	Avoidance Motives Predicting Sexual Compliance (A Path)			
Intercept	3.02***	0.13	22.97	100.79
Avoidance Motives	0.54***	0.15	3.69	75.18
AUDIT	-0.01	0.02	-0.25	109.89
	Sexual Compliance Predicting Relationship Satisfaction (B Path)			
Intercept	4.41***	0.11	41.27	114.03
Compliance	-0.14**	0.04	-3.22	76.11
AUDIT	0.02	0.01	1.23	123.51
	Sexual Compliance Mediating Between Avoidance Motives and Relationship Satisfaction (C' Path)			
Intercept	4.06***	0.19	34.41	123.65
Avoidance Motives	-0.50***	0.09	-5.52	114.03
Compliance	-0.08	0.04	-1.83	96.59
AUDIT	0.01	0.01	0.43	116.13

Note. Two cases were missing AUDIT scores. AUDIT = Alcohol Use Disorders Identification Test.
**p < .01. ***p < .001.

Table 10. Sexual Compliance as a Mediator Between Avoidance Motives and Sexual Satisfaction

Outcome Variable	*B*	*SE*	*t*	*df*
	Avoidance Motives Predicting Sexual Satisfaction (C Path)			
Intercept	3.50***	0.10	34.43	117.77
Avoidance Motives	-0.66***	0.12	-5.66	99.65
AUDIT	0.00	0.02	0.13	116.36
	Avoidance Motives Predicting Sexual Compliance (A Path)			
Intercept	3.02***	0.13	22.97	100.79
Avoidance Motives	0.54***	0.15	3.69	75.18
AUDIT	-0.01	0.02	-0.25	109.89
	Sexual Compliance Predicting Sexual Satisfaction (B Path)			
Intercept	4.24***	0.14	30.00	124.52
Compliance	-0.25***	0.06	-4.01	115.58
AUDIT	0.01	0.02	0.64	118.43
	Sexual Compliance Mediating Between Avoidance Motives and Sexual Satisfaction (C' Path)			
Intercept	3.81***	0.16	24.58	115.60
Avoidance Motives	-0.61***	0.12	-5.10	103.18
Compliance	-0.19**	0.06	-3.28	99.00
AUDIT	0.00	0.02	0.19	91.89

Note. Two cases were missing AUDIT scores. AUDIT = Alcohol Use Disorders Identification Test.
**$p < .01$. ***$p < .001$.

Table 11. Sexual Compliance as a Mediator Between Avoidance Motives and Commitment

Outcome Variable	*B*	*SE*	*t*	*df*
	Avoidance Motives Predicting Commitment (C Path)			
Intercept	5.82***	0.17	50.04	98.14
Avoidance Motives	-0.68***	0.14	-4.90	110.71
AUDIT	0.03	0.02	1.29	96.59
	Avoidance Motives Predicting Sexual Compliance (A Path)			
Intercept	3.02***	0.13	22.97	100.89
Avoidance Motives	0.54***	0.15	3.69	75.18
AUDIT	-0.01	0.02	-0.25	109.90
	Sexual Compliance Predicting Commitment (B Path)			
Intercept	6.41***	0.17	38.82	128.27
Compliance	-0.14*	0.07	-2.03	112.37
AUDIT	0.04	0.02	1.89	117.40
	Sexual Compliance Mediating Between Avoidance Motives and Commitment (C' Path)			
Intercept	5.99***	0.19	31.42	128.08
Avoidance Motives	-0.64***	0.15	-4.33	119.16
Compliance	-0.08	0.07	-1.16	97.58
AUDIT	0.03	0.02	1.23	97.69

Note. Two cases were missing AUDIT scores. AUDIT = Alcohol Use Disorders Identification Test.
$^{*}p < .05$. $^{***}p < .001$.

Figure 1. Hypothesized Mediation Model of Borderline Personality Disorder (BPD) Features, Avoidance Motives for Sex, and Relational Outcomes

Figure 2. Hypothesized Mediation Model of Avoidance Motives for Sex, Compliance, and Relational Outcomes

Figure 3. Study Flow and Reasons for Participant Exclusions

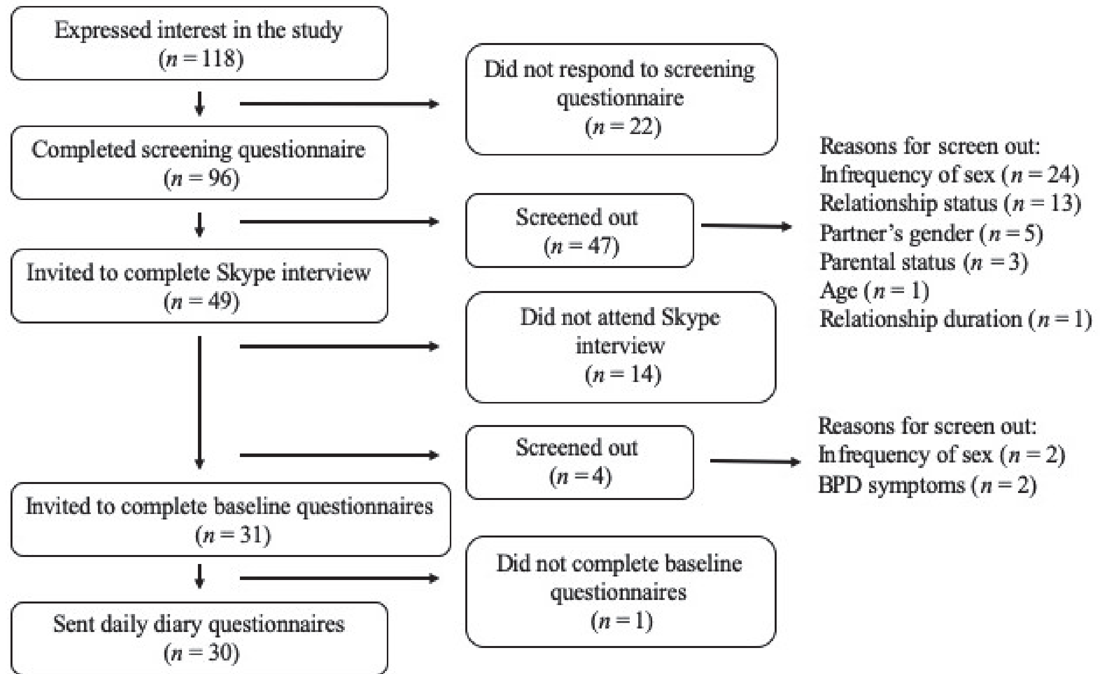


Figure 4. Number of Sexual Events Reported Each Day of the Daily Diary

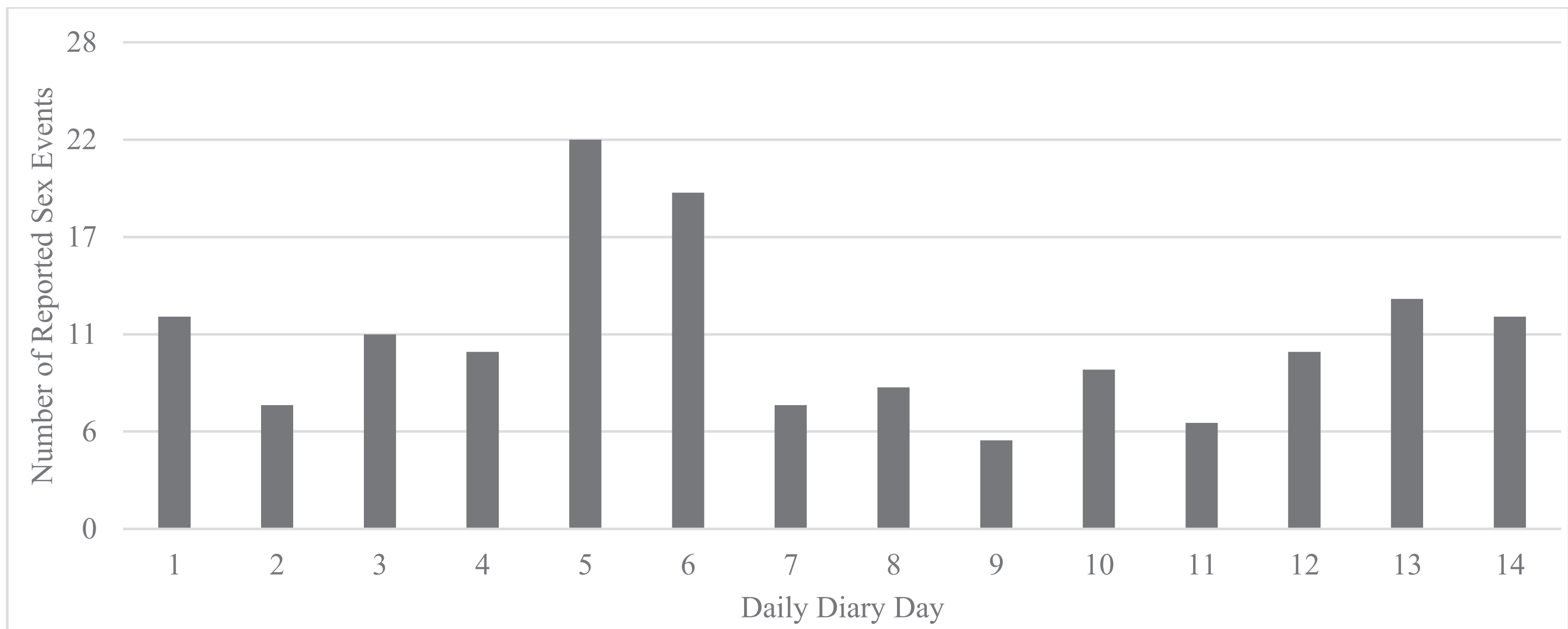
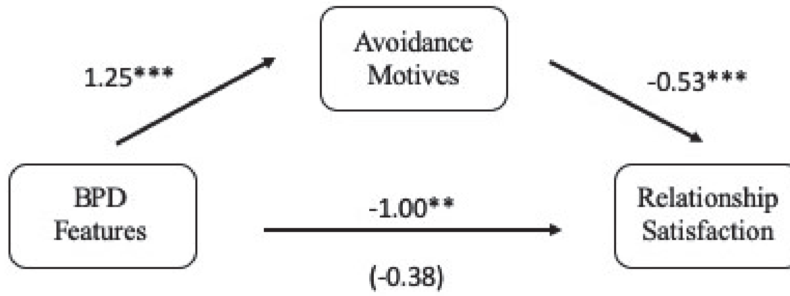
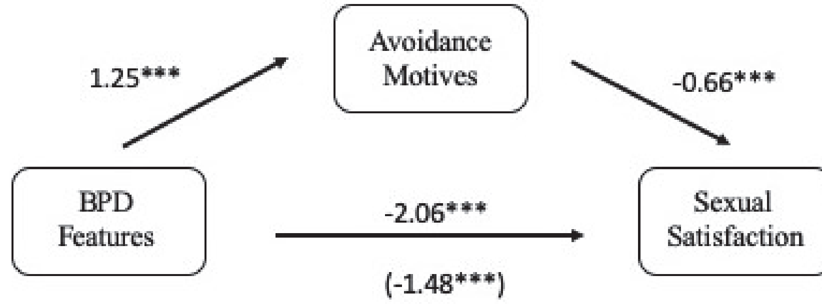


Figure 5. Indirect Effects of Borderline Personality Disorder (BPD) Features on Relationship Satisfaction Through Avoidance Motives for Sex



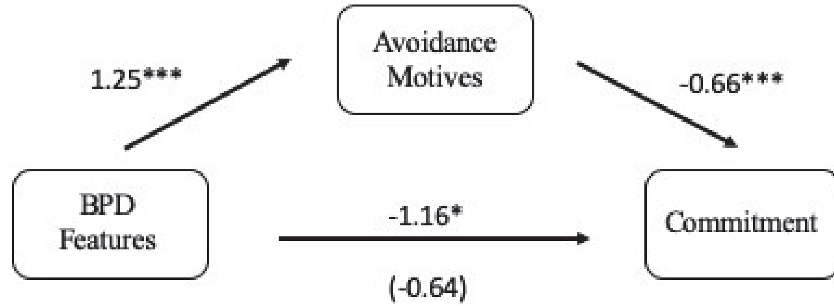
**$p < .01$. ***$p < .001$.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) and general psychopathology (as measured by the Global Severity Index of the Brief Symptom Inventory) were included as control variables.

Figure 6. Indirect Effects of Borderline Personality Disorder (BPD) Features on Sexual Satisfaction Through Avoidance Motives for Sex



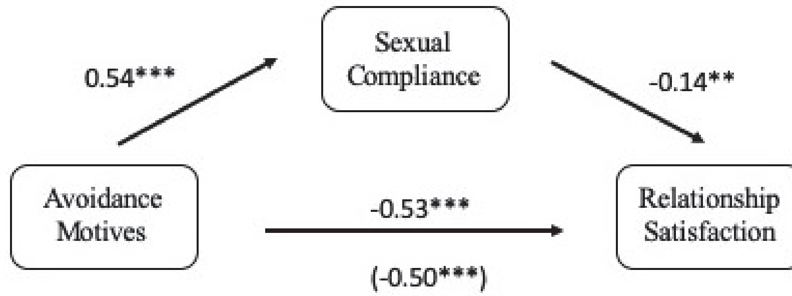
***p < .001.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) and general psychopathology (as measured by the Global Severity Index of the Brief Symptom Inventory) were included as control variables.

Figure 7. Indirect Effects of Borderline Personality Disorder (BPD) Features on Commitment Through Avoidance Motives for Sex



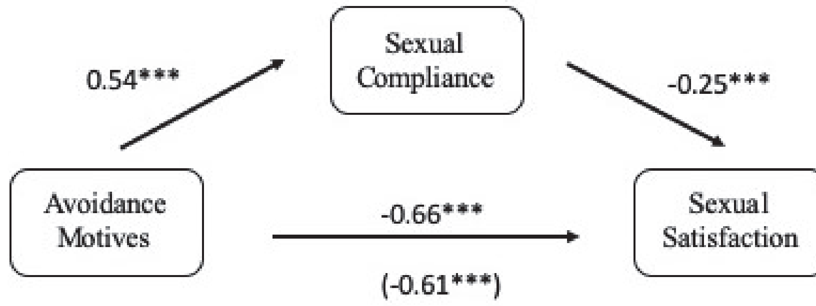
*p < .05. ***p < .001.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) and general psychopathology (as measured by the Global Severity Index of the Brief Symptom Inventory) were included as control variables.

Figure 8. **Indirect Effects of Avoidance Motives for Sex on Relationship Satisfaction Through Sexual Compliance**



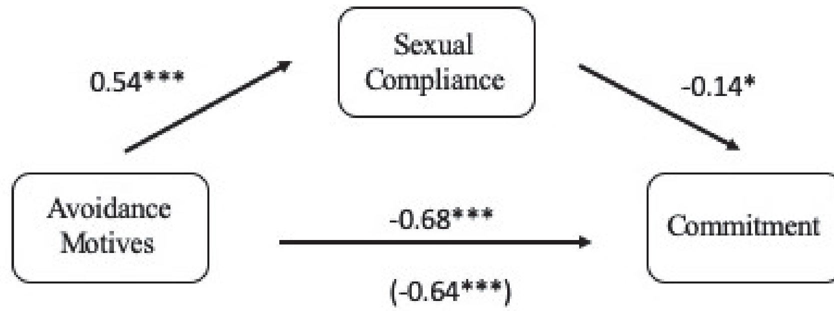
**p < .01. ***p < .001.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) was included as a control variable.

Figure 9. Indirect Effects of Avoidance Motives for Sex on Sexual Satisfaction Through Sexual Compliance



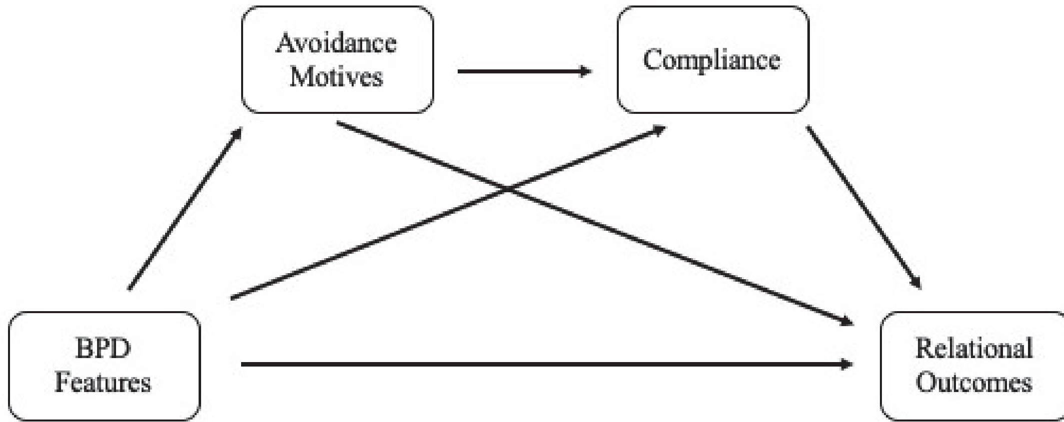
***$p < .001$.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) was included as a control variable.

Figure 10. Indirect Effects of Avoidance Motives for Sex on Commitment Through Sexual Compliance



*p < .05. ***p < .001.
Note. Alcohol use (as measured by the Alcohol Use Disorders Test) was included as a control variable.

Figure 11. Theoretical Mediation Model of Borderline Personality Disorder (BPD) Features, Avoidance Motives for Sex, Compliance, and Relational Outcomes



References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Arata, C. M., & Burkhart, B. R. (1995). Post-traumatic stress disorder among college student victims of acquaintance assault. *Journal of Psychology & Human Sexuality, 8*, 79-92. https://doi.org/10.1300/J056v08n01_06

Armstrong H. L., & Reissing, E. D. (2015). Women's motivations to have sex in casual and committed relationships with male and female partners. *Archives of Sexual Behaviour, 44*, 921-934. https://doi.org/10.1007/s10508-014-0462-4

Babor, T. F., Biddle-Higgins, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *AUDIT: The alcohol use disorders identification test: Guidelines for use in primary health care*. World Health Organization. https://www.who.int/publications/i/item/audit-the-alcohol-use-disorders-identification-test-guidelines-for-use-in-primary-health-care

Baumeister, R. F., & Scher, S. J. (1988). Self-defeating behavior patterns among normal individuals: Review and analysis of common self-destructive tendencies. *Psychological Bulletin, 104*, 3-22. https://doi.org/10.1037/0033-2909.104.1.3

Beauchaine, T. P., Hinshaw, S. P., & Bridge, J. A. (2019). Nonsuicidal self-injury and suicidal behaviours in girls: The case for targeted prevention in preadolescence. *Clinical Psychological Science, 7*, 643-667. https://doi.org/10.1177/2167702618818474

Beck, E., Sune, B., Jørgensen, M. S., Gondan M., Poulsen, S., Storebø, O. J., Anderson, C. F., Folmo E., Sharp, C., Pederson, J., & Simonsen, E. (2020). Mentalization-based treatment in groups for adolescents with borderline personality disorder: A randomized controlled trial. *The Journal of Child Psychology and Psychiatry, 61*, 594-604. https://doi.org/10.1111/jcpp.13152

Berenson, K. R., Gyurak, A., Ayduk, O., Downey, G., Garner, M. J., Mogg, K., Bradley, B. P., & Pine, D. S. (2009). Rejection sensitivity and disruption of attention by social threat cues. *Journal of Research in Personality, 43*, 1064-1072. https://doi.org/10.1016/j.jrp.2009.07.007.

Bouchard S., Godbout, N., & Sabourin, S. (2009a). Sexual attitudes and activities in women with borderline personality disorder involved in romantic relationships. *Journal of Sex and Marital Therapy, 35*, 106-121. http://doi.org/10.1080/00926230802712301

Bouchard, S., Sabourin, S., Lussier, Y., & Villeneuve, E. (2009b). Relationship quality and stability in couples when one partner suffers from borderline personality disorder. *Journal of Marital and Family Therapy, 35*, 446-455. http://doi.org/10.1111/j.1752-0606.2009.00151.x

Brodsky, B. S., Groves, S. A., Oquendo, M. A., Mann, J. J., & Stanley, B. (2006). Interpersonal precipitants and suicide attempts in borderline personality disorder. *Suicide and Life-Threatening Behaviour, 36*, 313–322. http://doi.org/10.1521/suli.2006.36.3.313

Brotto, L. A., Chivers, M. L., Millman, R. D., & Albert, A. (2016). Mindfulness-based sex therapy improves genital-subjective arousal concordance in women with sexual desire/arousal difficulties. *Archives of Sexual Behavior, 45*, 1907-1921. https://doi.org/10.1007/s10508-015-0689-8

Brown, M. Z., Comtois, K. A., & Linehan, M. M. (2002). Reasons for suicide attempts and nonsuicidal self-injury in women with borderline personality disorder. *Journal of Abnormal Psychology, 111*, 198-202. http://doi.org/10.1037//0021-843X.111.1.198

Burkill, S., Copas, A. Couper, M. P., Clifton, S., Prah, P., Datta, J., Conrad, F., Wellings, K., Johnson, A. M., & Erens, B. (2016). Using the web to collect data on sensitive behaviours: A study looking at mode effects on the British National Survey of Sexual Attitudes and Lifestyles. *PLoS One, 11*, e0147983. https://doi.org/10.10371/journal.pone.0147983

Carcone, D., Tokarz, V., & Ruocco, A. C. (2015). A systematic review on the reliability and validity and semistructured diagnostic interviews for borderline personality disorder. *Canadian Psychology, 56*, 208-226. http://doi.org/10/1037/cap0000026

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319–333. http://doi.org/10.1037/0022-3514.67.2.319

Chao, J., Lin, Y., Ma, M., Lai, C., Ku, Y., & Kuo, W. (2011). Relationship among sexual desire, sexual satisfaction, and quality of life in middle-aged and older adults. *Journal of Sex & Marital Therapy, 37*, 386-403. https://doi.org/10.1080/0092623X.2011.607051

Chen, E. Y., Brown, M. Z., Lo, T. T., & Linehan, M. M. (2007). Sexually transmitted disease rates and high-risk sexual behaviors in borderline personality disorder versus borderline personality disorder with substance use disorder. *The Journal of Nervous and Mental Disease, 195*, 125-129. http://doi.org/10.1097/01.nmd.0000254745.35582.f6

Choi-Kain, L. W., Zanarini, M. C., Frankenburg, F. R., Fitzmaurice, G. M., & Reich, D. B. (2010). A longitudinal study of the 10-year course of interpersonal features in borderline personality disorder. *Journal of Personality Disorders, 24*, 365–376. http://doi.org/10.1521/pedi.2010.24.3.365

Clark, L. A. (2007). Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. *Annual Review of Psychology, 58*, 227-257. https://doi.org/10.1146/annurev.psych.57.102904.190200

Clifton, A, & Pilkonis, P. A. (2007). Evidence for a single latent class of diagnostic and statistical manual of mental disorders borderline personality pathology. *Comprehensive Psychiatry, 48*, 70-78. http://doi:org/10.1016/j.comppsych.2006.07.002

Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology, 75*, 1528–1558. http://doi.org/10.1037/0022-3514.75.6.1528

Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending Linehan's theory. *Psychological Bulletin, 135*, 495-510. http://doi.org/10.1037/a0015616

Crowell, S. E., Kaufman, E. A., & Beauchaine, T. P. (2014). A biosocial model of BPD: Theory and empirical evidence. In C. Sharp & J. L. Tackett (Eds.), *Handbook of borderline personality disorder in children and adolescents* (p. 143–157). Springer Science + Business Media. https://doi.org/10.1007/978-1-4939-0591-1_11

Cyders, M. A., Littlefield, A. K., Coffey, S., & Karyadi, K. A. (2014). Examination of a short English version of the UPPS-P Impulsive Behavior Scale. *Addictive Behaviors, 39*, 1372-1376. https://doi.org/10.1016/j.addbeh.2014.02.013

Davidson, S. L., Bell, R. J., LaChina, M., Holden, S. L., & Davis, S. R. (2009). The relationship between self-reported sexual satisfaction and general well-being in women. *Journal of Sexual Medicine, 6*, 2690-2697. http://doi.org/10.1111/j.1743-6109.2009.01406.x

Dawson, L. H., Shih, M., de Moor, C., & Shrier, L. (2008). Reasons why adolescents and young adults have sex: Associations with psychological characteristics and sexual behavior. *Journal of Sex Research, 45*, 225-232. http://doi.org/10.1080/00224490801987457

Derogatis, L. R. (1993). *The Brief Symptom Inventory (BSI): Administration, scoring, and procedures manual.* National Computer Systems.

Dilorio, C., Parsons, M., Lehr, S., Adame, D., & Carlone, J. (1992). Measurement of safe sex behavior in adolescents and young adults. *Nursing Research, 41*, 203-209.

Ellison, W. D., Rosenstein, L. K., Chelminski, I., Dalrymple, K., & Zimmerman, M. (2016). The clinical significance of single features of borderline personality disorder: Anger, affective instability, impulsivity, and chronic emptiness in psychiatric outpatients*. Journal of Personality Disorders, 30*, 261-270. http://dx.doi.org/10.1521/pedi_2015_29_193

End Rape On Campus (n.d.). "Yes means yes" & affirmative consent. http://endrapeoncampus.org/yes-means-yes/

Farmer, R. F., & Chapman, A. L. (2002). Evaluation of DSM-IV personality disorder criteria as assessed by the Structured Clinical Interview for DSM-IV Personality Disorders. *Comprehensive Psychiatry, 43*, 285-300. http://doi.org/10.1053/comp.2002.33494

Ferenidou, F., Kapoteli, V., Moisidis, K., Koutsogiannis, I., Giakoumelous, A., & Hatzichristou, D. (2008). Presence of a sexual problem may not affect women's satisfaction from their sexual function. *Journal of Sexual Medicine, 5*, 631–639. http://doi.org/10.1111/j.1743-6109.2007.00644.x

First, M. B., Gibbon, M., Spitzer, R. L., Williams, J. B. W., & Smith Benjamin, L. (1997). *Structured clinical interview for DSM-IV axis II personality disorders, (SCID-II)*. American Psychiatric Association.

First, M. B., Williams, J. B. W., Smith Benjamin, L., & Spitzer, R. L. (2016a). *Structured clinical interview for DSM-5 personality disorders, (SCID-5-PD)*. American Psychiatric Association.

First, M. B., Williams, J. B. W., Smith Benjamin, L., & Spitzer, R. L. (2016b). *Structured clinical interview for DSM-5 screening personality questionnaire, (SCID-5-SPQ)*. American Psychiatric Association.

Fulton, J. J., Marcus, D. K., & Zeigler-Hill, V. (2014). Psychopathic personality traits, risky sexual behavior, and psychological adjustment among college-age women. *Journal of Social and Clinical Psychology, 33*, 143–168. http://doi.org/10.1521/jscp.2014.33.2.143

Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572-583. https://doi.org/10.1037/0893-3200.21.4.572

Georgieva, M., Milhausen, R. R., & Quinn-Nilas, C. (2022). Motives between the sheets: Understanding obligation for sex at midlife and associations with sexual and relationship satisfaction. *Journal of Sex Research, 24*, 1-10. https://doi.org/10.1080/00224499.2022.2076278

Gerbhardt, W. A., Kuyper, L., & Dusseldorp, E. (2006). Condom use at first intercourse with a new partner in female adolescents and young adults: The role of cognitive planning and motives for having sex. *Archives of Sexual Behavior, 35*, 217-223. https://doi.org/10.1007/s10508-005-9003-5

Gewirtz-Meydan, A. & Ayalon, L. (2019). Why do older adults have sex? Approach and avoidance sexual motives among older women and men. *The Journal of Sex Research, 56*, 870-881. https://doi.org/10.1080/00224499.2018.1543644

Gratz, K. L., & Roemer, L. (2008). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41-54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Gunderson, J. G., Stout, R. L., McGlashan, T. H., Shea, M. T., Morey, L. C., Grilo, C. M., Zanarini, M. C., Yen, S., Markowitz, J. C., Sanislow, C., Ansell, E., Pinto, A., & Skodol, A. E. (2011). Ten-year course of borderline personality disorder: Psychopathology and function from the collaborative longitudinal personality disorders study. *Archives of General Psychiatry, 68*, 827– 837. http://dx.doi.org/10.1001/archgenpsychiatry.2011.37

Gute, G., Eshbaugh, E. M., & Wiersma, J. (2008). Sex for you, but not for me: Discontinuity in undergraduate emerging adults ’definitions of “having sex.” *Journal of Sex Research, 45*, 329-337. https://doi.org/10.1080/00224490802398332

Hagman, B. T. (2016). Performance of the AUDIT in detecting DSM-5 alcohol use disorders in college students. *Substance Use and Misuse, 51*, 1521-1528. http://doi.org/10.1080/10826084.2016.1188949

Harned, M. S., Pantalone, D. W., Ward-Cieselski, E. F., Lynch, T. R., & Linehan, M. M. (2011). The prevalence and correlates of sexual risk behaviors and sexually transmitted infections in outpatients with borderline personality disorder. *The Journal of Nervous and Mental Disease, 199*, 832-838. http://doi.org/10.1097/NMD.0b013e318234c02c

Hill, J., Pilkonis, P., Morse, J., Feske, U., Reynolds, S., Hope, H., & Chare, C. (2008). Social domain dysfunction and disorganization in borderline personality disorder. *Psychological Medicine, 38*, 135-146. http://doi.org/10.1017/S0033291707001626

Hull, J. W., Clarkin, J. F., & Yeomans, F. (1993). Borderline personality disorder and impulsive sexual behavior. *Hospital & Community Psychiatry, 44*, 1000-1002. http://doi.org/10.1176/ps.44.10.1000

Humphreys, T. P., & Kennet D. J. (2010). The reliability and validity of instruments supporting the sexual self-control model. *Canadian Journal of Human Sexuality, 19*, 1-13.

Hurlbert, D. F., Apt, C. V., & White, L. C. (1992). An empirical examination into the sexuality of women with borderline personality disorder. *Journal of Sex & Marital Therapy, 18*, 231-242. http://doi.org/10.1080/00926239208403409

Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. *The Journal of Sex Research, 40*, 87-100. https://doi.org/10.1080/00224490309552169

Impett, E. A., Peplau, L. A., & Gable, S. L. (2005). Approach and avoidance sexual motives: Implications for personal and interpersonal wellbeing. *Personal Relationships, 12*, 456-482. https://doi.org/10.111/j.1475-6811.2005/00126.x

Impett, E. A., Strachman, A., Finkel, E. J., & Gable, S. L. (2008). Maintaining sexual desire in intimate relationships: The importance of approach goals. *Journal of Personality and Social Psychology, 94*, 808-823. https://doi.org/10.1037/0022-3514.94.5.808

Impett, E., & Tolman, D. (2006). Late adolescent girls' sexual experiences and sexual satisfaction. *Journal of Adolescent Research, 21*, 628-646. https://doi.org/10.1177/0743558406293964

Jawed-Wessel S., & Sevick, E. (2017). The impact of pregnancy and childbirth on sexual behaviors: A systematic review. *The Journal of Sex Research, 54*, 411–423. https://doi.org/10.1080/00224499.2016.1274715

Jodouin, J. F., Bergeron, S., Desjardins, F., & Janssen, E. (2019). Sexual behavior mediates the relationship between sexual approach motives and sexual outcomes: A dyadic daily diary study. *Archives of Sexual Behavior, 48*, 831-842. http://doi.org/10.1007/s10508-018-1259-7

Kalichman, S. C., & Rompa, D. (2001). The Sexual Compulsivity Scale: Further development and use with HIV-positive persons. *Journal of Personality Assessment, 76*, 379-395. http://doi.org/10.1207/S15327752JPA7603_02

Kalichman, S. C., & Rompa, D. (1995). Sexual sensation seeking and sexual compulsivity scales: Reliability, validity, and predicting HIV risk behavior. *Journal of Personality Assessment, 63*, 586-601. https://doil.org/10.1207/s15327752jpa6503_16

Kelberga, A., & Martinsone, B. (2021). Differences in motivation to engage in sexual activity between people in monogamous and non-monogamous committed relationships. *Frontiers in Psychology, 12*:753460. https://doi.org/10.3389/fpsyg.2021.753460

Kwan, M. Y., Faulkner, G. E., Arbour-Nicitopoulos, K. P., & Cairney, J. (2013). Prevalence of health-risk behaviours among Canadian post-secondary students: Descriptive results from the National College Health Assessment. *BMC Public Health, 13*, 548. https://doi.org/10.1186/1471-2458-13-548

Lavan, H., & Johnson, J. G. (2002). The association between Axis I and II psychiatric symptoms and high-risk sexual behavior during adolescence. *Journal of Personality Disorders, 16*, 73-94. http://doi.org/10/1521/pedi.16.1.73.22559

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.

Linehan, M. M., Comtois, K. A., & Murray, A. (2000). The University of Washington Risk Assessment Protocol (UWRAP). University of Washington. http://depts.washington.edu/uwbrtc/wp-content/uploads/UWRAP.pdf

Luetke, M., Hensel, D., Herbenick, D., & Rosenberg, M. (2020). Romantic relationship conflict due to the COVID-19 pandemic and changes in intimate and sexual behaviors in a nationally representative sample of American adults. *Journal of Sex & Marital Therapy, 46*, 747-762. https://doi.org/10.1080/0092623X.2020.1810185

Mark, K., Herbenick, D., Fortenberry, D., Sanders, S., & Reece, M. (2014). The object of sexual desire: Examining the “what” in “what do you desire?”. *Journal of Sexual Medicine*, *11*, 2709–2719. https://doi.org/10.1111/jsm.12683

McNulty, J. K., Wenner, C. A., & Fisher, T. D. (2016). Longitudinal associations among relationship satisfaction, sexual satisfaction, and frequency of sex in early marriage. *Archives of Sexual Behaviour, 45*, 85-97. https://doi.org/10.1007/s10508-014-0444-6

Meston, C. M., & Buss, D. M. (2007). Why humans have sex. *Archives of Sexual Behavior, 36*, 477-507. https://doi.org/10.1007/s10508-007-9175-2

Muise, A., Gillian, K., Boudreau, G. K., & Rosen, N. O. (2017). Seeking connection versus avoiding disappointment: An experimental manipulation of approach and avoidance sexual goals and the implications for desire and satisfaction. *The Journal of Sex and Research, 54*, 296-307. https://doi.org/10.1080/00224499.2016.1152455

Muise, A., Impett, E. A., & Desmarais, S. (2013). Getting it on vs. giving it up: Sexual motivation, desire, and satisfaction in intimate bonds. *Personality and Social Psychology Bulletin, 39*, 1320–1332. https://doi.org/10.1177/0146167213490963

Muise, A., & Impett, E. A. (2016). Applying theories of communal motivation to sexuality. *Social and Personality Psychology Compass, 10*, 455-467. https://doi.org/10.1111/spc3.12261

Muise, A., Kim, J. J., McNulty, J. K., & Impett, E. A. (2016). The positive implications of sex for relationships. In C. R. Knee & H. T. Reis (Eds.), *Positive approaches to optimal relationship development* (pp. 124-147). Cambridge University Press.

Northey, L., Dunkley, C. R., Klonsky, E. D., & Gorzalka, B. B. (2016). Borderline personality disorder traits and sexuality: Bridging a gap in the literature. *Canadian Journal of Human Sexuality, 25*, 158-168. http://doi.org/10.3138/cjhs.252-A8

O'Sullivan, L. F., & Allgeier, E. R. (1998). Feigning sexual desire: Consenting to unwanted sexual activity in heterosexual dating relationships. *Journal of Sex Research, 35*, 234-243. https://doi.org/10.1080/00224499809551938

Panzeri, M., Ferrucci, R., Cozza, A., & Fontanesi, L. (2020). Changes in sexuality and quality of couple relationship during the COVID-19 lockdown. *Frontiers in Psychology, 29*, 2523. https://doi.org/10.3389/fpsyg.2020.565823

Peterson, J. D., & Muehlenhard, C. L. (2007). Conceptualizing the "wantedness" of women's consensual and non-consensual sexual experiences: Implications for how women label their experiences with rape. *The Journal of Sex Research, 44*, 72-88. https://doi.org/10.1080/00224490709336794

Rath, J. F., & Fox, L. M. (2018). Brief Symptom Inventory. In: J. S. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of clinical neuropsychology.* Springer. https://doi.org/10.1007/978-3-319-57111-9_1977

Regan, P. C. (2000). The role of sexual desire and sexual activity in dating relationships. *Social Behavior and Personality, 28*, 51-60. https://doi.org/10.2224/sbp.2000.28.1.51

Reinert, D. F., & Allen, J. P. (2006). The Alcohol Use Disorders Identification Test (AUDIT): A review of recent research. *Alcoholism: Clinical and Experimental Research, 26*, 272-279. https://doi.org/10.1111/j.1530-0277.2002.tb02534.x

Sanchez, D. T., Moss-Racusin, C. A., Phelan, J. E., & Crocker, J. (2011). Relationship contingency and sexual motivation in women: Implications for sexual satisfaction. *Archives of Sexual Behavior, 40*, 99-110. http://doi.org/10.1007/s10508-009-9593-4

Sansone, R. A., Barnes, J., Muennich, E., & Wiederman, M. (2008). Borderline personality symptomatology and sexual impulsivity. *International Journal of Psychiatry in Medicine, 38*, 53-60. http://doi.org/10.2190/PM.38.1.e

Sansone, R. A., Lam, C., & Wiederman, M. W. (2011). The relationship between borderline personality disorder and number of sexual partners. *Journal of Personality Disorders, 25*, 782-788. http://doi.org/10.1521/pedi.2011.25.6.782

Schulte-Herbruggen, O., Ahlers, C. J., Kronsbein, J. M., Ruter, A., Bahri, S., Vater, A., & Roepke, S. (2009). Impaired sexual function in patients with borderline personality disorder is determined by history of sexual abuse. *The Journal of Sexual Medicine, 6*, 3356-3363. http://doi.org/10.1111/j.1743-6109.2009.01422.x

Shaw, A. M., & Rogge, R. D. (2016). Evaluating and refining the construct of sexual quality with item response theory: Development of the Quality of Sex Inventory. *Archives of Sexual Behavior, 45*, 249-270. https://doi.org/10.1007/s10508-015-0650-x

Shotland, R. L., & Hunter, B. A. (1995). Women's "token resistant" and compliant sexual behaviors are related to uncertain sexual intentions and rape. *Personality and Social Psychology Bulletin, 21*, 226-236. https://doi.org/10.1177/0146167295213004

Staebler, K., Helbing, E., Rosenbach, C., & Renneberg, B. (2010). Rejection sensitivity and borderline personality disorder. *Clinical Psychology and Psychotherapy, 18*, 275-283. https://doi.org/10.1002/cpp.705

Stanley, S., & Markman, H. (1992). Assessing commitment in personal relationships. *Journal of Marriage and Family Therapy, 54*, 595-608. http://doi.org/10.2307/353245

Stephenson, K. R., Ahrold, T. K., & Meston, C. M. (2011). The association between sexual motives and sexual satisfaction: Gender differences and categorical comparisons. *Archives of Sexual Behavior, 40*, 607–618. http://doi.org/10.1007/s10508-010-9674-4

Stepp, S. D., Smith, T. D., Morse, J. Q., Hallquist, M. N., & Pilkonis, P. A. (2012). Prospective associations among borderline personality disorder symptoms, interpersonal problems, and aggressive behaviors. *Journal of Interpersonal Violence, 27*, 103–124. https://doi.org/10.1177/0886260511416468

Stoffers-Winterling, J. M., Vollm, B. A., Rucker, G., Timmer, A., Huband, N., & Lieb, K. (2012). Psychological therapies for people with borderline personality disorder. *Cochrane Database of Systematic Reviews, 8*, Article CD005652. https://doi.org/10.1002/14651858.CD005652.pub2

Tomko, Trull, T. J., Wood, P. K., & Sher, K. J. (2014). Characteristics of borderline personality disorder in a community sample: Comorbidity, treatment utilization, and general functioning. *Journal of Personality Disorders*, *28*, 734–750. https://doi.org/10.1521/pedi_2012_26_093

Tull, M. T., Weiss, N. H., Adams, C. E., & Gratz, K. L. (2012). The contribution of emotion regulation difficulties to risky sexual behavior within a sample of patients in residential substance abuse treatment. *Addictive Behaviors, 37*, 1084-1092. http://doi.org/10.1016/j.addbeh.2012.05.001

Vannier, S. A., & O'Sullivan, L. F. (2010). Sex without desire: Characteristics of occasions of sexual compliance in young adults' committed relationships. *Journal of Sex Research, 47*, 429-439. http://doi.org/10.1080/00224490903132051

Wilks, C. R., Korslund, K. E., Harned, M. S., & Linehan, M. M. (2016). Dialectical behavior therapy and domains of functioning over two years. *Behaviour Research and Therapy, 77*, 162-169. http://doi.org/10.1016/j.brat.2015.12.013

Willis, M., & Nelson-Gray, R. O. (2017). Borderline personality disorder traits and sexual compliance: A fear of abandonment manipulation. *Personality and Individual Differences, 117,* 216-220. https://doi.org/10.1016/j.paid.2017.06.012

Wrzus, C., & Neubaumer, A. B. (2022) Ecological momentary assessment: A meta-analysis on designs, samples, and compliance across research fields. *American Psychological Association, Society for Clinical Psychology (Division 12), Section IX (Assessment)*, 1-22. https://doi.org/10.1177/10731911211067538

Wyverkens, E., Dewitte, M., Deschepper, E., Corneillie, J., Van der Bracht, L., Van Regenmortel, D., Van Cleempoel, K., De Boose, N., Prinssen, P., & T'Sjoen, G. (2018). YSEX? A replication study in different age groups. *Journal of Sexual Medicine, 15*, 492-501. https://doi.org/10.1016/j.jsxm.2018.02.012

Young, B. J., & Furma, W. (2008). Interpersonal factors in the risk for sexual victimization and its recurrence during adolescence. *Journal of Youth and Adolescence, 37*, 297-309. https://doi.org/10.1007/x10964-007-9240-0

Zanarini, M. C., Frankenburg, F. R., Reich, D. B., Hennen, J., & Silk, K. R. (2005). Adult experiences of abuse reported by borderline patients and Axis II comparison subjects over six years of prospective follow-up. *The Journal of Nervous and Mental Disease, 193*, 412-416. https://doi.org/10.1097/01.nmd.0000165295.65844.52

Zanarini, M. C., Parachini, E. A., Frankenburg, F. R., Holman, J. B., Hennen, J., Reich, D. B., & Silk, K. R. (2003). Sexual relationship difficulties among borderline patients and Axis II comparison subjects. *The Journal of Nervous and Mental Disease, 191*, 479-482. http://doi.org/10.1097/01.NMD.0000081628.93982.1D

Zanarini, M. C., Frankenburg, F. R., Reich, D. B., & Fitzmaurice, G. (2010). Time to attainment of recovery from borderline personality disorder and stability of recovery: A 10-year prospective follow-up study. *The American Journal of Psychiatry, 167*, 663-667. http://dx.doi .org/10.1176/appi.ajp.2009.09081130

Zimmerman, M., Chelminski, I., Young, D., Dalrymple, K., & Martinez, J. (2013). Is dimensional scoring of borderline personality disorder important only for subthreshold levels of severity? *Journal of Personality Disorders, 27*, 244 –251. http://dx.doi.org/10.1521/ pedi.2013.27.2.244

Appendix A.

Complete List of Baseline Questionnaires

Questionnaires included in dissertation analyses are indicated with an asterisk (*).

1. Adult-Rejection Sensitivity Questionnaire (A-RSQ; Berenson et al., 2009)
2. Alcohol Use Disorders Test (AUDIT; Babor et al., 2001)*
3. Brief Symptom Inventory (BSI; Derogatis, 1993)*
4. Commitment Inventory (CI; Stanley & Markman, 1992)*
5. Couples Satisfaction Inventory (CSI; Funk & Rogge, 2007)*
6. Difficulties with Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)
7. Quality of Sex Inventory (QSI; Shaw & Rogge, 2016)*
8. Reasons for Consenting to Unwanted Sex Scale (RCUSS; Humphreys & Kennett, 2010)
9. Safe Sex Behaviors Questionnaire (SSBQ; Dilorio et al., 1992)*
10. Sexual Motives Scale (SMS; Cooper et al., 1998)*
11. Sexual Sensation Seeking Scale (SSSS; Kalichman & Rompa, 1995)
12. Short UPPS-P Impulsive Behavior Scale (Cyders et al., 2014)

Appendix B. Daily Diary Questionnaires

In general, over the past 24 hours, how satisfied have you felt with your relationship?

Not at all	A little	Somewhat	Mostly	Almost completely	Completely
0	1	2	3	4	5
o	o	o	o	o	o

Please answer the following questions based on how you have felt over the past 24 hours.

I am happy with my sex life with my partner

Not at all true	A little true	Somewhat true	Mostly true	Very true	Completely true
0	1	2	3	4	5
o	o	o	o	o	o

I do NOT enjoy sexual activity with my partner

Not at all true	A little true	Somewhat true	Mostly true	Very true	Completely true
0	1	2	3	4	5
o	o	o	o	o	o

My relationship with my partner is clearly part of my future life plans

Strongly disagree			Neither agree nor disagree			Strongly agree
1	2	3	4	5	6	7
o	o	o	o	o	o	o

In the past 24 hours, how many times have you engaged in sexual activity with your primary partner? (Sexual activity could include any of the following or other sexual activities not listed: genital fondling/hand jobs, oral sex/cunnilingus/blow jobs, anal sex, or vaginal sex)

____

[If no sexual activity reported, survey ends]

[The following questions are repeated for each instance of sexual activity reported]

You reported engaging in sexual activity **[#]** of times over the past 24 hours. Please answer the following questions about the **[first, second, third, etc.]** instance of sexual activity you engaged in with your primary partner in the past 24 hours.

Which of the following sexual behaviours did you engage in? (you may indicate more than one type of sexual activity. For example, if you performed oral sex on your partner AND received oral sex from your partner you would mark them both below).

o I fondled my partner's genitals / I gave my partner a hand job

o My partner fondled my genitals / My partner gave me a hand job

o I performed oral sex / cunnilingus / a blow job on my partner

o My partner performed oral sex / cunnilingus / a blow job on me

o I had anal sex with my partner

o I had vaginal sex with my partner

Did you use any substances (such as alcohol, marijuana/weed, hallucinogens, sedatives, opioids, stimulants etc.) prior to engaging in sexual activity?

o Yes

What substance(s) did you use?______

o No

Did you use a condom during the sexual activity?

o Yes

o No, I used another form of protection during sexual activity

What did you use?_________________

o No, I did not use protection during sexual activity

To what extent did you desire/want to engage in the sexual activity before it began?

Not at all						Very much
1	2	3	4	5	6	7
o	o	o	o	o	o	o

Did your desire change during the sexual activity?

o Yes, it increased (I felt more desire during the sexual activity)

o Yes, it decreased (I felt less desire during the sexual activity)

o No, it did not change

Rate the extent to which the following statement is true: This experience of sexual activity with my partner was enjoyable.

Not at all true	A little true	Somewhat true	Mostly true	Very true	Completely true
1	2	3	4	5	6
o	o	o	o	o	o

Did you partner insist that you engage in the sexual activity or pressure you in any way?

o Yes

o No

Did your partner use threats to make you engage in the sexual activity?

o Yes

o No

Did your partner use physical force to make you engage in the sexual activity?

o Yes

o No

Did you willingly engage in the sexual activity (even if you didn't feel like doing so initially)?

o Yes

o No

Rate how important each of the following reasons were in your decision to engage in the sexual activity:

To pursue my own sexual pleasure

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To feel good about myself

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To please my partner

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To promote intimacy in my relationship

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To express love for my partner

Not at all important						Extremely important
1	2	3	4	5	6	7

o	o	o	o	o	o	o

To avoid conflict in my relationship

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To prevent my partner from becoming upset

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To prevent my partner from getting angry at me

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

To prevent my partner from losing interest in me

Not at all important						Extremely important
1	2	3	4	5	6	7
o	o	o	o	o	o	o

Appendix C. Demographics Questionnaire

Were you born in Canada?	Yes O	No O

If "No", how long have you been living in Canada? ____

Is English a second language for you?	Yes O	No O

What is your ethnic background?

Caucasian/White	O
Aboriginal/First Nations	O
Black/African-Canadian	O
Chinese or Chinese-Canadian	O
Japanese or Japanese-Canadian	O
Korean or Korean-Canadian	O
Other Asian or Asian-Canadian	O
Mexican, Mexican-Canadian, or Chicano	O
Puerto Rican	O
Other Hispanic/Latino	O
East Indian	O
Middle Eastern/Arab	O
Other (Please specify)	O

If "Other", please specify ________________________

Do you identify as:	Lesbian	Bisexual	Queer	Question-ing	Hetero-sexual/ Straight	Asexual	Som-ethi-ng else
	O	O	O	O	O	O	O

If "Something else", please specify ________________________

Are you currently a student?	Yes O	No O

If "Yes", what type of program are you enrolled in (e.g., bachelor's degree, diploma program, etc.)? ____

If "Yes", is your program full-time or part-time? _____________________

What is the highest grade or degree you have completed?

Eight grade or less	O
Some high school	O
GED	O
Graduated high school	O

	Business or technical training beyond high school	O
	Some college/university	O
	Graduated college/university	O
	Some graduate/professional school beyond college/university	
	Master's degree	O
	Doctoral degree	O
		O
What is your employment status?	Unemployed	O
	Employed part-time (working 1-30 hours a week)	O
	Employed full-time (working more than 30 hours a week)	O
	Homemaker	O
	Retired	O